

Beyond mentoring: social support structures for young Australian carpentry apprentices

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Australian Government

Department of Education and Training



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This document should be attributed as Buchanan, J, Raffaele, C, Glozier, N and Kanagaratnam, A 2016, *Beyond mentoring: social support structures for young Australian carpentry apprentices*, NCVER, Adelaide.

COVER IMAGE: GETTY IMAGES/iStock

ISBN 978 1 925173 54 3

TD/TNC 124.07

Published by NCVER, ABN 87 007 967 311

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About the research

Beyond mentoring: social support structures for young Australian carpentry apprentices

John Buchanan, Catherine Raffaele, Nick Glozier and Aran Kanagaratnam,
University of Sydney

This study is an exploration of the work-based social support structures associated with the transition from school to work for young people and how these could, potentially, contribute to better mental health and wellbeing outcomes. Research and policy concerning young adults and mental health tends to focus on 'at risk' individuals; this project, however, examines more broadly the important role of the workplace as a potential site of social support. It also draws on and contributes to broader debates about the apprenticeship model in Australia and notions of vocational development. The findings have been generated from a literature review and eight case studies involving both small and large organisations across some of Australia's leading firms and group training organisations, specifically those with apprentice completion rates sitting at around 90%, well above the industry average. The report identifies the forms of social support successfully provided to young carpentry apprentices.

Key messages

- Informal and peer-based mentoring practices play a significant role in supporting the mental health and wellbeing of apprentices and are often superior to those provided under a formal mentoring arrangement. The paradox is that these practices are hard to 'formally' nurture; however, employers can create environments in which they can succeed.
- The essential ingredient is a *quality* approach to vocational development, which both large and small organisations can foster by:
 - valuing the time required for both on- and off-the-job training
 - ensuring supervisors and peers recognise that skills development takes time and requires active nurturing on the job
 - placing high value on sharing skills and teamwork
 - respecting and placing importance on time for innovation
 - encouraging apprentices to tap into wider support networks
 - ensuring access to both formal and informal mentoring.
- Creating informal support structures works best when the arrangements are *integral*, not incidental, to the business model of the organisation. In other words, social sustainability is seen as inseparable from the strategies necessary for economic success.
- Formal mentoring plays an important role, and works well when mentors are formally separate from the employer and the workplace. It should be a complement to, and not replace, effective apprenticeship support arrangements.

Dr Craig Fowler
Managing Director, NCVET

Acknowledgments

This report has benefited from the active support of a large number of people and organisations.

The original insights arising from this study would not have been possible without the generosity of the hundreds of carpentry apprentices either interviewed directly or who completed a project survey. The insights provided by the interviews with over 40 managers and experienced tradespeople who are helping to develop the next generation of carpenters were also invaluable. We would like to express our immense gratitude to all those who participated in the research and the case study organisations for giving us so much of their time.

Critical assistance in the identification of the case study organisations was provided by Jim Baron and Jeff Priday of Group Training Australia and key personnel in the Master Builders Associations in Queensland and New South Wales. John Crittall in Queensland was especially generous with his time and observations.

Colleagues at the University of Sydney provided every kind of support in getting this study finished. The original idea to investigate work as a site of social support for mental health was proposed by Professor Ian Hickie of the Brain and Mind Centre. Rose Ryan provided ongoing insights about the connections between health and work. Damian Oliver provided ongoing research support based on his deep knowledge of apprenticeships. He was especially active in the production of the interim report arising from this project. Extremely helpful organisational and administrative support was provided by Rebecca Fielding (when she was at the Workplace Research Centre) and Darae Jung (currently in the Discipline of Business Analytics).

Insights about the need to think about the broader systemic benefits of the apprenticeship system emerged from discussions Professor Buchanan had with other members of the Expert Panel on Apprenticeship for the 21st Century, which operated in 2010 and 2011. Jim McDowell, Royce Fairbrother, Marie Persson and Dave Oliver were particularly robust sparring partners on this matter. Insights provided by members of the Australian Public Service Secretariat, especially Andrew Lalor, were also very helpful. The background papers prepared for the panel by the National Centre for Vocational Education Research (NCVER) and summarised orally by Tom Karmel were also an extremely helpful resource, one which also informed the analysis of this report. John Spierings, then an adviser in the Deputy Prime Minister's office, was the driving force for that panel. He ensured that the panel was convened and thereby created the space for intense reflection on apprenticeships as something more than an employment-based route to achieving a certificate II or III. That sentiment pervades this report.

The project team has been a truly collaborative venture. Catherine Raffaele was heavily involved in developing the original proposal and research design. She was the project manager for the initial quantitative phase of the study and undertook nearly all of the fieldwork for the survey phase and the small case study organisations, along with contributing to the literature review. Aran Kanagaratnam provided ongoing support as a research assistant, especially providing extensive help with the literature review and some

of the project fieldwork. Nick Glozier helped with the research design and the statistical analysis associated with the initial survey results. I contributed throughout to the research design and was responsible for the case studies of the four large organisations and the production of the initial final draft of all elements of this report. The entire team actively contributed to this, the final report.

The finalisation of the drafting has benefited from the expert editing and proofreading of Penelope Curtin. All imperfections of analysis and presentation of our findings are those of the project team alone.

Last, but not least, recognition must be given to NCVET. Studies of the connections between vocational education and training (VET), health and wellbeing are rare. We are extremely grateful to have had Jo Hargreaves as our research manager. She has actively contributed to every stage of this project. When it did not go as planned, she showed great patience and grace in supporting us to reconfigure the research design radically. The conduct of this project and the production of this report have only been possible because of NCVET's material support and understanding of research culture.

Professor John Buchanan

Discipline of Business Analytics, University of Sydney Business School

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Executive summary

This research focused on how apprenticeships, at their best, provide extensive social support for young people. It draws on, and contributes to, debates about workforce (and especially vocational) development in contemporary Australia. It also contributes to the growing literature on social support and health, especially the role that work could play in improving the mental health of young people. Specifically, it identifies the forms of social support provided to young carpentry apprentices. Findings have been generated from eight case studies, which included smaller organisations and some of Australia's leading construction firms and group training organisations (GTOs).

The findings were as follows:

- *Formal mentoring arrangements were common.* Structured mentor-like arrangements, based primarily on in-house apprenticeship coordinators and group training field officers, were in place in most of the organisations studied.
- *Systemic informal support embedded in trade cultures of vocational and social development was significant.* Mentoring arrangements are not the whole, or even the most important form of, social support provided to apprentices. Highly customised support (both professional and personal) was provided to all apprentices through informal arrangements associated with the vocational development of young people on the job.
- *Support arrangements were integral – not incidental – to organisational business models.* These comprehensive systems of support did not function as isolated features of the companies studied. That is, they were not social luxuries provided by firms because they had a distinctive moral preference; rather, these strong social support arrangements were integral to distinct business models – those where social sustainability was regarded as inseparable from the strategies necessary for economic success.
- *Apprenticeship models of support can extend to occupations above and below trades level.* Below trades level (that is, certificate II and below skill equivalent), quasi-apprenticeship support arrangements functioned to nurture social inclusion. Above trades level (that is, certificate IV and above skill equivalent), they functioned as integral elements of firms' leadership and management development systems.
- *Quasi-apprenticeship support arrangements for occupations below trades level required additional stakeholders and resources.* The ability to be more 'socially inclusive' (that is, 'reaching down' to at-risk groups) and comprehensive in the support provided was a function of increasing the range of stakeholders involved in sharing the risks and costs associated with supporting individuals at risk of labour market failure or exclusion. That is, additional resources from outside need to be made available to organisations providing support for personal and professional development to the un- and underemployed, as well as those outside the workforce but wanting to join it.

- *External program-based mentoring arrangements can complement (but not replace) effective apprenticeship support arrangements.* Specialised external mentoring programs can complement effective support arrangements; they cannot make up for deficiencies in vocational development arrangements.

Policy implications

This research shows that the best and most effective support for apprentices is informal, which is, by definition, difficult to explicitly and 'formally' nurture; this is a conundrum that needs to be addressed if policy is to ensure that work-based arrangements provide quality social support to help young people successfully navigate the transition from school to work.

Even when internal support structures function well, sometimes arrangements that are formally separate from the workplace are required to provide a 'safe environment', where sensitive issues, such as those concerning mental health, can be discussed.

Given these findings, the best strategy would appear to be the promotion of an ecology in which strong informal bases of support can flourish. On the basis of this study, the ecology that most obviously meets this need is the *expansive variant* of the apprenticeship model of vocational development. *Expansive workplace* learning situations are those in which: time for on- and off-the-job training is valued; the transition to full and rounded participation in the trade is seen as a gradual process; and time for innovation is regarded as important. This approach is contrasted with *restrictive workplace* learning situations, where: virtually all training takes place on the job and there is little time for reflection; there is a preoccupation with making the transition to full competence arbitrarily quickly; and time for innovation is not respected.

An integral part of any programmatic intervention is the provision of mentors who are formally separate from the employer and the workplace – as a complement to (not a substitute for) expansive apprenticeship arrangements. Refining formal mentoring programs is of second-order importance. The key challenge is to revitalise and renew the apprenticeship model of vocational development by ensuring that apprenticeships are based in organisations providing expansive workplace learning situations.

