

The Wider Social Benefits of Education: A research report



Report by:

Dr Joy Murray

Centre for Integrated Sustainability Analysis The University of Sydney

The Wider Social Benefits of Education

A research report

Joy Murray
The University of Sydney

November 2007

Dr Joy Murray

Phone: (612) 9351 2627 Fax: (612) 9351 7725

Email: j.murray@physics.usyd.edu.au

Centre for Integrated Sustainability Analysis (ISA), A28, School of Physics The University of Sydney NSW 2006

http://www.isa.org.usyd.edu.au

The Wider Social Benefits of Education

A research report

Abstract: Business and Industry are recognising that the social outcomes of doing business underpin their social licence to operate. The ISO 26000, to be introduced in 2008, will provide guidance on Social Responsibility (SR) for all types of organisations in both public and private sectors. The Global Reporting Initiative includes numerous social indicators in its reporting framework (GRI, 2006). Business and industry seem to be moving towards taking responsibility for the social effects of doing business, recognising that their organisations are embedded in community. Meanwhile in the field of education there has been a major shift in Australia towards private expenditure in the tertiary sector (OECD, 2006) accompanied by a shift of public subsidies to tertiary students themselves. Implicit in this funding shift is the message that tertiary education is a private rather than public good, belonging to individual students rather than the wider population. This paper explores the literature on the wider social benefits of higher education, most of which seem to be indirect, arising through the increased economic benefits to individuals. It points to the gaps in Australian research in this area.



1. Background

1.1 Global Context

Business and Industry are recognising that the social outcomes of doing business underpin their social licence to operate (Business in the Community; Corporate Responsibility Index; St James Ethics Centre). The Global Reporting Initiative includes numerous social indicators in its reporting framework (GRI, 2006). The ISO 26000, to be introduced in 2008, will provide guidance on Social Responsibility (SR) for all types of organisations in both public and private sectors (ISO 2006). Modern enterprises are researching and addressing the social effects of doing business; universities are being called on to "evolve so that their leadership and management capacity matches that of modern enterprises" (OECD 2007, p. 14). A better educated population is demanding that business and industry address the social outcomes and responsibilities of doing business. However little is said of the wider social outcomes of education. And at the same time as there has been a general increase in the stock of tertiary level skills in the adult population of OECD countries there has been a steady decline in public funding to tertiary institutions. The proportion of private funding varies widely from 4% in Denmark, Finland, Greece, Norway and Turkey to more than 50% in Australia with households in Australia covering 76% of all private expenditure (OECD 2004; OECD 2006). It is not possible at this stage to say how, or even if, the shift from public to private funding will affect the wider social benefits of education that could be expected to accrue to communities and society in general rather than to individuals.

In 2007 the OECD put together a panel of experts, including from the Australian Department of Education, Science and Training (DEST), to address the issue of limited data on the learning outcomes of higher education. Such data, they noted, are necessary to inform national policy development and institutional strategic planning. Data to inform national policy development, they point out, requires cross-institutional comparative data on student learning as well as data connecting student learning with individual and aggregate social and economic outcomes. Data to inform institutional planning requires inter and intra-institutional comparative data, including information on value-adding. A feasibility study is proposed, with the possibility of subsequent inclusion of non-cognitive learning outcomes such as labour market success and a range of social skills (OECD, 2007a).

1.2 Australian Context

In 2006 the OECD reported that "Australia spends below the OECD average on education overall and that public expenditure on education has declined since 1995. This has been compensated for by a greater reliance on private sources of income" (see also OECD 2007). The main reason for the increase in private spending on tertiary education between 1995 and 2003 was understood to have been changes to the Higher Education Contribution Scheme (HECS) that took place in 1997 and that saw increases in student/former student contributions (OECD 2006).

Australia seems to be the exception to the OECD norm that increasing private spending on tertiary education tends to complement, rather than replace, public investment. In Australia private spending has replaced public spending; the shift



towards private expenditure at tertiary level has been accompanied both by a fall in the level of public expenditure in real terms and by a significant increase of public subsidies provided to tertiary students themselves rather than to the institutions in which they are enrolled (OECD 2006:217).

In 2005 the Australian Government provided 56.4% of the total income of higher education providers¹. This amounted to \$7.8bn and included HECS-HELP² funding (11.8%) and FEE-HELP funding (2.1%) for students. The Department of Education, Science and Training (2007, p. 57) says that the key reason for requiring from students a contribution towards their education through the HECS scheme is the "substantially greater lifetime earnings enjoyed by graduates relative to non-graduates" which seems to underline the economic advantages of higher education and reinforce the view that the benefits of higher education accrue to the individual rather than to society as a whole. It also somewhat discounts the value of benefits other than economic.

Initiatives introduced through the Our Universities: Backing Australia's Future policy include performance-based programs to improve outcomes through influencing the way in which institutions set priorities and operate. Some of these programs tie additional funding to meeting particular criteria, thus providing a strong incentive to change in line with government policy. Performance on "accountability, planning, outcomes, quality and compliance with legal obligations" is analysed annually (DEST, 2007, p. xiii). According to the Our Universities: Backing Australia's Future fact sheet on the new accountability framework³ quality outcomes include graduate destinations, students' experience of courses, student attrition and progress. There is no provision for investigating the wider social benefits of education, even though the government believes that one of the significant drivers for maintaining higher education in regional areas is the contribution that education makes to social as well as economic aspects of regional development (DEST, 2007). In this context the document quotes three sources of information (Phillips Curran Pty Ltd, 2001, Cabula et al, 2000 and Garlick, 2000) all of which appear to deal mainly with the economic impact of participation in tertiary education. A further reference, the Atlas of Higher Education⁴ (Cumpston et al, 2001) describes a range of benefits that higher education institutions bring to regional communities, assuming the institution's contribution to cultural activities and quality of life and health and well being. Again this study does not investigate the wider social benefits of time spent in education by students.

