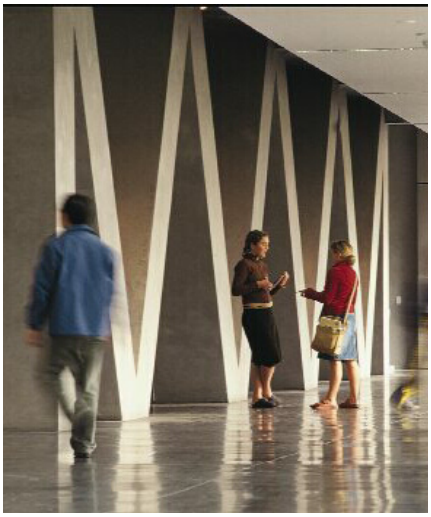

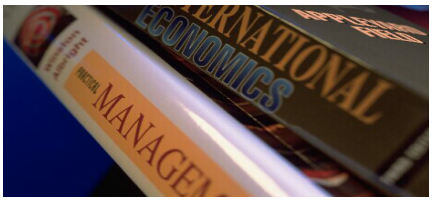

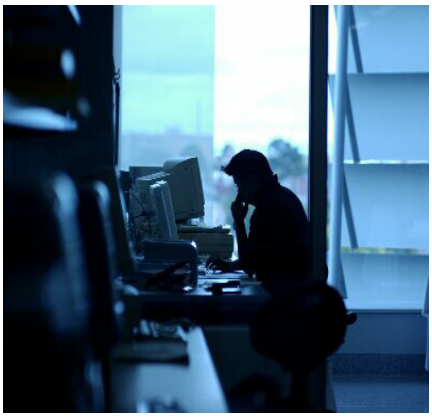

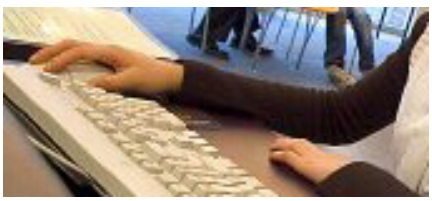

Social Capital in Theory and Practice

The contribution of Victorian tertiary education in the 'new economy' disciplines of business studies and IT

Emmaline Bexley
Centre for the Study of Higher Education
The University of Melbourne

in collaboration with

Simon Marginson
Centre for the Study of Higher Education
The University of Melbourne

Leesa Wheelahan
School of Education and Professional Services
Griffith University

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The project team received valuable guidance from a steering committee, comprising: Professor Simon Marginson (Chief Investigator), Ms Leesa Wheelahan (Chief Investigator), Dr Terry Stokes (Partner Investigator), Mr Darrell Cain (Box Hill TAFE), Dr Denise Meredyth (Institute for Social Research, Swinburne University), and Dr Dennis Gunning (Victorian Qualifications Authority).

As Research Fellow, Dr Tom Clark undertook the initial administration of the project, including overseeing survey design and distribution. Dr Clark left the project in December 2004 and was replaced as Research Fellow by Ms Emmaline Bexley, who undertook data analysis of the survey returns, the interview scheme, and preparation of this report.

We offer our sincere thanks to the Australian Research Council and the partner organisation, the Victorian Office of Higher Education, for their financial support. A special thank you to Dr Terry Stokes, Director of the Office of Higher Education, for his sage counsel, practical assistance, unstinting encouragement and invaluable sense of humour. We also acknowledge the help of Sian Lewis (and in the early stages David Downes) from the same office, Dr John Wiseman who was formerly with the Premier's Department, and Lynne Kosky who as the then Minister of Education and Training supported the project from its inception.

Executive summary

Background to and scope of the project

This report explores the use of social capital theory in understanding educational advantage/disadvantage from a public policy development perspective. We undertake a detailed review and critique of the key 'strands' of social capital theory, contextualising these in an analysis of applied social capital theory in a public policy and a development environment. Finally, we use our modified understanding of the theory to explore the social capital of business and IT students in higher education and vocational education and technology (VET) in Victoria.

This project, then, has two aims. The primary aim is to gain an understanding of the contribution of business and IT courses to the social capital of their students, and to understand how students' social networks contribute to their studies and the choices they make, as well as the obstacles and opportunities their social networks provide for them. However, a further aim, which appeared secondary at the commencement of the project, came to be very important as the project progressed: to test the notion of social capital at the theoretical level and to understand its utility in a public policy environment through a review of the academic and political literature. We found that the understanding of social capital used in such settings is frequently inadequate and superficial. This finding shaped our own utilisation of the theory as the project progressed.

This report will be of interest to public policy bodies in a number of ways. The findings of the empirical part of our study have implications for the equity and opportunity of students from family backgrounds which have not traditionally included tertiary education, given that these students are particularly concentrated in the 'new economy' areas of business and IT studies (see pages 16-17); it provides a concise overview of social capital at the theoretical level which we hope has philosophical depth without being overly jargonistic or specialised; it points out some important problems with assumptions underlying the use of social capital in public policy development elsewhere (notable the UK), and, most importantly, it suggests ways forward, in progressing social capital theory and practice in general, in improving the educational experience of students in Victorian further and higher education in particular and suggestions for further research. The conclusions of the report are summarised in this Executive Summary and especially in Recommendations 1-14 (see pages 17-18).

This project was begun in 2003 through an Australian Research Council Linkage Grant taken in partnership between the Victorian Department of Education and Training and Monash University (Monash Centre for Research in International Education). In July 2006 the project was relocated to the University of Melbourne (Centre for the Study of Higher Education). The Chief Investigators were Professor Simon Marginson (Monash University, later University of Melbourne) and Ms Leesa Wheelahan (Griffith University). The Partner Investigator was Dr Terry Stokes. Dr Tom Clark was the Research Fellow to December 2004, followed by Ms Emmaline Bexley.

Overview of findings

The concept of social capital

Social capital has become a driving theoretical construct for those seeking to design public policies that steer a path between free-marketeerism and the so-called 'welfare state'. The

primary attraction of the social capital approach is that it allows (or appears to allow) the non-mercantile resources in a community to be treated within a quasi-market framework, where assets such as networks of trust, expertise and social support can be subjected to various forms of social accountancy. We argue, however, that in practice such approaches, by attempting to separate the social from the economic, fail to account for the differing starting positions of disparate individuals. For example, people have differing levels of economic capacity and productivity, and this tends to mean that their social networks will also have differing levels of leverage.

Whereas Pierre Bourdieu (1986) uses social capital explicitly in order to explain the reproduction of social class divisions and inequalities of power, James Coleman (1988) and Robert Putnam (2000) have popularised a reading of social capital that focuses on the ubiquity of social networks across classes. Both focus on the virtues of network membership and the assets individuals can access through their associations with others. In Coleman's case such assets are exemplified in his analysis of the positive effect of close communities on school retention rates, and in Putnam's case on a claimed connection between social behaviours and an increase in goods ranging from reduced crime to greater tax compliance. Regardless of the many criticisms that can be levelled at the quality of evidence behind such claims (especially Putnam's), on a more fundamental level what these readings of social capital have done is to cloud the differences in the potential productivity of social networks from individual to individual. Gamarnikow and Green sum up this situation neatly:

> Unlike cultural and economic capitals which are distributed unequally, social capital is ubiquitous, but subject to hierarchical valorisations of particular social capitals manifested in class-specific forms of sociability and networks. The universality of sociability and networks obscures their intrinsic differential performativity: lower class networks are as plentiful and varied as middle class ones, but less productive of socially and economically successful outcomes.
>
> (Gamarnikow and Green 1999: 7)

This notion of the 'differential performativity' of the social networks of individuals informs our own approach to social capital, which diverges from the approaches taken by Coleman and Putnam. While we are more willing than Bourdieu to embrace the social capital of non-elites as a valuable commodity in itself, we largely follow Bourdieu in approaching social capital as an asset of individuals that draws its value from the power of the social connections available to them. In terms of public policy, we operationalise social capital by asking, "what does the membership of a network bring to an individual: what opportunities, abilities or obstacles? How does an individual's position in the social matrix determine their ability to participate in society?"

Education Action Zones in the UK

We test our modified understanding of social capital through an investigation of Education Action Zones (EAZs) in Britain. EAZs were designed to weave together the strengths of community stakeholders by combining the expertise of business, schools and communities in a partnership model; as the "standard bearers in a new crusade uniting business, schools, local education authorities and parents to modernise education in areas of social deprivation" (DfEE, quoted Power and Whitty 1999: 542). They fell under the rubric of the British New Labour approach to social policy, put by Blair in terms of a retreat from 'big' government but with a focus on community:

> The days of the all-purpose [local] authority that planned and delivered everything are gone. They are finished. It is in partnership with others – public agencies, private companies, community groups and voluntary organisations – that local government's future lies. Local authorities will deliver some services but their distinctive leadership role will be to weave and knit together the contribution of the various local stakeholders.
>
> (Blair, *Leading the Way: A New Vision for Local Government*, cited Lowndes and Sullivan 2004: 53)

EAZs were a policy failure on two levels. Firstly, they failed to provide results. While there was some evidence of positive shifts in parents' attitudes to schools, there were no consistent improvements in students' performance or in pedagogical practices within the classroom (Power et al 2004: 469). A more telling failure, however, was that EAZs did not even result in a 'weaving and knitting together' of stakeholders' contributions. Only one third of surveyed local authorities felt the participatory model affected decision making; another survey found that authorities did not allow the results of consultations to feed into decision-making processes, and third research project found that deliberations did not result in policy outcomes (Lowndes and Sullivan 2004: 64).

What went wrong? It is difficult on the basis of available research to draw a direct link between these two different kinds of policy failure. However, if our reading of social capital is correct, the reasons behind the second failure are quite clear. The approach underlying the EAZ model is a Putnamian one, which sees social capital as a community asset freely available to all, and through which all can benefit. The sentiment is summed up by the Secretary of State for Education: "Our aim is excellence for everyone" (Secretary of State for Education, 1997: 9-10, cited Gamarnikow and Green 1999: 12). Unlike the zero-sum game of Bourdieu's social capital, such community building fails to differentiate between the levels of productivity of the social capital of actors. By doing so, those who fail to thrive are blamed for their failure, without reference to the social and economic obstacles they face, and whole communities are written off as deficient. As one EAZ bid put it: "Given the prevailing local culture it is not surprising that many teachers have low expectations of both pupils and parents and vice-versa" (Newham EAZ bid, 1998: 37, cited Gamarnikow and Green 1999: 15).

The failure to appreciate the obstacles faced by the most socially and economically disadvantaged was matched by a failure to appreciate the comparatively high levels of power held by experienced bureaucrats and business representatives in partnership with community representatives. In practice, the result of the failure to address such power imbalances seems to have resulted mainly in the retention of the status quo, with councilors using their electoral mandate to over-ride community members (Lowndes and Sullivan 2004). There was a similar inertia amongst business partners, with a feared 'corporate take-over' of schools failing to eventuate, as business lacked the will to get particularly involved, and demonstrated that it did not have "the capacity, energy, creativity, and know-how to transform education in socially disadvantaged areas in the radical manner originally envisaged" (Power et al 2004: 462). There were, however, examples of teachers feeling pressured to use educational materials promoting sponsors' products (*ibid.*).

The key lesson to be learned from the Education Action Zones experience is that we cannot ignore the differentiated opportunities and affordances open to individuals of different backgrounds, or assume that everyone will be equally included in an 'inclusive' environment. If stakeholders are going to be consulted, there must be a clearly defined means of including their contributions in all levels of process. Why are stakeholders needed in a partnership?

What aims and objectives does the model seek to effect? The answers to such questions must be far more robust than "excellence for everyone," or "radical transformation." The partnership model underlying EAZs appears to have obfuscated, rather than elucidated, the issues of power and conflict such questions need to address.

The World Bank and social capital

We also briefly investigate the use of social capital within development programs by the World Bank. We do not discuss the use of social capital in individual development projects, but rather the manner in which social capital has, at least to a small extent, allowed questions about the social contexts of citizens of developing countries to enter the Bank's rhetoric. Proponents argue that, before the Bank took up social capital in a serious way, the work of researchers and development practitioners, and the work of economists, were largely separate (Bebbington et al 2004). By bringing discussion about the non-mercantile assets of communities into economic discussions, supporters of the social capital project claim a small victory—using social capital as a 'Trojan horse', to introduce notions of power to Bank practices (Mansuri and Rao 2003).

Conversely, critics argue that the apolitical nature of the form of social capital pursued by the Bank (Putnam's) actually disguises the neo-liberal premises underlying the Banks agenda. Englebert (2001), for example, blames the Bank's refusal to recognise the existence of class and power relations on its reliance on Putnam's social capital, arguing that "unlike Bourdieu's approach, the theoretical versions of Putnam and Coleman, preferred by the Bank, ignore class divisions and actually paint an image of social capital as a ferment of social cohesion because of its very capacity to bypass socio-economic differences." The Bank thus in effect deals with imaginary societies which "do not know disputes about the distribution of power, and the legitimacy of their regimes and institutions is never contested" (Englebert 2001).

The key issue raised by our discussion of social capital at the World Bank is the questionable nature of the value of the Putnamian approach to social capital to agencies seeking to alleviate poverty. On the one hand, social capital "allows sociologists to play in the same sandbox as economists" (Fischer 2005: 157), in turn introducing some of the notions of class and power missing from the neo-liberal economic agenda. On the other hand, the social capital pursued by Putnam and similar theorists has been so denuded of meaningful engagement with such notions that the extent to which it can claim to 'socialise' economics is questionable. As we argue throughout this paper, while social capital is a useful analytical tool for mapping the relationships upon which individuals play out their social lives, the concept is a blunt policy tool unless the relative value of these relationships, in terms of what opportunities they enable the *individuals* holding them to leverage, is clearly spelled out and included as a unit of first analysis.

Social capital and 'new economy' students in Victoria

The first stage of the empirical element of this project was a survey of 288 students and graduates of business, IT and other fields at six Victorian institutions: Monash University, RMIT University and Victoria University Higher Education, and Victoria University TAFE, Wodonga TAFE and Box Hill TAFE. The survey was distributed in late 2004, and analysis was undertaken throughout the first half of 2005, resulting in the report "Tertiary education and social capital in Victoria: The contribution of the new economy courses in business and IT: Stage one project report: Survey findings" in August 2005.

The second stage of the empirical element was intended as an interview program with students in business and IT, followed by interviews with educators. Invitations to students to take part in an interview were distributed across the surveyed institutions to around 500 students in late 2005. Repeated attempts were made to follow up these request for interview, and to follow other channels, in order to obtain consenting students and graduates for interview. Unfortunately, there were too few responses to make continuing with this aspect of the project worthwhile. It may be that students are sent so many surveys, and are invited to take part in such a large number of research projects, that they simply do not find the prospect of taking part in a project as esoteric in nature as social capital compelling. With regret we decided not to further pursue this aspect of the empirical research plan. In early 2006 interviews with ten educators working in the 'new economy' disciplines took place. Institutions targeted were Monash University, RMIT University, Victoria University HE, Swinburne University HE, Swinburne TAFE and Victoria University TAFE. In July 2006, the project was relocated to the University of Melbourne, and preparation of the final report began.

In Victoria, tertiary education comprises nine universities enrolling around 241,000 students, nineteen TAFE institutions enrolling around 350,000 students, and over 1,200 private Registered Training Organisations (Victorian Government 2006). Education has long been recognised as a key contributor to human capital,[1] and there has been a longstanding policy focus in Australia and internationally on the role of tertiary education in creating human capital. For example, the Victorian government has recently played a lead role in establishing the Council of Australian Governments (COAG) Human Capital Reform, which seeks to develop Australia's human capital through the implementation of initiatives in education as well as in health and workplace practices (COAG National Reform Initiative Working Group 2005).

We begin our discussion of the empirical stage of the project by investigating the nature of the relationships students have with their social networks. We found that 'new economy students' had similar social networks to their colleagues in other disciplines, with two important exceptions: new economy students were much more likely than other students to come from a family where neither parent had a university degree, and were also much more likely to come from a non-English speaking background than were other students. Further, new economy students, and especially IT students in HE, were less likely to trust their student colleagues, or to identify with their course of study.

We also found that language background had a marked influence on levels of trust in non-immediate social network, so these findings were perhaps not surprising. New economy students appear to feel alienated from their study environment, and are more likely than other students to be unable to access family networks that could offer assistance with essay writing, the development of research skills, and help adjusting to tertiary education life. We suggest that these students benefit from the inclusion of study skills training within course design, and that educators should be particularly aware of the effects of assuming an Anglo-centric approach to course design.

[1] An early contribution to the literature on human capital and education is Jacob Mincer's classic article, "Investment in Human Capital and Personal Income Distribution" in *The Journal of Political Economy*, Vol. 66, No. 4 (Aug., 1958), pp. 281-302.

An important finding of our study was the extent of the difference between the educational experiences of higher education and vocational education and technology students. While there was less variation in the intra-academy experiences of VET students than there was for HE students, VET students' social capital was less productive of assistance with employment seeking than was that of their higher education colleagues. However, VET students were just as likely to be able to access help in a crisis from their social networks as were HE students. That VET and HE students' ability to use their social capital to access assistance remained similar when that assistance was crisis support, but was markedly different when the assistance needed was related to looking for employment, illustrates well the differential performativity of social networks. It would be a mistake to say VET students had 'less social capital' than HE students, or that they were 'less able users' of social capital than HE students. Both were equally able to utilise their social capital to gain assistance with day-to-day tasks. Where the difference became apparent was when what was at stake required networks linked to employment opportunities, to CV writing skills, or to 'friends of friends' with access to employment opportunities. It was in these areas where VET students' social capital offered than less than did the social capital of HE students.

Figure 1, below, which shows the percentage of HE and VET students who received assistance looking for or applying for a job from a member of a social network in the past year, is a clear illustration of 'social capital in action'. It maps the opportunities accessed by each student contributing to its columns in seeking to access a valuable resource (employment). Knowing what we do about the social backgrounds of VET and HE students – HE students are drawn from more advantaged backgrounds than VET students - the table shows that students from different social backgrounds have varying potential opportunities. If they are not successful, this is *not* necessarily because they are victims of their own ineptitude, as some of the EAZ examples imply.

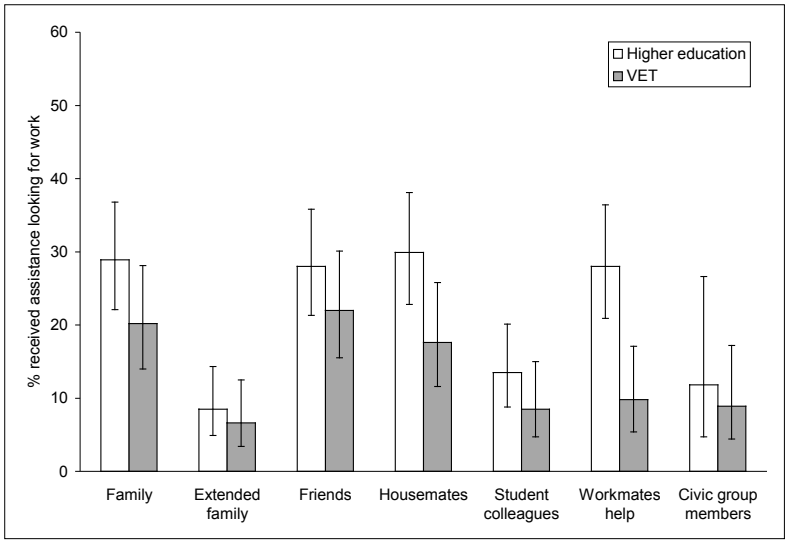

Figure 1:
Percentage of HE and VET students who received assistance looking for or applying for a job from a member of a social network (x axis). Error bars are 95% CIs.

If social capital is to be a concept useful in policy, then its utility lies in the way it helps us to explore the workings of networks while also helping us to map relative advantage and

disadvantage. It should not been used as a policy 'panacea' enabling us to set aside recognition of deep-seated social disadvantage, social justice and social welfare.

In summary, the key findings of our study of the social capital of tertiary students in business and IT are:

- New economy (business and IT) students are more disconnected from their fellow students and their course than other students.
- New economy students were more likely to come from a background in which neither parent had attended university.
- New economy students were less likely than other students to have English as the language predominantly spoken at home.
- Speakers of non-English languages were less likely to trust their non-immediate social networks.
- New economy university students' ability to receive help from, or give help to, members of their networks in looking for work was similar to that of other students, however VET students were far less likely to receive help from their networks in looking for work, or to give help to members of their networks.
- New economy students did not differ greatly from their colleagues in the extent to which they could expect crisis support from their social networks for all non-study networks. Nor were there were interesting differences between VET and HE students in this regard.
- As would be expected, HE and VET students' overall demographics differed widely. For example, the age-range of VET students was fairy evenly spread across the 15-54 year old range, whereas HE students were heavily clustered in the 15-34 year old range. VET students were also more likely to be married and to have children, and more likely to report a disability—factors related to the greater spread of their ages. VET students were less ethnically diverse than their HE colleagues, and less likely to have non-Australian citizenship than were higher education students. VET student were almost half as likely to speak a language other than English in the home than were HE students
- New economy students were twice as likely as other students to rely on email when contacting student colleagues, and far less likely than other students to contact student colleagues by telephone, however, higher education students were much more likely to use email as a means of communication with network members than were VET students, in both new economy and other disciplines.
- In HE, IT students were statistically significantly less likely than business or other students to speak English at home.
- Several interviewees stated that the IT and business world was very interested in graduates with better literacy and generic communication skills. At the TAFE level there were a number of reports that VET institutions or VET programs may be failing to incorporate such generic skills into course competencies.
- Educators interviewed believed most students learnt few skills through their part-time employment.
- Many educators interviewed said students often failed to see the opportunities, such as career opportunities, available to them through their network memberships.

- When asked about the degree to which they felt able to provide support for students in developing professional networks, many of those interviewed said they would be more able were this work recognised in terms of time and pay.
- Educators interviewed stated that live internet chat-rooms and SMS were far more important to students than email, and suggested education institutions could do more to utilise these platforms.
- A common theme in our interviews was the extent to which students feel a need to keep engaged with their peers using a variety of expensive technologies, and that this was quite probably a big factor in their increasing levels of paid work.

The full findings for the quantitative (survey) phase of the project are provided in Appendix A, along with a methodology at Appendix B, and the survey at Appendix C.

Recommendations

Recommendation 1: 'Social capital' should be seen as an attribute of individuals that draws its leverage from the power of the social connections available to them. The main policy application of the concept of 'social capital' is its capacity to understand social cooperation and networks in the context of social advantage/ disadvantage.

Recommendation 2: At both the HE and TAFE level, institutions generally, and business and IT schools and faculties inparticular, ensure opportunities are provided for students to form study networks and communities of practice, both formally, for example through collaborative learning practices, as well as informally.

Recommendation 3: In view of the introduction of so-called Voluntary Student Unionism legislation institutions must take a lead role in ensuring opportunities for students to mix socially are maintained. Government can provide leadership by encouraging, and, where necessary providing funding for, maintained levels of students services and student activities such a clubs, informal student-to-student mentoring, and social activities, which have traditionally provided by student associations and guilds.

Recommendation 4: That Deans and Heads of School in business and IT in higher education and in VET be encouraged to structure study skill-building into courses, with an awareness that students in these disciplines may not be able to draw upon family networks for support in building these skills.

Recommendation 5: That representatives from language support units (as well as representatives from international students' services and other support services where possible) be introduced to students in-class, particularly for first year and beginning students.

Recommendation 6: That teaching professionals in IT who have found successful ways of overcoming direct and indirect discrimination against female staff and students, and ways of addressing gendered classroom behaviour which can exclude female students, share such strategies at conferences, professional forums or informal seminars, wherever possible.

Recommendation 7: That State government provide funding for an interview-based study with teaching practitioners in IT to better understand gender problems, and to develop a web-

based resource for teaching staff to provide support and teaching resources aimed at addressing such problems.

Recommendation 8: That the National Quality Council review the learning outcomes designated for VET qualifications in the Australian Qualifications Framework so that they include outcomes designed to ensure students have the knowledge and skills they need to study at a higher level within their vocational field. Such knowledge and skills should include those which would enable students to move towards or into higher education should they choose to do so.

Recommendation 9: That VET institutions place a special emphasis on requiring students' use of ICTs, including all common software platforms, and monitor students' abilities and provide further training and support where necessary.

Recommendation 10: That HE and especially TAFE institutions continue to build strong relationships with their respective professional associations (such as the Australian Computer Society, CPA Australia, the Institute of Chartered Accountants Australia, the Financial Planning Association, etc), and that students be encouraged to become associate or junior members as appropriate. Such associations can play an important role in teaching young professionals to recognise and utilise networking behaviours. This recommendation is addressed to both educational institutions and to the bodies listed here, who should work collaboratively to encourage student membership.

Recommendation 11: That government work with professional associations (such as those listed above) to encourage such associations to play a more effective role in developing networks for young professionals/learners.

Recommendation 12: That institutions recognise shifts in students' use of various ICT technologies, and incorporate emerging technologies into support services, for example the use of internet chat-rooms for formal and informal purposes, and the use of messaging, as well as email, for student correspondence and alerts. Where necessary institutions should provide staff with professional development opportunities to support their use of such technologies.

Recommendation 13: That educational institutions and the State Government continue to lobby the Commonwealth government for improved student income support measures, including linking income support to an agreed aggregate of the Henderson Poverty Line, and increasing stipends annually in line with CPI.

I What is social 'capital'?

Social capital is traditionally construed to include two factors: the networks of affiliation to which people belong (family groups, friendship ties, networks of professional colleagues and business contacts, membership of formal and informal associations and groups) and the informal behavioural norms individuals and groups rely upon in establishing, maintaining, and using those networks.[2] These norms include behaviours such as reciprocity and trust, as well as interpretive components such as self-identity. However, while the importance of group membership and behavioural norms to social capital is relatively uncontested, it is the nature of the 'capital' itself that is less straightforward. Debate within the literature typically includes: the extent to which social capital can legitimately be considered a form of capital; whether social capital is a property of individuals or groups; how social capital should be measured, and whether, indeed, there is such a thing as social capital at all.

The three 'key players' in the development of social capital are the French sociologist Pierre Bourdieu, the US sociologist James Coleman, and the US political economist Robert Putnam. Each of these theorists treats social capital somewhat differently, and has contributed different theoretical elements to the notion of social capital. Robert Putnam, in particular, has popularised the theory outside academic circles, and it is his work that has had the most influence at the policy level. However, we suggest here that the popular Punamian approach to social capital strips the concept of its association with an individual's power and potential by locating social capital in the group qua singular entity, rather than qua aggregate of individuals. Further, by describing social capital as a normative virtue, Putnam is left with a tautology: groups of winners tend to win. In the review of the social capital literature that follows, we revisit the Bourdieuvian notion of social capital, arguing that Bourdieu's insistence on all forms of capital as forms of power gives the concept of social capital far greater utility in a policy development context than Putnam's 'community capital.' In later sections, we develop this heuristic through the use of case studies, with a special focus on UK 'Education Action Zones' and the work of the World Bank, before moving to our own investigation of Victorian tertiary education.

Social 'Capital': What's in a word?

Many of the concepts that underlie social capital are apparent in the work of early thinkers of the modern period, such as Durkheim, De Tocqueville and Marx,[3] as well as disparate thinkers throughout the 20th century. However, it was not until the 1970s and 80s, when the French sociologist Pierre Bourdieu began using the concept to describe the social networks used by elites to protect their position in the class system, and to explain how the system is

[2] Bourdieu (1986), for example, focuses on broad networks of affiliation, while Putnam (2000) is more explicit about the kinds of ties wrought between members of specific groups such as family, professional and associational ties. These concepts are teased out in greater detail below.

[3] We note, however, a common misunderstanding underlying claims in many articles on social capital, that Marx proposed a form of social capital usefully similar to the contemporary understanding. Marx's use of the term is quite the opposite to the modern meaning. Whereas modern writers claim that social capital is a subset of the forms of capital (whether real or analogous), Marx refers to 'social capital' (for example in Vol. II, Part III of *Capital*, "The Reproduction and Circulation of the Aggregate Social Capital") as the *actualised aggregate* of all capitals. Here, Marx's capital is an economic capital with measurable economic value; and 'social capital' is the sum of the private capitals. For Marx, 'social' capital "includes on the one hand the conversion of variable capital into labor-power, and thus the incorporation of labor-power in the process of capitalist production. ... But on the other hand the sale of the commodities implies their purchase by the working class, in other words, their individual consumption." *Capital*, Volume II, Book III, Chapter XVIII, 1.

reproduced across succeeding generations, that social capital became a focus of sustained debate and research. At around the same time as Bourdieu was developing the idea of a social form of capital, James Coleman in the US was using the term, in a not dissimilar way to Bourdieu, to explain why some children from disadvantaged backgrounds succeed at school while others, apparently equally placed, drop out of the system. During the 1990s, political economist Robert Putnam took up many of Coleman's ideas to explain differences in civic behaviour in the north and south of Italy, and in 2000 further developed these ideas into a large monograph examining the decline of community in the US over the second half of the 20th Century. Here, we overview and evaluate these key moments in the evolution of the concept of a social form of capital.

Bourdieu's social capital

For Bourdieu, social capital is:

> [T]he aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership of a group – which provides each of its members with the backing of the collectively-owned capital, a 'credential' which entitles them to credit, in the various senses of the word.
>
> (Bourdieu 1986: 248)

Bourdieu argued that, just as access to economic capital brings certain privileges to a group or individual, and cultural capital (such as familiarity with high art, literature or manners) sets a group or individual apart from their less privileged peers, so social capital supplies the networks and connections—the 'old school tie'—which allows continued and future access to privilege. Thus Bourdieu's social capital, in explaining a mechanism for the reproduction of privilege, also effectively provides an explanation of the nature of social exclusion.

Bourdieu is explicit in his treatment of social capital as a form of capital *per se*, advocating an "economy of practices" which "would treat mercantile exchange as a particular case of exchange in all its forms" (Bourdieu 1986: 242). For Bourdieu, social and cultural capital are, ontologically, forms of currency in just the same manner as mercantile or economic capital. It follows from this position that the various forms of capital are subject to rates of exchange; that it should be possible to "establish the laws whereby the different types of capital ... change into one another" (Bourdieu 1986: 243). This convertibility, however, is made difficult by the extent to which the economic value of the social and cultural capitals are 'disguised' as mere custom and connection (Bourdieu 1986: 245).

For Bourdieu, capital is equated with power, and is a quality inhering in the cultural fabric, "immanent in the structure of the social world" (Bourdieu 1986: 242). As such, the movement and exchange of the forms of capital are not 'free'—two agents with equal quantities of economic capital, say, may not be able to transform that capital into equally powerful outcomes, so that a person who lacks social or cultural capital is less competitive in the economic realm. Each is constrained by the limitations placed upon them by their respective stocks of each of the forms of capital. Bourdieu's description of the impact of the distribution of capital is explicitly deterministic: capital is "a force inscribed in the objectivity of things so that everything is not equally possible or impossible" (*ibid.*).

Bourdieu's social capital is relational in the sense that it comprises a competitive market in which not all players may be 'winners'—it represents a zero sum game. Importantly,

Bourdieu's treatment of social capital is thereby one that gives a causal mechanism for both access to power and privilege as well as the inability to access power that results in social exclusion.

Coleman's social capital

While Bourdieu focuses on social capital as a means for the privileged to protect their place in the class system, and to reproduce the system itself by denying the entry of outsiders, James Coleman's work in the 1980s and early 1990s placed more focus on the benefits of social capital to the poor and disenfranchised. In particular, Coleman was interested in the manner in which the availability of social capital affects the accumulation of human capital (primarily education) in children and young people. Coming from an intellectual background in rational choice theory, which describes the actions of individuals as being directed entirely by self interest, Coleman proposed social capital as a means of reconciling two "intellectual streams": the sociologists' tendency to describe actors as "socialized and actions as governed by social norms, rules, and obligations," and the economists' view of actors as "having goals independently arrived at, as acting independently, and as wholly self interested" (Coleman 1988: S95).

For Coleman, social capital (which he compares with physical and human capital) facilitates "certain actions of actors—whether persons or corporate actors—within the [social] structure" (Coleman 1988: S98). Social capital "inheres in the structure of relations between actors and among actors," and "comes about through changes in the relations among persons that facilitate action" (Coleman1988: S98; S100). Functionally, social capital "constitutes… an aid in accounting for different outcomes at the level of individual actors" (Coleman 1988: S101). Coleman's social capital seems, like Bourdieu's, to be intended as a more than metaphorical entity:

> If A does something for B and trusts B to reciprocate in the future, this establishes an expectation in A and an obligation on the part of B. This obligation can be conceived as a credit slip held by A for performance by B. If A holds a large number of these credit slips, for a number of persons with whom A has relations, then the analogy with financial capital is direct.
>
> (Coleman 1988: S102)

It is here that Coleman deviates from a rational choice approach, and he does not go so far as to suggest that actors accumulate these credit slips intentionally, as we might save or borrow money in order to buy a specific good. Indeed, it is in large part a lack of satisfaction with the ability of rational action theories in economics to account for apparently altruistic behaviour which drives Coleman's idea of social capital. Rather, social capital is a by-product of purposive exchange:

> …most forms of social capital are created or destroyed as by-products of other activities. This social capital arises or disappears without anyone's willing it into or out of being and is thus even less recognised and taken account of in social action than its already intangible character would warrant.
>
> (Coleman 1988: S118)

Coleman's rendering of social capital has lead some to compare it with the 'hidden hand' of classical economic theory (Field 2003, following Heinze and Strünk 2000). Yet while this further similarity with economic capital may lend weight to social capital as a legitimate form of capital, Ponthieux sees its 'intangible' character as evidence to the contrary:

> [For Coleman] social capital is not produced; rather, it "happens", a by-product of other activities. In an economic sense, it is not a capital, but an externality; and the fact that such an externality, in facilitating the actions of actors, might have positive outcomes does not make it a capital.
>
> (Ponthieux 2004: 4)

It is true that Coleman's social capital is not as clearly a 'true' form of capital as Bourdieu's—a matter we discuss further below.