Introduction

Motivation: work, social support and young people's mental health

This report is concerned with how apprenticeships, at their best, provide extensive social support for young people. It draws on, and contributes to, debates about workforce (and especially vocational) development in contemporary Australia. It is also a modest contribution to the growing literature on work and health, especially mental health.

It is increasingly recognised that improvements in mental health require early detection and action. Effective intervention in the adolescent years in particular can reduce the suffering and costs for individuals, their families and communities. There is also growing recognition that effective action involves more than medications and individual-based therapies. Social structures of support are a vital third element in any mental health care and prevention regime. This project explores a particular aspect of social support: work. In doing so, it builds on the growing literature exploring how work plays an important role in people's wellbeing and health. It is particularly concerned with the work-based social structures of support associated with the transition from school to work for young Australians and how these could, potentially, contribute to better mental health outcomes.

Most studies of mental health and work start with people living with mental illness. The problem is defined as one of labour supply: how do individuals fare and how could their situation be improved? This analysis is concerned with the other side of the labour market: the workplace (that is, the site of labour demand). It examines how well workplaces are placed to provide support for people, specifically, support that will nurture positive mental health outcomes. When individuals encounter mental health challenges, how well placed are workplaces to identify such problems early? Can they facilitate rapid early intervention to prevent, wherever possible, early problems escalating into more serious issues? Few previous studies have addressed questions such as these.

Research focus: apprenticeships as a form of social support

This paper explores these issues by examining how apprenticeships function in contemporary Australia. The focus is on apprenticeships because these are generally recognised as one of, if not the, leading clearly defined and officially recognised well-structured forms of support for young people making the transition from school to work, and adolescence to adulthood. While there is a large and expanding literature on apprenticeships, this aspect of its operation has not traditionally received much attention in the published research.

The primary objective of this study is to build upon and generate new knowledge of relevance to understanding how well apprenticeships operate, especially their social dimension. While this aspect has not received as much policy attention as the 'economic

role' of apprenticeships, this has always been important in apprenticeships. With their roots in the classical male trades, traditionally apprenticeships were as much about turning 'boys into men' as they were about turning 'novices into master artisans'. This was reflected in the law underpinning them. Apprentices were indentured, not contracted, to a master craftsman's family. The master and his family took care of all aspects of this development, treating him as much a family member as a paid employee (Safley & Rosenband 1993). These cultures and laws have long since changed, although echoes of this older working order remain.¹ Many group training organisations still regard 'pastoral care' as a core function. And the federal government has devoted considerable money to supporting this element of apprenticeship development more broadly through its mentoring program.

This project is primarily interested in how pastoral care, mentoring and other forms of social support are functioning in contemporary Australian apprenticeships.

Research questions

These concerns gave rise to a very simple question addressed by this report. In addition, given the increased federal government interest in mentoring arrangements, attention was also devoted to generating new knowledge relevant to crafting interventions in this domain and understanding the likely impact of recent policy in the area.

Guiding questions:

- What does social support for young people engaged as apprentices in contemporary Australia look like?
- In particular, what is the social terrain or ecology into which publicly funded mentoring programs are inserted?

These questions are pitched at a very high level of generality. To help focus this project, attention was also devoted to considering the following ancillary questions:

- What forms of mentoring, pastoral care and other developmental arrangements operate to provide support for young Australian apprentices (ages 16–24 years) in the transition from school to work?
- What is associated with/determines the ability for support arrangements to flourish?

Structure of the report

The first chapter summarises the key insights from the established literature of relevance to answering these questions, after which the research design is summarised. The key findings from the case study fieldwork follow. The paper concludes with a summary of the research findings and some implications for policy. The support document associated with this report contains the case studies.

¹ The best account of the evolution of the law concerning apprenticeship in Australia remains that produced in the Beattie Report (1968).



Insights from the literature

The research for this project builds on and contributes to a number of areas. Given the particular focus of this study, the first category of literature considered is that which deals with young people's mental health and their workplace as a potential site of social support. To date, this topic has received relatively little attention. Pointers on how work may play this role are provided by a brief consideration of the growing research literature on work, social support and health, the subject matter of the second body of literature considered below. The third, and most important, category of literature considered is that concerned with apprenticeships. Particular attention is devoted to understanding their distinctiveness (and variability) as a basis for the development of human capability, broadly conceived – for nurturing the social as well economic functioning of individuals. Given the growing policy interest in the topic, the fourth area of interest examines mentoring as a form of developmental and social support.

Beyond 'psychological deficit': mental health and young people

Mental health is a holistic description of both social and emotional wellbeing. Mental health is more than merely the absence of illness or disorders. It describes an individual's ability to cope with the normal stresses of life and their ability to achieve their potential. Mental health can affect an individual's contribution to the community, through their capacity to work productively and to interact inclusively and equitably with other groups and individuals (World Health Organization 2002).

The term 'mental illness' collectively refers to diagnosable health disorders or conditions that are characterised by alterations in thinking, mood or behaviours and are associated with distress and/or impaired functioning (US Department of Health and Human Services 1999). Young people are particularly prone to mental illness: 26% of young people aged 16–24 years are estimated to have experienced at least one mental disorder in the preceding year compared with the general population average of 20% (National Survey of Mental Health and Wellbeing, cited in Australian Institute of Health and Welfare 2011). The disorders most commonly reported by young people overall were anxiety disorders (15%), substance use disorders (13%) and mood disorders (6%) such as depression. Young females were most likely to report suffering from anxiety disorders (22%), while young males were most likely to report substance use disorders (16%).

Most mental health disorders emerge prior to the age of 25 years (McGorry et al. 2011), with the majority of the high-prevalence disorders (mood, anxiety and substance use) and psychotic disorders emerging during adolescence and early adulthood (de Giorolamo et al. 2012). The impact of the onset of mental illness at this age is further compounded because young people are less likely to seek help. Only 23% of young people with a mental illness sought professional help, compared with 38% of adults over the age of 25 years (Australian Institute of Health and Welfare 2011), despite evidence that early intervention is associated with better outcomes and fewer symptoms for those who have experienced early onset (National Mental Health Commission 2013). This is a dual

problem, whereby more young people are in need of professional treatment but are less likely to seek it, resulting in mental health being the highest burden of disease for this age group, at almost 50% (Patel et al. 2007). However, if early treatment is received, there is evidence that better outcomes and fewer symptoms result for those who have experienced early onset.

The literature suggests that there needs to be a greater understanding of how to enhance the resilience and strength of young people and encourage their engagement, rather than focus on deficits and disengagement. Burns et al. (2008, p.14) define engaged youth as those who are:

aware of issues, want to make a difference and are positively connected to institutions which support their engagement. They are moved to act in formal and/or informal contexts. They have access to resources and are motivated to engage with others.

'Deficit' approaches tend to highlight an individual's risk factors for engagement, while a 'strengths-based' or 'ecological approach' considers the structural factors which may affect a young person's ability to engage with the education and employment systems. The latter examines how young people's capabilities and needs can be better understood and supported.

In recent years, there has been significant policy interest in addressing the mental health challenges many young people face. Most of these have focused on young people as a category supported by specialised health and community services. To date, relatively little attention has been devoted to young people as workers and on the role of arrangements in the labour market as a site of intervention. However, there is developing interest in how workplaces can positively nurture mental wellbeing and play a more active role in referral to appropriate interventions if other social domains (for example, school, family, friends) fail to act or are absent.

Beyond therapies and drugs: work, social support and health

Over the last three decades there has been growing research interest in the connections between work and health. This section provides a brief consideration of this nascent literature, noting that the literature provides more by way of 'informed suggestions for further research' rather than definitive research findings. The more mature literature on the connections between health and social support is then briefly considered. While little of this latter research has focused on work as a source of social support, it provides powerful findings relevant to this subject. The first of these is that the benefits of social support for health are real, affecting concrete outcomes such as mortality rates, as well as mental wellbeing. Secondly, it provides considered findings on what is encompassed by social support. Both features provide useful leads on why and how the research on work and health should and can be improved.

Work and health²

For well over a century research on work and health has primarily focused on work as a hazard. Indeed, scholarly and policy research into occupational health and safety (now more commonly referred to as work, health and safety) is a well-defined domain, with many specific findings that have contributed to making work in advanced societies far safer. In recent years, however, there has been growing research interest in how work can positively contribute to health and wellbeing. To date, most attention has been devoted to examining a limited range of issues. This more recent literature can be usefully summarised by a separate consideration of the research that investigates issues of labour supply (that is, healthy workers) and labour demand (that is, healthy workplaces).

Labour supply and healthy workers

Arguably, the major concern driving the recent policy research on work and health has been 'economic'. It takes a variety of forms. With aging populations and declining fertility rates in advanced market economies, international agencies such as the Organisation for Economic Co-operation and Development (OECD) and nearly all of the national governments in countries such as Australia have become very interested in how to boost levels of workforce participation. Increasing population health, it is argued, can help to boost declining labour supply from amongst the ranks of those currently 'not in the labour force' or underutilised for a range of health reasons. The issues of particular concern are the health ailments associated with aging and prosperity. These include the increasing incidence of chronic diseases such as cardiovascular disease, diabetes and obesity. As prosperity rises, there has also been growing recognition of increasingly sedentary behaviour, along with mental health, as problems requiring serious attention (Bloom et al. 2011). Simultaneously amongst those concerned with workers' compensation (such as insurers), there has been a burgeoning interest in the potential health benefits of work. People injured at work are not necessarily either totally unemployable or totally fit for work; rather, the key issue is how best to use work as a site for aiding recovery and rehabilitation.