1.3 Definitions

Preston and Hammond (2003) define the *wider benefits of learning* as: "encompassing both non-pecuniary private benefits pertaining to the individual (such as improved self-esteem, health and quality of life) and those social benefits (or externalities) impacting on society as a whole (such as community regeneration and cultural development)".

⁴ http://www.dest.gov.au/archive/uniatlas/paper/chap3.htm#5 (accessed from the internet 13/09/07)



5

¹ State and local governments provided a further 1.7% of the total funding. Overseas student fees comprised 15% of income of publicly funded higher education providers (Department of Education, Science and Training, 2007).

² Higher Education Contribution Scheme (HECS); Higher Education Lone Programme (HELP)

³ http://www.backingaustraliasfuture.gov.au/fact_sheets/16.htm#d (accessed from the internet 13/09/07)

Preston and Green (2003) talk about the benefits of learning at a societal or macro-social level. They say that *macro-social* benefits: are not necessarily observable within a single country context; cannot be attached to individuals or communities; and are benefits that operate at a system level or that of social integration. Examples of *macro-social* benefits, they say, are social cohesion, crime and trust. By contrast examples of *micro-social* benefits would be civic participation of individuals or improvements in health. Although these may impact on communities as well as individuals, as *social capital*, they do not necessarily aggregate to a societal level.

According to Johnston (2004, p.21) "Social capital refers to the stock of active connections between people, as constituted by participation in, and knowledge of, civic affairs; trust in other people; and reciprocal help and support in the community."

1.4 Data sources and methodological considerations

This research has relied on OECD and Australian government documents to provide background and context. However, apart from a body of work from the UK, a major study in NZ and some studies based in the USA, quantitative research on the wider social benefits of education has proved difficult to find. Most of the quantitative work on the wider benefits of time spent in tertiary education has come from the Wider Benefits of Learning Research Centre, Institute of Education at the University of London. This general lack of quantitative research is probably because "the methodological challenges to causality are significant" (OECD, 2006, p.157). establishing methodological improvements rely on three major data sources all of which are relatively rare. The main source is longitudinal, national population survey data. In the UK two such studies are in progress: the National Child Development Study – a nationally representative study of 17,400 individuals in total, born in a single week in 1958 and followed up at age 7, 11, 16, 23, 33 and 42 with 11,500 people still participating; and the 1970 British Cohort Study similarly followed up at intervals (used extensively in examining the wider benefits of education for example, by: Bynner & Egerton, 2001; Bynner et al, 2003; Preston & Hammond, 2003; Feinstein & Hammond, 2004; Chandola, 2006).

In New Zealand the available longitudinal studies are the Christchurch Health and Development Study (HDS) of 1,265 children born in Christchurch in mid-1977 and the Dunedin Multidisciplinary HDS of 1,037 children born in Dunedin between April 1972 and March 1973 (Johnston, 2004). Longitudinal studies allow researchers to control for such variables as ambition, which is deemed to remain constant over time while outcomes may change. In the case of the two British longitudinal studies, use of both studies enabled Bynner et al to compare benefits of learning identified by 33 year olds in 1991 with benefits identified by 30 year olds in 2000. This helped "to reveal any *cohort effects* i.e. whether any changes in the higher education student population, such as its expansion, have increased or diminished the benefits of HE." (Bynner et al, 2003, p. 6).

A second source of data for examining the wider benefits of education are naturally occurring experiments such as a change in school leaving age, or different leaving ages in different states (Temple, 2000). These affect the number



of years students spend in education but are not related to outcomes in other ways. They allow the possibility of drawing conclusions about the effect on a population of longer time spent in education. A variation of the naturally occurring experiment is the comparison between countries. Preston and Green (2003) review the cross-national comparative literature to examine the benefits of learning at a societal level. They look for differences and similarities between countries and their systems but say that their work needs to be complemented by, preferably longitudinal, micro-social comparative studies.

Twin and sibling studies, where the twins or siblings spend different lengths of time in education, provide a third source of data. They allow researchers to control for family background and, in the case of identical twins, innate ability when examining the effect of time spent in education (Johnston, 2004; Temple, 2000). Such studies are particularly useful in providing information on the productivity effect of education.

Bynner et al (2003:55) say that the use of "sophisticated techniques of analysis that control for variables that might otherwise be confounded with higher education in producing its apparent effects" allows researchers to isolate the effect of higher education itself.

The above methods assist in isolating the effects on people's lives of time spent in higher education. However this report is concerned with the wider social benefits of tertiary education rather than simply the benefits of tertiary education. Wider benefits are defined as those not related to earnings, therefore studies must be aware of the issue of double counting. Double counting would occur, for example, if the only reason more education led to better health was because better educated people earned more and could therefore afford better health care. This would illustrate an economic benefit of higher education accruing to the individual rather than a wider benefit to society. McMahon (1998) warns that in measuring nonmonetary returns of education there must be a control for income to avoid such double counting. McMahon (1998) also points out that non-market returns often overlap with monetary returns and the capacity to measure the non-market returns of education requires methodologies that can also control for such attributes as innate ability and inherited motivation (see also Temple, 2000). It is important for policy making to know if more education causes better outcomes or merely coincides with them (Johnston, 2004 also McMahon, 1998). Johnson illustrates individual and social benefits in Table 1.