A key focus of Coleman's social capital theory was educational attainment and high school retention, especially amongst under-privileged students. From a large-scale series of studies of high school students, Coleman concluded that students of Catholic and other religious secondary schools tended to have higher retention rates and lower rates of absenteeism than other schools, and, surprisingly, that these effects remained even when he controlled for factors such as financial situation. Nor was the effect a 'public school versus private school' distinction—rates of dropping out and absenteeism were far lower at religious schools than at both public and independent (non-religious) schools. Coleman concluded that the key explanatory factor for his findings was the effect of norms and sanctions amongst the closer-knit religious school community, which acted to reinforce the expectations of teachers, offsetting broader social disadvantage (Coleman 1988: S114-S116). Arguing that norms and sanctions are the key forms of social capital affecting the development of human capital in young people, Coleman saw 'closed' networks, especially family networks, as those in which norms and sanctions could be most effectively established and applied, and treated the classic closed networks, such as the family and church as the primary site of social capital (Coleman 1988: S105).

Coleman gives the example of John Stuart Mill to illustrate the importance of social capital to education. As is well known, James Mill taught John both Latin and Greek from pre-school age and, with Jeremy Bentham, had John engage in critical discussions of his father's manuscripts while still in childhood. In retrospect, there is of course no doubting John Stuart Mill's intellectual achievements as an adult. Coleman puts this down to the amount of social capital, in the form of time, effort and attention, invested in his intellectual development by his father (Coleman 1988: S109-10). Coleman also uses the example of Asian immigrant American families who would purchase two copies of school texts books—one for the child, and one for the mother so that she could assist in her child's education. "Here is a case," argues Coleman, "in which the human capital of the parents, at least as measured traditionally by years of schooling, is low, but the social capital in the family available for the child's education is extremely high" (ibid).

The findings of Coleman's empirical analyses are compelling. In another study, Coleman demonstrates a more direct link between parental involvement and school retention. The findings are worth citing in full. Using data from a weighted random sample of 4000 students at public schools,[4] Coleman shows how the time available to parents for active parenting corresponds to retention. Coleman's underlying hypotheses are that two parent families, other things considered equal, have more time for parenting than single parent families; that the more siblings in a family, the less time for parenting of each child (he cites other evidence showing that sib position affects measures of achievement such as IQ regardless of overall family size). He also includes parental expectation of future college

[4] From the data set of *High school and beyond*, Hoffer 1986 and Coleman and Hoffer 1987. See Coleman, 1988.

enrolment as an indicator of social capital. Controlling for other family resources such as finances, the amount of time available for parenting appears directly correlated to retention for all three measures:

Table 1:
Differences in high-school retention compared to family kinds and norms. Estimates from logistic regression. Full report, Coleman 1988: App 1. Source, Coleman 1988: S112.

	Percentage dropping out	Difference in percentage points
1. Parents' presence:		
Two parents	13.1	} 6.0
Single parent	19.1	
2. Additional children:		
One sibling	10.8	} 6.4
Four siblings	17.2	
3. Parents and children:		
Two parents, one sibling	10.1	} 12.5
One parent, four siblings	22.6	
4. Mother's expectation for child's education:		
Expectation of college	11.6	} 8.6
No expectation of college	20.2	
5. Three factors together:		
Two parents, one sibling, mother expects college	8.1	} 22.5
One parent, four siblings, no college expectation	30.6	

Coleman concludes: "taken altogether, the data do indicate that social capital in the family is a resource for education of the family's children, just as is financial and human capital" (Coleman 1988: S113).

While Coleman sees social capital primarily as a resource of individuals, he also emphasizes the way in which it is appropriable by networks and group. For example, he gives evidence that families who often move to new cities have less social capital because the parents are unable to establish the networks with other parents that allow them to share information about their children (such as the social capital available to parents of students at religious schools discussed earlier). The *High school and beyond* data set show an effect on dropping out of 11.8% for families who do not move, and 23.1% for those who move twice (Coleman 1988: S113). Further to this loss of social capital in the family, however, there is an important loss to the community in which the family resided:

> [The] decision to move from a community so that the father, for example, can take a better job may be entirely correct from the point of view of that family. But because social capital consists of relations among persons, other persons may experience extensive losses by the severance of those relations, a severance over which they had no control.
>
> (Coleman 1988: S116-17)

So while social capital is primarily, for Coleman, an asset accumulated by individuals, it is also an important resource for the broader community.

Bourdieu and Coleman have much in common. Both are concerned to provide an explanation for the differences in the success of actors who at first glance appear to be

equally placed. Bourdieu uses social capital to explain, for example, how elites who may be lacking in wealth (impoverished nobility, for example) are nonetheless able to protect their position in the class system, and reproduce that system through their offspring, while Coleman uses social capital to explain why children of similarly disadvantaged backgrounds have dissimilar rates of high-school retention. This similarity also hints at a key difference: for Bourdieu, only the elite have social capital, and it is the very absence of social capital amongst non-elites that is responsible for their class position (Field 2003). Even should they acquire mercantile and cultural capital (wealth and education for example), their lack of social capital will make entry into elite society a long and difficult process. Conversely, Coleman paints social capital as a good for all, rich and poor alike. Another key difference between social capital for Bourdieu and for Coleman lies in the precision of the definition. Bourdieu locates social capital with the individual. Coleman is much vaguer: for him, social capital is networks, norms, and the benefits of network membership. It is "a variety of entities," which "facilitate certain actions of actors" (Coleman 1988: S98). Portes cautions:

> …a systematic treatment of the concept [of social capital] must distinguish among: (a) the possessors of social capital (those making demands); (b) the sources of social capital (those agreeing to these demands); (c) the resources themselves. These three elements are often mixed in discussions of the concept following Coleman, thus setting the stage for confusion in the uses and scope of the term.
>
> (Portes 1998: 6)

As we shall see below, this confusion has indeed become endemic in the social capital literature at both the theoretical and policy level.

Putnam's social capital

Bourdieu's and Coleman's approaches to social capital are markedly different to that of more recent commentators who treat it as a loosely metaphorical reflection of economic capital, and tend to locate it in groups rather than individuals, leading Sobel, for example, to refer to it simply as "that dreadful metaphor" (Sobel 2002). This approach is evident in the work of Robert Putnam, the best known proponent of social capital, and the key force behind the popularisation of the concept since the mid 1990s. Putnam's approach to social capital has become so ubiquitous as often to be treated as the 'standard' approach (Ponthieux 2004). This is no overestimation of Putnam's reach in sociology, where his impact has been widespread—as have criticisms of his work. To an extent unusual in academia, his impact is just as extensive in the political sphere—he has been referred to by *The Guardian* as British Prime Minister Tony Blair's "guru" (Hill 2001), and advised both US Presidents Clinton and Bush (Havard University 2004).

Following Granovetter (1973), Putnam proposes two main forms of social capital: 'bonding' social capital and 'bridging' social capital.[5] For Putnam, bonding social capital inheres in 'exclusive' networks such as "ethnic fraternal organisations, church-based women's reading groups, and fashionable country clubs", to which we might add the more obvious networks of family and close friends. Bonding social capital has much in common with Bourdieu's and Coleman's proposals, and is used to reinforce and "bind people from a similar sociological niche" (Field 2003: 65). Putnam's bridging social capital, conversely, inheres in 'inclusive' networks such as "the civil rights movement, many youth groups, and ecumenical religious

[5] Woolcock has more recently suggested a third dimension of social capital, 'linking' social capital, to describe 'vertical' relationships, such as that between employer and employee, or local member of parliament and constituent (Woolcock 2000).

organisations" (Putnam 2000: 22), to which we might add collegial, professional and civic groups. Bridging social capital allows for reciprocity between socially non-homogonous groups—as the name implies.

Putnam's addition of bridging social capital to the popular literature on social capital marks an important turning point in the social capital narrative. While the idea precedes Putnam, it is primarily through his work that the importance of ties to open networks has reached into the policy arena. The ideas underlying bridging social capital are perhaps most compellingly illustrated by the work of Mark Granovetter in the early 1970s. Granovetter distinguished between the utility of strong, closed, bonding ties and weak or bridging ties, especially when we need access to new information, such as when looking for a new job. Each individual has a group of close friends, a "densely knit clump of social structure." So too will an individual have a set of acquaintances, each of whom will have their own close friendship groups. Granovetter argues that the tie between an individual and an acquaintance is "not merely a trivial acquaintance tie but rather a crucial bridge between … two densely knit clumps of close friends…" Granovetter concludes that, on this basis, "individuals with few weak ties will be deprived of information from distant parts of the social system and will be confined to the provincial news and views of their close friends" (Granovetter 1983: 202). Not only will a paucity of weak ties hamper an individual in their ability to access new information and views—a society lacking in weak ties between its members will "be fragmented and incoherent" (ibid).

In an empirical study investigating how people use social networks when looking for work, Granovetter found that:

> …if weak ties are defined by infrequent contact around the time when information about a new job was obtained, then professional, technical, and managerial workers were more likely to hear about new jobs through weak ties (27.8 percent) than through strong ones (16.7 percent), with a majority in between (55.6 percent).
>
> (Granovetter 1983: 205)

Citing Granovetter's work, Putnam (Putnam 2000: 23) suggests that "Bonding social capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40". While other studies have questioned the import of weak ties over strong ties in job seeking (Korpi, 2001, for example, remains unconvinced), in general the distinction between bonding and bridging social capital has been widely accepted (Field: 66), and a number of studies have confirmed the importance of bridging relationships in matters such as entrepreneurial success (Ledeneva 1998).

According to Putnam, the breadth of social issues which are affected by social capital are extraordinary. In his 2000 monograph, *Bowling Alone: the Collapse and Revival of American Community*, Putnam presents a dazzling array of surveys and studies, the results of which point, he believes, to a widespread decline in community connection across the US, from a starting point around the 1960s-1970s. His vast range of indicators include declines in: presidential voting, participation in campaign activities, political and community participation, membership of chapter based associations, membership of Parent Teacher Associations, religious participation, union membership, membership of professional associations, entertaining friends at home, social visiting, family dinners, philanthropic activities, volunteering, generalised trust, observance of stop signs, and, of course, a decline in league bowling. Against this overall decline, he tracks a rise in solitary activities, particularly television viewing, and a tendency for each generation since the Second World

War to be progressively more disengaged from their communities than those before them. Putnam labels this progressive disengagement a decline in social capital, using indicators such as measures of community organisational life, engagement in public affairs, volunteerism, sociability and trust to map social capital across the US (Putnam 200: 291). This last set of measures indicates social capital to be highest in the Mid-West and lowest in the Mississippi Delta (Putnam 2000: 293).

Yet amongst the ocean of indicators Putnam deploys, it is difficult to isolate precisely what he believes social capital to be. Like Coleman, upon whom he draws heavily, Putnam's social capital is a somewhat vague entity:

> Whereas physical capital refers to physical objects and human capital refers to properties of individuals, social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them. In that sense social capital is closely related to what some have called "civic virtue." The difference is that "social capital" calls attention to the fact that civic virtue is most powerful when embedded in a dense network of reciprocal social relations. A society of many virtuous but isolated individuals is not necessarily rich in social capital.
>
> (Putnam 2000: 19)

Whereas Coleman usually referred to social capital as a possession of individuals, sometimes conflating it with the relationships which for him are its source, Putnam here goes further, explicitly contrasting social capital, which he sees as property of collectives—"connections among individuals"—with personal properties such as human capital. Portes' criticism of Coleman, that he "[sets] the stage for confusion in the uses and scope of the term" are borne out in Putnam's definition of social capital as all three of 'connections,' 'networks,' and 'norms,' leading Ponthieux to complain that in this context, "…the theory is mostly a tautology, assessing that groups of individuals who have a high propensity to cooperate, or a high propensity to trust each other, will achieve common goals more easily than those who are not gifted with these skills" (Ponthieux 2004: 19).

Ponthieux's criticism is close to the mark. For the social capital winners, life is good, and for the losers, crime, suicide and sadness are not uncommon, as Putnam has not been shy of asserting:

> School performance, public health, crime rates, clinical depression, tax compliance, philanthropy, race relations, community development, census returns, teen suicide, economic productivity, campaign finance, even simple human happiness—all are demonstrably affected by how (and whether) we connect with our family and friends and neighbours and co-workers
>
> (Putnam, 2000b).

In seeking to operationalise social capital by linking so many indicators of community cohesion and civic behaviour under the umbrella of 'social capital,' while denying, or at least avoiding as much as possible, a down side, Putnam creates an apparently measurable and discrete entity, compelling in its simplicity. It is not surprising that 'Putnamian' social capital has been taken up by policy makers who share his concern in the decline in civic solidarity. UK Prime Minister, Tony Blair, for example, has made social capital a core element of his New Labour 'Third Way' politics, claiming: "We have always said that human capital is at the core of the new economy. But increasingly it is also social capital that matters too - the capacity to get things done, to cooperate, the magic ingredient that makes all the difference" (Blair 1999).

The application of social capital in public policy is the subject of the following chapter. Before investigating the manner in which Putnam's social capital has entered the public policy arena, we discuss some of the most compelling criticisms of Putnam's rendering of social capital, and sum up with a more general comparison of the three key social capital theorists discussed above.

Critiques of Putnam's social capital

Putnam's measurements have been subject to serious criticism. Fischer, for example, tests the fundamental claim underlying Putnam's thesis: that there is an entity called 'social capital,' the prevalence of which is correlated to levels of trust, voting, volunteering etc. Fischer reasons that if trust, voting, volunteering, etc are positively correlated with the entity 'social capital,' then they should also be positively correlated with one another. His findings are far from promising:

> I briefly tested the assumption of "social capital" coherence in a quarter-decade of GSS [General Social Survey] surveys. …I took seven presumed indicators – trusting most people, voting, church attendance, belonging to organizations, socializing with neighbours, socializing with friends outside the neighbourhood, and giving money to charity – and asked whether respondents who reported doing one tended to also report doing another. The answer is: not really. The strongest association is between reported church attendance and reported membership in organizations (r = 0.27). Some items are unrelated, such as voting and getting together with neighbours (r =.0.01). As to "norms of . . . trustworthiness that arise from (social networks)" [citing Putnam 2000: (p. 19)], the correlations of trust with seeing neighbours and friends are about zero... If one used such items to create a "social capital" scale for individuals, it would be a very poor one by typical standards.
>
> (Fischer 2005:158)

Fischer also criticizes the underlying hyperbole in Putnam's rhetoric, complaining that, for example, "he describes a change, say from 10 to 8% in some activity, as a formidable "twenty percent" decline, when it really is a two-point and perhaps marginally significant decline" (Fischer 2005: 156). Others attack the apparently vague nature of the link between 'social capital causes' and 'social capital effects'. Fine complains that: " The crudity of such studies cannot be over-emphasized: they speculate about a few casual relations and then seek to demonstrate their validity through a statistical exercise" (Fine 1999a: 6).

Putnam and those who follow him tend to rely heavily on findings drawn from the General Social Survey (GSS). The GSS, a US survey, along with the World Values Survey (WVS), which is international in scope, measure levels of trust. Both the GSS and WVS ask the question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" In a criticism similar to Fine's, but far more penetrating, Englebert argues that such trust measures by no means demonstrate that trust is a causal factor in economic success, as claimed by Putnam—it is more plausible that the causal relationship runs in the opposite direction:

> The measurements of social capital in most quantitative studies also raise questions. Several of the authors who identify positive effects of social capital on growth or on institutional efficiency use trust indicators as their measure of social capital. These indicators are based on the World Value Surveys, which ask respondents whether people can generally be trusted or whether you can never be too cautious. The problem with these trust effects, as opposed to associative effects, is that they are as likely to be

> induced by growth and institutional quality as to induce them, making it essentially impossible to assert their exogeneity. The possibility that social trust could in fact be a function of growth or institutional quality is reinforced by the fact that the measurements of growth, usually estimated over several decades, often predate the trust indicators… These data can be read, therefore, to suggest that people trust institutions that perform well, and not only that institutions perform well when people display high levels of trust.
>
> (Englebert 2001:7)

Criticisms like Englebert's lead us back, again, to Portes' warning about the problems we encounter when what we are referring to when we say 'social capital' is not made clear. Not only is the direction of the causal relation largely hidden, but the vague ties between (following Portes) (a) the possessors of social capital (those making demands); (b) the sources of social capital (those agreeing to these demands); and (c) the resources themselves, mean it is hard to locate the entity we are measuring in the first place. Dasgupta laments the lack of clarity in the definition of social capital when measures are undertaken: "it [social capital] is fiendishly difficult to measure. This is not because of a recognised paucity of data, but because we don't quite know what we should be measuring" (Dasgupta, 2000, p.1). Ponthieux similarly complains that, "curiously, even though the promotion of social capital stands largely on empirical arguments, underlining the correlation between high 'stocks' or 'levels' of social capital and any type of desirable outcome, it appears that no one knows exactly how to measure it - or rather that it can be measured in so many ways that tests end mainly in spurious results" (Ponthieux 2004: 2).

The sunny list of the 'goods' Putnam believes social capital to bring (school performance, public health, tax compliance, philanthropy, happiness) to communities hints at the normative tendencies in Putnam's rendering of social capital, tendencies which become confused when he tries to make clear what, for him, social capital is. On the one hand, we measure 'stocks' of social capital, as if the connection with economic capital were analytic; as if we were measuring, for example, which US State had the highest rate of personal savings. On the other hand, when we discuss the indicators of areas with high 'stocks' of social capital, the notion of the capital itself collapses to a merely analogical relationship with economic capital. Just like money, social capital can buy us 'good things': in Putnam's case these include health, safety from crime, and even happiness. On this reading, though, social capital is only 'like' economic capital. Economic capital leads not just to good things (holidays, new cars, philanthropy) it also leads to social ills: nepotism, abuses of power, etc. In Bourdieu, the connection between economic and social capital remains analytic precisely because both economic and social capital are forms of the one entity: capital (power). Because Putnam tends to confuse indicators with the thing indicated, social capital cannot, for him, help but be a social good. This is so because he measures it as an accumulation of social goods.

Gamarnikow and Green, for example, put this problem in terms of Putnam's conflation of social capital with formations of democracy:

> Putnam *et al.*'s social capital is a normative concept, linked explicitly to specific formations of democracy and democratisation. Thus, all communities have social networks, but not all of these networks are productive in terms of social capital.
>
> (Gamarnikow and Green 1999: 9)

In the work of Francis Fukyama, a sometime disciple of Putnam's, this tying of social capital to 'goods' only is explicit:

> Not just any set of instantiated norms constitutes social capital; such norms must lead to co-operation in groups and therefore are related to traditional virtues like honesty, the keeping of commitments, reliable performance of duties, reciprocity, and the like. A norm like the one described by Edward Banfield as characterising southern Italy, which enjoins individuals to trust members of their immediate nuclear family but to take advantage of everyone else, is clearly not the basis of social capital outside the family.
>
> (Fukuyama 2001: 7-8)

Fukayama continues:

> A society made up of the Ku Klux Klan, the Nation of Islam, the Michigan Militia, and various self-regarding ethnic and racial organisations may score high in terms of average group size, numbers of groups, and cohesiveness, yet overall it would be hard to say that such a society had a large stock of social capital.
>
> (Fukuyama 2001: 8)

For Bourdieu (setting aside for the moment his tendency only to apply social capital to more traditional elite groups) we would indeed say that the Ku Klux Klan etc had very high stocks of social capital; that members are embedded in a "durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (following Bourdieu 1986:248). Nor would we be surprised at the manner in which Klan membership is reproduced in succeeding generations of families (this last applies particularly to mafia membership). While Putnam mentions this difficulty in passing, he merely notes that "No sensible theorist has ever claimed that *every* group works to foster democratic values" (Putnam 2000: 340). Putnam's failure to adequately address such issues, in particular nepotism, which lies at the heart of Bourdieu's understanding of social capital, is a fundamental flaw in his work.

This is the most significant effect of Putnam's transformation of social capital from a personal asset to a group or community asset: that it strips the concept of its utility as a measure of personal power, and therefore as a way of explaining and understanding social exclusion. Englebert comments:

> Whereas Bourdieu, by describing the social relations that an individual can mobilize to his benefit, suggested a mechanism for the reproduction of class relations, Putnam offers a theory of social capital that ignores and bypasses class divisions.
>
> (Englebert 2001: 2)

Such criticisms point to an important ontological difference between social capital as defined by Bourdieu, and social capital as defined by Putnam. For Bourdieu social capital is an individual 'asset'— "*resources* which are linked to *possession* of a durable network…" (my italics) by individual members of a group. It is an asset which is conceptually inseparable from the individual to whom it belongs. It is *my friendship* with the local bank manager which is the asset, not the bank manager herself. Nor would it be true to say that 'friendship' is the object of value for Bourdieu—it is *my friendship* with the bank manager, and what *I* can leverage from that friendship, which is of value. Thus social capital, as form of capital, is also an instantiation of an individual's power or potential.

Conversely, for Putnam, social capital is a quality of communities, and is quantifiable as an independent entity. It is the "features of *social organisation* such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions" (my italics). As an asset of a group rather than an individual, social capital becomes an object in

its own right; it is shifted "from a framework for theorizing capital and its attendant power relations to the contestable notion that social capital can be discussed as a singular entity" (Wilson and Chiveralls 2004: 5). It is unsurprising, then, that Putnam's major work, *Bowling Alone*, is devoted almost in its entirety to measuring social capital, its rise and fall in the broad American community over time, and the relative 'amounts' of it residing in cities and regions. It is true that Bourdieu insists that the various forms of capital are subject, between themselves, to a 'rate of exchange,' suggesting an inherent quantifiability, but again, that quantifiability is attached to the individual owner of the capital—my friendship with the bank manager may be convertible to an $*n* reduction in the cost of my personal loan, but your friendship with the bank manager may be worth somewhat less (or more). Putnam's attempt to measure levels of social capital from city to city is a vastly different enterprise.

Other contributions

Before concluding, a caveat: we discuss above the major contributions to the development of the concept of social capital, as well as the key criticisms which have been levelled at these contributions, however the work of Bourdieu, Coleman and Putnam by no means exhausts the diversity of 'social capitals' which have been contributed by theorists. For example, the World Bank (which we discuss in some detail in the following section) has recently taken up an approach to social capital proposed by development theorist Norman Uphoff. Uphoff approaches the elements comprising social capital differently again:

> What constitutes social capital cannot be settled simply by offering a definition since definitions, while needed, offer no solution. Two hundred years ago, we could hardly have discovered what constituted physical capital simply by agreeing on how to define it. …We need to focus on components, relationships and results that can be evaluated in real-world development experience. Social capital needs to be addressed in terms of (a) what its constituent *elements* are, (b) what the *connections* are that exist among these, and (c) what *consequences* can be attributed to these elements and their interaction. The Biblical exhortation, "By their fruits ye shall know them," is highly relevant here.
>
> (Uphoff 2000: 216-17)

Uphoff goes on to distinguish between two kinds of phenomena associated with social capital: the *structural*, which includes kinds of social organization, such as "roles, rules, precedents and procedures," and the *cognitive*, which includes mental processes such as "norms, values, attitudes and beliefs." For Uphoff, these phenomena constitute "mutually beneficial collective action (MBCA), in the case of the structural, by facilitating MBCA, and in the case of the cognitive, by predisposing people towards MBCA" (Uphoff 2000: 218).

Social capital remains a theory in transition. In its most popular and public renderings, it is barely a teenager. Following the interdisciplinary convergence towards a consensus that social capital was real and important in the 1990s, and the fragmentation and critique of the ideas surrounding (Putnam's) social capital in the first half of the 2000s, we may yet see a redefinition and refinement of the concept. It is difficult to tell at this stage to what extent newer contributions like Uphoff's will take root.

Summing up: Bourdieu, Coleman and Putnam

A Bourdieuvian treatment of social capital mitigates many of the problems of measurement that confront Putnam. By treating social capital as the relative power an individual commands by virtue of their membership of various social networks, we can to some extent

rescue what is useful in the social capital enterprise: the possibility of explaining differences in the success of two apparently equally placed individuals (in the sense of wealth, class and educational opportunities) through an appeal to the social power they are capable of wielding. Of course, the idea is nothing new—Bourdieu's social capital is essentially part of a neo-Marxist understanding of power relations, as Fine has pointed out:

> As Marx and Marxists, for example, have long insisted, economic 'capital' is not a thing in the first place but is already social, global, exploitative, and embedded, to coin a phrase, in broader relations of which the state forms a part. The social can only be added to capital if it has been illegitimately excluded in the first place.
>
> (Fine 1999a: 16)

What is important in Bourdieu's rendering of the forms of capital is his focus on the import of the role played by 'hidden' forms of capital, rather than just the more commonly understood forms of mercantile and productive exchange.

Bourdieu, of course, is mostly interested in social capital as a means for elites to reproduce the class system. In a Marxist sense, he is primarily interested in the capital of capitalists; what we might once have termed the proletariat are defined by the absence of their access to capital. Coleman offers us a way out here. While Coleman creates some confusion between the possessors, sources and resources of social capital, his claims for the efficacy of social capital amongst the disadvantaged are compelling. Just as social capital, following Bourdieu, can help us explain how non-mercantile resources are useful to elites, so it can help us explain the differentiated opportunities of the less advantaged. Gamarnikow and Green summarise the possibility clearly:

> Unlike cultural and economic capitals which are distributed unequally, social capital is ubiquitous, but subject to hierarchical valorisations of particular social capitals manifested in class-specific forms of sociability and networks. The universality of sociability and networks obscures their intrinsic differential performativity: lower class networks are as plentiful and varied as middle class ones, but less productive of socially and economically successful outcomes [following Portes, 1998].
>
> (Gamarnikow and Green 1999: 7)

By defining social capital as the 'differential performativity' of the networks individuals belong to, we are left with a potentially powerful analytical and explanatory framework for the construction of public policies. Not only does such social capital explain, at least in part, the reproduction of the social system, but it can also help us to understand differences between otherwise equally placed actors at any point of the class spectrum.

In practice, however, the explosion in the use of social capital by public policy bodies has tended to focus on Putnam's model, with its attendant tautologies and conceptual difficulties. The OECD (2001), World Bank (1998) and, locally, the Productivity Commission (2003) and Australian Bureau of Statistics (2004), have all undertaken large-scale projects in the measurement of social capital. At the community level, community groups and councils are also using the concept to assess their own social capital 'assets.' In Britain, the Blair government's Performance and Innovation Unit has investigated ways in which stocks of social capital may be measured, as well as the 'policy levers' that may be available to the government to "promote the accumulation of social capital for beneficial purposes at the individual, community and national level" (Performance and Innovation Unit 2002: 7). In the main, these frameworks follow Putnam's model closely, measuring the proportion of a population which volunteers/trusts/votes/helps; as well as network density and formation

(bridging, bonding, linking). These indicators are not necessarily problematic in themselves. It is when we use indicators of individuals' network memberships to make claims about whole communities, or to blame those who 'fail to get ahead' for not using their supposed access to some ubiquitous social resource, that we see the down side of the Putnamian approach in action.

The chart below tracks citations of Bourdieu, Coleman and Putnam in articles on social capital since 1988. Small numbers of articles citing Bourdieu and Coleman are apparent in the late 1980s, with thirty academic articles on the topic of social capital in 1996, the year after Putnam released *Making Democracy Work*, after which the idea—and the citation rate—take off, rising steadily to 312 articles in 2005.

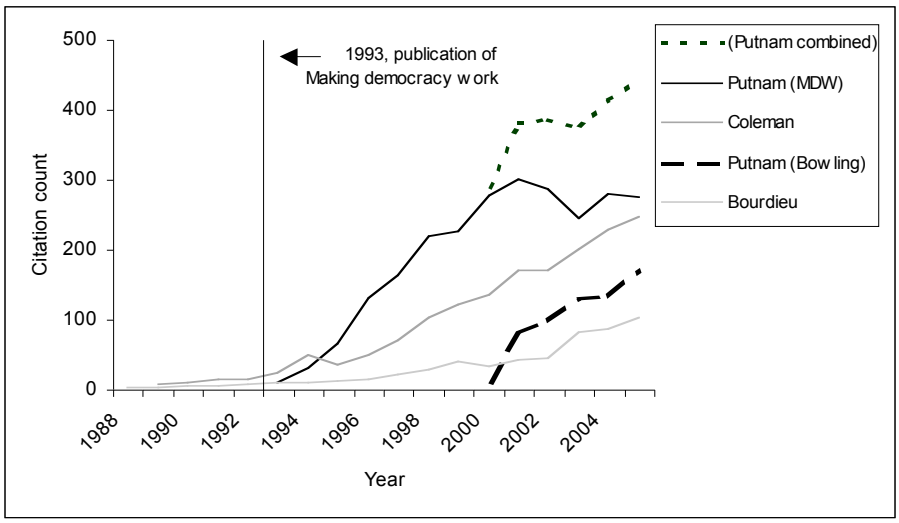

Figure 2:
Publication rates (n) of papers on social capital, undertaken using Social Sciences Citation Index, 12/10/06.

It should be little surprise then, given the success of Putnam's (and Coleman's) work in the academic literature, that it is also the most ubiquitous in the public policy literature. Following from the passage quoted above, Gamarnikow and Green conclude:

> Current orthodoxies of social capital literature, in line with Third Way thinking, abstract society from economy and assume a universal and undifferentiated form for social capital, potentially available to all. The effect is to link outcomes to presence or absence of social capital, rather than to the unequal productiveness of different social capitals.
>
> (Gamarnikow and Green 1999)

Public policy approaches, such as the Third Way, are the subject of the following chapter. From a policy perspective what we need to know is "what does the membership of a network bring to an individual: what opportunities, abilities or obstacles? How does an individual's position in the social matrix determine their ability to participate in society?" These questions are about the relative productive value of social ties, and the relative privileges such ties bring. As such they are questions of power. Reinstating Bourdieu's reading of (all forms of) capital as power reinvigorates the idea of social capital, and makes it a far more valuable tool in the construction of social policy, describing not only the density and kinds of networks individuals belong to, but also the relative value of those networks to their constituents.

II Social capital and social policy: An international context

"'Social capitalism'" complains Joel Sobel (2005: 157), "has expanded in all directions like a swamp in wet weather". Indeed, over the last decade and a half the language of social capital has been embraced by politicians, academics and social commentators from across the political spectrum. For British Prime Minister Tony Blair, social capital's powers border on the miraculous:

> We have always said that human capital is at the core of the new economy. But increasingly it is also social capital that matters too - the capacity to get things done, to cooperate, *the magic ingredient* that makes all the difference.
>
> (Blair 1999, our italics.)

Blair's enthusiasm is echoed by the World Bank: "Social capital is not just the sum of the institutions which underpin society – it is the glue which holds them together" (World Bank web site, quoted Harriss 2002: 83).

Sometime Republican commentator Francis Fukyama makes a more practical, but somewhat bolder claim. "Social capital," says Fukyama, "is important to the functioning of modern economies, and is the *sine qua non* of stable liberal democracy" (Fukyama 2001: 7). The link between social capital and economies is made by many: it "creates local economic prosperity" (Wilson 1997: 745); "promotes economic growth" (Lang and Hornburg 1998: 745), and is "the base … on which economic growth depends" (Cox 1995).

In Australia, ousted ALP leader Mark Latham laments in a lecture to young people:

> This is the savage trade-off of middle-class life: generating financial wealth but at a significant cost to social capital. Thus social exclusion needs to be understood as more than just financial poverty; it also involves the poverty of society, the exclusion of many affluent Australians from strong and trusting personal relationships.
>
> (Latham 2005)

Yet social capital is not only a concern of the left. Australian conservative policy commentator Kevin Donnelly claims social capital as a conservative entity:

> [The] natural home of social capital – those features of social life, networks, norms and trust that enable people to act together more effectively to pursue shared objectives is on the conservative side of politics.
>
> (Donnelly 2003.)

A catch-cry of 90s 'Third Way' politics, and an issue de jour for sociologists, community workers, economists and business, social capital has, as Sobel says, 'expanded in all directions.' Here we build upon the theoretical discussion of social capital in the previous section, investigating two case studies: Education Action Zones in the UK, and the World Bank's approach to social capital in the 1990s and early 2000s. Our focus on these two case studies should not create the impression that there are only a limited number of social capital projects in the community development and public policy arenas—indeed, there are so many it would be impossible to provide even a guesstimate of the number of projects underway

across the globe.[6] These two case studies have been chosen as (1, Education Action Zones) an example of a project with strong social capital credentials undertaken by a national government and directly pertaining to education, and (2, the World Bank) an example of perhaps the most large scale social capital community development set of programs, undertaken by a truly globalised and multinational consortium of 184 member countries—and one which happens to be closely connected to Putnam personally.