In the United Kingdom, seminal reports by Waddell and Burton (2006) and Black (2008) made these points forcefully. They established very clearly that work is not just an important source of income for people; it also plays a vital role in meeting psychological needs. As a result, reducing unemployment is a major means for boosting physical and mental wellbeing, as well as aiding rehabilitation and recovery from injury. These sentiments have been taken up by the 'Consensus statement on the health benefits of work', formally endorsed by over 100 of Australia's leading companies and public institutions, including the Business Council of Australia (Australasian Faculty of Occupational and Environmental Medicine & Royal Australasian College of Physicians 2012). It reiterates the findings of these reports and the research underpinning them. It also highlights the role that employers can play: what they do can affect not just injury and absence rates but also regimes of recovery and rehabilitation. While this literature

² Most of this section is a summary of a more comprehensive consideration of this literature, which is provided in Buchanan and Ryan et al. (2014).

has identified the potential importance of health for work and work for health, it lacks detail on the actual mechanisms that achieve positive outcomes, or the scale of impact, if any, of interventions directed at improving both health and labour market objectives.³

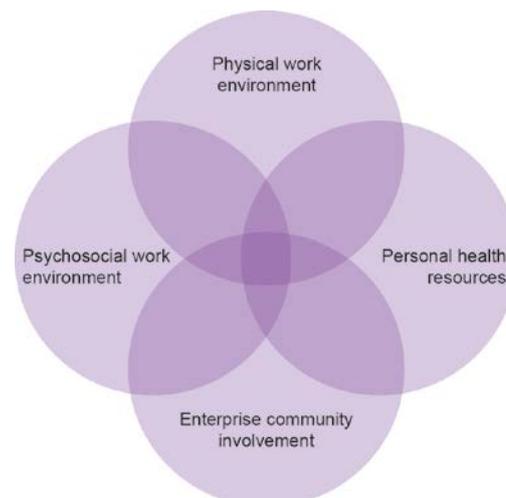
Labour demand and healthy workplaces

Many of these features are shared in the literature dealing with the labour demand dimension of work and health. Again, much of this research is ‘economically driven’, but is similarly more concerned with identifying issues for exploration than providing precise documentation of the mechanisms that make a difference or quantifying the impact such mechanisms might have.

The prime concerns of this literature are exploring the nexus between meaningful work and wellbeing, understanding how ‘spillovers’ from work can compromise life beyond it and the need to change work to ensure it helps people to flourish. Despite an avowed interest in the positive conception of the work–health nexus, much of this literature is shaped by the more traditional ‘minimising work as a hazard’ tradition. This is apparent in the recent comprehensive literature reviews of the European Union (Eurofound 2012a, 2012b) and Health Canada (2000). Similar characteristics feature in research on casual/part-time work (Quinlan, Mayhew & Bohle 2001), the impact of work–life conflict (Magee et al. 2012), the rising impact of stress (Australian Psychological Society 2013) and the problem of long hours (Denniss & Baker 2012). In a nutshell, these literatures provide stronger leads on what *not* to do as opposed to what *to do* in relation to organising work better to improve outcomes.

Arguably, the most comprehensive integration of these disparate literatures has been provided by the World Health Organization (WHO) with its ‘Healthy Workplaces Framework’ (Burton 2010). It identifies four overlapping domains associated with how workplaces shape health outcomes. These are summarised in figure 1.

Figure 1 Healthy workplaces – four spheres of influence



Source: Burton (2010).

³ Good examples outlining the potential gains but giving limited detail of ways best to achieve them can be found in Bevan et al. 2013; Eurofound 2012a, 2012b; Waddell & Burton 2006; Waddell, Burton & Kendall 2008; OECD (2010).

The domain of 'personal health resources' focuses on health promotion at the workplace. While interesting, evidence of the incidence and impact of these is scarce, and where it exists, it is primarily from the United States, where different health insurance arrangements make it difficult to apply findings on financial returns from improved workplace health to Australian contexts.

The most relevant domain for this project is that concerned with the 'psychosocial work environment'. Nine elements are identified as contributing to this (Burton 2010, pp.85–6). These are:

- job content
- workload and work pace
- work schedule
- control
- environment and equipment
- organisational culture and function
- interpersonal relationships at work
- role in organisation
- home–work interface.

Most of the literature associated with these variables identifies how poor organisation of these variables results in poor health outcomes, with few documenting how work can boost health. Of most relevance to this project is the dimension concerned with 'interpersonal relationships'. This is, however, one of the least well-examined dimensions. Indeed, evidence of the actual impact of such factors is 'patchy', as Burton (2010), the author of the WHO report, notes. Even when claims are made for improvement, these rarely address the notion of work as a site of social support. Instead, interventions external to ongoing work processes are proposed, leaving work as currently structured. A good example of this is a recent PwC and Beyond Blue (2014) report on mental health and how it can be improved in the workplace. The interventions that the report examines and advocates 'include worksite physical activity programs, mental health first aid and education, resilience training, CBT⁴ based return to work programs, wellbeing checks and screenings, and encouraging employee involvement' (PwC & Beyond Blue 2014, cited in Buchanan & Ryan et al. 2014, p.22).

While the emerging literature on the work–health nexus is exciting and promising, it is more affirming about the importance of the topic than being of much practical assistance in providing specific leads to follow in relation to how work can be used or improved to better support young people and assist their mental wellbeing.

Social support and health

4 CBT = Cognitive Behavioural Therapy.

Due to the limited nature of the evidence in the work–health nexus, the broader literature on the connections between social support and health was of greater assistance to this project. Over the last three decades, an extensive research literature has explored the significance of social support for health and wellbeing. Little of this research deals directly with work and much is concerned with physiological health. It is, however, highly relevant to this project because it offers important foundations for: defining key categories and clarifying key issues for exploration; establishing unambiguously the importance of social support for improved health outcomes; and highlighting priority issues that require closer attention if new knowledge is to be created in this field.

Two key assumptions underpin this area of research. The starting point is that ‘all humans and all primates have needs which can be satisfied only through social interaction with others’ (Kaplan, Cassel & Gore 1977, p.50). In this context, ‘support is the “metness” or gratification of a person’s basic social needs (appraisal, esteem, succorance etc) ...’ (p.50). The second assumption is that ‘significant others’, through either their presence or absence, are critical for effective human functioning as social beings (pp.50–1). Examples of ‘significant others’ in the literature include a spouse, family, neighbours, and in some cases where there has been a remedial intervention, professionals such as social workers or counsellors (p.51). These assumptions are linked in the so-called ‘Person–Environment Fit (P-E Fit)’ hypothesis. This holds that ‘Persons who do not receive enough support from their social environment to meet their needs will, with time, experience psychologic and physiologic strain’ (p.51).

The great bulk of the literature draws (often tacitly) on social network theory to identify the key forms of social support of interest (Kaplan, Cassel & Gore 1977, pp.53–5). At the most basic level, two are distinguished (Holt-Lundstad, Smith & Layton 2010, p.2; Kawachi & Berkman 2001, pp.459–60):

- *the stress-buffeting model or hypothesis*: in this, social support refers to the real or perceived availability of social resources ‘(informational, emotional, or tangible) that promote adaptive behavioural or neuroendocrine responses to acute or chronic stressors (e.g. illness, life events, life transitions)’ (Holt-Lundstad, Smith & Layton 2010, p.2)
- *the main effects model or hypothesis*: this goes to the ‘protective health effects’ not necessarily intended to help with health, but which have such an effect, for example, being part of a wider group that respects healthy behaviour. ‘In addition, being part of a social network gives individuals meaningful roles that provide self-esteem and purpose in life’ (Holt-Lundstad, Smith & Layton 2010, p.2).

In their systematic review of 148 studies on ‘social relationships and mortality risk’, Holt-Lundstad and colleagues observed that:

across a diverse range of studies ... three major components of social relationships are consistently evaluated: (a) the degree of integration [of individuals] in social networks, (b) the social interactions that are intended to be supportive (i.e. received social support), and (c) the beliefs and perceptions of support availability held by the individual (i.e. perceived social support). (Holt-Lundstad, Smith & Layton 2010, p.2)

Studies dealing with (a) are primarily concerned with 'the main effects hypothesis' and are sometimes referred to as dealing with the 'structural' aspects of social relationships. Those dealing with (b) and (c) are concerned with the 'stress-buffeting hypothesis' and are sometimes referred to as dealing with the 'functional' aspects of social relationships (Holt-Lunstad, Smith & Layton 2010, p.2).⁵

The key findings of this now vast literature have been systematically surveyed by Holt-Lundstad and colleagues (2010). Their analysis has identified the profound significance for the mortality of individuals receiving strong social support compared with their more socially isolated comparators. Their analysis primarily covered studies examining the comparative mortality rates of individuals suffering from cardiovascular disease, cancer and renal failure. Their findings, as provided in the official summary of their research, are worth quoting in detail:

What Did the Researchers Do and Find? The researchers identified 148 prospective studies⁶ that provided data on individuals' mortality as a function of social relationships and extracted an 'effect size' from each study. An effect size quantifies the size of a difference between two groups — here, the difference in the likelihood of death between two groups that differ in terms of their social relationships. The researchers then used a statistical method called 'random effects modelling' to calculate the average effect size of the studies expressed as an odds ratio (OR) — the ratio of the chances of an event happening in one group to the chances of the same event happening in the second group. They report that the average OR was 1.5. That is, people with stronger relationships had a 50% increased likelihood of survival than those with weaker social relationships. Put another way, an OR of 1.5 means that by the time half of a hypothetical sample of 100 people has died, there will be five more people alive with stronger social relationships than people with weaker social relationships.