Table 1 – Categories of benefits of education (Johnston, 2004, p. 9)

	Earnings related benefits	Wider benefits
Individual benefits	Higher wages	Healthier individuals Great life satisfaction
Social benefits	Higher national income	Healthier population Better functioning society



It is also important to note that what holds at the micro-social level of wider benefits does not necessarily hold true at the macro or societal level. The work of Preston and Green (2003) indicates that for example at the societal level longer time spent in education does not always correlate with an active citizenry; and racial tolerance can be related to history, the number of immigrants in a society, the political climate or the perceived interference in their lives rather than, or as well as, with education. The potential for major differences between societies points to the need for work to be conducted in Australia in order to draw conclusions about the wider social benefits of education for the Australian population.

Graduate Careers in Australia⁵ (GCA) provides some data on the employment outcomes of graduates however large scale population studies similar to those referred to above do not seem to have been conducted in Australia. The current Australian study, Growing up in Australia, launched by the Minister for Family and Community Services, Kay Patterson, in 2004 is relatively short term. Data are being collected over seven years from two cohorts of children every two years. The first cohort of 5000 children aged less than 12 months in 2003/4 will be followed up until they reach six to seven years of age. The second cohort comprising 5000 children aged four years in 2003/4 will be followed until they reach 10 or 11 years of age. The study is being conducted by the Australian Institute of Family Studies in partnership with the Australian Government⁶. It is designed to examine participants' health and well being with a focus on identifying factors that influence good and poor life-course outcomes. As noted on the Medical Journal of Australia's website (see previous footnote) such a study cannot address all research needs but parallel studies could add considerable value. The article notes the considerable recent advances in analytical techniques and the need to examine multiple levels of influence such as the macro environmental factors of social and economic policy; the social environment of community and school; the micro environment of family; and individual characteristics. Such research needs a large sample size in order to disentangle multilevel influences. At a time when other western nations are investing in longitudinal studies (Nicholson et al 2002) the Growing up in Australia study would seem to provide a strategic opportunity for similar Australian research to be undertaken. However it will take interest at a national level and commitment of funding to produce the kind of large-scale longitudinal study necessary for understanding the wider social benefits of education.

The Women's Health Australia study⁸ is a longitudinal population-based survey set up in 1996 to examine the health and well-being of over 40,000 women. It conducts surveys with Australian women who were aged 18-23, 45-50 and 70-75 when the project began. It could perhaps be relevant to research into the wider benefits of education for women since it touches on the impacts of socio-

⁸ Australian Government Department of Health and Ageing http://www.alswh.org.au/ (accessed from the internet 28/08/07)



8

⁵ GCA researches first destinations and salaries of graduates, annually four months after completion of studies http://www.graduatecareers.com.au/content/view/full/820 (accessed from the internet 13/09/07)

⁶ Australian Government, Department of Families, Community Services and Indigenous Affairs., Melbourne http://www.aifs.gov.au/growingup/about.html (accessed from the internet 28/08/07)

The Medical Journal of Australia http://www.mja.com.au/public/issues/178-06-170303/nic10400-fm.html (accessed 1/10/07)

demographic factors such as employment status, urban/rural/remote area of residence and economic status.

The *Tasmanian Longitudinal Health Study*⁹ (TAHS), the world's largest and longest running respiratory health research study began in 1968 by surveying 8,500 children born in Tasmania in 1961. Other family members were surveyed making a total of 45,900. In 1974 7,130 children were followed up and in 1992, when the participants were 31 years of age, 1,500 answered the questionnaire about their health. In 2004 all original participants were contacted and 5,729 responded. In 2007 a further survey involving all siblings of the original participants was conducted to enable researchers to control for genes and childhood environment. It is possible that within this study there may be potential for data relevant to researchers investigating the wider benefits of education.

The Australian Bureau of Statistics' (ABS) annual reports, *Education and Work*¹⁰ provide useful data on labor force characteristics and participation in education.

¹⁰ Accessed from the internet 13/09/07 http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6227.0Main+Features1May%202006?OpenDocument



⁹http://www.researchaustralia.com.au/files/MenziesTASRespiratoryHealth_SurveyBACKGROUNDER_0708 07.pdf. (accessed 1/10/07)

2. Benefits attributed to time spent in education: what the literature says

McMahon (1998, p. 322) discusses the externalities and non-monetary benefits of education, which he says, are not well understood, even though people are aware of the importance of quality of life and society's well-being and assume that education plays a part in these. He defines externalities as "the social benefits from education that spill over and benefit others, and society as a whole, as distinguished from directly benefiting those that made the investment. The social benefits can be monetary, raising GDP and the money income of others, or they can be the non-monetary satisfactions from living in an educated society". In his summary of the research on the effects of lifelong learning McMahon (1998, p. 317; also 1999) lists eight categories of effects that he sees accruing to individuals:

- 1. Health effects
 - a. Reduced infant mortality
 - b. Lower illness rates
 - c. Greater longevity
- 2. Human capital produced in the home
 - a. Children's education enhanced
- 3. More efficient household management
 - a. Higher returns on financial assets
 - b. More efficient household purchasing
- 4. Labor-force participation rates
 - a. Higher female labor-force participation rates
 - b. Reduced unemployment rates
 - c. More part-time employment after retirement
- 5. Lifelong adaptation and continued learning
 - a. Use of new technologies within the household (e.g. the Internet)
 - b. Obsolescence: human capital replacement investment
 - c. Curiosity and educational reading; educational TV radio
 - d. Utilization of adult education programs
- 6. Motivational attributes
 - a. Productivity of non-cognitive skills
 - b. Selective mating effects
 - c. Divorce and remarriage (potentially negative returns)
- 7. Non-monetary job satisfactions
- 8. Pure current consumption effects
 - a. Enjoyment of classroom experiences
 - b. Leisure time enjoyments while in school
 - c. Child care benefits to the parents
 - d. School-community activities