New Labour, the Third Way and social capital: The case of Education Action Zones

British 'Third Way' politics in general, and Education Action Zones (EAZs) in particular, are of obvious relevance to our project, as they provide a case study in policy implementation practices constituted on a social capital basis. Here, we explore the 'social capital experiment' of Education Action Zones in some detail, looking at the philosophical tensions underlying EAZs, their failures and successes.

The language of Putnamian social capital has been woven through the policy rhetoric of the Blair government in Britain since it came to power, playing a fundamental role in Third Way ideology:

> This is the Third Way – a modernised social democracy for a changing world which will *build its prosperity on human and social capital*.
>
> (Blair, 1998, our emphasis, cited Gamarnikow and Green 1999: 6)

At first glance, the importance of the social capital of communities to Third Way ideology seems to be an explicit rebuttal of Thatcher's question: "what is society? There is no such thing! There are individual men and women and there are families" (Thatcher 1987). As we shall see, however, at least in the case of Education Action Zones, Third way policy initiatives do not necessarily rely heavily on the benefits to communities of their citizens' social capital, but rather impose upon communities the social values of professional organizations, government bureaucracies and, in some instances, large corporations. Moreover, even the social capital of the family is rejected, with disadvantaged families being treated as lacking in social capital, and blamed for that lack.

Education Action Zones

Education Action Zones were introduced in Britain by the Blair government in 1997, touted by the British Department for Education and Employment (DfEE) as the "standard bearers in a new crusade uniting business, schools, local education authorities and parents to modernise education in areas of social deprivation" (DfEE, quoted Power and Whitty 1999: 542) The rational for the Zones appears to have been developed over a series of conversations in the months leading up to the 1997 election, involving political advisors, shadow ministers, and Labour-friendly academics (Power *et al.* 2004).

Each Zone comprised around 20 schools (both secondary and feeder primary schools), and was selected on the basis of competitive bids. Each Zone was to be run as a partnership between local council authorities, businesses, voluntary organisations and community and school representatives (comprising the Zone's 'Education Action Forum'). By April 2000, 73

[6] Following the contemporary fashion of judging the popularity of ideas, 'Googling' the term 'social capital' yields 1,310,000 hits.

Zones had been implemented across a range of rural, urban and city localities, and served 1,444 schools—approximately 6% of the school population of England (National Literacy Trust 2006). The Zones had an initial government funding scope of three to five years at £750,000 per annum for first round zones, and £500,000 plus supplementation of up to £250,000 per annum in matched funding for sponsorships and in kind support (Power *et al.* 2004[7]). In late 2001, the scheme was phased out through incorporation into the Excellence for Schools Initiative (National Literacy Trust 2006).

Education Action Zones were a key plank in the Blair government's 'Third Way' politics of 'joined-up solutions' to 'joined-up problems', underpinned by Puntamesque notions of social capital and community building through business, voluntary and stakeholder networks. As well as the partners comprising the EAF, it was hoped that the Zones would 'draw in local and national agencies and charities involved in, for example, health care, social care, and crime prevention' (DfEE, quoted Power *et al.* 2004: 454). Schools in EAZs were also able to dispense with the National Curriculum (Gillard 2004).

Education Action Zones, along with Health Action Zones and a number of other Blair government initiatives, are part of a larger drive under Third Way ideology to pursue public-private partnerships, which are seen to steer a line (a 'third way') between the unwieldy bureaucratisation of the welfare state of past Labour practices, and the unbridled free-marketeerism of the Tories. Shortly after coming to power, Blair put the proposition that partnerships were the future of local-level government clearly:

> The days of the all-purpose [local] authority that planned and delivered everything are gone. They are finished. It is in partnership with others – public agencies, private companies, community groups and voluntary organisations – that local government's future lies. Local authorities will deliver some services but their distinctive leadership role will be to weave and knit together the contribution of the various local stakeholders.
>
> (Blair, *Leading the Way: A New Vision for Local Government*, cited Lowndes and Sullivan 2004: 53)

The Putnamian social capital intent of community building is strong in the language of public-private partnerships, and underpins the ideology of the Education Action Zone. The language calls to mind a diverse community coming together as equal partners to work towards a greater good—a worthy vision. But are such partnerships really formed between equals, or are they just dressing up the mutton of business-led free-marketeerism as the lamb of a civil society? In their précis of the public-private partnerships which have been encouraged by the Blair government, Lowndes and Sullivan (2004) reflect on the disparities of power which in practice comprise such partnerships at the committee level. Of Health and Education Action Zones' governing body members they interviewed as part of their study, they say:

> …issues of power overlay issues of difference: councilors often feel they can play the 'trump card' of their electoral mandate, while community organisations are constantly questioned about their 'representativeness' and 'accountability'. Research on local

[7] Power, Whitty, Gewirtz, Halpin and Dickson (2004) undertook a large scale state funded research project into Education Action Zones, covering a substantial portion of the lifetime of the Zones (May 1999 until October 2002). Their report "Paving a 'third way'? A policy trajectory analysis of education action zones" (Power et al 2004) documents interviews with initiators and stakeholders of the scheme, as well as analysis of student performance data. Their findings inform much of the discussion which follows.

> partnerships suggests that, unsurprisingly, 'the big players write the rules', while pressure is exerted upon citizens' representatives to 'get up to speed'... [The] existing arrangements of local governance confer power upon certain actors at the expense of others and, moreover, are deeply embedded through informal norms and conventions"
>
> (Lowndes and Sullivan 2004: 65).

Nor did these power imbalances merely play out through personal conflicts. The effects of the imbalances were also present in the outcomes of partnership deliberations:

> A survey for the government found that only one-third of local authorities considered public participation to have a significant impact on final decision-making... The Audit Commission found that three-quarters of the 'best practice' authorities it surveyed failed to link the results of consultation with decision making processes. Recently completed research into public participation in local partnerships in England found that there were few significant policy outcomes following the experience of deliberation …
>
> (Lowndes and Sullivan 2004: 64)

Gamarnikow and Green conclude in their 1999 study of Education Action Zones, "[the] Social networks [of Education Action Forums] are effectively networks of professional providers" (Gamarnikow and Green 1999: 16). The fact of members of a committee—any committee—bringing different levels of power and influence to the table may at first seem relatively benign. If the matter is merely that the old bureaucracies of council employees and elected officials over-ride the voices of residents and average citizens we might conclude that, under the partnership model, we are merely rebranding the status quo. However, partnerships such as EAZs do not just comprise the old duopoly of elector and elected—they bring business out of the lobby and right up to the decision-making table. While the influence of business upon much of political life is nothing new, the legitimacy given to business as partners in social projects is new, and should not be underestimated.

While most Education Action Zones have schools or Local Education Authorities as their lead partners (Gamarnikow and Green 1999; Power *et al*. 2004), big business also plays a key role. The Lambeth Zone has Shell as a lead partner (Gamarnikow and Green 1999; Monbiot 2000). Other business involvement includes: weapons manufacturer British Aerospace in Hull, Plymouth and Teesside; Tesco in Herefordshire; ICI in Blackburn; Cadbury Scweppes in Birmingham; Kellogg's in Salford and Trafford, and McDonald's in Dudley, Teesside and North Somerset (Monbiot 2000). Other sponsorship partners included Blackburn Rovers, Nissan, Rolls Royce, American Express and Brittany Ferries (Gillard 2004). While it may be overly alarmist to suppose that large multinational corporations cannot have a non-partisan community focus, it is difficult to see how a parent representative or a representative from a local voluntary association can wield the same kind of power around the partnership table as a representative of Shell.

In practice however, the inclusion of businesses in EAFs seems not to have been as disastrous as some critics at first expected (Gamarnikow and Green 1999). Indeed, the Power *et al.* case studies revealed a marked apathy from business partners:

> Far from spearheading a post-Fordist or post-modern transformation of schooling,… the most striking thing about business involvement was its banality. In our case study EAZs, there was little evidence that businesses had the capacity, energy, creativity, and know-how to transform education in socially disadvantaged areas in the radical manner originally envisaged. Nor did the far-reaching commercialization of the curriculum feared by critics materialize, although we did identify isolated examples of under-

> resourced teachers feeling under pressure to use materials promoting the products of their commercial sponsors.
>
> (Power *et al.* 2004: 462)

While the level of interference in schooling observed by Power *et al.* did not result in more than "teachers feeling under pressure" to use promotional products in the Zones they studied, there is a need to be extremely cautious about the introduction of such materials into the curriculum. In his 2000 study of corporatisation in Britain, pot-stirrer George Monbiot cites a number of troubling examples of such materials in the US:

> The US Consumers' Union studied sponsored teaching packs distributed to schools by some of America's biggest corporations. Nearly 80% of packs, it found, 'contained biased or incomplete information, promoting a viewpoint that favours consumption of the sponsor's product or service.' A pack produced by Proctor and Gamble, for example, suggested that the clear-felling of forests 'mimics nature's way of disposing of trees'… An education pack produced by American Coal Foundation maintained that 'the earth could benefit rather than be harmed from increased carbon dioxide'. (Monbiot 2000)

In Britain, a teaching pack from Cadbury's told children "Chocolate is a wholesome food that tastes really good. It is fun to eat at any time of the day and gives you energy and important nutrients that your body needs to work properly" (ibid.). Packs supplied by British Nuclear Fuels asked children: "Accidents happen all the time. Can you think of some accidents that have happened in school, at home, or locally?" (ibid.).

The reason partnerships models can be problematic, in the sense so devastatingly painted by Monbiot, is that they can ignore the power relations which underpin Bourdieu's rendering of social capital. They aim to provide enhanced opportunities for students, but these opportunities are not socially neutral. The big corporations at the table have more social capital clout simply because they have more power. Their gifts are laden with their desire to increase their power—hence advertising in school books. It is difficult to believe that parents or communities would, of their free choice and given an alternative, prefer these kinds of promotional tactics to be used in education packs. It is more disturbing that it is disadvantaged schools who rely on such packs. When the choice is between no books or advertisement-riddled books, what other choice is there? Again, the relative power of business at the 'partnership' table should not be taken as benign—the welfare state may simply be replaced by the commercial state.

The pressing question from a philosophical point of view is, how can these power imbalances be accepted within a rhetoric of sharing and social capital? The answer lies in Third Way politics' reliance on a Putnamian construction of social capital, which tends to focus on the presence or absence of social capital, rather than (following Bourdieu) the differentiated potential productivity of the social capital of groups of individuals. If social capital is seen as 'present or absent' rather than more or less productive of advantageous connections or outcomes, it is easy to suppose all players in a group, community, or even nation to be on some kind of equal footing. 'Losers,' then, have only themselves to blame.

A key difficulty with the ideology underlying Education Action Zones is that, rather than understanding social conditions as being in part an effect of economic conditions, the version of social capital theory pursued under Third Way ideology sees social conditions as preceding and determining economic conditions. Put another way, if a group is poor, it is to some extent because of its 'lack' of social capital. Therefore, the obvious way to redress the

economic disadvantage (or deficiency) is for the state to undertake activities (such as EAZs) which directly intervene in the social world of citizens (Gamarnikow and Green 1999). Such an approach denies the value of the social networks of disadvantaged groups, effectively rejecting the very existence of those ties. The paternalistic approach of blaming the disadvantaged for their own disadvantage brings with it the language of the strict parent-state:

> Our aim is excellence for everyone. If this is to be more than rhetoric, then persistent failure must be eradicated. Hence our commitment to zero tolerance of underperformance.
>
> (Secretary of State for Education, 1997: 9-10, cited Gamarnikow and Green 1999: 12)

Such language is replicated in an application for an EAZ:

> Given the prevailing local culture it is not surprising that many teachers have low expectations of both pupils and parents and vice-versa.
>
> (Newham EAZ bid, 1998: 37, cited Gamarnikow and Green 1999: 15)

With regard to the first quote above, it is impossible not to ask the obvious question: How can we logically have excellence for everyone? Without wanting to create a straw person and simplistically lambaste a statement which is prima facie faintly ridiculous, the idea of 'excellence for everyone' does indeed seem to lie at the core of the Putnamian social capital enterprise: some communities have high stocks of social capital, some (predominately poor) communities have low stocks. The aim is to undertake policy initiatives that help raise the deficient communities up to the standard of the well-performing communities. What is missing, however, is the notion of winners and losers, powerful and powerless—in fact the very social stratification which lies at the heart of Bourdieu's social capital discussion. As Gewirtz argues in her review of British New Labour Education programmes:

> …not everyone can be 'successful' or achieve 'excellence' because there are only a limited number of schools or jobs that are deemed to be 'excellent'. So long as hierarchies of schools and jobs exist, the middle classes will always find ways of getting the best out of the system, of ensuring that their cultural capital is more valuable than that of any working-class competitors.
>
> (Gewirtz 2001:373)

As we suggest in the previous section of this study, Coleman's studies, while in some ways theoretically problematic, at least demonstrate that social capital (and here we intend it in a Bourdieuvian sense) can be useful in understanding the differentiated opportunities available to otherwise apparently equally placed individuals, and that this can be achieved whether those individuals are elite, or not (here we deviate from Bourdieu). Where Third Way ideology, Education Action Zones and public-private partnerships fall down, is in supposing all players to be equally capable of accessing a readily available community social capital. If social capital is supposed to be there 'in' the community—waiting to be measured, waiting to be used—it is no surprise that policies arising from such a supposition will punish the deficient, expect 'excellence from everyone,' and result in the large and corporate undermining the individual and private.

Education Action Zones have now been disbanded. In their extensive study of EAZs, Power *et al.* conclude that little was achieved by the experiment:

> …neither the hopes nor fears surrounding the policy have been realized. The impact of the policy within zones has been limited and patchy. There have been instances of innovation and positive shifts in parents' perceptions, but these have not been matched by consistent improvements in pupil performance or embedded changes in classroom practice. Nor have zones brought about new and more democratic modes of educational governance.
>
> (Power *et al.* 2004: 469)

Two issues appear to have been key to the failure of EAZs to realize the outcomes expected of them. In the first instance, bureaucratic inertia within local government departments seems to have undermined the will to change, with non-community members of forums intent on maintaining their well-worn roles and responsibilities. A second reason, however, and one which may to some extent explain the first, is the failure to appreciate the real and different claims to power held by different groups in the partnerships. Had a key action of those implementing the scheme been to locate and address power imbalances, it may be that a different outcome would have been achieved in terms of community consultation. Whether this would have resulted in improved performances in schools is unclear. A similar level of inertia is apparent in the role played by corporate partners, with the up-side that many fears about the potential for a corporatisation of forums and schools were not borne out to a high degree. An investigation of EAZs allows us to observe the difficulties encountered when simplistic models of social capital are implanted into public policy formation.

The World Bank and social capital

The manner in which the World Bank has taken up the concept of social capital provides a fascinating example of the interplay between the implementation of theory-based practices, and bureaucratic pragmatism. Owned by 184 countries, lending $14.1 billion in 2006 alone (The World Bank 2006a: 3), and employing over 10,000 staff (The Word Bank 2006b), it is unsurprising that introducing a theoretical framework such as social capital to the Bank's development practices would be a contentious and philosophically fraught activity. To a great extent, the idea of social capital was watered down within 'World Bank speak' over the 1990s and early 2000s until it became such a nebulous entity as hardly to exist except as a new way of saying 'community.' On the other hand, some within the Bank argue that the social capital initiatives have introduced notions of power, class and agency to the discussions of its economists. A reading of the Bank's use of social capital over the last decade or so reflects in microcosm the broader social capital debate: an initial obsession with Putnam, a period of critique, and a (recent) realisation that notions of power and agency needed to be introduced to the debate, perhaps following Bourdieu.

Social capital has come to dominate the World Bank's understanding of development over the past decade, "identified as an integral component of social and economic development on micro and macro levels" (Word Bank 2002). The Bank's understanding of social capital has been driven largely by a Putnamian interpretation of social capital, and Putnam has himself been a member of social capital and development committees and an adviser at the Bank from time to time. In following Putnam, the Bank identifies social capital with 'networks' rather than individuals. The Bank's opening definition of social capital on the primary social capital page of its Poverty Net website reflects the close relationship Putnam has had with the Bank:

> *Social capital* refers to the norms and networks that enable collective action. Increasing evidence shows that social cohesion — social capital — is critical for poverty alleviation

and sustainable human and economic development.

(World Bank 2004)

The treatment of social capital as an entity that exists more or less independently of the individuals who utilize it is borne out in the Bank's (2002) social capital 'mission', where it is spoken of almost as if it is an endangered species of wildlife. This mission statement recommends that the Bank:

- Identify existing pockets of social capital and take care not to destroy them by disabling partnerships and breaking down social cohesion.
- Use local-level social capital and participation to deliver projects. For example, a cooperative credit system may function more smoothly among women who already have relationships and a history of networking together to reach common goals.
- Create an environment which enables social capital to thrive by providing infrastructure which helps people to communicate better and promoting rule of law which provides opportunities for recourse if partnerships or associations go awry.
- Invest in social capital directly and indirectly through participatory project design and implementation and fostering cross-sectoral partnerships for development.

(World Bank 2002)

The World Bank's interest in social capital began when it constituted a specialist committee on social capital in 1993, and invited Putnam to join the committee. A large-scale project, the "Initiative on defining, monitoring and measuring social capital," or Social Capital Initiative (SCI) was instituted in 1996, and wound up in 2000 (Francis 2002). This project supported projects across twelve countries, resulting in twenty-four papers and two books (ibid). Other World Bank initiatives have included a number of other books, several international conferences, the development of thematic groups within the Bank and an enormous website of source material. The Bank also developed a set of methodologies for measuring social capital, the Social Capital Assessment Tool (SOCAT). Social capital projects have been undertaken in numerous countries, although a 2002 overview of social capital at the Bank notes that "no Region has made social capital an orienting or strategic concept for its work" (Francis 2002: 7).

Bebbington *et al.* (2004) have analysed the history of social capital debates at the World Bank, and focus on the extent to which internal political factionalism at the Bank has shaped its discourse on social capital. Perhaps somewhat overplaying this hand, the authors argue that the Bank's approach to social capital can "only" be understood through its embodiment in the actions of individuals and groups within the Bank (Bebbington *et al*. 2004: 34). More pertinently, the authors argue that by failing to appreciate the impact of internal operations on the development of the social capital project(s) within the Bank, critics such as Harriss (2002) and Fine (2001) have "simultaneously overstated the operational significance of these [social capital] debates, understated the political significance of actual programmatic changes stemming from them, and mis-specified causal relationships in their production" (Bebbington *et al*. 2004: 34). The authors' contribution is particularly interesting as each has various ties to the Bank itself, in particular Scott Guggenheim and Michael Woolcock, who are employees of the Bank (Guggenheim as a Lead Social Development Specialist, and Woolcock as a Senior Social Scientist with the Development Research Group and co-chair of the Bank's Social Capital Thematic Group).

Critics of the Bank complain that the Bank's use of social capital is broadly neo-liberal and serves to obscure imbalances of power and class in developing states. Englebert exemplifies this view:

> The essentially apolitical nature of the theory as adopted by the World Bank may provide a first clue. Unlike Bourdieu's approach, the theoretical versions of Putnam and Coleman, preferred by the Bank, ignore class divisions and actually paint an image of social capital as a ferment of social cohesion because of its very capacity to bypass socio-economic differences. The societies described by these theories are thus essentially classless. They do not know disputes about the distribution of power, and the legitimacy of their regimes and institutions is never contested.
>
> (Englebert 2001)

For Englebert, though, these problems are far more grave than debates about theory. Because of the Bank's wealth and power, the matter is effectively one of life and death. He continues to the devastating conclusion that:

> Questions of weak state capacity, of corruption, of social conflicts, and even of genocide, are then explained away in terms of social trust and associative life without having to consider issues of power, resistance, politics and class.
>
> (Englebert 2001)

For Englebert, the apparently apolitical nature of the Bank's practices are in fact a mere disguise for the theoretical premises underlying its activities which are in fact neo-liberal. The 'apolitical' is not an absence of the political, but rather an overtly political position in which the decision is to ignore class divisions and the social ills that arise from them.

Indeed, one does not have to browse far into the Bank's research database to find examples that support Englebert's criticisms. A rather bizarre abstract for a paper on the Bank's Development site evinces some surprise that rich high caste and poor low caste Rahisthanis share similar social capital profiles:

> In their study of social capital in the Indian state of Rajasthan, Krishna and Uphoff …observed no relationship between caste and social capital, as higher caste villagers had the relatively same social capital index scores as the poorer households, and these were as likely to share norms and attitudes associated with higher social capital levels as their richer covillagers.
>
> (The World Bank, 2003)

It is hard to imagine that the different classes of villagers would be said to share similar 'levels' of social capital on the Index,[8] were matters of relative power and agency included in the measure (they are not).

Such a trite reading of social capital would seem to support claims like Englebert's, that the Bank has used social capital to 'depoliticize' its operations. While Bebbington *et al.* have some sympathy with these views, they do not see social capital as damaging the development aims of the Bank, since the Bank was not much concerned with class and power in the first place:

[8] The Index in question, in Krishna and Uphoff (1999) is not quite standard (see also part on Uphoff in the preceding section of this report), and comprises five survey questions, three of which ask which network's members undertake various roles in the village, and two which ask about the attitude of other villagers (Krishna and Uphoff 1999: 63).

> The emphasis [by critics] on depoliticisation is … questionable if only because it was hardly the case that research or operations in the World Bank addressed in any significant way issues of class power, social struggle or structural inequity prior to discussions of social capital. While it may be that … social capital has failed to politicise debates in these ways, this is not the same as to depoliticize them. Depoliticised (in this sense) they already were.
>
> (Bebbington *et al*. 2004: 37)

Bebbington *et al*. are, overall, supportive of the Bank's social capital project. For the authors, social capital brought together on the one hand, the Banks social researchers and development practitioners, with, on the other, its economists—previously these two groups had little interaction (Bebbington *et al.* 2004). According to Bebbington *et al.* social capital has actually and somewhat perversely succeeded in politicising Bank practices, just not enough to satisfy the most vocal critics, and only because it started from such a very low (arguably non-existent) base. Their claim is thus very modest. Further, there is no suggestion that the Bank will turn to issues of wealth and power, indeed the Bank is "constitutionally precluded from engaging in or promoting political activities" (Bebbington *et al*. 2004: 51).

Activities within the Bank, if Bebbington *et al.* are correct, bring to mind Fischer's suggested reason for the growth in social capital debates within such organizations and arenas:

> Using [social capital] lets sociologists play in the same sandbox as economists; they have their kinds of capital and we have ours. And using the phrase probably allows sociologists more access to the ears and wallets of the powers-that-be than simply writing about, say, friendship and church attendance.
>
> (Fischer 2005: 157)

Using the language of economics allowed development practitioners and researchers to force (to a small degree) those holding the purse strings to speak about the social world of the citizens of developing nations the Bank is (arguably) there to assist.

However, perhaps because early renderings of social capital within the Bank were so vague, there is also evidence of shifts and fractures in the evolution of social capital debates within the Bank depending on which part of the Bank is discussing the concept. Some researchers within the Bank's Development Research Group have advocated a re-reading of social capital in more Bourdieuvian terms, and a "more nuanced understanding of social capital [which] sees it as part of the relations of power within a social system" (Mansuri and Rao 2003). They go on:

> Lately social scientists associated with the World Bank have argued that social capital is less an original theoretical concept, and more an umbrella term that has greatly facilitated the introduction of social relations into thinking within development institutions that are dominated by economists (Bebbington, et. al. 2004 [then forthcoming]). However, now that social capital has made such powerful inroads into development thinking, one could argue that its value as a "Trojan Horse" has passed and it is time to bring in all the complexity of thought on society and culture to inform the design of development practice. Notions such as "trust" and "norms" are not generalizable, and the nature of social capital has to be understood within its cultural and political context … with Bourdieu supplanting Putnam as the main theorist in the area.
>
> (Mansuri and Rao 2003)

The ‘Trojan horse’ allusion seems apt. The question that remains is whether allowing a watered down and inadequate version of social capital to flourish across the developmental and policy landscape is worth the gain of the economists’ ear. A re-evaluation of the ability of economists within the World Bank to control the theoretical agenda may have been a simpler solution. Bebbington *et al.*’s picture of the Banks internal politics, however, paints the possibility of such a change having been brought about as unlikely, reducing the whole social capital debate within the Bank to one implicitly about intra-corporate power plays rather than an overt debate about community building.

Summing up: Social capital and public policy

Both the example of Education Action Zones, and that of the internal social capital debate at the World Bank, suggest the conclusion that social capital—on this evidence—does not have a useful role to play in the public policy setting. Critics of social capital such as Ben Fine and John Harriss would likely agree. Before abandoning social capital, however, there remains an important question about babies and bathwater—is there anything about social capital that is worth retaining? We argue that there is, suggesting that social capital has been a policy failure in these instances primarily because the understanding of social capital underlying political processes was of the Putnamian variety; one stripped of references to class and power and thus inadequate to addressing social disadvantage. Measures of social capital (trust, network kind and density, etc) are, we argue, extremely useful for mapping the relationships upon which individuals play out their social lives (in a pragmatic sense, similar to Bourdieu’s notion of field: Bourdieu 1984). It is within such networks that individuals may realise (or may not) the differentiated outcomes available to them through social capital. At this level, social capital remains a useful lens through which to consider the power and potential held by individuals by virtue of their relationships with others, and to develop policy responses that help to redress imbalances and locate social nepotism.

III Social capital and tertiary education in Victoria: the contribution of the new economy studies in business and IT

In this section, we explore social capital in the context of Victorian tertiary students. Findings here are from a survey of 288 business, IT and other students and graduates of higher education (HE) and vocational education and training (VET) at six Victorian institutions, as well as interviews with teaching staff.[9]

The focus in this section is on social connections. What is the nature of the connection between students and the networks to which they belong? More importantly, what *resources* are linked to students' possession of these connections? In asking this question we draw upon the theoretical discussion in Section I of this report, taking a Bourdieuvian approach to social capital, and probing the potential opportunities open to students by virtue of the networks to which they belong. While we are mainly interested here in the social capital of the 'new economy' students in business and IT, and the differences and similarities between them and students in other disciplines, we also investigate sectoral differences between higher education and VET students, and the broader nature of the educational experiences of Victorian students.

Tables accompanying charts are given in Appendix A.

About the survey and interviews

Our survey asked students about their relationships with members of seven social networks: immediate family; extended family; friends; household; student/graduate colleagues; workmates, and civic groups.[10] For each network type, students were asked questions about the mode of communication they use to contact other group members; the extent to which they felt they could trust other group members; the extent to which they identified with other group members; whether they had recently been assisted by, or given assistance to, another group member in looking for work, and finally whether they felt a member of the group would help them in a crisis by collecting mail, helping clean the house, looking after children, doing the shopping, or discussing a worrying problem.[11] Interviews with educators were semi-structured, and participants were encouraged to raise the issues about student networks that seemed most important to them.

[9] A full methodology is at Appendix B.

[10] Civic groups were further broken down into: religious groups / places of worship; sports, recreation, or hobby societies; student unions or other educational groups (including school councils, parent-teacher committees, etc.); trade unions, industry groups, professional associations, or chambers of commerce; political, environmental, human rights, community, welfare groups (including ethnic groups), or residents' associations; arts or cultural groups (including reading groups and artistic guilds); and self-help or support groups (including group therapy).

[11] The methods and proxies used in this project are compatible with others used in policy-oriented studies within Australia and internationally. To this end a number of studies were used as benchmarks in the instrument design, including studies by the World Bank (1998), the OECD (2001b), the Australian Productivity Commission (2003) and the ABS (2004a). The ABS in particular has synthesised much of this work in developing the social capital framework indicators and measurement typographies contained in its extensive information paper, *Measuring Social Capital*. We diverge somewhat from these other studies, however, since they generally see networks as sites of social capital (see Section I), whereas we approach social capital as a property of individuals.

In our survey, students and graduates from six institutions were targeted, split evenly between VET and higher education institutions. The higher education institutions targeted were Monash University, RMIT University and Victoria University HE. The VET institutions were Wodonga TAFE, Box Hill TAFE and Victoria University/VET. These institutions were chosen primarily for their diversity as new, established, regional and metropolitan institutions. Willingness and ability of institutions to assist with the distribution of the survey played a role in ruling out a number of other institutions.

For each institution, a target sample of 450 persons was divided into groups of 150 students and 300 graduates (150 each at one year-out and four years-out), split again into business studies, IT and a control group of 'other' disciplines. The following table represents the standard make-up of the target sample for each institution:[12]

Table 2:
Target samples for each institution surveyed by year and discipline.

Discipline/cohort	Business studies	IT	Other courses
Current students (2004)	50	50	50
1st year graduates (2003)	50	50	50
4th year graduates (2000)	50	50	50

The overall response rate was 12%. Table 3 shows the response rates for sector and course targets.

Table 3:
Response rate (percentage) of business, IT and other students for higher education (HE) and vocational education and technology (VET)

	Business %	IT %	Other %	*Total %*
HE %	13 (60 of 450)	8 (36 of 450)	11 (48 of 450)	*11 (144 of 1350)*
VET %	12 (45 of 382)	6 (23 of 382)	15 (56 of 382)	*11 (124 of 1146)*
Total %	*13 (110 of 832)*	*7 (60 of 832)*	*14 (118 of 832)*	*12 (288 of 2496)*

While this response rate was modest it was in most cases sufficient to make estimations with confidence. In the discussion that follows, we take an estimation-based approach to our data, reporting results as proportions with 95% confidence intervals. Confidence intervals were calculated using the method for recommended for proportions by Newcomb and Altman (2000). The width of the interval conveys precision—an interval from 10% to 30% offers a less precise estimate of the true population percentage than an interval that extends from 15% to 25%. In providing 95% confidence intervals, we acknowledge that there is a small chance (5%) that the population value is not contained in the interval.[13]

An estimation-based approach was chosen for a number of reasons. Estimation is rapidly replacing significance testing in many disciplines—in particular medicine (where it is now

[12] The Wodonga TAFE sample was a smaller sample of 246 targets.

[13] Confidence Intervals provide a plausible range of values for the population parameter. For example, if a confidence interval extends from 15% to 25%, then all the values in between must be considered plausible values for the true population.

the norm for publication), psychology, economics and ecology (Fidler *et al*. 2004). Estimation encourages a more sophisticated interpretation of data by drawing attention to the size of effects rather than encouraging dichotomous accept/reject decisions based on statistical significance. Estimation is particularly appropriate to an emerging field of study such as ours, where insufficient prior research exists to reliably quantify expected outcomes, and where some sample sizes are necessarily very small.

However, where statistically significant relationships exist, these are reported in the text. In such cases these relationships are statistically significant at $p<0.05$, corresponding to the 95% confidence intervals. Statistical significance can be read directly from the 95% confidence intervals. An inferential heuristic suggested by Cumming and Finch (2005) is that when 95% confidence intervals (on independent group data) overlap by approximately one quarter of the average of their total widths, the difference between the two estimates is statistically significant at $p=0.05$. All data presented here are independent group data (i.e. there are no repeated measures), so this heuristic can be used in all instances.

The sample demographics were:

Table 4:
Sector, field of study, age and sex of sample of 288 students and graduates.

Sector	n=
VET	124
HE	144
Not reported	20

Field	n=
Business	110
IT	60
Other	118

Age	n=
15-24	89
25-34	96
35-44	50
45-54	43
55-64	7
65+	2
Not reported	1

Sex	n=
Female	168
Male	117
Not reported	3

Our study also included international students. Students with non-Australian primary citizenship were (by field of study and sector:

Table 5:
Percentage of business, IT and other students of non-Australian citizenship

Business % (of 110)	95% CI	IT % (of 59)	95% CI	Other % of 113	95% CI
9	5 to 16	17	10 to 29	4	1 to 9

Table 6:
Percentage of HE and VET students of non-Australian citizenship

HE % (of 142)	95% CI	VET % (of 121)	95% CI
15	10 to 22	3	1 to 7

Our sample appears to provide a reliable reflection of the population. The sex, ethnicity and age demographics of our sample, for instance, reflect those of the population data as reported by DEST and NCVER, although population data suggests our sample over-represented women to a small degree (DEST 2004).

Interviews were undertaken in early 2006 with ten experienced teaching staff. Higher education institutions/schools targeted were: Victoria University HE Business, RMIT HE

Business, Monash Business, Swinburne University HE IT, and RMIT HE IT. Vocational education and training institutions/schools targeted were: Victoria University TAFE Business, Victoria University TAFE IT, Swinburne TAFE Business and Swinburne TAFE IT. Interviewees were chosen on the basis of area of expertise, experience, seniority and recommendation. Interviews took around one hour, and were semi-structured.

The new economy and new economy students

The terms 'new economy' and 'knowledge economy' signify an attempt to define shifts in the economic practices of developed countries over the last 10-15 years, characterised by the impact of IT, globalisation and 'borderless' business practices on economic activity (the new economy), and rise in knowledge-based services such as IT and software development, education and research, and telecommunications, which have come to dominate employment and trade (the knowledge economy). This growth has brought about significant changes in employment, education, production and exports, both in Victoria and globally. In the most recent figures for 2005-06, Australian education exports totalled $9.8 billion (Sutton 2006). In 2005, education exports were Australia's third largest service export, and its seventh largest individual export in goods and services over-all. In that year alone, education services rose in value by 9.8% over 2004, and its rate of growth was surpassed only by coal and metals in the last four years (IDP 2006). Yet despite changes such as these, Australia's performance as a knowledge economy has been relatively poor compared to other OECD nations according to several key indicators, in particular research and development (R&D), in which Australia invests less than 1% of GDP against an OECD average of 2.25% (OECD 2003).