...

What Do These Findings Mean? These findings indicate that the influence of social relationships on the risk of death are comparable with well-established risk factors for mortality such as smoking and alcohol consumption and exceed the influence of other risks factors such as physical inactivity and obesity ...

(Holt-Lundstad, Smith & Layton 2010, p.20)

Social support has long been accepted as important for mental health. As Kawachi and Berkman (2001, p.458) note, 'the link between social isolation and reduced psychological wellbeing is well established in sociology, dating back to Durkheim', with his analysis of

5 An extended account of the structural and functional dimensions of support is provided in Kaplan, Cassel & Gore (1977, pp.54–5). The former are referred to as the 'morphologic' properties of a social network and relate to 'the links in the network'. It concerns issues like 'anchorage', 'reachability', 'density' and 'range', quasi objective dimensions of a social network. The latter are referred to as the 'interactional' properties of a social network and 'refer to the nature of the links, that is, their content, directedness, durability, intensity and frequency'.

6 A prospective study is an investigation 'in which the characteristics of a population are determined and the population is followed to see whether any of these characteristics are associated with a specific outcome ...' (Holt-Lunstad, Smith & Layton 2010, p.20).

the nexus between suicide and social connection in nineteenth-century France. They begin their observations of the recent literature on 'social ties and mental health' by defining mental health as the 'stress reactions, psychological wellbeing, and symptoms of psychological distress, including depressive symptoms and anxiety' (Kawachi & Berkman 2001, p.459). Similar to the literature on social support and morbidity, they note that mental health researchers have also explored the 'stress-buffeting' and 'main effects' hypotheses. And similar to researchers studying physiological health, strong associations between social support and superior mental health have been identified. For example, citing one of the leading authorities on the subject⁷, they note 'integration in a social network may ... directly produce positive psychological states, including a sense of purpose, belonging and security, as well as recognition of self-worth' (Kawachi & Berkman 2001, p.459).⁸

An area of growing interest has been the recognition of the psychological pathways linking social support to health outcomes, although research on this topic is generating more questions than answers. Over recent decades it has been assumed that the transmission mechanisms involved things such as reduced levels of 'depression, perceived stress and other affective processes' as impacting upon mental wellbeing. However, Uchino and colleagues (2012), amongst the leading researchers on this matter, report that there is 'no evidence ... that [such] psychological mechanisms ... are directly responsible for the links between support and health' (2012, p.949). In proposing new ways forward, they draw attention to two potentially more promising lines of inquiry. The first is from the broader literature on mental health and social relations. 'Significant others' may not be spouses or family members, but those who are in experientially similar situations (for example, co-workers). Closely related to this is interest in the support that arises from 'daily, mundane interactions'. It appears that these provide implicit recognition and support of the kind associated with trust, companionship and reciprocity, all of which are vital for mental wellbeing. Such situations often exist in (or

7 Cohen, Underwood & Gottlieb (2000).

8 Mental health researchers have been extending this literature. They are exploring an increasingly wide range of issues, and especially the paradoxes associated with social support and mental health. Two of the most significant issues of interest are the importance of differentiating how social supports impact on mental health for different categories of individuals and different individuals within the same category. For example, some individuals with the same social support situation have quite different health outcomes. More significantly, social support can have negative as well as positive mental health consequences. Amongst older people, for example, perceived support appears generally to be beneficial. Actual support can, however, be counterproductive, undermining elderly individuals' sense of independence. And while women are generally recognised as having wider and deeper social networks, these can create additional burdens as well as benefits, especially in situations of role overload and vicarious experience of others' distress (Kawachi & Berkman 2001, pp.460–2). Of equal importance is the growing interest of mental health researchers in locating their analyses of social support in a wider macro-social context. This is most evident in the concerns with social capital and health. While nearly all prior health research has focused on intimate or family relations, there is increasing interest in what is sometimes referred to as the 'outer zone' or 'outer layer' of social relations that shape support arrangements. These relations exist at the level of communities and organisations. And again their impact on mental wellbeing is marked by paradoxes. For example, a study of women in the Outer Hebrides in Scotland found that some women in these tight-knit communities experienced the benefits of social cohesion but also social repression associated with the way 'standard behaviour' was regulated by restrictive customs and practices (Kawachi & Berkman 2001, p.463).

are compromised by) social relations beyond the intimate and familial (Uchino et al. 2012, p.956).

Even more intriguing is the growing interest in the impact of processes that individuals are either unwilling or unable to report. One example of this is the impact of 'familiarity'. Engagement in stable and familiar social relations (within the home and beyond) can have a 'calming effect on the cardiovascular system which is automatically activated ... a conditioned response shaped by years of contact'. These benefits can accrue independently of a 'self-reported positive affect, negative affect, self-disclosure, intimacy or influence' (Uchino et al. 2012, pp.957–9). So, for example, even though a person may report not being very happy in their family, the cardiovascular benefits of familiarity arising from ongoing association can accrue, even if not consciously perceived by the individual.

While the literature on social support and health is illuminating, the latest research on transmission mechanism reveals that much remains to be done. Three issues in particular are relevant for this study: more attention needs to be devoted to clarifying what we mean by 'social support'; great care must be exercised in extending the insights of this established literature to that of work and working life; the importance of naturally occurring relationships should be recognised rather than making specialised strangers available for bolstering social support.

Clarifying the term 'social support'

The observations about the importance of social capital are important here. To date, most attention has focused on very personal, intimate or family relations. But these do not exist in a vacuum. What other realms should be considered? In particular, few researchers have given any consideration to the nature of work as a potential site or source of support – or source for undermining it. In particular, how do we link notions of the immediate work situation to the organisation that owns or controls the workplace and from there to the wider political–economic context? And within the immediate work situation, the issue is not only the existence of support: what is the quality of the support associated with working experience?

Extending the insights from the literature to work and working life

Extending the literature to the world of work has, potentially, significant promise. Such an extension should however be conducted with caution. In Australia, the National Heart Foundation recently supported comprehensive consideration of the psychosocial risk factors for coronary heart disease (Glozier et al. 2013). Amongst the chronic stressors considered were job strain, effort–work imbalance and organisational injustice. It concluded: 'Knowledge of an individual's work stress levels does not appear to help clinicians in predicting C[oronary] H[ear]t D[isease] events' (Glozier et al. 2013, p.4). This was contrasted with the evidence on social isolation. On the basis of the evidence, 'attempts to enhance social support and reduce isolation should be encouraged' (Glozier et al. 2013, p.5). In thinking about work and health, the evidence appears to point to the importance of examining how, if at all, this domain impacts on the nature of social support if we are interested in work-related reforms to improve health and wellbeing.

Importance of 'naturally occurring relationships' for social support

The literature examined in this section was primarily written by health and medical researchers. Their interest almost always relates to identifying more effective interventions for improving health outcomes. In designing interventions, it is commonly assumed that something 'additional' needs to be inserted into a situation. Kawachi and Berkman (2001, p.464), however, note that it may be more effective to strengthen the existing structures rather than create new communities or networks. Holt-Lundstad and colleagues are more direct:

evidence provided in this meta-analysis [of 148 papers] is based almost entirely on naturally occurring social relationships. Moreover, our analysis suggests that received support is less predictive of mortality than social integration.

(Holt-Lunstad, Smith & Layton 2010, p.14)

In the context of interventions to improve social support we therefore need to understand the nature of 'naturally occurring social relationships'. Understanding this is a prerequisite to designing effective intervention. Given our interest in how young people make the transition from adolescent to adulthood and from school to work, the longest standing and most extensively publicly funded structure of support is the apprenticeship system. What are its key features? In particular, what does the most recent literature on it tell us about how it functions as a form of social support for young people today?

'Beyond contract' and VET: apprenticeships as support for social as well as workforce development

One of the most developed – and easily the longest established – arrangements providing support at work for young people is the apprenticeship system. Apprenticeship arrangements have long been recognised as involving more than the acquisition of technical trade-level skills through classroom-based, teacher-driven learning. Amongst education researchers, for example, it has been identified as a distinct model of learning (Fuller & Unwin 2008). The key features of the model are, in the context of paid employment, the acquisition of applied skills from more experienced practitioners of the relevant occupation on the job, which is supported by the acquisition of underpinning and more abstract knowledge, away from the immediate workplace. But it involves more than just education and training narrowly defined. Marchand (2008, p.246) has highlighted that, at its best, it is a more 'one-on-one ... holistic approach to education and personal formation'. For him the distinguishing feature of an apprenticeship is an:

immersion in a learning environment that, in addition to facilitating technical know-how, structures the practitioner's hard earned acquisition of social knowledge, worldviews and more principles that denote membership and status in a trade.