McMahon (1998) argues that individuals may not take the wider social good into account when allocating their time to education and unless there is public investment in education that encourages people to spend more time therein, the wider benefits gained through additional time spent in education may be jeopardised. He says that being able to access the goods that accrue to society will not affect an individual's decision to invest time in education because these goods are free and available to all and will not be affected by the decision of one person (McMahon, 1999).

Feinstein and Hammond (2004), Bynner et al (2003) and Vila (2005) agree that there is much known about the economic returns on education but far less about



other returns. McMahon (1998) for example, reports on research involving identical twins which, while controlling for innate ability and other genetic factors, noted differences in earning capacity which could be said to be related specifically to length of time spent in education. Whereas it is relatively easy to link increased earnings to increased demand for goods and services and thence to increased contribution to taxes there is a lack of quantitative evidence to link time spent in education and wider social benefits. Feinstein et al (2004) say that qualitative studies abound and that these studies suggest there are long-term benefits to health and self-efficacy through such things as more fulfilling use of leisure time. However they say there is little in the way of quantitative studies, especially studies that examine the wider benefits of time spent in education. They list numerous benefits accruing to the individual such as: the ability to question values and attitudes; better problem solving skills and coping mechanisms; resilience and well-being including hope and motivation; better social integration through wider networks; enhanced social status; greater civic participation; and reduced stress through greater material security.

Feinstein et al (2004) draw on the UK longitudinal population studies to assist in quantifying the effects of time spent in education and the wider social benefits to health and what they refer to as 'social capital'. In the case of benefits accruing to society Feinstein et al (2004) believe that adult education plays a considerable role in the shifts in attitudes and behaviours that contribute to social capital and enhanced interest in civic activity, which serves the democratic goals of active citizenship. However, they do not see this as a straightforward causal relationship but one of cyclical feedback mechanism between learning and development. Bynner et al (2003) also see this feedback mechanism operating in the economic returns of education (also OECD, 2006, 2007). They suggest that not only do graduates fill the upper levels of the occupational structure but that their very presence in the job market probably contributes towards the creation of jobs for which they are skilled. In this way the labour market itself benefits from the skills and efficiencies that graduates bring. This addresses the issue of overachievement and underemployment of graduates often mooted as a possible drawback of increased participation in education, which puts more graduates in the market for jobs and could see a devaluing of the credential (see also Ashworth, 1998; Preston and Green, 2003; OECD 2007). Bynner et al (2003) say that the private returns of education to the individual, in this case in the job market, therefore need to be seen in the broader context of society.

Bynner et al (2003) expanding on the earlier work of Bynner and Egerton (2001) discuss the non-economic benefits of education in the areas of health, generic skills and citizenship. They suggest that at the very least graduates will cost the community less, and are likely to contribute to social cohesion through the values they hold. These benefits, they suggest, are provided not only directly but also indirectly to society through the transmission of their own educational capital to their children. Preston and Hammond (2003) use survey data from 2729 education practitioners in UK tertiary institutions, drawing on their experience and insights, to tap into their observations of the wider benefits of their students' learning. They ask questions about health, esteem, civic participation and values, all of which had been identified by earlier studies as wider benefits of education (e.g. Bynner and Egerton, 2001). Preston and Hammond conclude that while wider benefits in these categories are observed by many tertiary educators, "practitioners do not consider



that vocational subjects lead to wider benefits" (2003, p. 220). This point is also made by Feinstein and Hammond (2004, p. 218) when they say that although "early moves in the direction of the lifelong learning scenario were driven by concerns with upgrading skills and meeting qualification targets, the wider agenda of enhancing quality of life both personally and in the community suggests the need for a broader set of learning options. These need to build on the best traditions of non-vocational adult education emphasising accessibility and learner-centeredness in the provision and delivery of courses." These researchers seem to suggest that time spent in education may not be a predictor of wider social benefits, but that time spent in particular courses or types of education may be crucial to gaining wider societal benefits. Preston and Green (2003) in their crossnational study conclude that education policies that aim to reduce inequalities and increase social mixing within education have the greatest potential for societal level benefits.

2.1 Health and well being

Hammond (2002) in her review of the mostly qualitative literature on the connections between education and health concludes that education indirectly plays a part in health primarily through individual empowerment and socialisation in an educational context that encourages social cohesion.

Vila (2005) notes that in the case of education and health most studies deal with the benefits to the individual being educated (Vila, 2005). Vila says that part of the benefit of higher education to an individual's health and well-being is likely to be reflected in higher income and will be captured by an analysis of economic returns to graduates. A 2006 OECD report, which summarises recent research on education and health, says that in the US it is estimated that economic factors are responsible for about half of the impact of education on physical health. Generally these factors are said to be things like avoidance of stress that is linked to financial hardship and access to better health care because of higher income. The OECD (2006) report also says that people with higher levels of education are likely to have more fulfilling and less hazardous, and therefore less stressful, jobs.