The new or knowledge economy has ramifications beyond employment and trade. The kinds of changes outlined above impact on our social, cultural, political and technological lives. For example, home access to the internet in Australia increased from 16% of homes in 1998 to 56% in 2005 (ABS 2004b, ABS 2006). Internet usage has been correlated with large-scale changes in people's patterns of work, entertainment, sleep, exercise, and social engagement (Cole 2004). IT literacy is becoming as important a skill as traditional written and numerical literacies, with obvious implications for the employment prospects of underprivileged groups—a concern reflected in Victoria in Government programmes such as 'Bridging the Digital Divide,' which aims to guarantee a basic level of IT facilities to all state school students.

Such economic and cultural shifts have also had a significant impact on tertiary education institutions both locally and globally, as students move away from 'traditional' subject areas and towards areas such as business studies and information technology—areas perceived to enhance success in the new economy. In Australia, numbers of higher education graduates from business studies grew by 201.1% between 1990 and 2000. Combined, the other disciplines grew by only 54.1% (DEST 2002b). From 2001-05, management and commerce new enrolments remained steady at around 22% of total enrolments in Victorian institutions (DEST 2002b, 2003, 2004, 2005, 2006), although employers are beginning to question the relevance of some degrees and the under-development of students' generic skills. The 1990s also saw very rapid growth in enrolments in computing-related courses, parallel to the growth in business studies programs. Enrolment trends in IT have, however, reversed recently, due to reportedly poor job prospects. Between 2001 and 2005 enrolments in Information Technology declined from 9% of total enrolments to 4% (DEST 2002, 2006). Trends in the VET sector are broadly similar to those in higher education—in 2005, information technology students comprised 4.4% of enrolments, down from 5.8% in 2002, and

management and commerce students comprised 24% of enrolments down from 25.7% in 2002 (NCVER 2006). This makes business and IT students and graduates, or 'new economy students' as we refer to them here, an area of interest in their own right as well as powerful representatives for many distinctively contemporary aspects of the tertiary education experience.

The social capital of the 'new economy students' in business and IT

In our analysis of the social capital of business and IT students, we treat social capital as a property of individuals that equips them with opportunities and potentialities upon which they can draw at need. Our discussion focuses on the structures of networks that contain social capital, the 'capital' itself, and the modes of communication that facilitate exchange. Two indicators of accessible capital are used: the extent to which respondents felt that members of their networks would help them in a crisis, and whether the respondent had assisted group members to seek employment, or been assisted by them to do so. By considering the extent to which different kinds of networks (family, friends, workmates) would help in a crisis, or have facilitated employment, we can find out about the power an individual has by virtue of their group memberships.

Underlying these social capital 'goods,' and their relative value, are the relationship structures that enable them. To find out about the structures of these relationships, we use indicators of trust and identity. The interplay between the extent to which an individual trusts other group members, and to which they identify with other members, helps us to distinguish between 'bridging' and 'bonding' relationships. We need to trust other network members for that network to be of use to us, but we need not necessarily identify with them.

As well as social capital and network structures, we also investigate modes of communication. This area is particularly interesting and somewhat underrepresented in the literature. ICTs, as well as the older communication mode offered by the telephone, and the most basic mode of face-to-face communication, are, in a sense, the 'stock exchange' of social capital. Does the method of communication we use in maintaining networks and drawing upon obligations affect the exchange of social capital?

These are the three components of social capital investigated here—social capital 'goods' held in obligation or utilised, the structures which allow the transaction of that social capital, and the communication modes through which transactions are made. In simple terms this means "what can you get," "why can you get it," and "how do you effect the exchange?" In evaluating these three components of social capital exchange we also draw upon sociological inputs such as gender, family background and ethnicity. In the discussion of business and IT students that follows we begin with 1.) the network structures which allow social capital exchange, 2.) the goods exchanged, concluding with 3.) the communication modes which allow the exchange.

1. Trust and identity as indicators of network structure

The extent to which people trust members of the social networks to which they belong, and the extent to which their membership of those groups is integral to their self identity, helps us understand the nature of the connection they have with those networks. Trust is of obvious importance to the formation and maintenance of social networks—for a relationship to be of value, we need to be able to rely on the other person to come through for us when we ask it. Putnam, for example, treats trust as another form of generalised reciprocity, distinguishing

between informal or 'thick' trust found in dense social networks and 'thin' trust, or trust which is extended to people whom an individual may not know personally (Putnam 2000: 136). Bourdieu does not himself address trust directly, although notions of trust are implicit in the expectation of future benefits on which his notion of social capital relies. From this perspective, trust can be considered as an element of symbolic capital, instantiated in social relationships and "implying durable obligations subjectively felt (feelings of gratitude, respect, friendship)…" (Bourdieu 1986). Our survey asked participants the extent to which they felt that they could trust other members of the various networks investigated.

Identity can tell us whether the relationship the individual has with other members of their networks is 'bridging' or 'bonding' in nature. High levels of identification with a group can indicate a closed or bonding relationship (the main kind of relationship which Bourdieu focuses upon), whereas low levels of identification can indicate an open or diverse group in which bridging relationships may form (see for example Putnam 2000; Woolcock 1998). Whereas close, bonded, relationships, such a familial relationships, help us deal with day-to-day problems and challenges, bridging relationships can open up new opportunities to individuals. Putnum, for example, following Briggs (1998), suggests that "while bonding social capital is crucial for 'getting by,' bridging social capital is especially important for 'getting ahead'" (Putnam 2004). This line of investigation draws on the work of Granovetter (1973), who found that weak, or bridging, ties were the most effective in helping people find jobs that they might not otherwise have heard about. We asked about the extent to which participants identified with other members of each network.

Amongst our survey participants, levels of trust were higher for all network groups than levels of identity. However, we found a strong correlation between the degree to which respondents to our survey trusted members of social networks, and identified with members (r=0.60). While for each social network, the proportion who trusted other members was higher than the proportion who identified with other members, the relative degree of trust and identity followed a similar pattern, illustrated below in a radar chart:

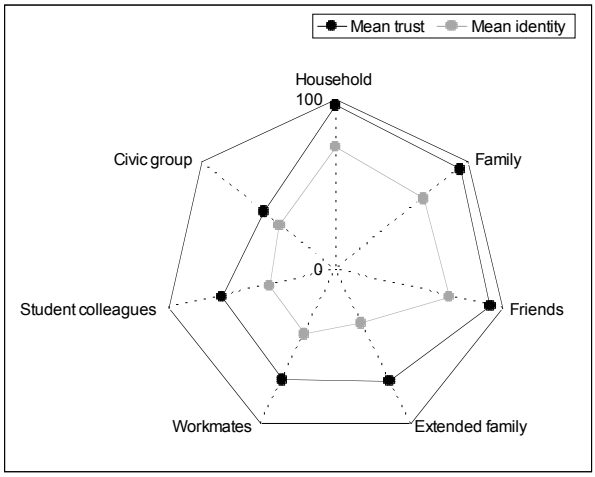

Figure 3:
Proportion of all respondents who (trust) usually-completely trust network, and (identity) who felt that "If you know [my social network], it can tell you a lot about who I am," for each social network.

When we considered students by field of study (business, IT and other) and by sector (VET and HE) we found little difference in the way respondents related to their non-study networks, but large differences in the way respondents in each field related to their student colleagues. In particular, we found a trend of new economy students feeling comparatively disconnected from their course of study and from their fellow students compared to other

students. New economy students were less likely to trust their fellow students than were other students in both sectors. This trend was particularly pronounced for IT students in higher education, and business students in VET, both of which reached a statistically significant level ($p<0.05$). While 84% of other students in HE usually or completely trusted fellow students, only 45% of IT students trusted their colleagues:

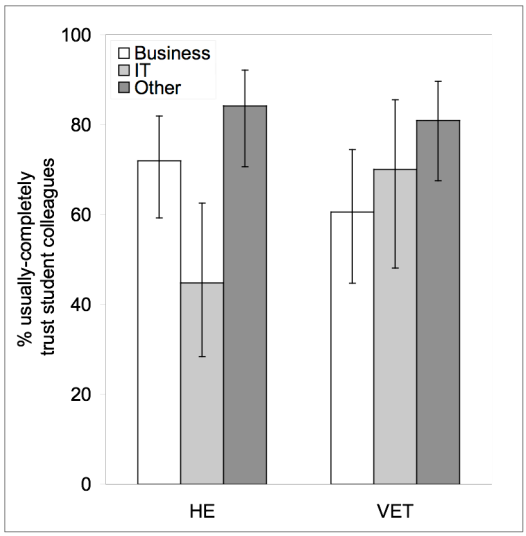

Figure 4:
Percentage of HE and VET business, IT and other students who usually-completely trust their fellow students. Error bars are 95% CIs. (From Table A55)

The trend of relative disconnection from fellow students continued when we considered the extent to which new economy students identified with their course of study compared to other students. The profile of these findings, considered by both course and sector, was similarly shaped to the findings for trust. Findings for new economy students in HE were even more pronounced for identity than trust. Both business and IT students were statistically significantly less likely to identity with their course than other students. Business students in VET were also statistically significantly less likely to identify with their course than other VET students:

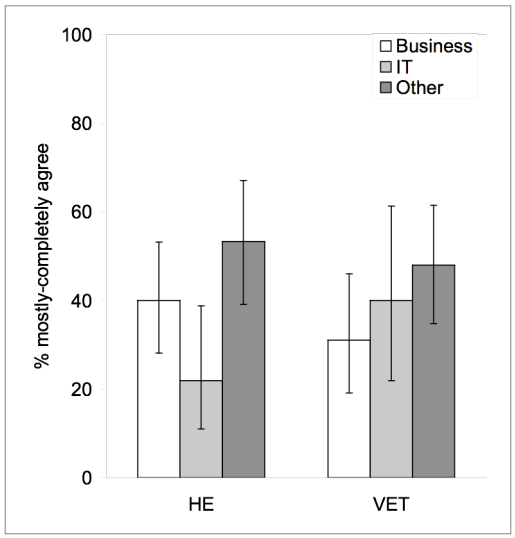

Figure 5:
Percentage of HE and VET business, IT and other students who felt that "If you know the tertiary course I have studied, it can tell you a lot about who I am." Error bars are 95% CIs. (From Table A60)

Trust, identity and family background

How do we account for these differences in the way new economy students relate to their colleagues, compared to students in other disciplines? One answer may lie in differences in family background between new economy students and others students. We found that in higher education both business students (72%) and IT students (58.7%) were statistically significantly more likely to come from a family in which neither parent attained a university degree than were other students (35.4%). In VET, business students were statistically significantly more likely to come from a background in which neither parent had completed a university degree, and IT students were almost equally likely to have such a background, although sample size limited our ability to make this estimate with confidence:

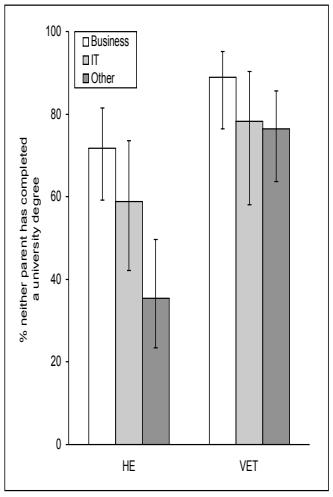

Figure 6:
Proportion of business, IT and other students in HE and VET for whom neither parent has a university degree. Error bars are 95% CIs. (From Table A25)

One of the HE teachers we interviewed at an institution with a great many students from working class backgrounds lamented the difficulties faced by students with no history of further study in the family:

> We have a high proportion of students across the board who are coming to university for the first time in their families. I think it's associated with our high attrition rate in some courses. I think that the students' normal support systems that they get at home through parents, and you know "How did you go today," and friends that support you are absent. So these kids are working their way through on their own, and whilst we can give a lot of support at uni itself, and they have friends at uni—if they go home, and they say, you know "Oh I hate my lecturer," their parents turn around and say "I hated all my teachers, I don't know why you're even at school." You know it's like, not giving the student any way of dealing with this problem or issue they might have in the classroom.

Our findings suggest that such experiences may be common for 'new economy' students, who often come from a family network with little history of university attendance, which may inhibit their ability to identify as 'a student.' They are also likely to be disadvantaged by the lower level of study support they are able to access from their family network, such as advice on how to write an essay, structure an argument, undertake research or get critical feedback on work. Educational institutions have a great potential to assist here, by creating 'bridging' social networks—using pedagogical techniques, such as collaborative learning

practices, and supporting events which will see students from diverse background creating links with one another. While our empirical research on trust, above, suggests that getting new economy students to mix together may not be easily done, the rewards are obvious. Institutions can be particularly helpful in providing funding to assist with student-run events: in a climate of so-called Voluntary Student Unionism funding for such events has become limited. Below, we also discuss the possibility of institutions encouraging students to join their relevant professional associations, which is another way institutions can help build bridging capital for students.

An important factor in considering the extent to which students are able to 'fit in' at the place of study is, of course, the amount of time they are able to spend there. This, in turn, can be a an outcome of their financial situation—the more time needs to be devoted to employment, the less time can be spent on campus. A study of the finances of university students in 2006 showed of undergraduate student working during semester, those from low and lower middles socio-economic backgrounds worked 21.3 and 20.2 hours per week respectively, while those from high and upper-middles backgrounds worked 15.7 and 16.9 hours per week on average (James *et al.* August 2007). The ability to spend time on campus is therefore at least partly a matter of social class. Evidence of the importance of time spent on campus to self-identification as a student, as well as other positive effects, can be seen, for example, in a 2004 study of the experiences of first year university students in Australia. Krause and colleagues found that "students who spend fewer days on campus are also those least likely to ask questions in class and contribute to class discussions." They also found that those who spent more time on campus "are significantly more likely to study and discuss their course material with peers" (Krause *et al.* 2005). They go on:

> First year students who spend more time on campus are also significantly more likely to report that they feel as if they belong and are part of the learning community than those who spend fewer days per week on campus. Not surprisingly, they are also more positive about their identity as a university student, are more likely to have made one or two close friends at university and are more involved in extra-curricular activities. It is important to note, however, that the direction of causality between these factors is entirely uncertain. (Krause *et al.* 2005)

While both these studies were of university students only, there seems no reason to assume they would not also be relevant to students in VET.

Although attendance at employment is only one reason students may be unable to spend more time on campus, it is, according to the student finances study, a reason related to socio-economic background. It is also a reason which can be addressed by both government and institutions through scholarships and bursaries, as well as a freeing up of student financial benefits.

We were encouraged to find that institutions with a large number of students from comparatively disadvantaged backgrounds, and backgrounds where students were likely to be the first in the family to attend tertiary education, often had excellent support mechanisms, including mentoring schemes, specialist IT support, and caring teachers who made a great effort to assist students with CV writing skills, and other schemes. For example, staff at one institution told us how they had instituted a gambling support unit because of the high number of international students they had with gambling problems: "some of our international students come over with quite a bit of money, and get lured by the casino, so it's been very important for the university to stand in there as, you know, the parent, and say

"hang on a minute, these were your goals, these were your objectives." The same institution also had a successful mentoring program:

> I've put in duty tutors. We don't look at who's suffering the most in terms of diverse intake—is it the kids with cultural adjustment issues, is it the ones with low enter scores, who would have come in as TAFE articulators? We find that out in time but at the moment they need someone who'd be the first person to go to. And a lot of students know in theory they can go make an appointment at student services, but it's much nicer to have a staff member that you know is going to be on duty—you can drop in and say "I have no idea what this assignment means" and that's the kind of question we expect to get.

While it is important that extra assistance—such as being alerted to the existence of study skills support units—is provided by the host institution to any students who require it, it may be advisable to be particularly alert to the needs of the new economy cohort, and to the benefits of structuring support into courses.

It is also possible that new economy students' comparative lack of trust in student colleagues may be accounted for to some extent by language background. In both sectors, new economy students were less likely than other students to speak English as the predominant language at their home. In HE, IT students were statistically significantly less likely to speak English at home (note again that all students surveyed were domestic enrolments).

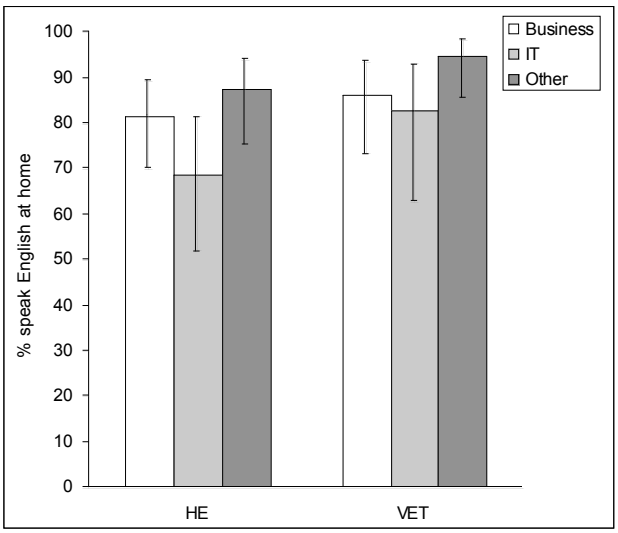

Figure 7:
Percentage of business, IT and other students in HE and VET who have English as the language predominantly spoken in the home. Error bars are 95% CIs. (From Table 7, below)

Table 7:
Percentage of business, IT and other students in HE and VET who have English as the language predominantly spoken in the home (from Figure above).

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
HE	82 (49 of 60)	70 to 89	69 (24 of 35)	52 to 81	88 (42 of 48)	75 to 94
VET	87 (38 of 44)	73 to 93	83 (19 of 23)	63 to 93	95 (53 of 56)	85 to 98

More than any other factor, language background had the greatest impact on levels of trust in social networks, with large differences across a number of networks. Students who did not have English as the language predominantly spoken at home had extremely low levels of generalised trust in all but their most immediate networks of family, extended family and housemates. They had statistically significantly less trust in their friends, student colleagues, work mates and civic group members than did predominantly English speaking students.

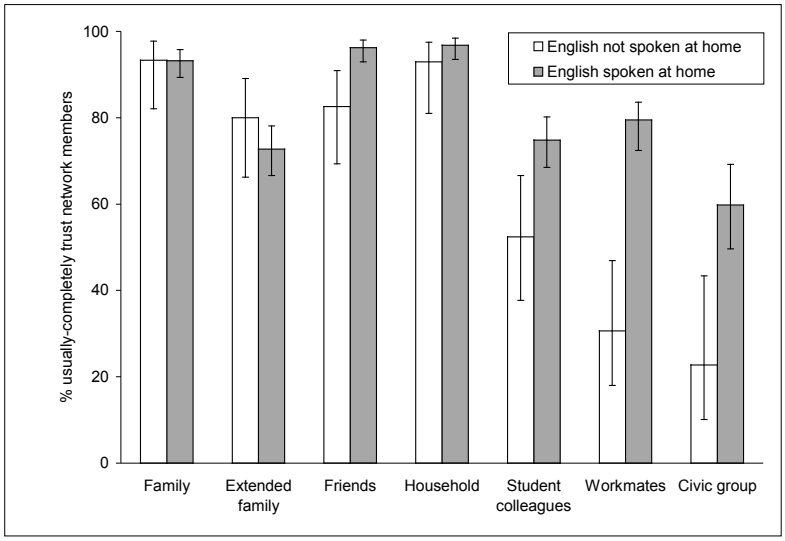

Figure 8:
Percentage of all students who do and do not have English as the language predominantly spoken in the home who usually-completely trust network members. Error bars are 95% CIs. (From Table A58)

In the figure above, the tendency for students who do not speak English at home to be far less trusting of their non-immediate networks is clear. The low level of non-English speaking background students who trust their friends is particularly unexpected, while it is less surprising that language difference, which is likely to indicate cultural difference, lies at the heart of the very low levels of trust in the student, workmate and civic group networks.

A TAFE teacher spoke of the huge diversity of backgrounds students at his institution come from, and the need to structure programs of assistance into courses:

> At times you can walk into a classroom and there are only two Anglos and the rest of them are Macedonians, Croatians, Africans of various sorts, kids from the Middle East, Turkey. They're very high here, the non-English speaking background is very high. It's visible, it's just physically… you can see the Africans and you can hear it. There's 20 or 30 languages being spoken at any one point in time. …And I think the big problem is that most of the institutions are Anglo-centric. So the courses have been set up [in an Anglo-centric way], even though they've got support services. We have concurrent assistance. That actually does help a bit.

Such assistance included what the teacher referred to as 'molly-coddling' the students by giving one-on-one assistance, and ensuring staff in the computer centre were full-time, rather than casual, so students felt that they knew the people who would be helping them. There was also an awareness that students from non-English language backgrounds have a double difficulty—not just learning to write and speak in English, but also to learn to write and speak at an academic level, using non-colloquial language, and doing so in a second tongue.

At other institutions, however, there was little or no recognition of the importance of course designs that accommodate diversity. Though her institution had good external support services, such as language and literacy support, a senior academic at a very large business faculty saw no need to design courses that were suited to the diversity of the faculty's students:

> **Interviewer:** Is support structured into the courses to accommodate the diversity of student backgrounds, or…? I'd imagine there'd be different levels of English [proficiency], people with different expectations of want uni is all about?
>
> **Respondent:** Absolutely not. If you come to uni, you come to uni.

If higher education and TAFE institutions are to embrace practices that support globalisation and the increasing ethnic diversity of the population—rather than just 'internationalising' by accepting increasing numbers of fee-paying overseas students—then Anglo-centric ideas such as these need to be discouraged. It may be that increasing institutional specialisation will hasten such changes, as students as potential 'clients' become more able to choose institutions which best support them. The downside of this argument is, of course, the potential for institutional ghettoisation.

A final matter of self identity based on family background was raised during our interviews. An academic in a university IT faculty gave us some unexpected information about how parental education related to the decision of women students to enter IT. IT has notoriously low female enrolment, a situation reflected in our survey findings. While around two thirds of both business and other students who completed our survey were women, only one third of IT students were women (Business: 63%, 68 of 108, 95% CI = 54 to 72; IT: 37%, 22 of 59, 95% CI = 26 to 50; Other: 66%, 78 of 118, 95% CI = 57 to 74). Population data suggests our sample *over*-represented women in IT to a small degree (DEST 2004). On the basis of an internal study undertaken by her university, the lecturer we interviewed told us that "it stands out like a sore thumb" that "our girls are, much more than any other group in the university, likely to have a father with a university degree. So it's really, really interesting. The mother's education, despite all the rhetoric, wasn't seen to be an effect." Further issues of gendered behaviour in IT are discussed below.

Gender and belonging

A further identity-centred issue we encountered in interviews was that of gender and 'fitting in' to male-dominated IT courses. All women we interviewed raised the issue, reporting discrimination and sexism being exhibited towards both female students and female staff membersThe same internal study (to which we did not have direct access) also showed that the majority of women students in the faculty came from single sex schools— "so in other words they haven't been stamped on by boys," the lecturer added. We asked how they adjusted to working with men once they came to university. She told us that one of the problems they encountered was that:

> …if they're put into groups in labs the boys [are] just taking the mouse off them and taking control of the computer. And some of the girls sat back and said we didn't mind because we weren't that interested in doing it. But they then went to the exam thinking that by passively sitting all semester they'd learnt something. And they'd got into the exam and there was a question on this, and they failed it. You know they suddenly sat down and thought oh my God I don't know this at all because I just sat and kind of watched.

This anecdotal evidence suggests that family norms play an important role for female IT students. On one hand, a single-sex school background, and/or a father with a university degree, was a positive attribute for women considering IT (and conversely, women who have not been exposed to such family and educational norms may be more prone to stay away from IT). One the other hand, once these women enter university they are not equipped with the skills to manage the behaviour of their male colleagues. Further, those male colleagues, used to studying in an area with few female students, are unable to see the effect of their behaviour. In both cases, the issues seem to stem from the way students learn to identify themselves as members of their family, school, and university.

IT lecturers at other institutions made similar claims, with one lecturer telling us:

> [There's a core subject we teach], and it's taught by one of the most macho blokes in this whole school... He gets up in the first class and tells them a third are going to fail, you know. This just puts the fear of God into some of these young women. They just wilt at the very notion. His whole attitude is that it's about toughness. "You've got to be tough to get through this and if you get through this and you meet the grade, then I might gradually think about you kindly in second year."

While admittedly anecdotal, such a situation suggests that female students can experience sexism from both student colleagues and teachers, making the diminution of female enrolments in IT somewhat unsurprising.

Another female lecturer experienced sexist behaviour in her own dealings with other staff. She told us of a situation in which she was trying to negotiate with male staff at the senior level. She had been trying to have a new platform installed on the staff IT system, but had run up against a wall (a glass wall?) trying to get a male colleague to undertake the installation. A female colleague who had also been asking for the new platform told her:

> …you're going to have to fight for this at his boss's level because I actually can't shift him." She couldn't shift him either. At that point we needed a man. Isn't that dreadful? It is dreadful. But you've almost got to go in and learn a bit of their language and bluff it and pretend that you know what you're talking about so that you can get the next bit of information that you need. Then you go to the next person and you build on that knowledge. But it's such a painful [swears] process. …So I probably would encourage these young women, but gosh, I know in my heart of hearts I don't feel very confident.

In light of the continued failure to significantly increase women's enrolment in information technology over the decade and a half since *A fair chance for all*, it is disappointing to hear such stories. In terms of social capital and networking, examples of the exclusion of female students from active learning by male students, and the belittling of female professionals by males, constitutes a compelling argument that issues of gender can underlie issues of disadvantage in areas of high gender disparity.

Self identity and transformation

We discuss above the way trust, and identification with a job, studies or social networks, tell us about features of network formation. However, our interviews with education practitioners brought alive a perhaps more important aspect of self-identity—the potential for the transformation of a student's self-identity through the learning process.

The importance of placements in workplaces to effecting a change in students' ways of thinking about themselves was a recurring theme in interviews with all staff who worked with students who undertook placements. A comment by the Head of a HE business faculty was typical:

> …and what I see in them is this transformation from, you know, some nervous young kid going into a company thinking "I'm going to stuff this up badly" and then you see this quite polished person at the end of it, who's obviously had a range of experiences that worked out really well for them, that they've found they fitted socially into that environment and then now suddenly this is kind of their identity, whereas it wasn't before.

Educational practices were also instrumental in bringing about these kinds of transformations. The same Head had found she needed to be quite thoughtful in the way she approached teaching students to find their identities as potential managers, using mock-interviews and film to bring about a greater recognition in students of the effects of industrial change on workers:

> It is a transformative thing. It's something you can't really teach. I've found this with our engineers. The engineers often take a couple of management subjects, and I was taking the industrial relations subject with them, and I got into the classroom and they were just larrikins. They were messing about in the tutorials. I would get, you know, some dull participation at best, and we spent a bit of time talking to them about themselves, and they couldn't see the importance of management, they certainly didn't see themselves as professionals, so we did a total review of that subject, because the reality for an engineer, regardless of what they think of themselves as a student, is that as soon and they go out, nearly half of them will have staff supervising responsibilities, and it's just inefficient, and it's not realistic, to send [out] these people who didn't identify with being a manager—you're just setting people up to fail. So one of the things was to build the self confidence of the engineering students up so they started to see themselves more as young professionals in the world—emerging professionals—rather than worthless students, you know, rabble, that get drunk after class, or instead of class, and that meant making the tutorials grounded in reality. And that might mean a reality that they hadn't experienced yet, and so I used a lot of film. I used films like Brassed Off, with the closure of the colliery mines, and the devastating effect on families, and unemployment, and you know, break down, and marital violence, and all of that came because the mines were just so 'inefficient' in inverted commas, and there was nothing in place there for the miners. I used that film because in the first class I asked them "well, what do you think a worker feels like if their job is removed from them, they've been retrenched" and I had nearly the whole class say, well they should be celebrating because they're all going to get retrenchment packages, and I though Oh, wow, you know, like that's your reality, that's what you think people feel like when they're released into a world where their skills don't fit and where they're language doesn't fit, and they'll never work again, and they're 45, and they've got kids, and I though "My god, I'd better turn this one around".

Staff at TAFEs, in particular, saw the transformation of student self-identity as an important role of educational institutions. A senior IT teacher at an outer-suburban TAFE worried that the current training agenda only reinforces students' tendency to 'see themselves' as one particular thing, and fails to give them the skills to undertake a variety of roles in their working lives:

> There was the concept of what was called the "protozone career", that we sort of tend to work in a job for maybe three, four years, and we develop a certain skill base or add to

> our skill base and then sort of become a little bit of a chameleon and grow into another area. It provides a wonderful tapestry of experience, which is really what we need if we want to compete in the global market. In my view, students can have tunnel vision and see themselves as one particular thing. Everybody, regardless of what industry or enterprise that you're in, must have, not necessarily the skills, but at least an appreciation of what is required from other disciplines. So in terms of how we actually structure our programs, I think the broader that we actually can structure them the better, and that we should be including all of the basic literacies, IT, reading, writing, arithmetic, all of that kind of stuff. That in fact contradicts a lot of the training agenda at this point in time.

A staff member at another TAFE agreed, suggesting Australian education was failing our students in terms of basic literacies, and praising the US mode, which he saw as more supportive of providing skills which would last a lifetime:

> What we do is we train them specifically to do specific jobs so that when in the inevitable scheme of things those jobs change and the technology changes or the jobs cease to exist and they became redundant and their place is downsized, they have to come back into the education system again because they haven't got the broad enough education to cope with that. So then we train them again, and they have to pay for that of course… But when you look at how they're doing it in the States it's the other way around. They're saying, "Look, what we need to do here is to train our students with early general education to help them cope with whatever work they go into."

Comments like that above, about the narrow range of training provided in professional study areas like business and IT, were raised almost across the board, by both TAFE and HE teachers in both business and IT. They also noted the profound effect these skills have on students' ability to identify as young professionals, and concern at the lack of priority given to teaching such skills by institution management. One of our interviews was with a specialist communications teacher within a TAFE IT course, who had just been retrenched due the communications unit being discontinued.

> My subject was a compulsory subject everyone did in Cert IV before they went on to the diplomas. It levelled out their writing skills so that we brought everyone up to the same level so that when they graduated out of communication we knew they knew how to write a report, they knew how to write a letter, they knew how to have an interview, they knew how to do public speaking, they knew how to be in a team with people, all those basic skills were covered that they were going to need for the rest of the course. It was a very valuable building block. I had student after student come back to me and say, "Look, we were ever so glad in the end that we did that. We might have griped about it at the time. We're ever so glad we did that or could do that. It was so useful for us to do that." I've had students coming back to me when they were working and say, "We had an epiphany, we went out to work. The light finally shone over our head and we said yeah, that's why we studied all that." They came back and said, "Look, the stuff we learned about getting a job helped us get a job. We knew what to do in a job interview. We knew how to be in a team when we got out there to work. We knew all that stuff." I just think it's tragic that all that is going to disappear because those students will not get all that basic information.

Competency-based training is the mandated model of curriculum in the VET sector. VET qualifications are drawn from training packages, which consist of different qualifications at different levels within one industry area, and industry-specified units of competency, which, in various combinations, make up the qualifications. Each unit of competency is designed to teach a specific skill or relate to a specific work-place task. The competencies are in turn

included after consultation with business bodies. While many interviewees told us that the IT and business world was crying out for students with better literacy and generic communication skills, at the TAFE level, where business itself denotes what skills are taught, communication skills were slipping away—a topic which came up to some degree with all of the TAFE teachers we interviewed (indeed, it was a concern expressed by most HE teachers as well). The retrenched communications teacher saw this outcome as a product of institutional inertia, however, more than as a result of problems with the competencies:

> **Interviewer:** It's the professional bodies that direct those competency levels, isn't it? I mean, its business that dictates the competencies that students will be taught so generally if communication is not seen as important, then that's not going to be valued by course designers?
>
> **Respondent:** It doesn't dictate it as much as TAFEs make an excuse for it. What they do is, the government body that controls all the competencies and that sort [of thing], they give out a fairly broad list of competencies. They say, "For this particular subject you've got to cover whatever of these competencies you want to put in there." It's a fairly broad list. In most cases you can translate those competencies in different ways. They are broad enough to be able to do in different ways. So that in most cases you could still have communication and liberal arts being taught in some way within courses. In most cases it's the departments themselves where they've said no, it's too difficult and we won't go down that path. That in fact is what happened in IT. They just said no. I put it up at various meetings in the last year I think. I've been to meetings and basically wore myself out putting up my hand and saying, "No, look, you could arrange the subject like this. You could do that and that and that." But that has been shovelled out every time. The last thing that happened only a few weeks ago was with Cert III. There was a last-ditch stand and I said, "Look, we could put it into Cert III. There's a business environment subject in Cert III and we could run it as a subject where we could teach a lot of these basic skills at Cert III level just to prepare them for Cert IV." That was it. That was my last-ditch stand. Then I said, "I'm taking leave now. When I come back you'll have to figure out what to do with me."

When this teacher came back from leave they no longer had a job.

A senior HE lecturer in Business was frustrated by the way business studies tends to teach professional norms and accepted dogmas rather than invite students to explore concepts and question perspectives.