(Marchand 2008)

As such, apprenticeships therefore occupy a distinct social space that straddles the realms of education and labour market policy and practice, contributing to social as well as vocational development.

In recent decades the great bulk of research on apprenticeships in Australia has been preoccupied with the problem of rates of retention, with many who sign up failing to complete their initial choice of trade. In Australia, apprentices and trainees have historically experienced very low completion rates. For those who commenced an apprenticeship in 2007, just 55% completed their apprenticeship (Bednarz 2014). Apprenticeship completion not only benefits society, which then has a wider skills base to draw on, but also the apprentices themselves: completed apprentices are 63% less likely to be unemployed than those who discontinue an apprenticeship (Ainley, Holden & Rothman 2010). In addition, the wider benefits of successful transition to work are well known: the superior later life outcomes include improved physical and mental health, housing stability, and increased life satisfaction (National Mental Health Commission 2013).

Some of the most sophisticated studies on apprenticeship completion rates in Australia have been informed by work conducted by Ben Bardon for the NSW Skills Board, previously known as the Board of Vocational Education and Training (see, for example, Bardon 2010; see also Dickie, McDonald & Pedic 2011; Karmel & Roberts 2012). In a nutshell, Bardon argued that there was not a general 'non-completion' problem; instead, he highlighted the importance of segmenting apprentices and their employers into three tiers. Amongst top-tier employers and apprentices, completion rates were approximately 80%. Amongst the lowest tier, they were approximately 25%.

Clearly, organisations vary greatly in their apprenticeship offering. Alison Fuller and Lorna Unwin have been the leading researchers examining the nature and significance of the different workplace settings for apprenticeships. For them, workplaces fall within a very broad continuum, ranging from those characterised as 'expansive' through to those which are 'restrictive' (Fuller & Unwin 2008). Table 1 provides a comprehensive summary of how they define these poles.

Their framework highlights the importance of three key factors in defining apprenticeships. The first is the extent to which the workplace is engaged with a broader community of practice. The second is the nature of the skills used and how they are developed in the workplace, and the third, the broader philosophy and structure of the business operations providing the immediate work setting for the apprenticeship. Expansive workplaces engage with a broader community of practice (such as that associated with a trade, profession or sector) and often see themselves as contributing to an ongoing or emerging tradition of skill development. They nurture a broad range of skills, which is supported by off-the-job education in underpinning knowledge that is formalised in widely respected qualifications. Skills are recognised as something that takes time to develop and require active nurturing on the job. In these workplaces, employers respect individuals' need to gain something from the workplace (that is, to learn more than firm-specific competencies). High value is placed on sharing skills and teamwork, both of which provide the basis for ongoing innovation. Restrictive workplaces, on the other hand, are insular. Skills are narrowly defined and most

attention is focused on immediately relevant on-the-job training. Little time and resources are allocated for training and apprentices are treated more as cheap employees than as learning workers. Managers are more concerned with control than with nurturing employees or teams. Little time or space is created to support innovation.

Table 1 Approaches to workforce development: expansive vs restrictive workplaces

Dimension of workplace		Workplace type	
Vocational development regime		Expansive	Restrictive
External reference point	Engagement with a community of practice	<ul style="list-style-type: none"> • contributes to such a community • actively participates in established or emerging skills tradition 	<ul style="list-style-type: none"> • limits engagement • no recognition or respect for tradition
Skills: nature and acquisition	Type of skill	<ul style="list-style-type: none"> • broad skills • respects value of transferable qualifications • values underpinning knowledge often learnt off the job 	<ul style="list-style-type: none"> • narrow skills • no respect for qualifications • focuses all training on the job
	Nature of skills acquisition	<ul style="list-style-type: none"> • gradual/phased learning • supports career/skill development over time • respects apprentices as learners • nurtures expanding skill set • has a clear skill regime • regular chance to learn new skills 	<ul style="list-style-type: none"> • rushed/fast learning • focuses on getting the job done • sees apprentices as workers • confines skill definition • patchy/ad hoc skills regime • hinders learning new skills
Business setting: management philosophy and enterprise structure	Alignments within the firm	<ul style="list-style-type: none"> • respects need for individual and company to benefit from workforce development • skills widely distributed • values team work 	<ul style="list-style-type: none"> • workers' needs subordinate to the firm's • polarises skills • rigid role definitions
	Role of management	<ul style="list-style-type: none"> • facilitates individual and workforce development • multi-dimensional view of the enterprise • respects and values innovation. 	<ul style="list-style-type: none"> • controls individuals and workforce • uni-dimensional/top down view of the enterprise • disregards innovation.

Source: Derived from Fuller and Unwin (2008).

Documentation of the economy-wide incidence of expansive or restrictive workplaces is limited. Broader evidence on declining job quality and rising work intensification indicate that restrictive workplaces are on the rise (see Green 2006; Knox & Warhurst 2015). The link between these forces and continued low completion rates has been noted by Snell and Hart (2007), who report that in recent times there has been a decline in the level of transferable skills taught, accompanied by a narrowing of skills generally. They also argue there has been a decline in the quality of on-the-job training and learning off the job as employers seek to extract the maximum working hours from apprentices (Snell & Hart 2007). Recognition of these realities informed the review in

Australia by the Apprenticeships for the 21st Century Expert Panel (2011), which found that there were significant systemic problems with Australian apprentices arising from the fragmentation of organisational arrangements and the growing economic pressures on enterprises to maximise short-run returns. The panel's core recommendations concerned the need for systemic changes, especially the need for a 'national custodian' to link all of the elements in the education and industrial relations systems at state and federal levels to ensure that the whole functioned as more than the sum of the parts. It also recommended a compulsory employer education contribution scheme (that is, a training levy) be established to ensure that the costs of apprenticeship training were fairly shared amongst all employers, denying employers with 'restrictive workplaces' a short-run cost advantage compared with their colleagues providing 'expansive workplaces' (Apprenticeships for the 21st Century Expert Panel 2011).

The expert panel also recommended that government funds be extended to the improvement of social, as well as vocational, support to raise retention rates. In doing this, they built on a small but important literature. Mitchell, Dobbs and Ward (2008), in their study of the apprentice-retention strategies of 25 'best practice' employers, found that the best practice firms provided some form of psychosocial support mechanisms such as mentoring and peer support. Snell and Hart (2008) in their study of the reasons for non-completion and dissatisfaction among apprentices found that 'mentoring schemes are a proven means to provide needed support' and could make the difference in keeping apprentices in their training. As a direct result of these recommendations, the Australian Government allocated \$101.4 million to a new Australian Apprenticeships Mentoring Program as one of the five major projects in apprenticeship reform for the four years from 2011–12 to 2015–16 (Australian Government 2011).

The core findings of the Apprenticeships for the 21st Century Expert Panel report, which was designed to address the systemic challenges noted by researchers such as Bardon and Fuller and Unwin, were not taken up. The recommendations relating to mentoring were, however, comprehensively embraced. What does the literature on mentoring reveal of relevance to this study?

Beyond teachers, supervisors and colleagues: mentoring as a form of social support

Mentoring's fluid meaning in popular culture has to some extent hindered attempts at a formal definition (Buzzanell & d'Enbeau 2014). Mentoring is distinct from other relationships such as teacher–student, supervisor–subordinate and coach–player, primarily because of its wide scope, which can encompass academic, social, professional and personal aspects, as well as its high mutuality and interaction (Allen & Eby 2007). Mentoring has largely been researched in a business workplace context (Underhill 2006). While there is a lack of consistency in definitions of mentoring, there is general acceptance that the traditional concept of mentoring involves a more senior or experienced person providing 'various kinds of personal and career assistance to a less senior or experienced person' (Haggard et al. 2011, p.286). The relationship is dynamic and reciprocal, attempting to cultivate an exchange of ideas, yet is asymmetrical because the foremost aim is the development of the mentee (Galbraith & Cohen 1996).

The aims of mentoring have also been disputed, but it is currently understood that the primary aims are psychosocial support, career development, and role modelling (Raabe & Beehr 2003). In the Australian policy context, this is most often defined as 'a mutually beneficial relationship that involves a more experienced person helping a less experienced person to achieve their goals' (Brereton & Taufatofua 2010, p.5).

Broader definitions of mentoring have been developed to encompass what Kram (1985) has described as networks of developmental relationships, with Raabe and Beehr (2003, p.273) noting that there are alternative models of mentoring that include 'peers, groups, and even subordinates'. The main focus in the workplace-mentoring literature has been on career-oriented goals, with psychosocial support often being referred to as 'pastoral care' (Fattore, Raffaele & Moensted 2012). However, there is overlap and interchangeability between these terms as the value of psychosocial support is increasingly recognised in mentoring, especially for its potential to help youth through the critical school-to-work transition period. Corney and Du Plessis (2010), drawing on Moodie (2005) and Dowling et al. (2005), note that:

Mentoring relationships have been found in some contexts to be valuable in improving self-esteem and reducing rates of risk-taking behaviours in young people ... The provision of mentoring relationships for young men could offer a viable form of support within the vocational training process, which in turn could assist in increasing apprenticeship completion rates. (Corney and Du Plessis 2010, p.19)

Smith, Walker and Brennan Kemmis (2011) in their study of the psychological contract in apprenticeships and traineeships found that mentoring was raised in qualitative findings as an important activity in the development of the psychological contract between apprentices and trainees and their employers.