Vila (2005) also links health indirectly to education through work, suggesting that some non-monetary returns on education investment, such as *well-being*, can be captured through analysis of job satisfaction. He says that better education across all social groups has been linked to economic growth and social development "and consequently, to the promotion of well-being for the whole population" (Vila, 2005, p.8). Although Temple (2000) notes the difficulties inherent in measuring well-being in a meaningful way and says that "economists are only just starting to investigate well-being and its determinants" (Temple, 2000, p.5).

Even though the links between level of education and health may be indirect they can be extremely stark. A chance observation of the similarities between the UK's Department of Education's league tables of school leaving pass rates and the same areas ranked by mortality rates apparently sparked a number of UK studies into the effect of education on health (Chandola et al, 2006). Chandola and colleagues used the National Child Development Study and sophisticated statistical methods to provide insights into causal pathways between education and health. The study concluded that the indirect effect of education on men's and women's health through its effect on social class, sense of control over one's life and healthy



behaviour, in particular non-smoking, is significant. However they were unable to find any direct effect. The observations of tertiary education practitioners provides qualitative information that would seem to confirm the view that participation in higher education provides students with a sense of control over and management of their own lives (Preston & Hammond, 2003), which Chandola links with health benefits.

Similar quantitative work in New Zealand, based on population studies, has also concluded that better educated New Zealanders are more likely to be in good health (Johnston, 2004). Johnston (2004) reviews the literature on wider benefits of education, including use of the Christchurch longitudinal study and suggests that there is a relationship between years spent in education and smoking even after controlling for other socio-demographic factors such as gender and family disadvantage. He also notes that, according to studies using data from the Dunedin MHDS longitudinal study, anxiety declined with higher education attainment. However he notes that governments are interested in the benefits and costs of education to society as a whole not the benefits that accrue to individuals, thus it is important to be able to differentiate between causation and coincidence.

Johnston also reports on several studies in the USA including: a six year study of 10,000 adults aged between 51 and 61 years which found that years of education was significantly associated with the incidence of chronic diseases after controlling for age, gender, race and wealth. He also reports on a study using state compulsory schooling laws and census data that found a statistically significant association between years of education and mortality independent of socioeconomic status.

Johnston summarises that the evidence from a range of studies from several countries using different methodologies all indicate that "better educated people experience better health" (p.20) and that studies seem to show that better educated people have a greater reported level of well-being then less well educated people (see also Hammond's review of the literature, 2003). Bynner and Egerton's (2001) study, which was one of those reviewed by Johnston, says that graduates are more likely to see themselves as in excellent health and are less likely to show depression or become victims of accidents or assaults. The 2006 OECD report summarises the findings of research into the benefits of higher education to the health of individuals as: healthier diet; less smoking and less alcohol consumption; more exercise; greater use of health services; and greater use of seat belts while driving.

The above studies point to health benefits accruing to individuals through time spent in education. However education that benefits the health of an individual may not always translate into wider social benefits. Health benefits that come about through increased access to health care through an individual's economic status, for example, may signal divisions in society that could leave other members of the community worse off. Education that underpins such economic related health benefits may be failing to challenge socio-economic inequalities that are responsible for poor health of some communities (Hammond, 2003). Education that targets marginalised groups providing opportunities across the full spectrum of society is more likely to contribute to the health of society through development of social cohesion and resilience. Education that promotes critical



awareness and social inclusion can lead to "the challenging of social and economic inequalities and the generation of a more socially cohesive and health-inducing society" (Hammond, 2003, p.74)

2.2 Crime

Johnston (2004) notes that, according to studies using data from the Dunedin MHDS longitudinal study in New Zealand, anti-social behaviour was lowest among those who had attended university. Johnston also reports studies of US Census data from 1960, 1970, and 1980, which indicated that years of education are negatively associated with the probability of imprisonment. He says that the Christchurch and Dunedin studies also indicate that time spent in education, rather than qualifications, is negatively associated with criminal activity.

Feinstein's study (2002) includes vocational as well as academic education. He concludes that the direct effect of learning is on income. Through income there is an indirect effect on crime and the possibility of a further indirect effect through parenting because crime tends to run in families. He argues that a higher income provides less incentive for crime and full time education and work provide less opportunity. He also says that there is some research to suggest that higher education increases risk aversion and patience – people value their future earning potential – which reduces the propensity to commit crime.

Vila (2005) adds that longer time spent in education appears to be linked to reduction in violent crime.

Reduction in crime, brought about by extended length of time spent in education, would appear to benefit society as a whole. However once again it seems that the benefit is largely attributable to increased income. In their cross-national study Preston and Green (2003, p.v) conclude that the links between education systems and labour markets play an important role in criminality at the national level. They say there is "a clear relationship between unemployment, social-disorganisation, inequality and crime."

2.3 Social Capital

According to Johnston (2004, p.21) "Social capital refers to the stock of active connections between people, as constituted by participation in, and knowledge of, civic affairs; trust in other people; and reciprocal help and support in the community." A number of studies, including population studies in the UK and USA, link length of time spent in education (or qualifications) with membership of organisations (Bynner et al, 2001; Brehm et al, 1997) which in turn builds connections between people – one of the major elements of social capital. Preston and Green (2003) however, in their cross country comparisons conclude that there seems to be no correlation at the macro level between level of education and civic participation. They feel that any allocation of causality between the two is misplaced. They suggest that the effects of education on civic participation are indirect and conditional on other contextual factors like history and culture.