> In general business is an extremely normative teaching style. It's, it almost errs on the one best way of doing things, you know, and there's always an element of critical analysis in business, but often that might be an opportunity/cost analysis, or a cost/benefit analysis. It's not really looking at it from, "Oh, what would Marx have thought of this?" It's a very different kind of analysis. …[For example] HR is nearly entirely taught from a normative perspective, where there's no such thing as having to balance power. Where employers and employees happily get on with each other, you know, that kind of thing? And it really needs a good kick. But um…
>
> **Interviewer:** What kind of a kick?
>
> **Respondent:** Oh it needs a kick from the left, it needs to have someone look at it from a power perspective, it needs someone to read Foucault and say, you know, let's deconstruct business and really see what's going on here in terms of money and its distribution and so forth. A few of us write that way. But generally business is not written that way.

Interviewer: How do you think that would affect the students then? That lack of…?

Respondent: Oh, a bit of critical analysis would be damn good for them. And I think we're creating probably kids that are a bit more capitalistic in the way they think, because it's all taught as if it's just generally accepted, you know, it's like when they do macro economics, you know Keynesianism is seen as something that used to be, and it's given way to a 'much better way' you know. Why *is* that a much better way?

Questions of the personal transformation engendered by a more liberal education are always a matter of debate. What came through strongly in both our survey and our interviews, however, was the disengagement new economy students often feel from their courses. The example of the teacher who proactively went about effecting personal transformation to train more effective managers is a particularly apt example of the possibilities for forging connections between students, and between individuals and their career roles—an activity the TAFE teachers we spoke to wished they had space for within their course competencies programs.

The disengagement new economy students feel from their courses, evidenced by a comparative lack of identification with their course and lack of trust of fellow students, may be caused to some degree by the likelihood of their being the first of their family to undertake further education, and by the preponderance of students who do not have English as their first language in these courses, and who may therefore feel culturally displaced at TAFE or university. These aspects in the structural formation of their social and study networks point to the need to accommodate student diversity within courses, and to move away from the Anglo-centric approach to education which still remains in pedagogy, and often in practice.

2. Gaining from social capital—finding a job and help in a crisis

In Section I of this report, we discuss Granovetter's work on the importance of bridging relationships in looking for work. We also argue that the power of social capital ties depends on the relative advantage of one actor's networks compared to another's. Our survey asked students whether they had assisted members of their networks to look for, or apply for, a job in the past year, and also whether network members had given the student such assistance.

We found that levels of assistance with employment fell across what appear to be a social class divide. We found that with assistance job-search activities was concentrated in the most immediate network groups—students were more likely give assistance to, and receive assistance from, immediate family, friends, housemates and work-mates than extended family, student colleagues and civic group members. This finding is in line with other studies such as Korpi's (2001). When we broke our sample down by field there were only small differences in the extent to which business, IT and other students gave or received assistance looking for work, with all groups following the broad trends described above.

Sectoral differences, however, were far more pronounced, pointing to a large and important difference in the potential opportunities available to students in TAFE and HE—a difference that seems best explained by differences in social class. Higher education students were more likely to render assistance in seeking employment to their social network members than VET students across all networks, and statistically significantly more likely to assist their friends, housemates and student colleagues than VET students (figure below). Higher education students were also more likely to receive help seeking employment from their social networks than VET students across all networks. In particular, they were statistically

significantly more likely to receive assistance from their housemates and work colleagues than were VET students.

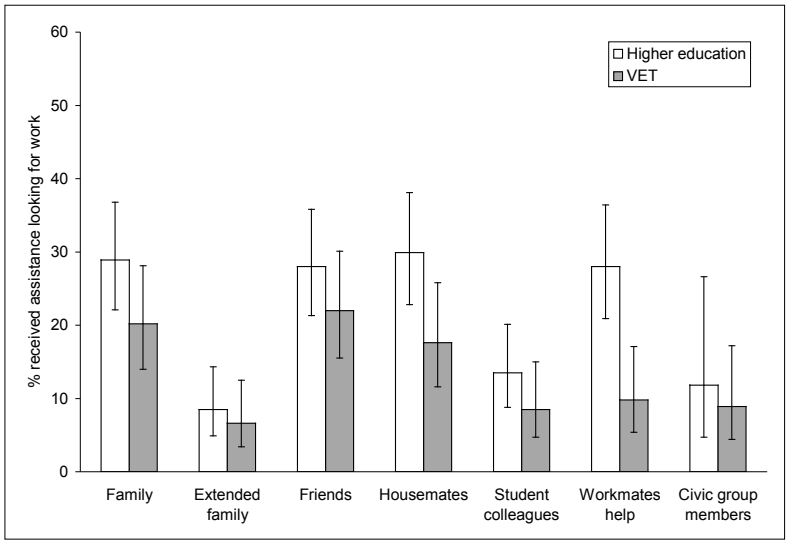

Figure 9:
Percentage of all HE and VET students who gave assistance looking for or applying for a job to a member of a social network (x axis). Error bars are 95% CIs. (From Table A45)

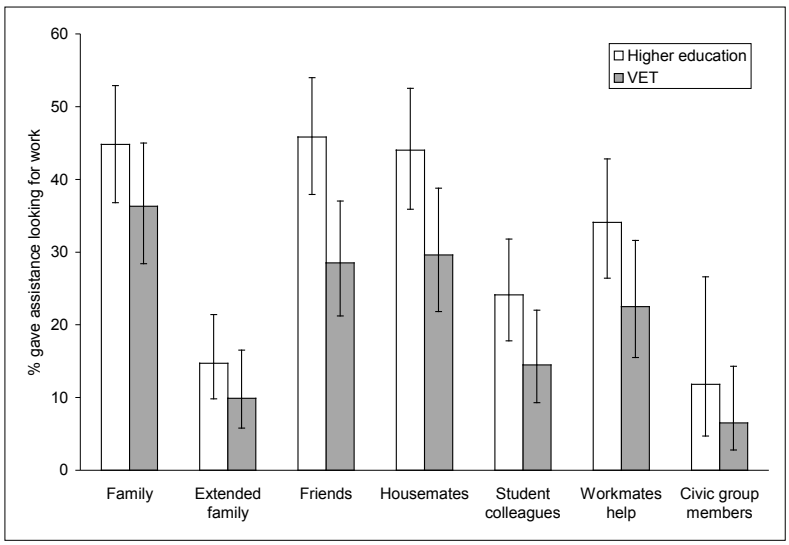

Figure 10:
Percentage of HE and VET students who received assistance looking for or applying for a job from a member of a social network (x axis). Error bars are 95% CIs. (From Table A46)

Thinking about social capital as a form of power, we should perhaps not be surprised that in terms of employment opportunities, VET students are less able to give to, or receive assistance from, their social networks. Of the VET students we surveyed, nearly three quarters had attended a State school in the final year of high school compared to around half of HE students, and only a quarter as many VET students had attended an independent school as had HE students. Far more VET students came from a family where neither parent had a university degree (as we show above), at 82%, than HE students, at 56%. One in ten VET students reported a disability, compared to less than 1% of HE students, a finding likely to be

related to the greater spread of age ranges of VET students compared to HE students, who tend to be younger. VET students were statistically significantly more likely, at nearly 10%, to be a member of a self help or group therapy civic group, than higher education students at less than 2%. These are all findings which reflect population data collected by bodies such as DEST and NCVER (for example, DEST 2002a). National population data also show that VET students are far more likely than HE students to come from a low SES background: 26% of VET students came from a low SES background in 2001, compared to only 15% of HE students (DEST 2002a). Thus the sectoral differences uncovered by our study are very likely to indicate socially differentiated opportunities, affordances and obstacles based on class. It would be wrong conclude from the job-search findings that VET students are less able users of social networks. It is probable that their social networks are less likely to be comprised of members who are able to offer employment opportunities.

The likelihood that the comparative paucity of opportunity apparently offered by VET students' social networks is a result of systemic class disadvantage is supported by the broad similarities in the kinds of networks they and their higher education colleagues belong to. VET students' rates of membership of the various kinds of civic groups we considered was not very different from that of higher education students. Yet the job-search data implies that this does not necessarily denote an homogeneity of equivalent groups—that membership of one religious or sporting group, for example, is equivalent to membership of another. The potential resources an individual can leverage using their membership of a social group is a function of the relative social, cultural and economic capacities of other group members—indeed it is this aspect of networking activities that Bourdieu sought to bring attention to in his interpretation of the notion of social capital.

Further evidence that the difference in opportunity for assistance with employment between VET and HE students is a matter of class and power is that the rates at which students accessed network members' help for more mundane problems did not vary by sector.

New economy students did not differ greatly from their colleagues in the extent to which they could expect crisis support from their social networks for all non-study networks. New economy students were less likely to believe a student colleague would help them across all tasks, This trend was particularly strong amongst IT students. See Table H, Appendix 2.

Table 8:
Proportion of business, IT and other students who believe a fellow student would collect their mail if they needed help; would help clean their house if they needed help; would look after a child for them if they needed help; would do their shopping for them if they were ill, and with whom they could discuss something that was worrying them.

	Business %		**IT %**		**Other %**	
		95% CI		**95% CI**		**95% CI**
Collect mail	29 (28 of 98)	21 to 38	27 (12 of 45)	16 to 41	40 (36 of 910	30 to 50
Clean house	19 (18 of 95)	12 to 28	11 (5 of 46)	5 to 23	25 (22 of 87)	17 to 35
Look after child	24 (21 of 88)	16 to 34	13 (6 of 46)	6 to 26	31 (25 of 81)	22 to 42
Shopping	26 (25 of 95)	19 to 36	20 (9 of 46)	11 to 33	32 (28 of 89)	23 to 42
Discuss worry	47 (47 of 100)	38 to 57	52 (24 of 46)	38 to 66	67 (66 of 98)	58 to 76

Most importantly, no strong differences in access to crisis support were apparent between sectors. (Across all of 'helping tasks' students of all disciplinary backgrounds' most immediate networks of family, friends and housemates were ranked at around or above 80% (would help), while less immediate networks were ranked around, or under, 40%, showing, as might be expected, that bonding ties are strongest amongst the most immediate social networks. [14]) The power to offer to or receive assistance from network members was confined to assistance with employment.

The extent to which students' existing employment networks provided opportunities for the formation of networks beneficial to future careers was raised by a number of educators we interviewed. A HE lecturer at an institution with students from working-class backgrounds lamented the paucity of opportunity offered by the employment her students were in:

> **Interviewer:** So those jobs that they have, you were saying they're kind of 'pretty crappy' jobs, do you think that the networks that they…
> **Respondent:** There's no networks in those jobs.
> **Interviewer:** There's no networks in their jobs?
> **Respondent:** Nup, nup…
> **Interviewer:** Their jobs are only providing them with money?
> **Respondent:** Yeah.

Interestingly, however, the same lecturer had almost literally experienced the 'old school tie' phenomenon which Bourdieu equates with wealth and privilege amongst students of her comparatively humble institution:

> We get students who tell me "Oh, I went for a job interview, and they looked at my CV and said "Oh, I went to that university" and you know, we have—well, it's terrible to say an old boys network—but students who get jobs that way, it's at least one step in the door, because a lot of these are not privileged students, they're not like they're wearing a Carey Grammar tie at their job interview…

A strong theme in our discussions with teachers was students' lack of understanding of the opportunities offered by 'networking.' A university IT lecturer felt that not only did students not appreciate the networks open to them through their contact with teachers, but that they also failed to see the opportunities open to them through their other networks:

> **Interviewer:** Do you think [students] recognise the opportunities that they can get through a part-time job that might not be their dream job? That they have an understanding of the way that they can forge bonds that will be useful to them and that they can have a career by starting out small?
>
> **Respondent:** Probably not. I've been mentoring another young woman who finished a postgrad course some years ago. I had to prompt her to sell herself and to make those connections. She's even worked, she was working in a TAFE library and even working casually at the weekends in a public library to get up her experience. She was actually to some extent consciously doing that, but she still doesn't make that extra jump to the networking and what that can do for you. They don't realise that we all talk to each other. …We all do that, we all run those sorts of networks. Then we're saying, "Who's good? Who can we push in this direction?"

[14] An interesting exception to this trend was the 'talk to you about something that is worrying you' task, where the less immediate networks were ranked considerably higher (around 60%) than for other tasks, with work-mates ranked around or above 75% for each cohort group.

While most of those we interviewed agreed that students were often not aware of the opportunities potentially available to them through their networks, most did comment on the extent to which student form informal study groups together. In one instance, a TAFE teacher had also seen evidence of students getting each other into work, which was a positive observation, and counter to the broad trends uncovered in our survey findings:

> I mean, these students are very canny. What they do is they use each other. They help each other. Three of them in fact might actually get into a job and then three of them might actually at some stage agree that the job is taking them nowhere. So they might leave and go somewhere else.
>
> **Interviewer:** As a group?
>
> **Respondent:** As a group. So the whole group leaves as one.
>
> **Interviewer:** Then when one finds a new job, do they help get each other in?
>
> **Respondent:** Yes, they do. So their networks are actually with each other. So if you look at primary or secondary or tertiary levels it starts off with each other. They're quite aggressive, you know, they do in fact get to know each other. I notice they very quickly get to know each other and they're asking each other what they're doing and when you're working, can you get me a job, or can you do this for me or can you get me something, can you get me a discount on whatever it is. So they do in fact establish networks very, very quickly.
>
> **Interviewer:** And use them quite effectively?
>
> **Respondent:** And they use them very effectively.
>
> **Interviewer:** I imagine some students are better at that than others?
>
> **Respondent:** Yes, I think so, but I mean, I'm surprised that even the shrinking violets seem to do it, the quiet ones. So they do it in their own quiet little way. I noticed that in my marketing class. There's some very quiet students and they do it in their quiet little way and they talk to each other. I notice these… bonds with each other. And they help each other with assignments.

A number of those we interviewed felt that institutional bureaucracy got in the way of providing richer opportunities to work with employers. Staff had to undertake a huge amount of work to get these opportunities for students, but a number of staff felt that these efforts weren't valued, and didn't contribute to 'the bottom line':

> An organisation will come along and say, "We'd like to run a survey on this. Would your students be interested in doing that?" But they actually want the survey done within three or four weeks. One of our problems is to say, "Well, yes, we do teach students about surveying and we do teach students how to do that, but we really need an eight-month lead into this because we've got to structure a whole course around this to do that." Now, if we could bring more business partners into doing that – I know it's a lot of hard work for the academics – then if we could bring partners in, that is a way of using those networks, that social capital, introducing students to a real world, and allowing them to make contacts for jobs, et cetera. That's a huge amount of work that has to be done and often it's a one-off project and then it doesn't go again. It's time consuming and then somebody says, "well, what money did that bring into the budget?" "Nothing." It wasn't for our benefit at all. Yes, we can tick off a KPI and say we've worked with

> industry, we've had industry liaison and I can put a box in the key performance indicator. But I haven't contributed a dollar to the bottom line.
> **Interviewer:** So you're not recognised or valued for that work necessarily at an official level?
> **Respondent:** Well, no, because everything is so bottom-line driven.

The issue teaching staff feeling that their attempts to teach students social and professional skills, including the importance of networks, were not valued by senior institutional bureaucracy came up in almost all interviews, regardless of the sector worked in. Most blamed a combination of funding cuts as well as a lack of will at senior levels to create 'rounded' education opportunities. This was a challenge across sectors. The comments above came from a HE institution. The following observation was from a TAFE teacher:

> If you want to foster social capital in tertiary education you're going to have to give it some recognition of having value to the organisation. At the moment everything is so bottom-line driven that we're not… well, it's bottom line and compliance driven. We're all about quality audits and we're all about budgets. This doesn't fit any of those.

The remark is apposite. While encouraging an understanding of social capital and networking amongst students would seem a useful way of overcoming, or compensating for, some elements of class disadvantage, doing so must be supported by the availability of class time and the appropriate compensation for teaching staff involved. On the other had, doing so may contribute to already overcrowded curricula. However, there are some ways of encouraging professional engagement and peer networking which are available with less staff time. For example, on Head of a Business Faculty encouraged strong links—the building of bridging capital— with the relevant professional association:

> We see a lot of students join the professional associations—the main one for this school is AHRI, the Australian Human Resources Institute. Our courses are accredited with these organisations so once they've done the course they can get graduate entry membership. They get a mentor in that program, and there's various seminars that they can go to.

Such initiatives are to be encouraged, and should be achievable with only moderate levels of involvement by staff (contacting associations and setting up initial visits, for example), and may help less prestigious institutions make up for the so-called 'grooming process' which takes place at more prestigious institutions. The professional associations themselves also have a lot to gain in terms of sourcing new members and better representing young professionals. This is an area where associations can take the initiative.

While teaching staff in both sectors lamented students' inability to recognise the importance of social networks in accessing employment opportunities, our survey findings show that when it comes to actually assisting, or being assisted by, group members in looking for employment, higher education students appear to have far more opportunities available through their networks than do VET students. That staff did not feel that their attempts to open up students' professional networks were appreciated adequately in terms of time or pay is also cause for concern. In particular, TAFEs face a greater challenge in opening up network opportunities for their students.

3. Communication

We suggest above that communication is the 'stock exchange' for social capital and that the communication modes that facilitate interaction and network formation play an important role in structuring groups. Here, we discuss the ways in which students communicate with each other, and note some emerging trends in the use of ICTs to facilitate inter-student exchange.

New economy students are prolific users of email when communicating with their fellow students—overall, 41% of business students and 44% of IT students use email as their main means of communication with fellow students, while only 18% of other students rely on email:

Table 9:
Proportion of business, IT and other students using email and the telephone as the primary means of communicating with other students

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Email	41 (34 of 84)	31 to 51	44 (21 of 48)	31 to 58	18 (17 of 95)	12 to 27
Telephone	16 14 of 84)	10 to 26	6 (3 of 48)	2 to 17	24 (23 of 95)	17 to 34

The main difference in use of non-electronic communication with fellow students was the comparatively high use of the telephone as a primary means of communication with student colleagues by 'other' students, at 24%, compared to 16% for business students and only 6% for IT students (Table 13). This is perhaps unsurprising considering the looser bonds new economy students have with their fellows—telephone communication relies on the sharing of telephone numbers, something more likely to be common between students who feel close to one another.

This trend for new economy students to use email as the primary means of communication with student colleagues remained when we took sector into account:

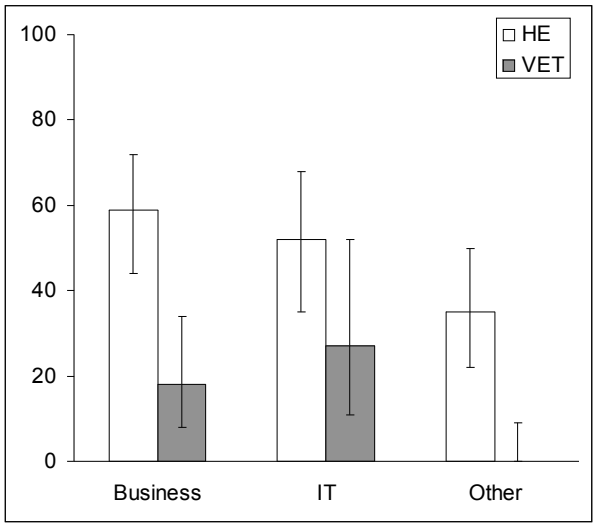

Figure 11:
Proportion of business, IT and other student in HE and VET using email as the primary means of communicating with fellow students. Error bars are 95% CIs. (From Table A35)

As the figure above demonstrates, while new economy students in both business and IT were more likely to communicate with fellow students using email than were other students, sectoral differences between TAFE and HE students in the same fields was substantial. Overall, we found that VET students were less likely than HE students to use email to communicate with network members across *all* networks considered.

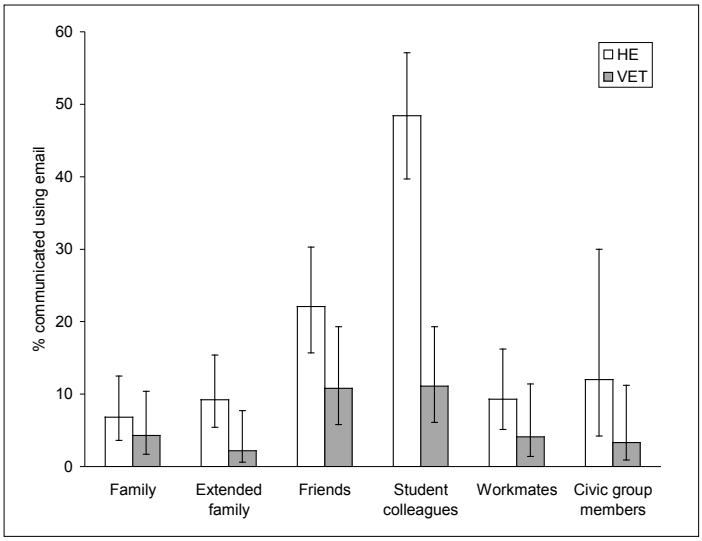

Figure 12:
Proportion of HE and VET students using email as the primary means of communicating with network members. Error bars are 95% CIs. (From Table A34)

By far the largest difference at the network level between HE and VET students was in the student colleague network. Their lower use of electronic communication methods may also hinder VET students' ability to participate in a technological world, where all workers increasingly need to be comfortable using technology, and to be able to participate in electronic communities of practice.

An interesting caveat to our survey findings on electronic communication is the very strong possibility that in designing our survey we as academics were too old, or not sufficiently on top of generational differences, to fully grasp how students use ICT to communicate. Our survey focused on the traditional forms of communication, as well as email, but did not ask about SMS and on-line chat, a missed opportunity brought alive to us in our interviews. Indeed, a lecturer in business told us that even email is 'over' for young people:

> I said something [to my 19 year old daughter] about email the other day and she said, "Mum, we don't actually use email. Got to get that through your head." I find that with my students. She said, "We use the SMS and the phone." Now, when I want to communicate with students I'm still using email. I suspect a lot of the things I want to communicate are actually too big to be SMS'd, because they're running conversations, it's more communication that they're doing with their phones rather than notice type things. But I wonder if I sent my email, I wonder if I sent an SMS out to my undergrads saying, "An employer need a part-time person with library skills and web skills," whether I'd get a quicker response from them.

The same lecturer went on to tell us about they way students use other technologies like chat programs to assist each other when the institution is unable to support them:

> I mean, it's a real challenge to study here and we do dreadful things to them and we have a whole lot of administrators who put stuff in place that's just stupid. My undergrads, the first years who arrived last year, had such a dreadful time I think. We had offered them mentoring, but then we couldn't resource it; so it never happened. But they use MSN at night. They all run MSN as a chat. Then when they're working they all talk to each other about what they're working on. So these are the second years. So they've actually set up their own mentoring system, and it's quite fascinating. Then I started to think about how do I [utilise this], because we could do that with Blackboard to some extent. But then I asked one of the other IT academics and he started telling me all the buts, you, but, but, but, and there's all these confidentiality issues.
> **Interviewer:** But the students just do it by themselves?
> **Respondent:** So the students do it by themselves.

At this institution, the students were able to replace the defunct mentoring scheme themselves by using chat services. Interestingly, when the lecturer tried to replicate the activities the students had set up themselves, but at an 'official' level, the institution was unable to manage it. Again, these circumstances point to a divide between the generations—in this case the students and the university IT staff—which the institution was unable to bridge. It seems 'Generation Net,' as they are sometime called, inhabits a very different world of practice to their predecessors. A HE IT lecturer expanded on these issues, noting how technology that even Gen X would think of as relatively edgy is simply mundane for younger people:

> We've now got a generation that's always grown up with the Internet. Most of them have got PCs at home, they've got mobile phones, they've got all sorts of knick knacks. And technology is ubiquitous, so it's no longer, "Wow this is amazing!" It's, well it's [just] there. And I had a really funny conversation with a daughter of a colleague in industry who's twelve I think, and I was trying to explain to her what an Information Systems degree was. And she sort of looked at me as if I was a bit mad. And she said, "You're going to tell me soon you can go to uni to do a degree in refrigerators." And I thought, okay, so computers are just stuff that's on around the house like fridges and television, and you know, they're just there.

Unfortunately our study hasn't the scope to go into the effects of emerging technologies on networking behaviour, but the area is certainly ripe for further study. In particular, differences in the way each generation relates to and uses such technology could become an important area of social research as such differences will inevitably lead to new kinds of exclusion and empowerment.

Further thoughts on the 'new economy student

Although it was not a topic we actively intended to pursue in interviews, nearly every respondent commented of their own accord on the great differences they saw between the current crop of students, and students as they were five, ten, even twenty years ago. Many referred to the need students had for a good mobile phone. However this was rarely seen as a materialistic desire, but rather that the mobile phone represents to students their ability to be connected to one another. Most did see students as more materialistic in other ways however—more driven to 'credential' themselves with the right clothes, the right accessories, and the right lifestyle. It was also common for respondents to mention the extent to which students were very calculating in the decisions they made about accessing such a lifestyle, and the way they saw a business or IT career as a step towards it. Some of these observations are detailed below:

- "This generation of student recognises that business qualifications will buy them a better life style at the end of the day. There's that joke about what did the arts student say to the science student? Or the business student perhaps. And the answer is "would you like fries with that?" " [from the Head of a university business school]

- "A lot of the private companies probably are prepared to take students with partially finished degrees. Not all of them are prepared to be flexible about students coming to study, but some of them are. So that they shop around. "Shop" is probably a good word. They shop around for a better deal all the time and run all things together. …There's generational factors, the Y generation issues, that they change at the drop of a hat. I started my own program here in 1970, which is a long time ago. But three-quarters of the way through it I thought I was interested, well, I was, I was passionately interested in sociology, but there was no way I was going to drop out and do that. I was going to finish my degree, finish and get myself a job, whereas now we have a passion one minute for working in a public library, we go and do some work experience and suddenly we decide we're not doing that and then the next thing you know we've dropped out. I think, "Uh-oh, what happened there?" " [From a lecturer in IT]

- "They want to actually get on and make their mark and accumulate material things. It's not just materialistic and it's not materialism … so they're more aggressive in saying, "I want a share of this," a share of the common wealth or a share of getting in there... They have to have brand clothes, they have to have all that sort of stuff, and cars. They're sort of ambitious in that sense. That's actually a huge advantage for them …" [From a TAFE Business teacher]

- "I think that we're a more commercial society. So I think that there were probably less pressures 10 or 15 years ago and that there wasn't the type of peer pressure, on young people especially, 10 years ago than there is now in terms of having the latest iPod. It's an expensive world to try to keep up and to compete and to fit in with your peers. I don't think that those same pressures were there 10 or 15 years ago." [From TAFE IT teacher]

- "But they're all working and it's all pretty lame casual type work, you know I get students tell me they're working to pay of their mobile phone, and their real lives are their phone costs this much, and they certainly need a damn good career for the rest of it, they want a fifty square house… Somehow, they've equated all that stuff with success." [Head of business school]

- "They're trying to survive. Whereas in my final year I could survive on $25 a week and live away from home, they can't do that. She was talking last night about having bought a new phone and really wanting something that did this, this and this, and not being able to afford it. Yes, they're trying to do all that stuff and trying to have all the things that we couldn't, we just said, "No, we can't afford to buy books. No, we can't afford to buy music albums." They want to do all that. So they run their studies next to their jobs and they gradually build themselves up." [IT lecturer]

These observations accord with popular anecdotal reports about the so-called 'Net Generation.' From a study perspective, however, such observations suggest that frequent reports in the academic literature of the extended work hours students now undertake result from a new way of understanding 'need,' and a tendency to equate success not with academic excellence, but with conspicuous consumption. A cynical view would be that if academic success is valued, it is often as a means to achieving better pay, rather than as a measure of personal growth. A more optimistic view would be that the demands of maintaining effective communication in the ICT age requires a lot more bought products than were needed in the

past. A computer, internet access, a mobile phone—even the ability to send and receive photographic communications, appear to be seen by many students as a necessity.

The global student

When we speak of the knowledge economy, and the trade in ideas, we instinctively understand it as located in a globalised world. Scientists, inventors, academics, specialists of every variety, as well as everyday workers in service industries and education, are increasingly able and willing to sell their services to the highest bidder on the world stage. Similarly, students are increasingly willing to travel internationally to procure a university education—a development on which Australia has been quick to capitalise, as evidenced by the rapid growth of education services as a key Australian export. At the local level, communities are becoming increasingly ethnically and culturally diverse as even the least advantaged cross boarders looking for a better life. At the TAFEs we visited the cultural diversity of the student body was extremely evident.

Marginson draws attention to the failure of education systems, attached as they are to governments, to make the leap from mere internationalism to globalism:

> Globalization refers to the formation of world systems, as distinct from internationalization which presupposes nations as the essential unit. …While it does not negate the nation-state, [globalization] changes its circumstances and potentials. In the global era, government continues to be largely national in form, and education is, if anything, more central to government, while issues of identity and difference become more important in the politics of education. (Marginson 1999: 19)

The failure of our historically nationalistic (and by heredity broadly British) tertiary education system to embrace the diversity of student cohorts was a recurring theme in our interviews. A HE business studies teacher of Greek background questioned the way universities and the political realm fail to capitalise on, or even see, the potential for young people of migrant backgrounds to use their connections to forge international linkages:

> I have been keen to establish exchange agreements with universities in countries like Greece and Turkey, because we have got a lot of students from Turkish or Greek backgrounds. But …the key players within institutions don't realise the importance of linking our communities' second, third generation students with their homelands. For example, the European Union is Australia's most important economic partner in trade and investment. But if you look at the countries that are the key economic partners from the EU, they are the English-speaking ones. The UK is the main country where we will initially do business because we feel comfortable in terms of language and culture. But why not Greece, why not Italy, why not Turkey? We feel uncomfortable. But we shouldn't if we develop the networks, if we use that dimension of social capital, if you like, that we have in our migrant communities and we encourage those students of Greek, Turkish, Italian background to be in contact with their homeland. Can you imagine what that would do for Australian companies? Young professionals of Greek, Italian, Turkish background working for big companies in Australia would be able to open doors for those companies in those countries that we are now scared to go into.

Why do we fail to capitalise on these potentialities? The same teacher went on to suggest that when we look at students, we see them only in their current relationship to the institution—not as the people they will be in the future, and all of the possibilities which that represents: "Here is our opportunity to get into those networks by utilising our students that could be potential company professionals back in their homeland and we have not taken

advantage of it, because we see them as students. I mean, they're just students. But they're students now, what will they be tomorrow; that's the question." In the 'old' system of a largely mono-ethnic Australia, we knew what students would be in the future—Australian workers. For the current body of students, the future is less clear.

If this teacher is right, and we are missing opportunities by failing to appreciate student diversity, to what extent are we equipping students to take part in a globalised workforce? A TAFE business teacher raised the importance of Asia and our local region in an increasingly globalised world "I keep telling them, that the world is changing, that even as we speak there are jobs being created. We don't even know what we're going to be doing in the future. ...There's a whole lot of possibilities, in a region which is probably the most exciting region on earth. The Asia Pacific region is just going to be a different environment in 20 years time." In most interviews with education practitioners, this notion of a failure to capitalise on our region and the diversity of background of our students, was a recurring theme. Education institutions change very slowly, and pedagogically—even bureaucratically—most still aspire to a kind of traditional English form of education. We recognise the importance of international students to the 'bottom line,' and understand to at least some extent that we need to better understand our global region to accommodate those students, but too often fail to look outward; to develop the possibilities and potentialities available to truly internationalised education institutions.

The challenge we face is that while institutions may be slow to realise the opportunities available in global engagement, and the establishment of international networks, our students, younger and more technologically and internationally sophisticated than their elders, are often perfectly happy to move on if they are not offered the opportunities they want. One teacher used a recent conversation with a student as an example typical of what he encounters in the young people he teaches:

> A lot of [students] want to travel. I was talking to a girl yesterday from Uganda. Her parents live in Uganda. She's Indian. She was saying that she was going to India after she finishes her Masters to work because she speaks the language, and if it doesn't work out she might go to Africa, and if that doesn't work out she might go to London. So there are large numbers of people in fact who are globetrotting, swirling around the world…

This 'swirling around the world' is becoming a hallmark of globilisation, signifying "the end of the national market as the primary theatre of economic activity, because in the last analysis the nation-state no longer controls capital markets and the larger patterns of investment within its territorial borders" (Marginson 1999: 25). Thus the challenge of institutional inertia at the HE and TAFE level can be seen as compounded by the system's embeddedness within an increasingly archaic nationalism. Both the 'globalised student,' and education practitioners who want to embrace global networks, can find themselves at odds not just with their own institutions, but the national education framework.

Citing Martin and Schumann's (1997), argument that globalization engenders a 20/80 split between the global elites (20%) , and "a subordinated social layer (80%) whose control is the responsibility of national governments, and connected to the global dimension mostly through passive consumption," Marginson suggests that "this binary world creates pre-conditions for conflict around access to the primary global networks of money, power, and knowledge-information, not to mention educational institutions" (Marginson 1999: 27).

When we speak of social capital in education, then, we need also to consider the opportunities afforded to students to take part in a globalised knowledge economy.

We have sought here to track the extent to which students at Victorian institutions utilise their social networks, and the value of the opportunities those networks bring. One of the most pressing concerns for tertiary education institutions must be to provide skills and opportunities that allow their students to escape poverty traps and to aspire to taking part in the new global marketplace, should they wish to do so. Those who do not aspire to membership of this 'elite' must in turn be empowered with the ability to critique and understand the newly globalised world, and as citizens, take to take part in its transformation.