In the literature on mentoring in the workplace, the most commonly researched dichotomy is between formal and informal mentoring. Formal mentoring is structured and organised. It is characterised by a third party initiating the relationship and matching mentor to mentee and also imposing a structure on this relationship, such as duration and frequency of meetings and goal setting (Allen & Eby 2007). These relationships are usually created at the behest of the company. Formal mentoring is particularly good at making sure that both parties have a shared agreement about their roles in the relationship and identifying potential goals and challenges (Eby et al. 2008). However, this construct has been criticised because it 'attempts to legislate interpersonal chemistry and personal commitment' (Raabe & Beehr 2003, p.271), which can result in diminished mentor enthusiasm and motivation, as well as decreased mentee willingness to share; thus the clear delineation and description of all future interactions can limit relationship spontaneity and depth (Raabe & Beehr 2003, p.271).

Informal mentoring involves a more natural process of selection, and, as such, mentor and mentee are likely to find a match according to shared interests and personality traits (Underhill 2006). These organically formed support networks facilitate a more authentic exchange of ideas and an increased flexibility to talk about issues not directly work-related (Corney & du Plessis 2010). These benefits are reflected in its outcomes: informal mentoring in the corporate world had a larger and more significant effect on

both career outcomes and psychosocial support than formal mentoring (Underhill 2006). However, there has recently been interest in combining the programs, and formal and informal mentoring can even be complementary and compensatory, with both types of programs being used concurrently for optimal results (Desimone et al. 2014).

The other main dichotomy in the literature is between hierarchical and peer mentoring. Hierarchical mentoring is the traditional conception of mentoring – as between a subordinate and a superior (though not an immediate superior) – while peer mentoring involves people who have the same or similar levels of experience (Kram 1985). Peer mentoring can provide psychosocial and career functions while also offering a sense of equality (Kram 1985). People may find it easier to be receptive to criticism and to change attitudes and behaviours when the message comes as amiable advice from a peer rather than as an order from a superior (Raabe & Beehr 2003). Peer mentoring has been shown to increase social integration in a university setting (Treston 1999). Peer mentors are generally more accepting of their mentees, and there are usually fewer challenges to their relationship for at least the first year (Ensher & Murphy 2011). However, peer mentoring cannot provide ‘sponsorship, protection, or promotion of visibility’ (Sambunjak & Marušić 2009, p.2591), which are critical for career development.

How relevant is this work on mentors to apprentices? As noted earlier, Smith, Walker and Brennan Kemmis (2011) identified them as very significant. Important work on the topic has also been done by Corney and du Plessis (2010), who report that apprentices identified an average of two mentors in their lives, with the vast majority of these (87%) describing the relationship as informal and organically occurring (Corney & du Plessis 2010). These mentors were either from personal contexts (63%) such as family and friends or from professional contexts (37%) such as employers, co-workers and teachers (Corney & du Plessis 2010). This suggests that apprentices want to and are already forming these close relationships, which act as crucial support structures in their lives, demonstrated by apprentices choosing psychosocial support as their highest priority in these relationships, followed by role modelling, with career development ranking last (Corney & du Plessis 2010).

Similar findings have been found in research into mentoring with group training organisations (GTOs). Fattore, Raffaele and Moensted (2012) identified that group training organisations were in a unique position in vocational education to provide a social safety net by shifting the risk of non-completion and ‘training failure’ from host employer to themselves, as the group training provider. The types of mentoring and pastoral care support that were reported as provided by group training organisations included the career-directed and psychosocial support found in general mentoring, but was often broader and also involved education mentoring (for example, developing apprentices’ competencies and assisting with completion of assignments) and work-readiness mentoring (for example, assisting apprentices with appropriate workplace conduct and behaviour).

What is the evidence that mentoring will improve apprenticeship completions? The literature on this topic is patchy and ultimately inconclusive. The issues considered, but on which there are no agreed findings, concern such matters as:

- the alleged importance of early-stage mentoring (Huntley Consulting Group 2008; Fullagar & Tonkin 2008; Thompson et al. 2013; Hill & Dalley-Trim 2006; Bednarz 2014)
- the alleged benefits of different types of mentoring/mentors (Snell & Hart 2007; Mitchell, Dobbs & Ward 2008)
- the difference in what constitutes 'mentoring services' (Mitchell, Dobbs & Ward 2008; Snell & Hart 2007)
- the importance of the idea of, but limited agreement on, the requirements of formal training for mentors (Fullagar & Tonkin 2008; Bednarz 2014)
- agreements on the appropriate ratio of mentees to mentor (Hill & Dalley-Trim 2006; Fattore, Raffaele & Moensted 2012)
- the potential benefits (or not) of 'scripts' for contact visits (Hill & Dalley-Trim 2006)
- the frequency of contacts (Hill & Dalley-Trim 2006)
- an improvement in the matching of apprentices to employers as a way of reducing demand for additional mentoring support (Huntley Consulting Group 2008).

Our close reading of the 14 leading articles on this topic concluded there was near-universal agreement on the 'need' for mentoring to improve apprenticeship retention rates; however, there was little agreement on how this should be achieved and even less information on what impact such interventions have.

Summary and conclusion

The transition from adolescence to early adulthood can be a particularly turbulent time for many young people, with their move from schooling into the next phase of their life. This time of change coincides with substantially higher risks for the onset and delayed treatment of the majority of the high-prevalence mental disorders, compared with later in life. While the literature recognises the importance of early interventions in improving outcomes, much of the evidence is centred around a deficits-based model of individualised specialist responses. There is far less attention given to strengths-based perspectives on how to better nurture and support the wellbeing of young people while ensuring the early identification of those needing particular support.

The mature and extensive literature on social support and health provides important findings in this regard. Effective social supports have huge implications for health — physiological and psychological. Work as a site for such support has, to date, received relatively little sustained research attention. Structures and cultures at work perform critical social and psychological functions, not being merely those of production and distribution. Workplace settings are, however, of variable quality.

Those which are 'expansive' in nature provide extensive support for development — social as well as vocational. Ongoing competitive pressures appear, nevertheless, to be promoting growing numbers of 'restrictive' workplaces. In recent times there has been policy recognition of the need for government support to redress this problem. One

major intervention has been increased public funding for the new and large-scale Australian Apprenticeship Mentorship Program.

The literature on mentoring highlights the importance of both formal and informal arrangements; it also highlights the need to understand peer-to-peer mentoring, as well as that provided in more traditional, hierarchy-based mentoring relationships. How is this social dimension of apprenticeship functioning today? Before answering this question, we first outline how we went about analysing this issue.



Research design

This chapter summarises why and how the research design for this project was devised and executed.

Research strategy

A review of the relevant literature revealed that, while work is potentially an important site of social support for health and wellbeing, there is no mature research literature on this topic with concomitant established research methods and protocols. Given this situation, what is the most pressing research challenge?

Ideally it would be desirable to add to the social support and health literature.

Workplace and work-related social support would be taken as the independent variable. Variations in it would be used to determine whether they were associated with different mental health outcomes. The research team initially adopted this strategy. Despite considerable efforts, however, the response rates to a specially designed survey were poor. A summary of findings from the sample who did respond are provided in appendix A.

This development forced a full-scale reconsideration of our research strategy and questions (appendix B). As the review of the relevant literature revealed, our understanding of just what 'social support' at work entails, and what is involved, is patchy. The research strategy shifted to filling this gap in the literature; in particular we aimed to generate a more precise understanding of what social support associated with work entails. As the previous chapter revealed, we were not starting from scratch. The literatures on the health–social support nexus, apprenticeships and mentoring provide rich, if disparate, insights. What was lacking, given the concerns of this project, was a more precise understanding about critical issues such as the following:

- While it is recognised that both formal and informal mentoring arrangements are important and often co-exist, how are they connected or – more broadly speaking – how do they cohere?
- Why do the configurations of such social support that exist prevail?
- How, if at all, does policy concerned with improving levels of social support in a work context engage with the current realities?

Underlying questions such as these is the notion that structures of support are not an array of isolated practices; rather, they function as 'regimes of support'. This is something that has been noted in the more recent contributions to the social support and health literature. It was strongly implicit in Bardon's (2010) and Fuller and Unwin's (2008) notion of 'top tier' and 'expansive' workplaces.

Given these findings, three hypotheses about the nature and operation of regimes of social support became the focus for the research. These were formulated as follows:

- Effective regimes of social support associated with work involve informal, as well as formally constituted, arrangements that cohere as part of distinct communities of practice.
- Such regimes do not operate in isolation; rather, they are connected to regimes of workforce and business development.
- Public policy directed at improving social support associated with work will have no impact in the absence of effective and inclusive workplace skills and business development regimes.

Research design

The indicators for regimes of social support associated with work are not well established, while indicators of how they are connected to broader workforce and business development regimes are virtually non-existent. By necessity, the core of our research design had to be qualitative in nature. Before quantitative research can be conducted, clear data items need to be identified to underpin coherent questionnaire development, the prerequisite for more elaborate statistical analysis. Qualitative research is, however, more than just the collection of interesting stories from the field. Systematic knowledge is created by rigorous approaches to case study selection, data collection and analysis of material gathered directly from knowledgeable agents in the field.