Brehm et al (1997) found that length of time spent in education was related to feeling that other people could be trusted, another attribute of social capital according to Johnston. On the other hand Preston and Hammond (2003) reporting



the views of tertiary education practitioners, were of the opinion that the trust dimension of social capital was not gained through higher education. Nonetheless Preston and Green (2003) consider trust to be an important property of social capital as well as being important to a healthy society. They identify two types of trust. The first they refer to as thin trust which they say, is a more abstract trust and probably a more appropriate concept as a component of social cohesion. Trust engendered through intensive day to day interactions, for example with family, they refer to as 'thick trust'. Because of its importance trust has been measured for several years across a number of countries and although there is "no significant correlation cross-nationally between levels of education and levels of trust ... there is a strong correlation between distribution of educational outcomes and trust" (Preston and Green, 2003, p.22). They conclude that there are clear relationships between educational inequalities, income inequalities and trust, where the greater the inequality the less trust that citizens have for institutions and other people.

Preston and Hammond (2003) report the belief that higher education does influence relations with others through encouraging tolerance and providing for expansion of social networks, both of which are elements of social capital (Putman, 2000). Interestingly Gibson (2001) using data from a NZ sample of identical twins, found that increased time spent in education significantly reduced the expansion of one type of social networking – volunteering. However Bynner et al (2003) and Vila (2005) reached a different conclusion finding that membership of voluntary (including school parent groups) or charitable organisations, and including donations to charity, was greatest among people holding a degree or higher credential. The Australian Universities Community Engagement Alliance position paper (2006) says that community engagement in the life of the university yields direct commercial benefits to private sector organisations as well as improved health in the community, less dependence on welfare and an increased rate in volunteering.

2.4 Citizenship and values

While social capital can be said to accrue to the individual one of the spin off societal benefits of social capital is said to be social cohesion. Bynner et al (2003, p.44) believe that "Graduates not only contribute to the economy but to the cohesiveness of society and demonstrate the attributes of active citizenship." Their research suggests that length of time spent in education is related to: being more active in the community, racial tolerance; reduced willingness to blindly accept authority; and less political cynicism (also Bynner & Egerton, 2001). They suggest that a degree is a "powerful antidote to political cynicism" (Bynner et al, 2003, p.47) and that graduates have more faith in the political process (Bynner & Egerton, 2001). Vila (2005) found that reduced political cynicism was linked to political participation and increased voting¹¹. Racial tolerance in particular was seen, by Vila (2005) and Bynner et al (2003) as an important indicator of social cohesion. However Preston and Green (2003), in their cross-national comparative study, caution that racism and intolerance have in the past thrived in well educated societies. They say that intolerance of immigrants seems to have risen recently across EU countries despite rising levels of education. They suggest that more powerful contextual effects may be at play here rather than "any direct effect of

¹¹ Note that the research was carried out in countries where voting is optional.



average education levels on aggregate levels of tolerance" (p.17). One suggested contextual contribution is the provision of courses that "stress individuals' critical capacities [which] seem to have a greater effect [on acquisition of tolerance] than other courses" (p.17).

Preston and Green (2003) also state that although there is strong evidence of a relationship between education and participation in community at an individual level, this is less strong at a societal level. Educated societies do not always possess an active citizenry. In fact, they say, in some countries where levels of education have been consistently rising participation in voting has been falling.

Interestingly the research conducted by Bynner et al, (2003) based on longitudinal population data obtained through the National Child Development Study, indicated that although people in the UK were becoming more authoritarian between 1991 and 2000 those with higher education were moving in the opposite direction and those with degrees were substantially less likely to accept unqualified support for authority, which they linked to the feeling that an individual can make a difference (i.e. people believed that the locus of control was internal rather than external). For these reasons Bynner et al concluded that if the government policy agenda was to enhance social cohesion then investment in higher education would make a positive contribution towards this goal.

The Australian Universities Community Engagement Alliance position paper (2006, p.1) on the engagement of universities in the community includes comment on the engagement of students in learning. Drawing, presumably, on the work of overseas researchers in the absence of local studies, the paper says that active and knowledgeable citizens can drive social cohesion and societal change leading to improved quality of life for all.

2.5 Parenting

Bynner et al (2003) suggest that participation in higher education is linked to parents reading more to children and children owning more books. Parents with higher education, they say, promote a stronger educational family environment than parents with lower levels of education (also Bynner & Egerton, 2001). Bynner et al also suggest that there is probably some 'inter-generational transfer' of what they refer to as *human capital*.

Johnston (2004) in his review of the literature for the New Zealand Treasury concludes that most of the studies of the wider benefits of education find some link between length of time spent in education by either parent, and their children's educational attainment.

2.6 Labour market outcomes

Bynner et al (2003) say that even considering the growth in graduate numbers those with higher education are less likely to by unemployed. One of the reasons for this, they say, is familiarity with information technology. Although employability is seen as a good that accumulates to an individual rather that to society as a whole, they suggest that it does reduce the need for income subsidies, as well as increasing the tax base. In Australia (ABS, 2006) 83% of people with a



qualification other than a school qualification were employed. This is compared to 63% of those with only a school qualification.

Another benefit of higher education, and hence better employment prospects, noted by Bynner et al (2003) is social mobility. They say that even in today's England with general movement up the social class, the advantage of higher education, with its protection against unemployment, is substantial. They say that higher education facilitates the development of social skills, especially in women, which support confidence and lead to advantage in the labour market.

3. Conclusions

3.1 Wider social benefits

The literature seems to agree that benefits such as better health, better job prospects and higher social status are likely to accrue to individuals who participate in higher education. Likewise the literature suggests that individuals and communities gain in social capital when community members spend longer time engaged in education. This may include greater participation in civic activities, higher likelihood of volunteering, racial tolerance, greater level of trust and less cynicism. Social capital gained by parents may also accrue to their children. Society also gains through participation of its citizens in education because there tends to be less crime in communities where citizens spend time in tertiary education.