Key findings

Key findings from our study of business and IT students in higher education and vocational education and technology are summarised below. These findings are divided into two sections: those stemming from our survey, and those arising from interviews with teachers and academics.

Key survey findings

- New economy students are relatively disconnected from their fellow students and their course compared to other students.

There was little difference between new economy and other students, and between VET and HE students, in the extent to which they trusted and identified with their non-academic social networks, and expected members of these networks would help them in a crisis. However, there were *large differences between the way new economy students and other students related to student colleagues*. New economy students were *less likely to trust* their fellow students than were other students in both sectors. New economy students were also *less likely to identity with their course* than other students. New economy students were also *less likely to believe that their student colleagues would help them in a crisis*.

- New economy students were more likely to come from a background in which neither parent had attended university.

We found that in higher education both business students and IT students were statistically significantly *more likely to come from a family in which neither parent attained a university degree* than were other students. In VET, business students were *statistically significantly more likely to come from a background in which neither parent had completed a university degree*, and IT students were almost equally likely to have such a background, although sample size limited our ability to make this estimate with confidence.

- New economy students were less likely than other students to have English as the language predominantly spoken at home.

In both sectors, new economy students were *less likely than other students to speak English as the predominant language at their home*. In HE, *IT students were statistically significantly less* likely to speak English at home.

- Speakers of non-English languages were less likely to trust their non-immediate social networks.

More than any other factor, *language background had the greatest impact on levels of trust in social networks*, with large differences across a number of networks. Students who did not have English as the language predominantly spoken at home had *extremely low levels of generalised trust in all but their most immediate networks* of family, extended family and housemates. They had *statistically significantly less trust in their friends, student colleagues, work mates and civic group members* than did predominantly English speaking students.

- New economy students ability to receive help from, or give help to, members of their networks in looking for work was similar to that of other students.

We found that overall with *assistance job-search activities was concentrated in the most immediate network groups*—students were more likely give assistance to, and receive assistance from, immediate family, friends, housemates and work-mates than extended family, student colleagues and civic group members. This finding is in line with other studies such as Korpi's (2001). When we broke our sample down by field there were only small differences in the extent to which business, IT and other students gave or received assistance looking for work, with all groups following the broad trends described above.

- However, VET students were far less likely to receive help from their networks in looking for work, or to give help to members of their networks.

There was a large and important difference in the potential opportunities available to students in VET and HE—a difference that seems best explained by the different opportunities available to members of different social classes. Higher education students *were more likely to render assistance in seeking employment* to their social network members than VET students across all networks, and *statistically significantly more likely* to assist their friends, housemates and student colleagues than VET students. Higher education students were also *more likely to receive help seeking employment* from their social networks than VET students across all networks. In particular, they were *statistically significantly more likely* to receive assistance from their housemates and work colleagues than were VET students.

- New economy students did not differ greatly from their colleagues in the extent to which they could expect crisis support from their social networks for all non-study networks. Nor were there were interesting differences between VET and HE students in this regard.

Most importantly, no strong differences in access to crisis support were apparent between sectors. Across all of 'helping tasks' students of all disciplinary backgrounds' most immediate networks of family, friends and housemates were ranked at around or above 80% (would help), while less immediate networks were ranked around, or under, 40%, showing, as might be expected, that *bonding ties are strongest amongst the most immediate social networks*.

- As would be expected, HE and VET students' overall demographics differed widely.

Of the VET students we surveyed, nearly three quarters had attended a State school in the final year of high school compared to around half of HE students, and only a quarter as many VET students had attended an independent school as had HE students. Far more VET students came from a family where neither parent had a university degree than HE students. One in ten VET students reported a disability, compared to less than 1% of HE students, a finding likely to be related to the greater spread of age ranges of VET students compared to HE students, who tend to be younger. VET students were statistically significantly more likely, at nearly 10%, to be a member of a self-help or group therapy civic group, than higher

education students at less than 2%. These are all findings which reflect population data collected by bodies such as DEST and NCVER (for example, DEST 2002a)

- New economy students were twice as likely as other students to rely on email when contacting student colleagues, and far less likely than other students to contact student colleagues by telephone.

New economy students *are prolific users of email* when communicating with their fellow students—overall, 41% of business students and 44% of IT students use email as their main means of communication with fellow students, while only 18% of other students rely on email. The main difference in use of non-electronic communication with fellow students was the comparatively high use of the telephone as a primary means of communication with student colleagues by 'other' students. This trend for new economy students to use email as the primary means of communication with student colleagues remained when we took sector into account. However;

- Higher education students were much more likely to use email as a means of communication with network members than were VET students in both new economy disciplines.

Sectoral differences in the use of email between VET and HE students in the same fields were huge. Overall, we found that *VET students were less likely than HE students to use email to communicate with network members across all networks considered*. By far the largest difference at the network level between HE and VET students was in the student colleague network.

Key issues arising from the interviews

- Several interviewees stated that the IT and business world was very interested in graduates with better literacy and generic communication skills. At the TAFE level there were a number of reports that VET institutions may be failing to incorporate such generic skills into course competencies, or that these generic skills were being defined too narrowly, and failed to provide students with the broader literacy and communication skills they needed to successfully navigate their future working lives as well as their life trajectories more broadly.
- Educators interviewed believed most students learnt few skills through their part-time employment.
- Many educators interviewed said students often failed to see the opportunities, such as career opportunities, available to them through their network memberships.
- When asked about the degree to which they felt able to provide support for students in developing professional networks, many of those interviewed said they would be more able were this work recognised in terms of time and pay.
- Educators interviewed stated that live internet chat-rooms and SMS were far more important to students than email, and suggested education institutions could do more to utilise these platforms.
- A common theme in our interviews was the extent to which students feel a need to keep engaged with their peers using a variety of expensive technologies, and that this was quite probably a big factor in their increasing levels of paid work

Conclusion

The various distinguishing features of business and IT students, compared to other students, indicates that the 'new economy student' does indeed exist, and is likely to be representative of a group new to the higher and vocational education landscape. They are also likely to come from non-English speaking backgrounds. The main distinguishing feature of this group is that they are less likely to establish bonding relationships with their student colleagues. These aspects in the structural formation of their study networks point to the need to accommodate student cultural diversity and diversity of life experience within courses.

Aside from some apparent alienation from their fellow students (particularly in higher education), new economy students do not seem to differ greatly from other students in their relationships to that of their non-collegial social networks. This broad similarity may indicate that the impact of field of study upon social capital is limited to relationships within the academy.

Education sector had a far greater impact on students' social capital than field of study. While there was less variation in the intra-academy experiences of VET students than there was for HE students, VET students' social capital was less productive of employment opportunities than was higher education students' social capital. We view these findings as pointing to a class barrier resulting in a disparity in the opportunities these individuals are able to leverage from their connections. In particular, VET students did not benefit from information sharing (job searching) activities to the same extent as higher education students; nor did they use email to communicate to the same extent as HE students. These two findings may point to VET students being comparatively disadvantaged as members of the 'knowledge economy.'

Conclusion and recommendations

The aim of this project was to gain an understanding of the contribution of business and IT courses to the social capital of their students, and to understand how students' social networks contribute to their studies and the choices they make, as well as the obstacles and opportunities their social networks provide for them. We investigated the concept of social capital and its utility as a tool for shaping public policy from both a theoretical perspective and through case studies. By focusing on both higher education and vocational education and training the project also investigated universities and VET institutions as sites of social capital accumulation.

While the concept of social capital has received widespread attention from theorists and public policy makers since the mid 1990s, the term has been heavily contested. Here, we evaluated the competing definitions of social capital, concluding that it is most usefully treated as the actual or potential benefits that an individual can leverage by virtue of their social connections and membership of social groups or networks. Social capital helps us understand why two individuals, apparently equally placed in terms of wealth and education, may not be able to deploy those resources to equal effect. At the group or community level, social capital is the aggregate benefits available to the group through the composition of its membership. Such aggregate benefits require constant renegotiation by group members, relying on behavioural norms such as reciprocity and trust, and are influenced by the manner in which individual members identify with the group.

Whereas human capital development has long been a focus of public policy initiatives, social capital is a comparatively new area of study. Since gaining widespread recognition in the mid-1990s, the social capital literature has grown very quickly in the academic, public policy and development arenas. It has been taken up by the Blair government in Britain, as well as by the OECD and World Bank, and has been a concern of numerous projects at the community and local government level. Human and social capital public policy projects reflect an increasing focus by governments, both in Australia and internationally, upon initiatives aimed at framing the asset-bases of communities in terms which fall beyond the strictly economic, and include objectives such as community building through partnership models, and measurement projects aimed at quantifying non- or pre-economic assets. Rather than tending towards consensus, however, the social capital debate has become increasingly fractured—not an unusual state of affairs in an emerging research area. Here, we have sought to unravel these arguments through our analysis of the theoretical construction of social capital with reference to its implementation in policy settings, as well as our own analysis of the social capital of tertiary students in Victoria.

This report began with a review of the social capital literature, seeking both to provide an overview of key moments in the theoretical development of the concept of social capital, as well as to isolate the elements of social capital theory that are most conducive to application in a public policy setting, especially in regards to education. In view of this purpose, an important area of controversy within the literature is the growing awareness of the inadequacy of the 'classic' Robert Putnam approach to social capital as a vehicle for driving socially progressive policy. Since the monograph version of Putnam's *Bowling Alone* was released in 2000, there has been increasing criticism of his descriptive statistics, his apparent conflation of cause and effect, and the resultant circularity in many of his key arguments.

These criticisms have been developed in the face of a frequent reliance on 'Putnamian' analyses of the social capital of communities undertaken by community groups and aid bodies, as well as government bodies, and a sloppiness in the way the idea of social capital is used in policy formation. There is a growing awareness that because the term 'social capital' is often so ill-defined, it can be made the vehicle for almost any social policy—both progressive and conservative groups and individuals have claimed social capital as their natural domain. We take a mitigated Bourdieuvian approach, and conclude that social capital must be considered in terms of the relative advantages social connections bring to an individual, and that social capital, when considered primarily as an asset of communities rather than individuals, serves to occlude individual disadvantage rather than explain it.

We apply this understanding of social capital to two case studies in the application of social capital theory within a public policy setting. The British Education Action Zones (EAZ) initiative drew on notions of social capital underlying New Labour Third Way politics, which in turn are reliant on the social capital of Robert Putnam. EAZs failed to perform as effective partnerships between local government, business and community because old dichotomies of power were not just maintained under the model, but magnified. We ascribe this failure to the Putnamian approach that fails to elucidate power discrepancies and tends instead to locate a 'lack' in individuals who do not meet the levels of community social capital presupposed by implementing bodies. We also discuss social capital's career in the World Bank. In this setting, we can see how understandings of social capital evolved within this large-scale development body, beginning with a number of research projects lead by Robert Putnam among others and continuing, more recently, to a recognition that a more Bourdieuvian approach is necessary to uncover power imbalances in developing communities. The World Bank example is particularly interesting as some insiders believe that introducing the notion of a social form of capital within the Bank allowed a more nuanced conversation between research workers, development practitioners and economists.

Finally, this report applied the theoretical and policy ideas developed in sections I and II to our analysis of the social capital of business and IT students in Victorian tertiary institutions. This section draws on a survey of 288 tertiary students and graduates as well as interviews with educators. We found that 'new economy students' in business and IT tend to be first comers within their families to tertiary education and are often from non-English speaking migrant backgrounds. Within an educational setting, these students have less powerful social capital, and are often without family and friendship groups who can assist with, and to an extent normalise, their educational experience. We also found that VET students' networking behaviours are different from that of higher education students, in that they have not yet embraced email communication to the same extent, and tend to have more limited opportunities available to them through their social networks than do higher education students. We argue that particular care is needed in the way support for new economy students is structured into courses, and that education institutions and governments need to be aware of the more limited opportunities open to students with less privileged social networks.

Policy context and recommendations

In framing these recommendation we place the findings of this project within the context of Victoria's key public policy platform, *Growing Victoria together*, and its 2005 edition *A vision statement for Victoria to 2010 and beyond* (DPC 2005).

Growing Victoria together (*GVT*) is a mission statement by the Victorian Bracks government for the future of Victoria initially released in 2001, and updated in 2005. *GVT* outlines the

current state of the economy, health and education, the environment, communities and democratic participation, and sets challenges for the future. A number of other documents, which we discuss briefly below, fall under the *GVT* framework and provide greater detail on the aims of *GVT*.

A key tenet of *Growing Victoria together* is "High quality education and training for lifelong learning" (DPC 2005: 9). One of the key challenges falling under this heading is that "wide variations exist in the results achieved by students from different socio-economic backgrounds" (*ibid.*). A further tenet is to build "friendly, confident and safe communities," with the challenge that "all of us face the personal challenge of assisting those who do not have adequate support networks" (DPC 2005: 15). Perhaps the most important objective in terms of our findings for this study lies under the heading "A fairer society that reduces disadvantage and respects diversity." Here, the challenge is that:

> There are still significant barriers to opportunity. We need to strengthen the opportunities and expectations of all Victorians for an equal chance in life. Victoria still has unacceptably high levels of poverty, with increasing numbers of young families and working people experiencing financial hardship… Opportunities in education, health and housing are not currently distributed equally throughout the community—and for children and young people lack of opportunity in any of these areas can have serious repercussions throughout life. The people missing out in Victoria tend to come from particular groups in our society, particularly Indigenous people, children from low-income families and disadvantaged communities, people not completing high school or its equivalent, and single parent families.
>
> (DPC 2005: 17)

Variations in results achieved in education, the need to assist those without support networks, and the potential for education to improve life-chances are all directly relevant to social capital, and have been a focus of social capital projects by many governments.

At the same time it is important to remember that networks alone are not enough. For example, at one extreme, 'ghetto'-style networks – while providing shelter and support - can contribute to locking people and communities out from the primary arenas of work and civic life. Though successful people normally have access to powerful networks, so that advantaged social capital is one of the conditions for success, group membership and other relational connections are not enough in themselves to overcome disadvantage or enable economic productivity.

Recommendation 1: 'Social capital' should be seen as an attribute of individuals that draws its leverage from the power of the social connections available to them. The main policy application of the concept of 'social capital' is its capacity to understand social cooperation and networks in the context of social advantage/ disadvantage.

Findings from our research relevant to the tenets and challenges in *Growing Victoria together*, and *A vision statement for Victoria to 2010 and beyond* include: that new economy students are more disconnected from their fellow students and their course than other students; that new economy students were more likely to come from a background in which neither parent had attended university, that new economy students were less likely than other students to have English as the language predominantly spoken at home, and that speakers of non-English languages were less likely to trust their non-immediate social networks.

Recommendation 2: At both the HE and TAFE level, institutions generally, and business and IT schools and faculties inparticular, ensure opportunities are provided for students to form study networks and communities of practice, both formally, for example through collaborative learning practices, as well as informally.

Recommendation 3: In view of the introduction of so-called Voluntary Student Unionism legislation institutions must take a lead role in ensuring opportunities for students to mix socially are maintained. Government can provide leadership by encouraging, and, where necessary providing funding for, maintained levels of students services and student activities such a clubs, informal student-to-student mentoring, and social activities, which have traditionally provided by student associations and guilds.

Recommendation 4: That Deans and Heads of School in business and IT in higher education and in VET be encouraged to structure study skill-building into courses, with an awareness that students in these disciplines may not be able to draw upon family networks for support in building these skills.

Recommendation 5: That representatives from language support units (as well as representatives from international students' services and other support services where possible) be introduced to students in-class, particularly for first year and beginning students.

Recommendations 2 to 5 apply particularly strongly to international students, who often face barriers of the kind discussed above to a more extreme extent than do local students.

We also recognise here the extra hurdles faced by women studying in IT, as issue which came up in a number of our interviews. One the basis of our study, it is difficult to recommend ways to address these problems (which we include in the section on 'further research,' below. However, we do recommend:

Recommendation 6: That teaching professionals in IT who have found successful ways of overcoming direct and indirect discrimination against female staff and students, and ways of addressing gendered classroom behaviour which can exclude female students, share such strategies at conferences, professional forums or informal seminars, wherever possible.

Recommendation 7: That State government provide funding for an interview-based study with teaching practitioners in IT to better understand gender problems, and to develop a web-based resource for teaching staff to provide support and teaching resources aimed at addressing such problems.

The VET sector is addressed more fully in the Victorian government's *Knowledge and skills for the innovation economy: Future directions for the Victorian vocational education and training system* (State of Victoria 2002). *Knowledge and skills* addresses the Victorian VET system under the aegis of *GVT* from the perspective of Victoria's place in a globalised workforce and the emerging knowledge economy. A key principle for reform cited by *Knowledge and skills* is that:

> Business now seek workers who have sound vocationally specific skills *and* broadly based generic skills. These include critical analysis, accessing information, analysing information for patterns of new meaning, communication, problem-solving skills,

> working in teams and networking, as well as having a positive attitude towards learning and the ability to learn.
>
> (State of Victoria 2002: 2, italics in original)

The 'Next step' recommended is to:

> Develop new VET products to meet the generic skills needs of individuals and businesses, to meet new and emerging skill needs, to value customised responses and to improve learning pathways.
>
> (State of Victoria 2002: 5)

Findings from our research relevant to this principle and its next step are: that new economy university students' ability to receive help from, or give help to, members of their networks in looking for work was similar to that of other students, however VET students were far less likely to receive help from their networks in looking for work, or to give help to members of their networks.

Several interviewees stated that the IT and business world was very interested in graduates with better literacy and generic communication skills. At the TAFE level there were a number of reports that VET institutions or VET programs may be failing to incorporate such generic skills into course competencies, or that these generic skills were being defined too narrowly (focusing on employment-related skills to the detriment of generic academic skills), and that required generic skills failed to provide students with the broader literacy and communication skills they needed to successfully navigate their future working lives as well as their life trajectories more broadly, including into higher education.
We therefore recommend:

Recommendation 8: That the National Quality Council review the learning outcomes designated for VET qualifications in the Australian Qualifications Framework so that they include outcomes designed to ensure students have the knowledge and skills they need to study at a higher level within their vocational field. Such knowledge and skills should include those which would enable students to move towards or into higher education should they choose to do so.

Knowledge and skills also notes in its opening that:

> Globalisation of economic activity and rapid advances in technology are driving major changes in the structure of industry and the nature of work, the way work is organised and the knowledge and skills our workforce requires. The rapid diffusion of information and communications technologies has changed the way in which many companies do business and create value. Internet technology has revolutionised modes of communication, spurred the growth of electronic commerce and reduced barriers to international trade.
>
> (State of Victoria 2002: 1)

Knowledge and skills, however, sees the main requirement for technology training to be in sophisticated new areas of growth, such as "advanced manufacturing, aerospace, biotechnology, design, environmental technologies and information and communications technologies" (State of Victoria 2002: 4). An important first step however, is training a technologically literate workforce. Our findings suggest that more focus needs to be placed on the most basic technologies, including that new economy students were twice as likely as other students to rely on email when contacting student colleagues, and far less likely than

other students to contact student colleagues by telephone, however, higher education students were much more likely to use email as a means of communication with network members than were VET students, in both new economy and other disciplines.
We therefore recommend:

Recommendation 9: That VET institutions place a special emphasis on requiring students' use of ICTs, including all common software platforms, and monitor students' abilities and provide further training and support where necessary.

The Victorian government mission statement for higher education is *Higher education in Victoria: Opportunities for 2005 and beyond*. Like *Knowledge and skills, Higher education* takes as a guiding principle the importance of education in improving life chances, including "second chance opportunities (OTTE 2005: 4). It notes that:

> Post compulsory education is widely recognised as an investment fore individuals and societies in the form of higher income and higher levels of ongoing employment. It helps fulfil aspirations as graduates are better prepared to succeed in, and respond to, changing social and economic environments… Efficient education policy delivers educational experiences and knowledge that equip individuals—economically, socially, politically, and culturally—for the society in which we live.
>
> (OTTE 2005: 10-11)

We note that many of the findings above are relevant to these goals.

Higher education also includes the key aim that higher education "become more accessible to Victorians from diverse backgrounds." We further note our finding that, in HE, IT students were statistically significantly less likely than business or other students to speak English at home. (Here, we reiterate Recommendation 4.)

GVT, *Knowledge and skills* and *Higher education* all focus on the importance of ensuring students can take part in an innovation economy and build the networks necessary to do so. Findings relevant to these cross-sectoral and societal goals are: that the educators interviewed stated that live internet chat-rooms and SMS were far more important to students than email, and suggested education institutions could do more to utilise these platforms, that many interviewees stated that students often failed to see the opportunities, such as career opportunities, available to them through their network memberships. Further, when asked about the degree to which they felt able to provide support for students developing professional networks, several of those interviewed said they would be more able were this work recognised in terms of time and pay.

We therefore recommend:

Recommendation 10: That HE and especially TAFE institutions continue to build strong relationships with their respective professional associations (such as the Australian Computer Society, CPA Australia, the Institute of Chartered Accountants Australia, the Financial Planning Association, etc), and that students be encouraged to become associate or junior members as appropriate. Such associations can play an important role in teaching young professionals to recognise and utilise networking behaviours. This recommendation is addressed to both educational institutions and to the bodies listed here, who should work collaboratively to encourage student membership.

Recommendation 11: That government work with professional associations (such as those listed above) to encourage such associations to play a more effective role in developing networks for young professionals/learners.

Recommendation 12: That institutions recognise shifts in students' use of various ICT technologies, and incorporate emerging technologies into support services, for example the use of internet chat-rooms for formal and informal purposes, and the use of messaging, as well as email, for student correspondence and alerts. Where necessary institutions should provide staff with professional development opportunities to support their use of such technologies.

We also note the ongoing concern by government and individual educational institutions that students spend increasing amounts of time in paid employment (for example McInnis & Hartley 2002). Findings relevant here include that the educators interviewed believed most students learnt few skills through their part-time employment. A further common theme in our interviews was the extent to which students feel a need to keep engaged with their peers using a variety of expensive technologies, and that this was quite probably a key factor in their increasing levels of paid work

We therefore recommend:

Recommendation 13: That educational institutions and the State Government continue to lobby the Commonwealth government for improved student income support measures, including linking income support to an agreed aggregate of the Henderson Poverty Line, and increasing stipends annually in line with CPI.

Further research

Our study suggest a number of angles for further research:

- State government should undertake an audit of its use of social capital based programs. Assessment of programs should include the extent to which stakeholder voices (business, community, etc) have been able to have an 'equal say,' and the extent to which disproportionate levels of power may affect the weight given to the opinions of stakeholder. It should also investigate the extent to which community consultation findings influence final reported outcomes.
- The differentiated opportunities of secondary school students from migrant, low SES and families in which neither parent has a tertiary education could be investigated through the use of a long-range study extending to tertiary education age. A key aim would be to understand how (and if) students' social networks affect the choice to undertake further study.
- An audit and self-evaluation of programs at Victorian tertiary education institutions aimed at giving students from not traditional backgrounds access to peer, mentor and professional networks should be undertaken, with programs having shown positive outcomes shared with other institutions. Such an audit could take the form of a research project or a conference.
- Further research needs to be undertaken into the differentiated social and professional opportunities accessible by higher education and VET students. The current study showed

that differences in the affordancies, opportunities and obstacles faced by these two groups was often greater than differences between students from the areas of study considered.

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Appendix A Full survey findings

A1 Demographics

Demographic data are set out below. Findings for the key social capital indicators follow in section A2.

The sample was comprised of the following groups:

Table A1:
Sector, field of study, age and sex of sample of 288 students and graduates.

Sector	n=
VET	124
HE	144
Not reported	20

Field	n=
Business	110
IT	60
Other	118

A1.1 Age

The median age across all study fields (business, IT and 'other' students) was in the 25-34 year old age range, as was the mode for business and IT students. The mode for other students fell into the younger 15-24 year old range.

Table A2:
Percentage of business, IT and other students in each age group

	Business % (of 118)	95% CI	**IT %** (of 60)	95% CI	**Other %** (of 118)	95% CI
15-24	30	22 to 40	27	17 to 39	34	26 to 43
25-34	36	27 to 45	43	32 to 56	26	19 to 35
35-44	18	12 to 27	20	12 to 32	15	10 to 23
45-54	14	9 to 22	10	5 to 20	19	13 to 27
55-64	0	0 to 3	0	0 to 6	6	3 to 12
65+	2	1 to 6	0	0 to 6	0	0 to 3

A more telling difference in the ages of respondents occurred between sectors, with VET students' ages fairly evenly distributed across the 15-24, 25-34, 35-44 and 45-54 years old ranges, while HE students were heavily clustered around the 25-34 year old range.

Table A3:
Percentage of HE and VET students in each age group

	HE % (of 143)	95% CI	**VET %** (of 124	95% CI
15-24	34	26 to 42	28	21 to 37
25-34	46	38 to 54	19	13 to 27
35-44	13	9 to 20	22	15 to 30
45-54	6	3 to 12	25	18 to 33
55-64	1	0 to 4	4	2 to 9
65+	0	0 to 3	2	0 to 6

The age spread of our sample compares favourably with population data collected by DEST and NCVER, who report the bulk of higher education students (47%) as aged between 20 and 29 years, and of VET students (46%) as aged over 30 years in 2001 (DEST 2002a).[15]

A1.2 Sex

There were large and statistically significant differences between the sexes of business, IT and other students. Around two thirds of both business students and other students were female, while IT students were strikingly more likely to be male, with a ratio in roughly inverse proportion to that of the other two groups.

Table A4:
Percentage of business, IT and other students of each sex

	Business % (of 108)	95% CI	**IT %** (of 59)	95% CI	**Other %** (of 118)	95% CI
Female	63	54 to 72	37	26 to 50	66	57 to 74
Male	37	29 to 46	63	50 to 74	34	26 to 43

Population data collected by DEST and NCVER for 2004 show our sample slightly overestimated women's participation across fields (see figure below). However, our sample includes 2004 students as well as 2000 and 2003 graduates, while the population data is for 2004 students only.

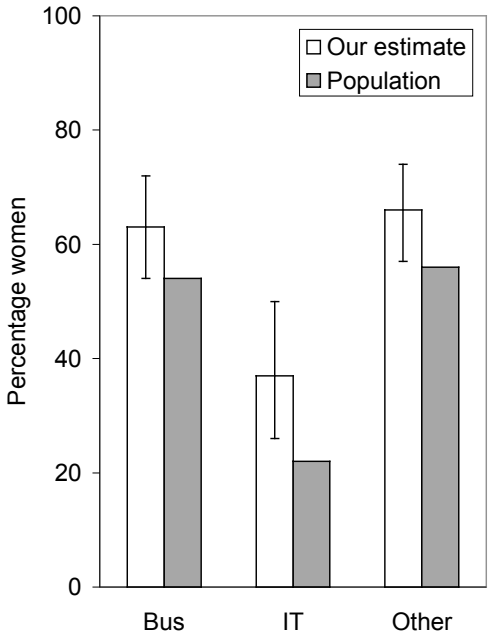

Figure A1:
Percentage of female business, IT and other students in our estimate, and female business, IT and other students in HE bachelor and VET Diploma and Certificate IV in 2004 (source for population: DEST 2004, NCVER 2005).

Over all, there was little difference between the proportion of male and female students at the sectoral level. Students were more a little more likely to be female in both higher education (55%, 79 of 143, 95% CI=47 to 63) and VET (62%, 76 of 122,95% CI= 53 to 70). Our

[15] Although note that the DEST and NCVER data is for the entire HE/VET populations, whereas our sample is drawn from Bachelor, Certificate IV and Diploma students only.

higher education data compares well to that collected by DEST, who report 54% of 2004 higher education bachelor students as female (DEST 2004). Our sample over-estimates women in VET somewhat, however, with NCVER reporting 53% of 2004 VET Diploma and Certificate IV students as female (NCVER 2005).

A1.3 Disability

Rates of physical disability were similar across study fields, however VET students were statistically significantly more likely to report a physical disability, with one in ten students reporting a disability, compared to less than 1% in higher education.

Table A5:
Percentage of HE and VET students reporting a disability

HE %	95% CI	VET %	95% CI
1 (1 of 142)	0 to 4	8 (10 of 121)	5 to 15

A1.4 Citizenship

Rates of non-Australian primary citizenship were higher amongst the 'new economy' group of business and IT students than other students, and statistically significantly higher amongst IT students than control group (table below).

Higher education students were also far more likely to have non-Australian primary citizenship, a difference statistically significant at the p>0.5 level.

Table A6:
Percentage of business, IT and other students of non-Australian citizenship

Business %		IT %		Other %	
(of 110)	95% CI	(of 59)	95% CI	of 113	95% CI
9	5 to 16	17	10 to 29	4	1 to 9

Table A7:
Percentage of HE and VET students of non-Australian citizenship

HE %		VET %	
(of 142)	95% CI	(of 121)	95% CI
15	10 to 22	3	1 to 7

Again, sector-wide population data compares well with that from our sample. DEST and NCVER reported 15% of higher education students as being overseas students in 2001, compared to only 1.2% of VET students (DEST 2002a).[16]

A1.5 English language in the home

While only around one in ten 'other' students lived in a home where English was not the language predominantly spoken, one in four IT students lived in such a home, a statistically

[16] Although again note that the DEST and NCVER data is for the entire HE/VET populations, whereas our sample is drawn from Bachelor, Certificate IV and Diploma students only. Also, our survey asked about primary citizenship, where as the DEST and NCVER figures are for overseas students—these groups are not necessarily identical.

significant difference. Business students a little more likely than other students not to live in a non-English speaking home.

Table A8:
Percentage of business, IT and other students for whom English is not the language predominantly spoken in the home

Business % (of 109)	95% CI	**IT %** (of 59)	95% CI	**Other %** (of 118)	95% CI
17	11 to 25	25	16 to 38	11	7 to 18

Higher education students, at 20%, were around twice as likely as VET students to come from a non-English speaking home.

Table A9:
Percentage of HE and VET students for whom English is not the language predominantly spoken in the home

HE % (of 143)	95% CI	**VET %** (of 123)	95% CI
20	14 to 27	11	6 to 17

A1.6 Locality

At first glance, there appeared to be no large differences in the home locality (city, country or town) of students when considered by field of study, however there were strong and statistically significant differences between the home localities of current students, first year-out graduates and fourth year-out graduates. Almost half (49%) of current students were located in the city, and only 13% in the country. Of fourth year-out graduates, however, 70% lived in a city and only 2% in the country. There appeared to be little difference in the proportion of those living in town localities at each year level, at around one quarter for each group.

Table A10:
Home location of current students and first and fourth year-out graduates

Home location	**Current students %** (of 101)	95% CI	**1st year graduates %** (of 52)	95% CI	**4th year graduates** % (of 82)	95% CI
City	49	38 to 59	67	58 to 76	69	56 to 80
Town	26	17 to 36	27	19 to 36	23	14 to 36
Countryside	13	8 to 22	1	0 to 5	2	0 to 10
Other	12	7 to 21	5	2 to 11	6	2 to 16

When considering the home localities of the discipline groups over years since graduation, there appeared to be a large shift from the country and towns to the city amongst IT students in particular. Nearly half of current IT students (46%) lived in a city, rising to 85% amongst four year-out graduates. Those living in towns dropped from 36% to 15%, and those living in the country dropped from 18% to zero (table below). It is important to remember, however, that 'current students,' 'first year-out graduates' and 'fourth year-out graduates' do not represent a single cohort over time, but a snapshot of three cohorts at a single time.

Among business and other students, shifts were far less pronounced. In business, the number of those located in the country decreased from 12% of current students to zero for the four year-out group, with town and city numbers increasing by four and seven percent respectively, with similar movements amongst other students (tables below).

Table A11:
Home location of current students and first and fourth year graduate business students

	Current students %	**95% CI**	**1st year** graduates %	**95% CI**	**4th year** graduates %	**95% CI**
City	58 (15 of 26)	39 to 75	68 (25 of 37)	52 to 80	65 (13 of 20)	43 to 82
Town	31 (8 of 26)	17 to 50	30 11 of 37)	18 to 46	35 (7 of 20)	18 to 57
Country	12 (3 of 26)	4 to 29	3 (1 of 37)	1 to 14	0 (0 of 20)	0 to 16

Table A12:
Home location of current students and first and fourth year graduate IT students

	Current students %	**95% CI**	**1st year** graduates %	**95% CI**	**4th year** graduates %	**95% CI**
City	46 (5 of 11)	21 to 72	70 (16 of 23)	49 to 84	85 (11 of 13)	58 to 96
Town	36 (4 of 11)	15 to 65	30 7 of 23)	16 to 51	15 (2 of 13)	4 to 42
Country	18 (2 of 11)	5 to 48	0 (0 of 23)	0 to 14	0 (0 of 13)	0 to 23

Table13:
Home location of current students and first and fourth year graduate other students

	Current students %	**95% CI**	**1st year** graduates %	**95% CI**	**4th year** graduates %	**95% CI**
City	57 (20 of 35)	41 to 72	75 (27 of 36)	59 to 86	75 (12 of 16)	51 to 90
Town	26 (9 of 35)	14 to 42	25 (9 of 36)	14 to 41	19 (3 of 16)	7 to 43
Country	17 (6 of 35)	8 to 33	0 (0 of 36)	0 to 10	6 (1 of 16)	1 to 28

A1.7 Partnering and parenting

Around two thirds of each field cohort were married, and one third of each field cohort had children (tables below). IT students, of whom 59% were single, were the least likely to be partnered. This was largely due to the comparatively low rate of de facto partnerships amongst IT students (7%) compared to business students (13%) and other students (18%).