Research methods

Case study selection criteria

Given the time and resources available, it was decided to build the analysis around eight workplaces with apprentices in the age range of 16–24 years. In the context of the interest in both ‘formal’ and ‘informal’ support arrangements, half were to involve workplaces that directly employed apprentices, with the other half engaging them through group training arrangements. The latter have, for decades, prided themselves on formal structures of ‘pastoral care’. Their inclusion guaranteed that this aspect of the hypotheses would be captured in the research. Bardon’s work established that ‘top tier’ employers had better retention rates than their colleagues. An understanding of the factors characterising such employers meant that particularly close attention would be paid to their experiences, an approach sometimes known as the ‘critical’ or ‘crucial case’ approach to qualitative research.⁹ While findings from a small number of case studies cannot be generalised in the way that occurs with statistical methods, careful case selection can ensure that the research establishes what is occurring ‘at the limit’ of established practice. It may not be ‘typical’ or ‘average’, but it reveals what is possible. Identification of ‘limit cases’, or what are sometimes called ‘best practice’ cases, is achieved by interviews with key informants who possess knowledge of such matters. Too

⁹ A useful account of the strategic selection of cases in research projects with multiple cases or ‘crucial’ or ‘critical cases’ in projects involving just one case is provided in Yin (2009, pp.46–64, especially pp.59–62); see also Mitchell (1983).

often 'best practice' research identifies a list of the desired characteristics of interest, identifies workplaces with these, documents them and then advocates their broader adoption for 'less than best practice' workplaces. Such research typically overlooks the huge constraints on employers in particular. It is easier for some employers (due to either their size, product market or occupations deployed) than others. For example, small employers in highly competitive product markets usually have fewer choices than large employers in markets where they have some power or strategic advantage (for example, superior or new technology). To control for this, the project had very precise foci:

- *Industry focus*: non-engineering construction sector, primarily 'commercial construction'. This is a highly competitive sector. All employers studied therefore faced the same product market constraint.
- *Occupational focus*: the carpentry trade. There are a host of occupations in commercial construction, including trade-level electricians and plumbers, as well as carpenters. Devoting attention to the situation of carpentry apprentices meant that the differences in social support between workplaces could not be attributed to different 'trade traditions'.
- *Size focus*: half were large organisations, half small. Large group training organisations were defined as those having more than 500 apprentices and trainees, small as having fewer than 200. Large direct employers had at least 800 employees and 80 apprentices, small had fewer than 10 employees and two to three apprentices. The interest in leading-edge (or limit case) practice was captured by consulting with key informants to find the top large employers of apprentices in commercial construction. As a 'quasi control' group, four randomly selected very small organisations were also examined to ascertain the extent to which scale of operation impacted on the structures of support provided to apprentices.

Having very tight case study selection criteria meant that the findings on the differences in approaches to structures of social support could be identified and confidently attributed to the actions taken by parties at workplace level. This is important, as identifying what can be done within workplaces facing similar constraints highlights how parties at workplace level can make a difference. Where all sites studied appear to suffer from a common problem, this provides prima facie evidence of the types of issues with which public and multi-employer policy should be concerned to shift sectoral or occupational constraints.

Case study recruitment

Best practice organisations were identified by consulting with key informants knowledgeable of apprenticeships in general and the situation in the construction industry in particular. These included Group Training Australia, the Master Builders Association (especially in NSW, Queensland, WA and SA) and other employer bodies and the organisers of the various State and National Training awards. Four analytically preferred organisations were identified. Each was approached individually to ascertain whether they would be involved in the study, with all agreeing. Smaller group training organisations (employing fewer than 10 staff) that were currently engaging young (16–24

years) first year apprentices in carpentry were invited to participate as a case study. Direct employers identifiable as carpentry businesses were randomly selected from a list of all Australian employers of apprentices or trainees commencing in 2014 and contacted to ascertain whether they were a small business (fewer than 10 staff) that employed at least one first year apprentice aged 16–24 years. If so, they were invited to participate as a case study.

Conduct of data collection

Most of the material for the case studies was retrieved during in-depth qualitative interviews of approximately 30–60 minutes, which were audio-recorded. For the large sites, these interviews were conducted as a mix of in-person and onsite, and on the phone, according to the convenience of the interviewee. Extensive documentation was collected during the face-to-face interviews conducted at these organisations. For the small-site case studies, all of the interviews were conducted via phone.

At each site, interviews were sourced from the following roles where available:

- CEO/business owner
- senior manager
- HR/training manager
- field officer (at group training organisation site)
- apprenticeship coordinator or person with this responsibility (at directly employed sites)
- apprentices: two to nine at each site, including first year and later year apprentices.

Preparation of analysis

The case study data were analysed and written up individually, resulting in mini ‘workplace anthropological studies’ of social structures of support at the sites involved in this project. This helped in the identification of the key characteristics of the nature and operation of social structures of support at each site. These reports can be found in the support document for this report. A cross-case analysis was undertaken to derive key findings. These are reported in the next chapter.



Findings from the organisational case studies

The organisations studied

Tables 2a and 2b distil the key findings of fact obtained from the fieldwork. These fell into four categories. The facts of most immediate interest concern the formal mentoring arrangements in place at each organisation. From an early stage, however, it became clear that for apprentices this was only part of the story; for them, it was the informal forms of support – professional and personal – that they valued most. These sources of de facto support were invariably linked to their on-the-job development as apprentices. This resulted in the researchers devoting time to understanding the nature of the apprenticeship arrangements in the organisations studied. In all of the organisations, engagement with apprenticeships meant more than the apprentice acquiring narrowly defined technical skills. Engagement was concerned with developing individuals as social as well as technically productive beings. And, as is reported under Finding 3, the types of individuals and occupations involved in apprenticeship-like arrangements were not simply talented adolescent boys learning to become competent tradesmen. On the contrary, particularly amongst the large organisations, the apprenticeship model of learning (that is, the combination of on-the-job training supported by underpinning knowledge learnt offsite) was the basis for what we describe as vocational development, broadly defined. While this included development in social and personal (not only technical) skills, it involved marginalised individuals, as well as future managerial employees – not only trade-level workers. It is for these reasons that the second row in tables 2a and 2b refers to the ‘Nature of the apprenticeship model of vocational development’ prevailing in the organisation.

Finally, tables 2a and 2b also provide information on the organisational context in which the mentoring arrangements operated. This context is provided not merely by way of ‘background’; that is, it is not the equivalent of the painted scenery that adorns the wall behind a theatrical stage on which the actors provide ‘the real story’. In these cases, ‘context was constitutive’ of the matter of interest (Flyvbjerg 2001). As is noted in the findings below, the nature of social support is not something that is provided by a discrete mentoring program. Social support is, rather, an artefact of many social factors – within the enterprise and beyond.

Table 2a Summary of key features of the large case study organisations

Key features	Large case study organisations			
	Hutchinson Builders	Fairbrother Pty Ltd	MGT ^a	East Coast Apprenticeships (Group Training)
Organisational context	<p>Founded: 1912 Employment: 1300 employees Apprentices: 80+ Regional presence: All states & NT Growth: turnover</p> <ul style="list-style-type: none"> - 1960s crisis - 1992: \$20m - 2000: \$215m - 2012: \$1.15b 	<p>Founded: 1973 Employment: 500 employees Apprentices: 80+ Regional presence: All Tasmania*, rural Vic. Growth: (apprentice numbers)</p> <ul style="list-style-type: none"> - took 20 years to train first 100 - now graduates 15–20 annually 	<p>Founded: 1981 Staff: 15 Apprentices: 290 (two-thirds in construction) Field officers: 4 Hosts: 100+ active at any one time. 20 in construction: 5 or so largest account for large percentage</p>	<p>Founded: 1988 Staff: 51 Apprentices: 300 Hosts: around 485 active at any one time Regional presence: Brisbane (and nationally for mining) Growth: three stages, with latest extending services to adult apprentices and down the occupational hierarchy</p>
Nature of apprenticeship model of vocational development	<p>Full integrated system with:</p> <ul style="list-style-type: none"> (a) two streams – trades and managerial/leadership (b) own RTO does off-job element (c) prevocational arrangement – ‘doorway to construction’. <p>All coordinated by a self-financed Workforce Development Unit</p>	<p>Highly developed system built into operations – not out of the HR function. Has two streams – trades and managerial/leadership</p>	<p>Group training operations plus in past had Aust Apprentice Centre and contract to provide Apprenticeship Mentoring Services</p>	<p>GTO is flywheel for comprehensive VET and employment services. Apprenticeship model applied widely for second-chance learning – accelerated adult apprentices and for supporting ‘at risk’ social groups</p>
Formal support arrangements	<p>Director Workforce Dev’t Unit Apprentice Development Coordinator Site managers Site supervisors</p>	<p>Construction manager Site manager Designated supervising carpenter (OzHelp education and Employee Assistance Program)</p>	<p>Field officers for group apprentices Site visits every 8 weeks</p>	<p>Field officers ‘Manager once removed’ arrangement</p>
Informal/de facto support	<p>Firm’s own skilled workers on site Tradie subbies on site Other apprentices, especially in later years.</p>	<p>Firm’s own skilled workers on site Tradie subbies on site Other apprentices, especially in later years.</p>	<p>Site-based supervisors Tradie subbies on site Other apprentices, especially in later years TAFE teachers.</p>	<p>As for other organisations and extensive array of supported pathways for disadvantaged groups.</p>

Note: In the course of fieldwork involving My Gateway Group training a very fruitful lead was provided that resulted in extensive fieldwork being done with Barangaroo Skills Exchange (BSX). The experiences of the BSX and apprenticeship at Barangaroo are reported as part of the MGT case study. It important to note, however, that the BMX is an independent skills centre, organised by Lend Lease and West Sydney Institute of TAFE.