Spin off benefits to society of better health and job prospects include less need for national spending on health and welfare and a larger tax base that can provide the social benefits of a wealthier nation. However translating the perceived benefits that accrue to individuals and communities into benefits at the societal level is not straightforward. It cannot be taken for granted that social capital, for example, will translate into social cohesion. A society may include many groups that are internally socially cohesive but exclusive and intolerant of other groups causing divisions in society. Also the attributes that make up *social capital* may differ in different cultural contexts. For example racial *intolerance* may be a factor in a group's social capital, depending on history and context.

3.2 importance of national study

Differences in wider social benefits of education between countries indicate that caution has to be exercised when attributing such benefits to length of time spent in education (Preston and Green, 2003). Cross-national comparative studies indicate that other factors such as historical and cultural differences are at play and therefore no direct causal link can be made between length of time spent in education and social cohesion at the macro level.

This indicates the necessity of Australian specific research if the wider benefits of education are to be understood and used to inform national policy development. We need local data connecting student learning with individual and aggregate social outcomes to inform policy and planning. If governments are interested in the benefits and costs of education to society as a whole rather than, or as well as, the benefits that accrue to individuals it is important to be able to differentiate between causation and coincidence. The *Growing up in Australia* study would seem to provide a strategic opportunity for Australian research to be undertaken.

3.3 what makes a difference

The above discussion indicates that time spent in education per se may not provide the wider social benefits discussed above. Research conducted elsewhere suggests that wider social benefits of education such as quality of life, health outcomes, trust and civic participation, do not necessarily arise from participation in, for example, vocational courses and training programs (Green et al, 2003; Hammond, 2003; Preston and Hammond, 2003). They are more likely to arise through participation in courses that develop students' critical capacities and increase social mixing (Preston & Green, 2003). Thus increasing social cohesion



at a societal level would seem to require policies leading to education that increase social equality through challenging social and economic inequalities. Again Australian specific research is necessary to test this against local conditions.

3.4 further research

The wider social benefits of time spent in education are those benefits that accrue to society in general rather than simply to individuals. The nature of those benefits and the mechanisms at work to produce them are important to policy makers. There is to date no Australian specific longitudinal research that can provide the necessary data for such work although there are some studies that could possibly contribute to such work. This work is important particularly in light of the funding shift in Australia from the institution level to the individual student, from public funding of what could be seen as a common good to private funding for what might be construed as a private good. In light of the strong likelihood that the wider social benefits are related to social cohesion at the macro level, which in turn is likely to be attributable to equitable educational outcomes across all groups of society this work would seem to be important at a societal level.

Research that looks at participation in education for example by postcode, gender, age group, ethnicity, and family income could make a valuable contribution, as well as Australian-based quantitative studies like those conducted by the UK's Centre for Research on the Wider Benefits of Learning.

References

Ashworth, J. (1998). A waste of resources? Social rates of return to higher education in the 1990s *Education Economics*. Abingdon: Vol. 6, No. 1, p.27-44.

Australian Bureau of Statistics (ABS) (2006). Education and Work. Publication 6227.0. May 2006

Australian Universities Community Engagement Alliance (2006). Position Paper, *Universities and Community Engagement* July

Business in the Community http://www.bitc.org.uk/ (accessed 30/08/07)

Bynner, J. & Egerton, M. (2001). *The wider benefits of higher education*. Report by the Wider Benefits of Learning Research Centre, Institute of Education, University of London.

Bynner, J., Dolton, P., Feinstein, L., Makepeace, G., Malmberg, L. & Woods, L. (2003). *Revisiting the benefits of higher education*. The Bedford Group for Lifecourse and Statistical Studies, Institute of Education, UK http://www.hefce.ac.uk/Pubs/Rdreports/2003/rd05_03/ (retrieved from the web 17/08/07)

Cabalu, H., Kenyon, P., & Koshy, P. (2000). Of Dollars and Cents: Valuing the Economic Contribution of Universities to the Australian Economy. BHERT, Melbourne

Chandola, T., Clarke, P., Morris, J.N. & Blane, D. (2006). Pathways between education and health: a causal modelling approach. *Journal of the Royal Statistical Society* 169, Part 2, pp. 337-359.

Commonwealth of Australia (2003). *Our Universities: Backing Australia's Future*. Canberra, ACT: Department of Education, Science and Training.

Corporate Responsibility Index http://www.corporate-responsibility.com.au/ also http://www.corporate-responsibility.com.au/PDFs/cri_results_2006.pdf (accessed 30/08/07)

Cumpston, A., Blakers, R., Evans, C., Maclauchlan, M. & Karmel, T. (2001). *Atlas of Higher Education: A community focus*. Occasional Paper Series 01/A, DETYA, Canberra.

 $http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/archives/atlas_of_higher_education.htm$

Department of Education, Science and Training, (2007). *OECD Thematic Review of Tertiary Education Country Background Report Australia*. Canberra, April

Feinstein, L. (2002). *Quantitative Estimates of the Social Benefits of Learning, 1: Crime*. Wider Benefits of Learning Research Report. University of London Centre for Research on the Wider Benefits of Learning

Feinstein, Leon and Hammond, Cathie (2004). The contribution of



adult learning to health and social capital. *Oxford Review of Education*, 30:2, 199 - 221 URL: http://dx.doi.org/10.1080/0305498042000215520

Garlick, S. (2000). *Engaging Universities and Regions: Knowledge Contribution to Regional Economic Development in Australia*. EIP 00/15, DEST, Canberra. http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/archives/engaging_universites_and_regions.htm

Gibson, J. (2001). Unobservable family effects and the apparent external benefits of education. *Economics of Education Review* 20(3): 225-233

Global Reporting Initiative (GRI) (2006). Sustainability Reporting Guidelines. Global Reporting Initiative.