Table A14:
Percentage of de facto, married and single business, IT and other students

	Business % (of 108)	**95% CI**	**IT % (of 59)**	**95% CI**	**Other (of 116)**	**95% CI**
de facto	13	8 to 21	7	3 to 16	18	12 to 26
married	36	28 to 46	34	23 to 47	37	29 to 46
single	51	42 to 60	59	47 to 71	45	36 to 54

Table A15:
Proportion of business, IT and other students with children

Business (of 108)	**95% CI**	**IT (of 59)**	**95% CI**	**Other (of 118)**	**95% CI**
26	19 to 35	27	17 to 40	27	20 to 36

VET students were a statistically significantly more likely to be married (44%) than their higher education colleagues (30%, table below), a difference that might be explained by their

tendency to be older than students in higher education. VET students (36.6%, 45 of 123, 95% CI=28.6-45.4) were also far more likely to have children than higher education students (19.7%, 28 of 142, 95% CI=14-27)

Table A16:
Percentage of de facto, married and single HE and VET students

	HE (of 141)	95% CI	VET (of 123)	95% CI
de facto	16	11 to 23	10	6 to 16
married	30	23 to 38	44	35 to 53
single	55	46 to 63	46	38 to 55

A1.8 Employment

Business graduates were far more likely than their colleagues to be in full time employment one year after graduating, at over 90%, compared to 65% of IT students and 60% of other students. However, by the fourth year after graduation differences between the business and IT cohorts were minimal at around 85%, with other students still falling behind at less than 70% full-time employment.

Table A17:
Employment status of first year and fourth year business graduates

Employment status	1st year graduates % (of 40)	95% CI	4th year graduates % (of 21)	95% CI
None	3	0 to 13	10	3 to 29
Part-time	5	1 to 17	10	3 to 29
Full-time	93	80 to 97	81	60 to 92

Table A18:
Employment status of first year and fourth year IT graduates

Employment status	1st year graduates % 0f 26)	95% CI	4th year graduates % (of 14)	95% CI
None	15	6 to 34	7	1 to 32
Part-time	19	9 to 38	7	1 to 32
Full-time	65	46 to 81	86	60 to 96

Table A19:
Employment status of first year and fourth year other graduates

Employment status	1st year graduates % (of 37)	95% CI	4th year graduates % (of 19)	95% CI
None	11	4 to 25	16	6 to 38
Part-time	30	18 to 46	16	6 to 38
Full-time	60	44 to 74	68	46 to 85

At the sectoral level higher education students were statistically significantly more likely, at 83%, than their VET colleagues (64%) to be in full time employment, and statistically significantly less likely to be in part-time employment. These differences remained, but were less pronounced 4 years after graduation. The greatest difference at the four year-out level was in those with no employment. While less than 6% of fourth year-out higher education graduates were without employment, one quarter of VET students were jobless—a large and statistically significant difference.

Table A20:
Employment status (%) of first and fourth year-out higher education graduates

HE	1st year graduates % (of 60)	95% CI	4th year graduates % (of 37)	95% CI
None	7	3 to 16	5	2 to 18
Part-time	10	5 to 20	8	3 to 21
Full-time	83	72 to 91	87	72 to 94

Table A21:
Employment status (%) of first and fourth year-out VET graduates

VET	1st year graduates % (of 39)	95% CI	4th year graduates % (of 16)	95% CI
None	8	3 to 20	25	10 to 50
Part-time	28	17 to 44	13	4 to 36
Full-time	64	48 to 77	63	39 to 82

A1.9 Secondary schooling

Students from all three study cohorts were most likely to have attended a state school in their last year of secondary schooling than any other school type, with rates of attendance at a state school at around two thirds for each of the three cohorts (table below). Business students (29%) were statistically significantly more likely to have attended a Catholic systemic school than other students (14%), while IT students (25%) were also more, though not statistically significantly more, likely to have attended a Catholic school.

Table A22:
School type attended by business, IT and other students (%) in the final year of high school

	Business % (of 104)	95% CI	IT % (of 57)	95% CI	Other % (of 116)	95% CI
State school	59	49 to 68	65	52 to 76	66	57 to 74
Independent school	10	5 to 17	7	3 to 17	15	9 to 22
Catholic systemic school	29	21 to 38	25	15 to 37	14	9 to 21
Other	3	1 to 8	4	1 to 12	5	2 to 11

Sectoral differences were particularly large, with VET students more likely to have attended a State school and less likely to have attended an independent school, a statistically significant difference (table below).

Table A23:
School type attended by HE and VET students (%) in the final year of high school

	HE % (of 142)	95% CI	VET % (of 116)	95% CI
State school	54	46 to 62	73	65 to 81
Independent school	17	12 to 24	4	2 to 10
Catholic systemic school	25	19 to 33	18	12 to 26
Other	4	2 to 8	4	2 to 10

A1.10 Parental education levels

For both field and sector cohorts, less than 50% of respondents' parents had completed a university degree. Differences were pronounced, and statistically significant, at the sectoral level. A little over half of higher education students did not have a parent with a university degree, while over three quarters of VET students did not have a parent with a university degree.

Table A24:
Proportion of HE and VET students for whom neither parent has completed a university degree

HE % (of 142)	95% CI	VET % (of 123)	95% CI
56	48 to 64	81	74 to 87

Within higher education there was a large difference between the fields of education in relation to parental education levels, a difference not replicated in VET. Nearly three quarters of business students in higher education did not have a parent with a university degree, a statistically significant difference from the higher education control group, of whom only one third did not have a parent with a university degree. Higher education IT students were also less likely to have a parent with a university degree, at 59%, compared to other students.

Table A25:
Proportion of business, IT and other students in HE and VET for whom neither parent has a university degree.

	Business %	95% CI	IT %	95% CI	Other %	95% CI
HE	72 (43 of 60)	59 to 82	59 (20 of 34)	42 to 74	35 (17 of 48)	23 to 50
VET	89 (40 of 45)	77 to 95	78 (18 of 23)	58 to 90	76 (42 of 55)	64 to 86

A1.11 Secondary education rates of network members

Some variation between study fields was apparent concerning the extent to which respondents reported that members of their network groups had completed secondary education, although all cohorts reported rates of secondary school completion above 68% across networks (with the exception of business students' civic groups, see below).

IT students' generally reported higher rates of secondary school completion by members of their social and professional networks. In particular, IT students reported statistically significantly higher rates of secondary school completion (91.4%) amongst their immediate family members than both business students (68.8%) and other students (75%). IT students also reported statistically significantly higher rates of secondary school completion amongst their work-mates, at 100%, than other students at 87.8%, and a higher rate than business students, at 93.8%--perhaps not surprising considering the technical nature of the profession. Business students reported dramatically lower rates of secondary education in members of the civic groups to which they belonged, despite not having particularly higher participation rates in any individual civic group than the other two cohorts (see section A5.2 below).

Table A26:
Completion of secondary education by the network members of business IT and other students

Network	Business %	95% CI	IT %	95% CI	Other %	95% CI
Family	69 (75 of 109)	60 to 77	91 (53 of 58)	81 to 96	75 (87 of 116)	66 to 82
Ext. family	70 (76 of 108)	61 to 78	77 (44 of 57)	65 to 86	73 (82 of 113)	64 to 80
Friends	95 (102 of 107)	90 to 98	95 (55 of 58)	86 to 98	90 (104 of 115)	84 to 95
Household	73 (73 of 100)	64 to 81	86 (44 of 51)	74 to 93	79 (84 of 106)	71 to 86
Workmates	94 (91 of 97)	87 to 97	100 (44 of 44)	92 to 100	88 (86 of 98)	80 to 93
Civic group	44 (19 of 43)	30 to 59	69 (11 of 16)	44 to 86	71 (35 of 49)	58 to 82

There was little variation in the rates of secondary school completion of network members between higher education and VET students (table below). Both groups reported rates above 65% for all networks bar VET students' civic group members at 53.8%. Both groups reported around three quarters of their immediate and extended family as having completed secondary school, and over 90% of their friends and work-mates. VET students (75%) reported a slightly lower rate of secondary school completion amongst their household than higher education students (83.8%).

Table A27:
Completion of secondary education by the network members of HE and VET students

Network	HE %	95% CI	VET %	95% CI
Family	80 (113 of 142)	72 to 85	75 (92 of 122)	67 to 82
Ext. family	73 (105 of 143)	66 to 80	74 (87 of 117)	66 to 81
Friends	95 (137 of 144)	90 to 98	92 (107 of 117)	85 to 95
Household	84 (109 of 130)	77 to 89	75 (81 of 108)	66 to 82
Workmates	94 (118 of 125)	89 to 97	91 (89 of 98)	84 to 95
Civic group	68 (19 of 28)	49 to 82	54 (35 of 65)	42 to 65

A1.12 Work placements

Around two thirds of other students had a work placement or work experience component included in their course, compared to only around one third of business and IT students—a large and statistically significant difference.

Table A28:
Proportion of business, IT and other students who had a work placement or work experience included in their course

Business % (of 107)	95% CI	IT % (of 60)	95% CI	Other % (of 118)	95% CI
39	31 to 49	32	21 to 44	67	58 to 75

Around half of both higher education and VET students had a work placement or work experience component included in their course.

Table A29:
Proportion of HE and VET students who had a work experience or work placement component included in their course

HE % (of 143)	95% CI	VET % (of 122)	95% CI
51	43 to 59	47	38 to 56

A1.13 Further study for graduates

IT students were the most likely to have undertaken further studies (70%) followed by business graduates (57%) and other students (54%).

Table A30:
Proportion if business, IT and other graduates who have undertaken further study since completing their course

Business % (of 77)	95% CI	IT % (of 46)	95% CI	Other % (of 72)	95% CI
57	46 to 68	70	55 to 81	54	43 to 65

Graduates of higher education were extremely and statistically significantly more likely (74.8%, 77 of 103, 95% CI=65.6-82.2) to have undertaken further study than VET graduates (40.5%, 32 of 79, 95% CI=30.4-51.5).

A2 Key social capital indicators

Here we report results for the key social capital indicators investigated by our survey: communication; civic group membership; information sharing (job searching); sources of support in a crisis; trust and identity.

A2.1 Communication

Before considering trends and differences between cohorts, it is instructive to look at the communication modes used to contact each network type for the target population. The most common means of communication, by far, was the immediate mode of face to face and telephone (a statistically significant difference to email and no contact across all network types). For example, 94% of students used the immediate mode for contact with their family. Whereas only 5% used email and 1% had no contact. This trend largely continues for the other network types. Table A31 shows relevant proportions and their confidence intervals.

Table A31:
Proportion of communication modes used primarily to communicate with each network

Network	Immediate %	95% CI	Email %	95% CI	Not at all %	95% CI
Family	94 (228 of 243)	90 to 96	5 (13 of 243)	3 to 9	1 (2 of 243)	0 to 3
Ext. family	89 (210 of 235)	85 to 93	6 (14 of 235)	4 to 10	(5 of 235) 11	3 to 8
Friends	84 (183 of 219)	78 to 88	16 (36 of 219)	12 to 22	(0 of 219) 0	0 to 2
Students	55 (122 of 221)	49 to 62	33 (72 of 221)	27 to 39	(12 of 221) 27	9 to 17
Workmates	91 (175 of 192)	86 to 94	7 (14 of 192)	4 to 12	(2 of 192) 3	1 to 5
Civic group	57 (57 of 100)	47 to 66	8 (8 of 100)	4 to 15	(35 of 100) 35	26 to 45

Communication methods across cohorts and networks were similar to those of the population outlined above. Use of mail or 'other' methods did not pass four percent for any cohort or network.

The only differences between field cohorts which produced clear trends were found in the use of email as a communication method. Perhaps unsurprisingly, IT students were the most likely to use email to communicate with network members. What was most notable, however, was that both IT and business students differentiated themselves from their fellows by being extremely and statistically significantly more likely to use email to communicate with their fellow students than other students, and less likely to use the telephone.

Table A32:
Proportion of business, IT and other students using email and the telephone as the primary means of communicating with other students

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Email	41 (34 of 84)	31 to 51	44 (21 of 48)	31 to 58	18 (17 of 95)	12 to 27
Telephone	16 14 of 84)	10 to 26	6 (3 of 48)	2 to 17	24 (23 of 95)	17 to 34

It is also interesting to note that while business students were somewhat less likely to have face-to-face communication with their fellow students, IT and other students were equally likely to use face to face communication with their fellow students.

Table A33:
Proportion of business, IT and other students using face-to-face communication as the primary means of communicating with other students

Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
29 (24 of 84)	20 to 39	40 (19 of 48)	27 to 54	41 (39 of 95)	32 to 51

Higher education students were more likely to use email to communicate with their networks than VET students, for every network. In particular, they were extremely and statistically significantly more likely than VET students to use email to contact their fellow students. While only around one in ten VET students mostly used email to contact fellow students, nearly half of higher education students used email as their main mode of communication with other students.

Table A34:
Proportion of HE and VET students using email as the primary means of communicating with other students

	HE %	**95% CI**	**VET %**	**95% CI**
Family	7 (9 of 132)	4 to 13	4 (4 of 94)	2 to 10
Ext family	9 (12 of 130)	5 to 15	2 (2 of 91)	1 to 8
Friends	22 (27 of 122)	16 to 30	11 (9 of 83)	6 to 19
Students	48 (59 of 122)	40 to 57	11 (10 of 90)	6 to 19
Workmates	9 (10 of 108)	5 to 16	4 (3 of 73)	1 to 11
Civic group	12 (3 of 25)	4 to 30	3 (2 of 61)	1 to 11

When field of study cohorts were considered by sector, differences were as would be expected from the data above, with new economy students in both higher education and Vet more likely than the relevant control groups to use email to communicate with their fellow students. The most interesting finding at the sectoral level was amongst 'other' students, with no VET students reporting email as their most common means of communicating with other students, compared to around one third of higher education students.

Table A35:
Proportion of business, IT and other students in HE and VET using email as their primary means of communicating with other students

	Business %	95% CI	IT %	95% CI	Other %	95% CI
HE	59 (27 of 46)	44 to 72	52 (17 of 33)	35 to 68	35 (15 of 43)	22 to 50
VET	18 (6 of 34)	8 to 34	27 (4 of 15)	11 to 52	0 (0 of 41)	0 to 9

A2.2 Civic group membership

Sport was by far the most popular type of civic activity, with around half of business, IT and other students belonging to a sporting group (table below). IT students were statistically significantly more likely to belong to a religious or church group, at 32% membership, than business students at 15%, or other students at 18%. IT students were also less likely to belong to a trade union or professional association (14%) than business students (23%) or other students (28%). Both business and IT students were less likely than other students to take part in education groups, political or cultural groups than other students.

Table A36:
Proportion of business, IT and other students with membership of each civic group

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Religious	15 (15 of 102)	9 to 23	33 (18 of 55)	22 to 46	18 (20 of 110)	12 to 26
Sports	52 (53 of 102)	42 to 61	54 (32 of 59)	42 to 66	52 (60 of 115)	43 to 61
Education	11 (11 of 101)	6 to 19	9 (5 of 54)	4 to 20	18 (19 of 108)	12 to 26
Trade union	23 (23 of 102)	16 to 32	14 (8 of 56)	7 to 26	28 (31 of 109)	21 to 38
Political	16 (16 of 101)	10 to 24	11 (6 of 56)	5 to 22	21 (22 of 107)	14 to 29
Cultural	6 (6 of 101)	3 to 12	4 (2 of 55)	1 to 12	14 (15 of 109)	9 to 22
Self help	4 (4 of 9)	2 to 10	0 (0 of 54)	0 to 7	9 (9 of 104)	5 to 16

Current students, first year-out graduates and fourth year-out graduates were fairly equally likely to be members of the various civic groups considered, with the exception of sporting groups, membership of which declined with years after study, and trade union membership, which increased.

Table A37:
Proportion of current students and first and fourth year-out graduates with membership of a sporting group or trade union

	Current students %	95% CI	1st year graduates %	95% CI	4th year graduates %	95% CI
Sports	62 (49 of 79)	51 to 72	51 (51 of 101)	41 to 60	46 (24 of 52)	33 to 60
Trade union	12 (9 of 74)	7 to 22	27 (27 of 99)	20 to 37	25 (13 of 52)	15 to 38

Sectoral differences were minimal, although VET students were slightly more likely to be involved in religious or cultural groups, and statistically significantly more likely to be members of a self help or group therapy group—a finding in line with the greater number of VET students reporting a disability. higher education students were a little more likely to be involved in sports and political/community groups and trade unions.

Table A38:
Proportion of HE and VET students with membership of each civic group

	HE %	95% CI	VET %	95% CI
Religious	17 (24 of 142)	12 to 24	26 (28 of 109)	18 to 35
Sports	55 (78 of 142)	47 to 63	49 (57 of 116)	40 to 58
Education	13 (18 of 140)	8 to 19	14 (15 of 107)	9 to 22
Trade union	25 (36 of 143)	19 to 33	19 (21 of 108)	13 to 28
Political	17 (24 of 141)	12 to 24	14 (15 of 107)	9 to 22
Cultural	6 (8 of 141)	3 to 11	11 (12 of 107)	7 to 19
Self help	2 (2 of 137)	0 to 5	10 (10 of 104)	5 to 17

Women were more likely than men to be involved in all civic groups considered apart from religious and sporting groups, and statistically significantly more likely to be involved in education groups.

Table A39:
Proportion of women and men with membership of each civic group

	Women %	95% CI	Men %	95% CI
Religious	18 (27 of 154)	12 to 24	23 (26 of 111)	17 to 32
Sports	52 (83 of 160)	44 to 60	54 (62 of 114)	45 to 63
Education	17 (26 of 151)	12 to 24	8 (9 of 110)	4 to 15
Trade union	24 (37 of 153)	18 to 32	22 (25 of 112)	16 to 31
Political	20 (30 of 150)	14 to 27	13 (14 of 112)	8 to 20
Cultural	11 (17 of 152)	7 to 17	5 (6 of 111)	3 to 11
Self help	5 (8 of 147)	3 to 10	5 (5 of 108)	2 to 10

Differences between those who spoke English in the home and those who did not were more difficult to track with precision, however those who did not have English as the language predominantly spoken in the home were more likely to be involved in religious groups, and less likely to be involved with a political group.

Table A40:
Proportion of students who do and do not have English as the language predominantly spoken at home who are members of religious or political civic groups

	Language other than English	95% CI	English spoken in the home %	95% CI
Religious	29 (13 of 45)	18 to 43	17 (40 of 221)	14 to 24
Political	7 (3 of 43)	2 to 19	19 (41 of 220)	14 to 24

Considering civic activities according to school type attended in the final year of secondary school yielded few differences between cohorts, however those who had attended independent schools were statistically significantly more likely to be involved in sporting activities than those who had attended state schools.

Table A41:
Proportion of State, Independent and Catholic high school graduates who belong to a sports group

State school %	95% CI	Independent school %	95% CI	Catholic systemic school %	95% CI
50 (85 of 169)	43 to 58	70 (21 of 30)	52 to 83	50 (29 of 58)	38 to 63

Intra-civic group activities

Participants were invited to nominate membership of multiple civic groups, giving the overall picture of membership outlined above. However, activities within civic groups were also considered.

Education groups had the most active members (regular participation in the group at least once per year), with 94.7% of those citing membership saying that they took an active part in the meetings, activities or events of an education group at least once per year. Members of education groups were statistically significantly more likely to take an active part in their group than members of political groups at 57.1%, or self-help groups at 25% (though the sample for self help groups was extremely small). Active membership levels for the other groups ranged between 65% and 80%.

Table A42:
Percentage of members of each civic group who are active members (participate at least once per year)

	Active membership %	95% CI
Religious	80 (24 of 30)	63 to 91
Sports	68 (69 of 102)	58 to 76
Education	95 (18 of 19)	75 to 99
Trade union	70 (19 of 27)	52 to 84
Political	57 (12 of 21)	37 to 76
Cultural	78 (7 of 9)	45 to 94
Self help	25 (1 of 4)	5 to 70

Not only were members of education groups the most active participants in a civic group, they were also the most likely to hold an elected or official position, at 31%. Despite having the second highest active membership rates, members of religious or church groups were (with self help groups) the least likely to hold an elected position, perhaps reflecting the limited scope for leadership positions in these groups. Around 20% of members of sporting and cultural groups held an elected position, and only around 10% of political and trade union members held an elected or official position.

Table A43:
Percentage of members of each civic group who old an elected position

	Elected position %	95% CI
Religious	0 (0 of 30)	0 to 11
Sports	19 (19 of 102)	12 to 27
Education	32 (6 of 19)	15 to 54
Trade union	11 (3 of 28)	4 to 27
Political	10 (2 of 21)	3 to 29
Cultural	22 (2 of 9)	6 to 55
Self help	0 (0 of 4)	0 to 49

Rates at which members of civic groups paid fees or made donations as part of their participation varied widely between civic groups. Cultural groups were the most likely to entail fees or donations (78%). Around 70% of religious groups, sporting groups and trade unions involved fees or donations, while around 50% of community and education groups involved fees.

Table A44:
Proportion of members of each civic group who pay fees or a donation as part of their membership

	Fee/donation paying %	95% CI
Religious	69 (20 of 29)	51 to 83
Sports	72 (74 of 103)	63 to 80
Education	47 (9 of 19)	27 to 68
Trade union	74 (20 of 27)	55 to 87
Political	52 (11 of 21)	32 to 72
Cultural	78 (7 of 9)	45 to 94
Self help	25 (1 of 4)	5 to 70

A2.3 Information sharing—job searching

Information sharing was concentrated in the most immediate network groups—across each cohort considered (study field, years since graduation and sector), students were more likely give assistance to, and receive assistance from, immediate family, friends, housemates and

work-mates than extended family, student colleagues and civic group members. For all cohorts, the proportion of students who had given assistance was higher than that of students who had received assistance, for almost every network group.

There were only small differences in the extent to which business, IT and other students gave or received assistance looking for work, with all groups following the broad trends described above, with the exception of IT students, who were far more likely to receive assistance looking for work from their civic groups. Over one quarter of IT students had received assistance in looking for work from a civic group member in the past year. Only 8% of business students and 4% of other students had received such assistance from a civic group member (a statistically significant difference).

Table A45:
Proportion of business, IT and other students who have provided assistance looking for or applying for a job to a member of social networks

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Family	40 (44 of 110)	31 to 49	42 (25 of 59)	31 to 55	43 (50 of 117)	34 to 52
Ext. family	13 (14 of 109)	8 to 20	19 (11 of 58)	11 to 31	10 (11 of 116)	5 to 16
Friends	41 (45 of 110)	32 to 50	33 (20 of 60)	23 to 46	39 (46 of 117)	31 to 48
Household	32 (32 of 100)	24 to 42	42 (22 of 52)	30 to 56	41 (45 of 109)	33 to 51
Students	18 (19 of 107)	12 to 26	14 (8 of 58)	7 to 25	22 (25 of 113)	16 to 31
Workmates	29 (29 of 100)	21 to 39	22 (10 of 46)	12 to 36	33 (33 of 99)	25 to 43
Civic group	8 (4 of 52)	3 to 18	10 (2 of 21)	3 to 29	6 (3 of 55)	2 to 15

Table A46:
Proportion of business, IT and other students who have received assistance looking for or applying for a job from a member of social networks

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Family	22 (24 of 110)	15 to 30	32 (19 of 59)	22 to 45	26 (30 of 117)	19 to 34
Ext. family	6 (7 of 109)	3 to 13	12 (7 of 58)	6 to 23	6 (7 of 114)	3 to 12
Friends	27 (30 of 110)	20 to 36	27 (16 of 60)	17 to 39	23 (27 of 116)	17 to 32
Household	22 (22 of 101)	15 to 31	25 (13 of 52)	15 to 38	28 (30 of 108)	20 to 37
Students	8 (9 of 107)	5 to 15	12 (7 of 58)	6 to 23	13 (15 of 113)	8 to 21
Workmates	20 (20 of 100)	13 to 29	24 (11 of 46)	14 to 38	19 (19 of 98)	13 to 28
Civic group	8 (4 of 53)	3 to 18	29 (6 of 21)	14 to 50	4 (2 of 56)	1 to 12

Sectoral differences were far more pronounced, with larger amount of information sharing activity amongst higher education students than VET students. Higher education students were more likely to render assistance seeking employment to their social network members than VET students across all networks. Higher education students were statistically significantly more likely to assist their friends, housemates and student colleagues than VET students (table below). Higher education students were also more likely to receive help seeking employment from their social networks than VET students across all networks. In

particular, they were statistically significantly more likely to receive assistance from their housemates and work colleagues than were VET students.

Table A47:
Proportion HE and VET students who have provided assistance looking for or applying for a job to a member of social networks

	HE %	95% CI	VET %	95% CI
Family	45 (64 of 143)	37 to 53	36 (45 of 124)	28 to 45
Ext. family	15 (21 of 143)	10 to 21	10 (12 of 121)	6 to 17
Friends	46 (66 of 144)	38 to 54	29 (35 of 123)	21 to 37
Household	44 (59 of 134)	36 to 53	30 (32 of 108)	22 to 39
Students	24 (34 of 141)	18 to 32	15 (17 of 117)	9 to 22
Workmates	34 (43 of 126)	26 to 43	23 (23 of 102)	16 to 32
Civic group	12 (4 of 34)	5 to 27	7 (5 of 77)	3 to 14

Table A48:
Proportion of HE and VET students who have received assistance looking for or applying for a job from a member of social networks

	HE %	95% CI	VET %	95% CI
Family	29 (41 of 142)	22 to 37	20 (25 of 124)	14 to 28
Ext. family	9 (12 of 141)	5 to 14	7 (8 of 121)	3 to 13
Friends	28 (40 of 143)	21 to 36	22 (27 of 123)	16 to 30
Household	30 (40 of 134)	23 to 38	18 (19 of 108)	12 to 26
Students	14 (19 of 141)	9 to 20	9 (10 of 117)	5 to 15
Workmates	28 (35 of 125)	21 to 36	10 (10 of 102)	5 to 17
Civic group	12 (4 of 34)	5 to 27	9 (7 of 79)	4 to 17

A2.4 Sources of support in a crisis

Participants were asked whether, if they needed help, a member of their social networks would assist them by:
collecting their mail;
cleaning their house;
looking after a child;
doing their shopping if they were ill, or
having a chat about something that was worrying them.

Across all 'helping tasks' business, IT and other students' most immediate networks (immediate family, friends and housemates) were ranked at around or above 80% (would help), while less immediate networks were ranked around, or under, 40%, showing, as might be expected, that bonding ties are strongest amongst the most immediate social networks. An interesting exception to this trend was the 'talk to you about something that is worrying you' task, where the less immediate networks were ranked considerably higher (around 60%) than

for other tasks, with work-mates ranked around or above 75% for each cohort group (see field of study tables for all tasks on pages 41-43).

A trend of particular interest was that the 'new economy' students, particularly those in IT, ranked their student colleagues as less likely to help across all tasks than did other students. In particular, IT students were less likely, and business students statistically significantly less likely, to feel that they could talk to student colleagues about a problem that was worrying them than other students. Such differences may suggest that new economy students do not establish bonding ties with their fellow students during their studies to the same extent as students in other fields.

New economy students, and again particularly IT students, were also more likely than other students to believe that members of their civic group would help them with each of the various tasks, although less than 45% of each field cohort believed a civic group member would help with each task.

There were no strong trends evident when the 'helping' indicator was considered by sector or years since graduation.

Table A49:
Proportion of business, IT and other students who believe a network member would collect their mail if they needed help

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Family	91 (99 of 109)	84 to 95	91 (51 of 56)	81 to 96	92 (105 of 114)	86 to 96
Ext. family	66 (67 of 101)	57 to 75	52 (26 of 50)	39 to 65	64 (62 of 97)	54 to 73
Friends	88 (93 of 106)	80 to 93	83 (44 of 53)	71 to 91	89 (100 of 113)	81 to 93
Household	99 (97 of 98)	94 to 100	96 (48 of 50)	87 to 99	96 (101 of 105)	91 to 99
Students	29 (28 of 98)	21 to 38	27 (12 of 45)	16 to 41	40 (36 of 910	30 to 50
Workmates	46 (40 of 88)	36 to 56	50 (19 of 38)	35 to 65	48 (41 of 85)	38 to 59
Civic group	28 (13 of 47)	17 to 42	41 (7 of 17)	22 to 64	28 (14 of 51)	17 to 41

Table A50:
Proportion of business, IT and other students who believe a network member would help clean their house if they needed help

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Family	86 (92 of 107)	78 to 91	84 (47 of 56)	72 to 91	84 (95 of 113)	76 to 90
Ext. family	55 (54 of 98)	45 to 65	44 (21 of 48)	31 to 58	51 (49 of 96)	41 to 61
Friends	71 (72 of 101)	62 to 79	59 (29 of 49)	45 to 72	81 (87 of 107)	73 to 88
Household	96 (94 of 98)	90 to 98	94 (46 of 49)	84 to 98	93 (97 of 104)	87 to 97
Students	19 (18 of 95)	12 to 28	11 (5 of 46)	5 to 23	25 (22 of 87)	17 to 35
Workmates	28 (24 of 86)	20 to 38	21 (7 of 34)	10 to 37	33 (28 of 85)	24 to 44
Civic group	19 (9 of 47)	10 to 33	35 (6 of 17)	17 to 59	12 (6 of 51)	6 to 23

Table A51:
Proportion of business, IT and other students who believe a network member would look after a child for them if they needed help

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Family	76 (74 of 98)	66 to 83	90 (43 of 48)	78 to 96	90 (81 of 90)	82 to 95
Ext. family	61 (52 of 85)	51 to 71	52 (25 of 48)	38 to 66	60 (51 of 85)	49 to 70
Friends	74 (65 of 88)	64 to 82	67 (31 of 46)	53 to 79	81 (78 of 96)	72 to 88
Household	91 (76 of 84)	82 to 95	84 (37 of 44)	71 to 92	92 (80 of 87)	84 to 96
Students	24 (21 of 88)	16 to 34	13 (6 of 46)	6 to 26	31 (25 of 81)	22 to 42
Workmates	33 (26 of 79)	24 to 44	31 (11 of 35)	19 to 48	41 (30 of 74)	30 to 52
Civic group	24 (11 of 46)	14 to 38	41 (7 of 17)	22 to 64	13 (6 of 48)	6 to 25

Table A52:
Proportion of business, IT and other students who believe a network member would do their shopping for them if they were ill

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Family	80 (93 of 117)	71 to 86	85 (49 of 58)	73 to 92	92 (105 of 114)	86 to 96
Ext. family	61 (61 of 100)	51 to 70	53 (26 of 49)	39 to 66	59 (55 of 94)	48 to 68
Friends	78 (81 of 104)	69 to 85	78 (38 of 49)	64 to 87	87 (97 of 112)	79 to 92
Household	96 (94 of 98)	90 to 98	94 (47 of 50)	84 to 98	95 (99 of 104)	89 to 98
Students	26 (25 of 95)	19 to 36	20 (9 of 46)	11 to 33	32 (28 of 89)	23 to 42
Workmates	37 (32 of 87)	27 to 47	29 (10 of 35)	16 to 45	44 (37 of 85)	34 to 54
Civic group	26 (12 of 46)	16 to 40	41 (7 of 17)	22 to 64	16 (8 of 51)	8 to 28

Table A53:
Proportion of business, IT and other students who believe they could discuss something that was worrying them with a network member

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Family	86 (93 of 108)	78 to 91	87 (48 of 55)	76 to 94	94 (106 of 113)	88 to 97
Ext. family	69 (70 of 102)	59 to 77	59 (29 of 49)	45 to 72	72 (73 of 101)	63 to 80
Friends	94 (102 of 108)	88 to 97	91 (49 of 54)	80 to 96	95 (109 of 115)	89 to 98
Household	92 (89 of 97)	85 to 96	92 (44 of 48)	80 to 97	93 (97 of 104)	87 to 97
Students	47 (47 of 100)	38 to 57	52 (24 of 46)	38 to 66	67 (66 of 98)	58 to 76
Workmates	74 (69 of 93)	65 to 82	73 (29 of 40)	57 to 84	74 (67 of 90)	65 to 82
Civic group	42 (20 of 48)	29 to 56	39 (7 of 18)	20 to 61	37 (19 of 51)	25 to 51

A2.5 Trust

Across all field of study cohorts, students were most likely to trust their family, friends and household, with around or above 90% of students feeling they could usually-completely trust

members of these networks. While around 90% of business and IT students felt that they could usually-completely trust their close friends, they were statistically significantly less likely to trust their close friends than other students, of whom 98% felt that they could trust their friends. Business and IT students were also statistically significantly less likely to trust their student colleagues than were other students. Just over half of IT students, and two thirds of business students, felt they could usually-completely trust their student colleagues, while over 80% of other students trusted their fellow students or close friends.

Table A54:
Percentage of business, IT and other students who usually-completely trust members of each social network

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
Family	92 (101 of 110)	85 to 96	95 (55 of 58)	86 to 98	94 (109 of 116)	88 to 97
Ext. family	80 (86 of 108)	71 to 86	64 (37 of 58)	51 to 75	73 (82 of 112)	64 to 81
Friends	91 (99 of 109)	84 to 95	88 (53 of 60)	78 to 94	98 (113 of 115)	94 to 100
Household	96 (95 of 99)	90 to 98	96 (50 of 52)	87 to 99	96 (104 of 108)	91 to 99
Students	66 (65 of 99)	56 to 74	56 (28 of 50)	42 to 69	82 (86 of 105)	74 to 88
Workmates	66 (65 of 98)	57 to 75	71 (32 of 45)	57 to 82	76 (75 of 99)	67 to 83
Civic group	41 (17 of 42)	27 to 56	63 (12 of 19)	41 to 81	59 (31 of 53)	45 to 71

It is also interesting to note that IT students were more likely to trust members of their civic group than business students or other students—indeed, a higher proportion of IT students trusted members of their civic group (63%) than their student colleagues (56%). This finding aligns with the greater reliance on civic group members IT students exhibit in other key social capital indicators, such as assistance seeking employment and the 'helping' indicator.

Trust in student colleagues was equal between the sectors overall, at around 70% usually to completely trusting student colleagues (HE: 70%, 91 of 130, 95% CI= 61-77; VET: 71%, 75 of 105, 95% CI= 62-79). However, when trust in student colleagues by field was controlled for sectoral differences, it appeared that IT students' lack of trust in their student colleagues was heavily localised to the higher education sector. When both sectors were considered together, 56% of IT students felt that they could usually to completely trust their student colleagues, compared to 82% of other students (above). However, when study field cohorts in higher education were considered alone, other students remained stable at around 84%, while a mere 45% of higher education IT students reported trust in their fellow students. The situation was remarkably different in VET. Again, other students remained stable at 81%, while VET IT students' trust levels rose to 70%--no longer a very large or statistically significant difference (although samples were necessarily smaller; table below). There was little change for business students. Around two thirds of business students considered as a whole usually-to-completely trusted their student colleagues. Considered by sector, slightly more higher education business students trusted their fellow students (72%), and slightly fewer business students trusted fellow students (61%).

Table A55:
Percentage of business, IT and other students in HE and VET who usually-completely trust their fellow students

	Business %	95% CI	IT %	95% CI	Other %	95% CI
HE	72 (41 of 57)	59 to 82	45 (13 of 29)	28 to 63	84 (37 of 44)	71 to 92
VET	61 (23 of 38)	45 to 74	70 (14 of 20)	48 to 86	81 (38 of 47)	68 to 90

Trust in network members was not greatly affected by years since graduation, sector or parental education levels. Few differences were apparent when respondents were considered according to the kind of high-school they had attended, with the exception of a very large and statistically significant difference in trust in housemates, with state school students far less likely to trust this network than independent or Catholic school students.

Table A56:
Percentage of State, Independent and Catholic high school graduates who usually-completely trust their household

State school %	95% CI	Independent school %	95% CI	Catholic systemic school %	95% CI
75 (148 of 156)	67 to 81	100 (30 of 30)	89 to 100	100 (57 of 57)	94 to 100

Differences in the degree to which students trusted their social network members was also largely unaffected by sex, with the exception of women being far less likely than men to trust their extended family.

Table A57:
Percentage of women and men who usually-completely trust their extended family

Women %	95% CI	Men %	95% CI
66 (108 of 163)	59 to 73	85 (95 of 112)	77 to 90

Language background appeared to have the greatest impact on levels of trust in social networks, with large differences across a number of networks. Students who did not have English as the language predominantly spoken at home had extremely low levels of generalised trust in all but their most immediate networks of family, extended family and housemates. They had statistically significantly less trust in their friends, student colleagues, work mates and civic group members than did predominantly English speaking students. Indeed, language predominantly spoken at home appeared to more highly correlated with relative levels of trust in social networks than any other indicator considered—course, sector, sex, parental education levels or schooling.

Table A58:
Percentage of those who do and do not have English as the language predominantly spoken in the home who usually-completely trust network members

	Non-English speaking %	95% CI	English %	95% CI
Family	93 (42 of 45)	82 to 98	93 (221 of 237)	89 to 96
Ext. family	80 (36 of 45)	66 to 89	73 (168 of 231)	67 to 78
Friends	83 (38 of 46)	69 to 91	96 (227 of 236)	93 to 98
Household	93 (39 of 42)	81 to 98	97 (209 of 216)	94 to 98
Students	52 (22 of 42)	38 to 67	75 (157 of 210)	69 to 80
Workmates	31 (11 of 36)	18 to 47	80 (161 of 205)	72 to 84
Civic group	23 (5 of 22)	10 to 43	60 (55 of 92)	50 to 69

A2.6 Self-identity

As with the other social capital indicators considered here, self-identity was closely associated with the immediate social networks of family, friends and housemates. Around two thirds to three quarters of students identified themselves with these groups for both field and sector cohorts, while only around one third to one half identified themselves with the less immediate networks of extended family, student colleagues, work-mates and civic group members (table below).

Table A59:
Percentage of business, IT and other students who felt that "If you know [my social network, course, job], it can tell you a lot about who I am"

	Business %	95% CI	IT %	95% CI	Other %	95% CI
Family	73 (79 of 109)	63 to 80	61 (36 of 59)	48 to 72	66 (75 of 114)	57 to 74
Ext. family	44 (47 of 108)	35 to 53	26 (15 of 57)	17 to 39	33 (37 of 113)	25 to 42
Friends	75 (82 of 109)	66 to 82	56 (33 of 59)	43 to 68	73 (85 of 117)	64 to 80
Household	73 (72 of 99)	63 to 81	75 (39 of 52)	62 to 85	69 (74 of 107)	60 to 77
Course	37 (38 of 104)	28 to 46	30 (16 of 53)	20 to 44	52 (56 of 108)	43 to 61
Job	46 (45 of 98)	36 to 56	38 (17 of 45)	25 to 52	41 (40 of 98)	32 to 51
Civic group	37 (16 of 43)	24 to 52	53 (10 of 19)	32 to 73	36 (19 of 53)	24 to 49

It is notable that IT students were statistically significantly less likely to identify with their friends than business students or other students. IT students were also more likely to identify with their civic group than business students or other students. These findings parallel those for the trust and helping indicators.

The most interesting trend apparent in the trust indicator was the continued tendency for the 'new economy' students distance themselves from their course/fellow students. Both IT and business students were statistically significantly less likely to feel that: "If you know about the tertiary course I am studying, it can tell you a lot about the sort of person I am," than

other students. However, as with 'trust,' above, while identification with course of study was equal at 40% for both sectors (HE: 40%, 53 of 134, 95% CI= 32-48; VET: 40%, 45 of 112, 95% CI= 32-49), when field differences were controlled for by sector, differences between business and other students lessened while those between IT and the control were heavily localised to higher education (table below). Considered as a single cohort, 30% of IT students identified with their course of study. However, only 22% of IT students in higher education identified with their course, compared to 53% of the higher education control group, while 40% of IT students in VET identified with their course—not a great difference to 48% of the VET control group.

Table A60:
Percentage of business, IT and other students in HE and VET who felt that "If you know the tertiary course I have studied, it can tell you a lot about who I am"

	Business %	**95% CI**	**IT %**	**95% CI**	**Other %**	**95% CI**
HE	40 (22 of 57)	28 to 53	22 (7 of 32)	11 to 39	53 (24 of 45)	39 to 67
VET	31 (13 of 42)	19 to 46	40 (8 of 20)	22 to 61	48 (24 of 50)	35 to 62

There were few differences in student self identity at the broad sectoral level, with the exception of VET students feeling more strongly that their job could tell a lot about the sort of person they are, a statistically significant difference.

Table A61:
Proportion of HE and VET students who felt that "If you know [my social network, course, job] it can tell you a lot about who I am"

	HE %	**95% CI**	**VET %**	**95% CI**
Family	70 (98 of 141)	62 to 77	65 (79 of 122)	56 to 73
Ext. family	32 (45 of 139)	25 to 41	39 (47 of 120)	31 to 48
Friends	73 (104 of 143)	65 to 79	67 (82 of 123)	58 to 74
Household	74 (97 of 131)	66 to 81	69 (74 of 108)	59 to 77
Course	40 (53 of 134)	32 to 48	40 (45 of 112)	32 to 49
Job	37 (46 of 126)	29 to 45	50 (49 of 98)	40 to 60
Civic group	35 (10 of 29)	20 to 53	44 (31 of 70)	33 to 56

Appendix B Survey method and interview program

The following method section overviews out the methods used in our survey and interview program.

Our survey was one of 288 students and graduates of business, IT and other fields at six Victorian institutions: Monash University, RMIT University and Victoria University, and Victoria University TAFE, Wodonga TAFE and Box Hill TAFE. The survey was distributed in late 2004, and analysis was undertaken throughout the first half of 2005, resulting in the report "Tertiary education and social capital in Victoria: The contribution of the new economy courses in business and IT: Stage one project report: Survey findings" in August 2005.

The second stage of the project was intended as an interview program with students in business and IT, followed by interviews with educators. Invitations to students to take part in an interview were distributed across the surveyed institutions to around 500 students in late 2005. Unfortunately, there were too few responses to make continuing with this aspect of the project worthwhile. It may be that students are sent so many surveys, and are invited to take part in such a large number of research projects, that they simply do not find the prospect of taking part in a project as esoteric in nature as social capital compelling. With regret, this aspect of the project was abandoned. In early 2006 interviews with ten educators took place. Institutions targeted were Monash University, RMIT University, Victoria University, Swinburne University, Swinburne TAFE and Victoria University TAFE. Interviewing was continued until saturation was achieved.

Administration of the survey

Recruitment method

The population of interest for this project comprised business and IT students in higher education and vocational education and training. Respondents were invited from higher education students and graduates of Bachelors degrees in business, IT and a random selection of other fields. Respondents were invited from VET students and graduates of Certificate IV and Diploma courses in these fields.

Students and graduates from six institutions were targeted, split evenly between VET and higher education institutions. The higher education institutions targeted were Monash University, RMIT University and Victoria University. The VET institutions were Wodonga TAFE, Box Hill TAFE and Victoria University/VET. These institutions were chosen primarily for their diversity as new, established, regional and metropolitan institutions. Willingness and ability of institutions to assist with the distribution of the survey played a role in ruling out a number of other institutions.

For each institution, a target sample of 450 persons was divided into groups of 150 students and 300 graduates (150 each at one year-out and four years-out), split again into business studies, IT and a control group of 'other' disciplines. The following table represents the standard make-up of the target sample for each institution:[17]

[17] The Wodonga TAFE sample was a smaller sample of 246 targets.

Table B1:
Target sample for each institution by year level and field.

Discipline/cohort	Business studies	IT	Other courses
Current students (2004)	50	50	50
1st year graduates (2003)	50	50	50
4th year graduates (2000)	50	50	50

The original intention for the survey phase of the project was to administer a questionnaire using the internet only, however a number of challenges necessitated distribution of a hard-copy survey instead of the on-line survey for some institutions. The on-line instrument was administered in September/October 2004, and the postal instrument in November/December 2004.

Recruitment method for the on-line instrument

Participating institutions were asked to send an invitational email to targets selected by a random process from within their discipline group. The email invitation included a link to the survey URL, which provided an overview of the project and advised respondents that the questionnaire would probably take less than 30 minutes to complete under home modem conditions. Invitational emails also included a coded Invitation Number allowing identification of institution, discipline group and years since graduation, and verified that no respondent had answered the survey more than once. A follow up email was sent fourteen days later by each institution as a reminder to targets.

Recruitment method for the postal instrument

A paper version of the on-line survey was developed for distribution. The paper instrument was largely the same as the on-line instrument, allowing for some necessary limitations. In particular, the on-line version allowed for a separate web-page of relevant questions for each civic group type nominated by the respondent. The mail-out version asked respondents to nominate each civic group type of which they were a member, but had a single set of questions directed at their civic participation generally. When the attributes of individual civic groups were analysed, only responses from the mail-out instrument which included nomination of membership to a single civic group were considered, to ensure that relevance to individual civic groups was maintained.

Participating institutions were asked to provide address labels for targets chosen randomly within discipline groups. The questionnaire was then sent by the research group to targets, along with a covering letter explaining the project and an addressed and reply paid envelope. Unlike the on-line instrument, which allowed for coded Invitation Numbers, the paper instrument included a section asking respondents to tick their appropriate institution, course and year level.

Response rate

The overall response rate was 12%. Table 17 shows the response rates for sector and course targets.

Table B2:
Response rate (percentage) of business, IT and other students for higher education (HE) and vocational education and technology (VET)

	Business %	**IT %**	**Other %**	***Total %***
HE %	13	8	11	*11*
	(60 of 450)	(36 of 450)	(48 of 450)	*(144 of 1350)*
VET %	12	6	15	*11*
	(45 of 382)	(23 of 382)	(56 of 382)	*(124 of 1146)*
Total %	*13*	*7*	*14*	*12*
	(110 of 832)	*(60 of 832)*	*(118 of 832)*	*(288 of 2496)*

Our modest response rate of 288 survey returns from 2496 targets reflects the difficulty of tracking a notoriously mobile student and graduate population. Indeed, some authors suggest that the paucity of research on the experiences of, and learning outcomes for, graduates is due to the difficulty of contacting such a population—when surveying current students on-site is so much simpler (Schuller *et al.* 2004). However, while making analysis of small sub-groups, in the sample implausible in some cases, the response rate achieved has proven adequate to the broad aims of the current research. An estimation based approach has been used to analyse the data, and statistical significance is reported where present (see section below).

Our sample appears to provide a reliable reflection of the population. The sex, ethnicity and age demographics of our sample, for instance, reflect those of the population data as reported by DEST and NCVER. Comparisons of our sample with population data are noted where relevant in the findings.

Interpretation of the data

Results are reported as proportions with 95% confidence intervals. Confidence intervals were calculated using the method for recommended for proportions by Newcomb and Altman (2000). Confidence Intervals provide a plausible range of values for the population parameter. For example, if a confidence interval extends from 15% to 25%, then all the values in between must be considered plausible values for the true population. The width of the interval conveys precision—an interval from 10% to 30% offers a less precise estimate of the true population percentage than an interval that extends from 15% to 25%. In providing 95% confidence intervals, we acknowledge that there is a small chance (5%) that the population value is not contained in the interval.

An estimation-based approach was chosen for a number of reasons. Estimation is rapidly replacing significance testing in many disciplines—in particular medicine (where it is now the norm for publication), psychology, economics and ecology (Fidler *et al*. 2004). Estimation encourages a more sophisticated interpretation of data by drawing attention to the size of effects rather than encouraging dichotomous accept/reject decisions based on statistical significance. Estimation is particularly appropriate to an emerging field of study such as ours, where insufficient prior research exists to reliably quantify expected outcomes, and where some sample sizes are necessarily very small.

However, where statistically significant relationships exist, these are reported in the text. In such cases these relationships are statistically significant at $p<0.05$, corresponding to the 95% confidence intervals. Statistical significance can be read directly from the 95% confidence intervals. An inferential heuristic suggested by Cumming and Finch (2005) is that when 95% confidence intervals (on independent group data) overlap by approximately one quarter of the

average of their total widths, the difference between the two estimates is statistically significant at p=0.05. All data presented here are independent group data (i.e. there are no repeated measures), so this heuristic can be used in all instances.

Responses were primarily analysed by discipline or field cohort (business, IT and 'other'); years since graduation (current students, first year-out graduates and fourth year-out graduates), and sector (higher education and VET). Where appropriate, further analysis by sex, school type attended in the final year of secondary school, language spoken at home and civic group membership was undertaken.

About the survey questions

For each network type, participants were asked to answer questions designed to assist us to evaluate the nature of their ties to these networks. The indicators used in this study are:

Communication

For each network type, we asked participants to indicate whether they usually communicated with that network face-to-face, by telephone, by post, by email some other way, or not at all. Communication methods can indicate the proximity of other network members, and the immediacy of the relationship between the individual and other network members.

Survey question: *"When you communicate with [members of network], is it generally: face-to-face? by telephone? by post? via the internet? some other way? not at all?"*

Information sharing—job searching

Our survey asked participants to indicate (yes/no), for each network group considered, whether they had assisted, or been assisted by, members of that network in looking for or applying for a job.

Survey questions: *"In the last year, have you helped any members of [network] look for a job or apply for a job?"* and, *"Have any of them helped you look for a job or apply for a job?"*

Sources of support in a crisis

We asked participants in our survey to indicate whether (yes/no/don't know), for each network, someone would assist them in a variety of tasks. (We use a slightly different set of tasks to those suggested by the ABS; ABS 2004, 68-9.)

Survey question: *"If you needed help, would someone in your [network] do the following for you:*

- *Collect your mail?*
- *Help clean you house?*
- *Look after children for you?*
- *Do you shopping if you are ill?*
- *Have a chat about something that is worrying you?*

Trust

For each network considered, we asked participants to indicate on a seven point scale the degree of trust they had for members of that network. The proportion of those who felt that their network could usually, almost always or completely be trusted is reported in the findings (the fifth to seventh points on the response scale).

Survey question: *"Thinking generally about the trustworthiness of your [social network], how much can you trust them when you need to?"*

Identity

For each network considered, we asked participants to indicate on a seven point scale the degree to which they identified with other members of each social network considered. Again, the proportion of students who mostly, strongly or completely agreed (the fifth to seventh points on the scale) is reported in the findings.

Survey question: *"Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement: "If you know the [social network/course/job]I have, it can tell you a lot about the sort of person I am"?"*

Civic participation

As well as the questions outlined above, we asked participants further questions about the nature of their activities within their civic groups(s).:

Survey questions:

- *Do you take an active part in meetings, activities, or events of one or more civic groups at least once per year?*
- *Does your participation in the civic group include paying membership fees or making donations (where you are not buying a product in return for your contribution) at least once per year?*
- *Do you currently hold an official or elected position in one or more civic groups?*

Network types

Our survey instrument was structured around a selection of key social network groups. These were:

- Immediate family — spouse, parents, siblings, and children;
- Extended family — cousins, uncles, aunts, nieces, nephews, grandparents, and grandchildren;
- Household — the people the respondent lives with
- Student/graduate connections — the colleagues respondents had studied with in their tertiary course;
- The workplace: colleagues the respondent currently works with, and
- Civic groups. These include:
  - Religious groups or places of worship;
  - Sports, recreation, or hobby societies;
  - Student unions or other educational groups (including school councils, parent-teacher committees, etc.);
  - Trade unions, industry groups, professional associations, or chambers of commerce;
  - Political, environmental, human rights, community, welfare groups (including ethnic groups), or residents' associations;
  - Arts or cultural groups (including reading groups and artistic guilds), and
  - Self-help or support groups (including group therapy).

Demographic indicators

We asked a variety of demographic questions of participants. In particular, sex, language background, home location and secondary school type attended and rates of secondary school completion amongst network members were used to investigate the sociological norms of our key cohorts

Interview format

Interviews were undertaken with 10 educators (lecturers and teachers). The interviews were semi-structured. The interviewer explained the matters of interest to the project group and asked interviewees to comment on issues which seemed most important to them. Most interviews took about one hour. Where relevant, we include broad descriptions of the respondents' professional role and institution type in the discussion. Interviewees were from the following institutions/schools. In higher education: Victoria University Business, RMIT Business, Monash Business, Swinburne University IT, and RMIT IT. Vocational education and training institutions/schools targeted were: Victoria University TAFE Business, Victoria University TAFE IT, Swinburne TAFE Business and Swinburne TAFE IT. Interviewees were chosen on the basis of area of expertise, experience, seniority and recommendation. Interviews took around one hour, and were semi-structured.

Appendix C Survey Questionnaire

Section 1: about your enrolment

1. What institution and sector is the tertiary course you have enrolled in or completed most recently?

   V3 ☐ *Victoria University – TAFE*
   H3 ☐ *Victoria University – Higher education*
   V2 ☐ *Box Hill Institute – TAFE*
   Z9 ☐ *Other*

2. What type of course is/was that? (please select most appropriate one)

   1 ☐ *A business course* 2 ☐ *An IT course*
   3 ☐ *Other*

3. If you are a graduate, what was the last year of enrolment in your course?

   2000 ☐ *2000* 2003 ☐ *2003* 9999 ☐ *Other*
   2004 ☐ *Not a graduate of that course yet*

4. Does/did your course involve a work placement or work experience component?

   1 ☐ *Yes* 0 ☐ *No*

5. If you are a graduate, have you subsequently enrolled in a further course of study for a tertiary qualification?

   1 ☐ *Yes* 0 ☐ *No*

Section 2: personal networks you belong to

A. Immediate family — spouse, parents, siblings, and children

6. How many members of your immediate family live in the same area you described in Q13?

   1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

7. When you communicate with people in your immediate family, is it generally:

   1 ☐ *face-to-face?* 2 ☐ *by telephone?*
   3 ☐ *by post?* 4 ☐ *via the internet?*
   5 ☐ *some other way?* 6 ☐ *not at all?*

8. Have most adults in your immediate family completed secondary school? 1 ☐ *Yes* 0 ☐ *No*

9. In the last year, have you helped any members of your immediate family look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

10. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

11. If you needed help, would someone in your immediate family do the following for you:
    Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
    Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
    Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
    Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
    Discuss something that is worrying you?
    1 ☐ *Yes* 0 ☐ *No*

12. Thinking about the trustworthiness of your immediate family members, how much can you trust them when you need to?

    1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
    4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
    7 ☐ *completely*

13. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know the immediate family I have, it can tell you a lot about the sort of person I am."

    1 ☐ *completely disagree* 2 ☐ *strongly disagree*
    3 ☐ *generally disagree* 4 ☐ *unsure*
    5 ☐ *generally agree* 6 ☐ *strongly agree*
    7 ☐ *completely agree*

B. Extended family — cousins, uncles, aunts, nieces, nephews, grandparents, and grandchildren

When answering these questions, please do not include members of your immediate family.

14. How many members of your extended family live in the same area you described in Q13?

    1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

15. When you communicate with people in your extended family, is it generally:

    1 ☐ *face-to-face?* 2 ☐ *by telephone?*
    3 ☐ *by post?* 4 ☐ *via the internet?*
    5 ☐ *some other way?* 6 ☐ *not at all?*

16. Have most adults in your extended family completed secondary school? 1 ☐ *Yes* 0 ☐ *No*

17. In the last year, have you helped any members of your extended family look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

18. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

19. If you needed help, would someone in your extended family do the following for you:
Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you? 1 ☐ *Yes* 0 ☐ *No*

20. Thinking about the trustworthiness of your extended family members, how much can you trust them when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

21. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know the extended family I have, it can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

C. Friendship circle — friends you are close to

When answering these questions, please do not include members of your immediate family or your extended family in your answers.

22. How many of your close friends live in the same area you described in Q13?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

23. When you communicate with your close friends, is it generally:
1 ☐ *face-to-face?* 2 ☐ *by telephone?*
3 ☐ *by post?* 4 ☐ *via the internet?*
5 ☐ *some other way?* 6 ☐ *not at all?*

24. Have most of your close friends completed secondary school? 1 ☐ *Yes* 0 ☐ *No*

25. In the last year, have you helped of your close friends look for a job or apply for a job?
1 ☐ *Yes* 0 ☐ *No*

26. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

27. If you needed help, would any of your close friends do the following for you:
Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you? 1 ☐ *Yes* 0 ☐ *No*

28. Thinking about the trustworthiness of your close friends, how much can you trust them when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

29. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know the close friends I have, it can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

D. Household — the people you live with

You may skip this section if you live alone.

30. In total, how many of the people living with you at home are members of your immediate family or your extended family?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

31. How many of the people living with you at home are your close friends?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

32. How many of the people living with you in your home now enrolled in the same tertiary course as you?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

33. Have most of the adults in your household completed secondary school? 1 ☐ *Yes* 0 ☐ *No*

34. In the last year, have you helped any members of your household look for a job or apply for a job?
1 ☐ *Yes* 0 ☐ *No*

35. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

36. If you needed help, would someone in your household do the following for you:
Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you? 1 ☐ *Yes* 0 ☐ *No*

37. Thinking about the trustworthiness of your household, how much can you trust them when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

38. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know my household, it can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

E. Student/graduate connections

39. In total, how many of the colleagues you have studied with in your tertiary course are members of your immediate family or your extended family?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

40. How many of the colleagues you have studied with in your tertiary course are close friends with you now? *Some people will find it hard to give a precise answer to this question, so please feel free to give an approximate number if you wish.*
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

41. *For graduates only:*
How many of the colleagues you were studying with in your tertiary course do you now see, speak with, or write to (postal or by internet) at least once per year? *Some people will find it hard to give a precise answer to this question, so please feel free to give an approximate number if you wish.*
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

42. How many of the colleagues you have studied with in your tertiary course live in the same area you described in Q13? *Some people will find it hard to give a precise answer to this question, so please give an approximate number if you wish.*
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

43. When you communicate with the colleagues you have studied with in your tertiary course, is it generally:
1 ☐ *face-to-face?* 2 ☐ *by telephone?*
3 ☐ *by post?* 4 ☐ *via the internet?*
5 ☐ *some other way?* 6 ☐ *not at all?*

44. In the last year, have you helped any of the colleagues you have studied with in your tertiary course look for a job or apply for a job?
1 ☐ *Yes* 0 ☐ *No*

45. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

46. If you needed help, would one of the colleagues you have studied with in your tertiary course do the following for you:
Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you?
1 ☐ *Yes* 0 ☐ *No*

47. Thinking generally about the trustworthiness of the colleagues you have studied with in your tertiary course, how much can you trust them when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

48. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know about the tertiary course that I have studied, it can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

F. Your workplace

You may skip this section if you are unemployed

49. What is your main field of work?

01 ☐ *Accommodation, cafés, and restaurants*
02 ☐ *Agriculture, forestry, and fishing*
03 ☐ *Communication services*
04 ☐ *Construction*
05 ☐ *Cultural and recreational services*
06 ☐ *Education*
07 ☐ *Electricity, gas, and water supply*
08 ☐ *Finance and insurance*
09 ☐ *Government administration and defence*
10 ☐ *Health and community services*
11 ☐ *Manufacturing*
12 ☐ *Mining*
13 ☐ *Personal and other services*
14 ☐ *Property and business services*
15 ☐ *Retail trade*
16 ☐ *Transport and storage*
17 ☐ *Wholesale trade*
18 ☐ *Other*

50. In total, how many of the colleagues you now work with are members of your immediate family or your extended family?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

51. How many of the colleagues you now work with are your close friends? *Some people will find it hard to give a precise answer to this question, so please give an approximate number if you wish.*

1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

52. *For graduates only:*
How many of the people you studied with in your tertiary course share your workplace with you now? *Some people will find it hard to give a precise answer to this question, so please give an approximate number if you wish.*

1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

53. When you communicate with the colleagues you work with, is it generally:

1 ☐ *face-to-face?* 2 ☐ *by telephone?*
3 ☐ *by post?* 4 ☐ *via the internet?*
5 ☐ *some other way?* 6 ☐ *not at all?*

54. Have most of the colleagues you now work with completed secondary school? 1 ☐ *Yes* 0 ☐ *No*

55. In the last year, have you helped any of the colleagues you have been working with look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

56. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

57. If you needed help, would one of the colleagues you now work with do the following for you:

Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you? 1 ☐ *Yes* 0 ☐ *No*

58. Thinking generally about the trustworthiness of the colleagues you work with, how much can you trust those colleagues when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

59. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know what work I do, it can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

Section 3: civic groups you participate in

60. *'Actively involved' in a group means being a member of a group and regularly participating in its activities.* In the past 12 months, have you been actively involved in any of the following types of groups:

(a) Religious group or place of worship? 1 ☐ *Yes* 0 ☐ *No*
(b) Sports, recreation, or hobby society? 1 ☐ *Yes* 0 ☐ *No*
(c) student union or other educational group (including school councils, parent-teacher committees, etc.)? 1 ☐ *Yes* 0 ☐ *No*
(d) Trade union, industry group, professional association, or chamber of commerce? 1 ☐ *Yes* 0 ☐ *No*
(e) Political, environmental, human rights, community, welfare group (including ethnic groups), or residents' association? 1 ☐ *Yes* 0 ☐ *No*
(f) arts or cultural group (including reading groups and artistic guilds)? 1 ☐ *Yes* 0 ☐ *No*
(g) self-help or support group (including group therapy)? 1 ☐ *Yes* 0 ☐ *No*

61. Can you please name a civic group you participate in from the list in Q.61? *If you are active in several, please name the one you participate in most actively.*

_____

62. Do you take an active part in meetings, activities, or events of one or more civic groups at least once per year? 1 ☐ *Yes* 0 ☐ *No*

63. Does your participation in civic groups include paying membership fees or making donations (where you are not buying a product in return for your contribution) at least once per year?

1 ☐ *Yes* 0 ☐ *No*

64. Do you currently hold an official or elected position in one or more civic groups?

1 ☐ *Yes* 0 ☐ *No*

65. When you communicate with other members of the civic groups to which you belong, is it generally:

1 ☐ *face-to-face?* 2 ☐ *by telephone?*
3 ☐ *by post?* 4 ☐ *via the internet?*
5 ☐ *some other way?* 6 ☐ *not at all?*

66. Have most of the adult members of the civic groups to which you belong completed secondary school? *Some people will find it hard to give a precise answer to this question, so please give an approximate answer if you wish.*

1 ☐ *Yes* 0 ☐ *No*

67. In the last year, have you helped any other members of the civic groups to which you belong look for a job or apply for a job?
1 ☐ *Yes* 0 ☐ *No*

68. Have any of them helped you look for a job or apply for a job? 1 ☐ *Yes* 0 ☐ *No*

69. If you needed help, would one of the members of a civic group to which you belong do the following for you:
Collect your mail? 1 ☐ *Yes* 0 ☐ *No*
Help clean your house? 1 ☐ *Yes* 0 ☐ *No*
Look after a child for you? 1 ☐ *Yes* 0 ☐ *No*
Do your shopping if you are ill? 1 ☐ *Yes* 0 ☐ *No*
Discuss something that is worrying you? 1 ☐ *Yes* 0 ☐ *No*

70. Thinking generally about the trustworthiness of other members of the civic groups to which you belong, how much can you trust those colleagues when you need to?

1 ☐ *not at all* 2 ☐ *very little* 3 ☐ *not much*
4 ☐ *a bit* 5 ☐ *usually* 6 ☐ *almost always*
7 ☐ *completely*

71. Thinking about your sense of who you are, how strongly do you agree or disagree with the following statement? "If you know the civic groups to which I belong, that can tell you a lot about the sort of person I am."

1 ☐ *completely disagree* 2 ☐ *strongly disagree*
3 ☐ *generally disagree* 4 ☐ *unsure*
5 ☐ *generally agree* 6 ☐ *strongly agree*
7 ☐ *completely agree*

72. Are there informal groups of people you belong to that you regularly support, or which are important to you? (Please list.)
_____
_____
_____
_____

Section 4: about you

73. What is your age in years?
1 ☐ *15-24* 2 ☐ *25-34* 3 ☐ *35-44* 4 ☐ *45-54*
5 ☐ *55-64* 6 ☐ *65+*

74. What is your sex? 1 ☐ *Male* 2 ☐ *Female*

75. Are you:
1 ☐ *single?* 3 ☐ *married?*
2 ☐ *living in a de facto relationship?*

76. Are you a parent caring for children, or are you a guardian with (unpaid) carer duties?
1 ☐ *Yes* 0 ☐ *No*

77. 'If so, how old is your youngest child or dependent in years?'
1 ☐ *0-4* 2 ☐ *5-9* 3 ☐ *10-14* 4 ☐ *15-19*
5 ☐ *20-24* 6 ☐ *25+*

78. Do you have a disability? 1 ☐ *Yes* 0 ☐ *No*

79. Do you have a chronic or severe mental or physical illness? 1 ☐ *Yes* 0 ☐ *No*

80. What is your primary citizenship? (eg Australian)
_____

81. Are you also a citizen of another country? (If so, please list) _____

82. Are you an Australian Aborigine or a Torres Strait Islander? 1 ☐ *Yes* 0 ☐ *No*

83. Which country do you currently live in?
_____

84. Is English the language predominantly spoken in your home? 1 ☐ *Yes* 0 ☐ *No*

85. How many people live with you in your home?
1 ☐ *0* 2 ☐ *1-3* 3 ☐ *4-9* 4 ☐ *10+*

86. Would you describe the area you currently live in as:
☐ *a city?* ☐ *a town?* ☐ *countryside?*
☐ *a work outpost?* ☐ *some other location?*
If 'other,' please list the type of location:
_____

87. In your last year of secondary school, did you attend (please circle)
1 ☐ *a state school?* 2 ☐ *an independent school?*
3 ☐ *a catholic-systemic school*
4 ☐ *another type of school*
If 'other,' please list the type of school:
_____

88. Has one or more of your parents completed a university degree? 1 ☐ *Yes* 0 ☐ *No*

89. Are you in paid employment or in business?
1 ☐ *none* 2 ☐ *part-time* 3 ☐ *full-time*

90. Have you received unemployment benefits for a period of 1 month or more within the last 5 years?
1 ☐ *Yes* 0 ☐ *No*

That is it — thanks for your responses!

Please insert your completed questionnaire in the supplied envelope. You are not asked to put your name or address anywhere on the envelope or on this questionnaire, as it is confidential. The envelope is already addressed and stamped. Please post your completed questionnaire no later than 24 December 2006