URL: http://www.globalreporting.org/NR/rdonlyres/ED9E9B36-AB54-4DE1-BFF2-5F735235CA44/0/G3 GuidelinesENU.pdf accessed 12/12/07

Green, A., Preston, J. & Sabates, R. (2003). *Education, Equity and Social Cohesion: A Distributional Model*. The Centre for Research on the Wider Benefits of Learning, Institute of Education, London.

Hammond, Cathie (2002). What is it about education that makes us healthy? Exploring the education-health connection. *International Journal of Lifelong Education*, 21:6, 551 – 571 URL: http://dx.doi.org/10.1080/0260137022000016767 accessed 20/09/07

Hammond, Cathie (2003). How Education Makes Us Healthy. *London Review of Education*, 1:1, 61 - 78

URL: http://dx.doi.org/10.1080/14748460306692 accessed 20/09/07

ISO (2006). *ISO and Social Responsibility*. ISO Central Secretariat International Organization for Standardization, Switzerland

Johnston, G. (2004). *Healthy, wealthy and wise? A review of the wider benefits of education.* New Zealand Treasury working paper 04/04 http://www.nzgo.govt.nz/redirct?http://www.treasury.govt.nz%2Fworkingpapers %2F2004%2Ftwp04-04.pdf (accessed from the web 08/08/07)

Kilpatrick, S. (2003). Ivory Tower Meets Real World: Benefits of education engaging with community. *Queensland Journal of Educational Research*, 19, (2). Pp. 137-141.

McMahon, Walter W. (1998). Conceptual Framework for the Analysis of the Social Benefits of Lifelong Learnings. *Education Economics*, 6:3, 309-346 URL: http://dx.doi.org/10.1080/09645299800000022

McMahon, Walter W. (1999). *Education and Development: Measuring the Social Benefits*. Oxford University Press: Oxford, UK.

Nicholson JM, Sanson A, Rempel L, et al. Longitudinal studies of children and youth: implications for future studies. In: Sanson A, (2002) Ed. *Children's health and development: new research directions for Australia. Melbourne*: Australian Institute of Family Studies, 2002: 38-62



OECD (2004). Education at a Glance – OECD Indicators 2004 http://oberon.sourceoecd.org/vl=2201322/cl=13/nw=1/rpsv/~6686/v2004n20/s3/p 12 (retrieved 23/08/07)

OECD (2005). *Education & Skills 2005*, vol. 2005, no. 15, pp. 1 - 435 Education at a Glance: OECD Indicators - 2005 Edition (Complete Edition - ISBN 9264011900)

OECD (2006). *Transition Economies* 2006, vol. 2006, no. 16, pp. 374 - 398 Education at a Glance: OECD Indicators - 2006 Edition: Public and private investment in educational institutions http://masetto.sourceoecd.org/vl=3224927/cl=20/nw=1/rpsv/~6686/v2006n16/s16/p374 (retrieved 23/08/07)

OECD (2006a). Education at a Glance Indicator B3 Public and Private Investment in Educational Institutions http://72.14.253.104/search?q=cache:QGALtEJtEfgJ:www.aeufederal.org.au/Publ ications/Oecd2006.pdf+OECD+Education+at+a+glance&hl=en&ct=clnk&cd=5 (retrieved 23/08/07)

OECD (2006b). Education at a Glance. *The Returns to Education: Links Between Education, Economic Growth and Social Outcomes* – Indicator A10. OECD

OECD (2007). *Education at a Glance 2007* OECD Indicators http://www.sourceoecd.org/upload/9607051e.pdf accessed 20/09/07

OECD (2007a). Assessing Higher Education Learning Outcomes Summary of the Second Meeting of Experts http://www.oecd.org/dataoecd/15/7/39117295.pdf (Accessed 30/08/07)

Phillips Curran Pty Ltd. (2001). Strategic Review of the South Australian Higher Education Sector for South Australian Business Vision 2010. South Australian Business Vision 2010

Preston, J. and Hammond, C. (2003). Practitioner Views on the Wider Benefits of Further Education. *Journal of Further and Higher Education*, 27:2, 211 - 222 URL: http://dx.doi.org/10.1080/0309877032000065226

Preston, J. and Green, A. (2003). *The Macro-Social Benefits of Education, Training and Skills in Comparative Perspective*. Wider Benefits of Learning Research Report No.9. The Centre for Research on the Wider Benefits of Learning, Institute of Education, University of London.

Putnam, R. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster, New York.

St James Ethics Centre http://www.ethics.org.au/about-us/ethics-services/ethics-consulting-training/ethics-consulting/index.html (accessed 30/07/08)



Temple, J. (2000). *Growth Effects of Education and Social Capital in the OECD Countries*. Economics Department Working Papers No. 263 http://oberon.sourceoecd.org/vl=2201322/cl=13/nw=1/rpsv/cgi-bin/wppdf?file=5lgsjhvj82g6.pdf (retrieved 23/08/07)

Vila, L. (2005). The Outcomes of Investment in Education and People's Wellbeing. *European Journal of Education*, Vol. 40, No. 1, pp3-11