Table 2b Summary of key features of the small case study organisations

Key features	Small case study organisations			
	Small business 1 (NSW)	Small business 2 (WA)	Small GTO 1 (WA)	Small GTO 2 (Tas.)
Organisational context	<p>Business has employed apprentices for over 11 years</p> <p>Specialises in structural carpentry</p> <p>Owner is a licensed carpenter</p> <p>Employees: 2 licensed carpenters</p> <p>Apprentices: 2 (1st year and 4th year)</p> <p>Employee number varies, with previously as many as 10 employees (including 4 apprentices)</p> <p>Business sometimes subcontracts other carpenters for larger jobs</p>	<p>Owner is a licensed carpenter and his wife manages administration and recruitment</p> <p>Owner has been self-employed for 14 years and operating current business for over 10 years</p> <p>Specialises in fixing carpentry (e.g. hanging doors, fixing skirting)</p> <p>Employees: 1 licensed carpenter</p> <p>Apprentices: 2 in 1st year</p>	<p>GTO in operation for approx. 30 years</p> <p>Staff: CEO/operating manager, administrative/HR/recruitment officer, 1 client service manager (field officer) – usually has 2 client service managers</p> <p>Apprentices: Approx. 80 (10 carpenters and 30 cabinet makers)</p>	<p>GTO in operation for over 30 years</p> <p>Staff: CEO/operating manager, 4 field officers, a finance officer, administrative officer</p> <p>Apprentices: 120 (70% carpentry, mostly traditional)</p>
Nature of apprenticeship model of vocational development	<p>On-the-job learning and task allocations are customised to individuals' needs and abilities rather than the apprentices being required to undertake all tasks</p> <p>Apprentices are paid above award according to skill and performance</p>	<p>Training is on the job and customised to the needs and personality of the apprentice</p> <p>HR and recruitment is handled by the owner's wife</p> <p>Apprenticeships are advertised and candidates undertake a 1-week trial</p>	<p>Organisational philosophy is to build a personal relationship with the apprentice as a valued member of a team</p> <p>Apprenticeship applications are screened, with approx. 10% being selected; once accepted, apprentices are supported more broadly in their vocational development e.g. option to try out another trade or suspending their apprenticeship</p>	<p>Active role managing the fit between apprentice and host employer, including counselling the host on supporting apprentice and option to transfer the apprentice to another host</p> <p>Apprentices are allocated to work directly under a tradesperson or in a small workgroup of 3–5 under a senior tradesperson/leading hand</p>
Formal support arrangements	<p>Apprenticeship centre manages the administration ('paperwork') required for the apprenticeships plus contacts the apprentice and business twice in the first year</p> <p>No other formal mentoring support</p>	<p>Business engages an apprenticeship centre to sign up and register apprentices</p> <p>Previously arranged a counsellor through the apprenticeship centre and sought assistance from TAFE but does not generally engage formal mentors</p>	<p>Client service manager (field officer) required to check apprentices once every 6–8 weeks, more frequently if issues</p> <p>No engagement of external mentors</p> <p>Support given to apprentices to organise counselling or drug/alcohol rehabilitation</p>	<p>Field officers (generally with a trade background, but not exclusively) aim to check apprentices every 3–4 weeks, minimum of 8 times/year</p> <p>OzHelp Foundation Life skills training – 1 day mid 1st yr plus one day in 2nd yr</p> <p>No engagement of external mentors, but the host employer's worksite may have a formal mentor and HR support</p>
Informal/de facto support	<p>Owner and licensed carpenters</p> <p>Other apprentice</p> <p>Support embedded in everyday work practice and learning e.g. daily tool box talks outline goals and site risks</p> <p>Discussing personal issues and seeking advice was encouraged</p> <p>Community social networks.</p>	<p>Owner and qualified carpenter viewed as role models for both life and skills</p> <p>Often worksite will have other qualified tradespeople and other supervisors</p> <p>Peer support with apprentices helping each other.</p>	<p>Host employer owners/supervisors (quality varies)</p> <p>Other tradespeople on site</p> <p>Other apprentices</p> <p>A previous apprentice who is now a TAFE teacher provides informal mentoring</p> <p>GTO's administration officer is a point of contact for picking up and discussing issues.</p>	<p>Host employer's supervising tradesperson or group of 3–4 apprentices with a senior tradesperson/leading hand (quality varies)</p> <p>Other tradespeople on site</p> <p>Other apprentices.</p>

While full case study reports from each of the organisations involved in this research are provided in the support document, the following sections provide the five key findings arising from our cross-case analysis. Before considering these, it is helpful to have a brief account of the key features of each of the organisations studied.

Hutchinson Builders is, in terms of directly employed workers, one of the largest construction firms in Australia. Formed in 1912, it came close to bankruptcy in the mid-1960s. After a series of creative and disciplined restructures, led for the most part by the grand- and great-grandsons of the original owner, the firm today employs around 1300 employees and has over 80 apprentices. It operates in all states and the Northern Territory from over 20 separate locations, and has undertaken work in New Zealand, Canada and Japan. Its apprenticeship program has two streams: one that prepares people for traditional trade work; and the other, more importantly for the firm, that prepares future project managers and leaders of the business. It has extensive training capacity, organised by a self-financing Workforce Development Unit with 32 staff. Apprenticeships offered by the firm are highly desired amongst applicants for the quality of both the on- and off-job training provided.

Fairbrother Pty Ltd is Tasmania's largest construction firm. Formed as a husband-and-wife partnership in 1973, it now directly employs over 500 workers, over 80 of whom are apprentices. It operates throughout Tasmania and rural Victoria, but has made forays into the Sydney market. It is a leader in the industry and the communities in which it operates. For example, its founder, Royce Fairbrother, was – along with the Construction, Forestry, Mining and Energy Union (CFMEU) – one of the prime movers in bringing the OzHealth mental health and suicide support service for young construction workers to Tasmania. Thea Fairbrother, for decades the organisational backbone of the firm, has played an active role in Common Ground Tasmania, an initiative based around businesses taking an active role in providing accommodation and allied support services for low-paid and marginalised people and those with severe mental illness. The firm has produced six apprentices of the year over the last decade. Like Hutchinson, its apprenticeship arrangements work to develop future business leaders, as well as highly skilled tradespeople. It too is widely recognised as an employer of choice amongst young Tasmanians seeking a future in the construction industry.

My Gateway Group Training (previously Macarthur Group Training) (MGT), formed in 1981, was one of the first group apprentice organisations. Initially based in southwest Sydney, it now operates across the city, the Hunter and in the Illawarra. Its staff of 50 now provides a wide range of labour market and vocational education services. Until June 2015, the organisation also included an Australian Apprenticeship Centre and the Australian Apprenticeship Mentoring Program, which supported first year apprentices who were directly employed outside the MGT group training model, that is, directly employed or employed by other group training organisations. The group training arm has approximately 270 apprentices and trainees, just over one-third of whom are in construction. These are supported by four field officers, a full-time apprentice recruiter, a work health and safety manager and an administrative support person. At any one time, MGT is directly engaged with over 100 host employers, many of them small businesses. A small number of larger employers provide a large number of its

placements. At the time of the fieldwork, MGT had 38 apprentices hosted to Lend Lease (a host employer for over 18 years) at its Barangaroo site, the largest construction project in Sydney, and one of the largest ever in Australia. Its apprentices at this site are involved in the Barangaroo Skills Exchange (or BSX). This is run by Lend Lease, in concert with the Western Sydney Institute of TAFE. This is an on-site skills centre, providing a comprehensive suite of education and vocational training courses for the site's 3000 workers. MGT has seconded one of its field officers to the BSX mentoring team, which operates as mentors in BSX to support the more than 300 apprentices on the site. As at March 2016, BSX has inducted 650 apprentices since its formation.

East Coast Apprenticeships (ECA) was formed in 1988. It has evolved through several stages of development and, like MGT, provides a wide range of labour market and vocational development support services. Of its current staff of over 30, eight are group training field officers who support around 300 apprentices, mostly in the construction trades. ECA takes an encompassing approach to its role in the labour market. At the core of its operation is high-quality trades training, provided mostly in partnership with TAFE (technical and further education) and small construction employers. From this platform the apprenticeship model of learning has been used to devise a wide range of 'second chance' learning pathways. In the higher tiers of the labour market, this involved being the key player in delivering compressed adult apprenticeship training for metal and electrical trades skills for the Australian resources sector between 2010 and 2014. For marginalised citizens or people at risk of exclusion from the workforce, it has a range of programs to help build their pre-employment and pre-apprenticeship skills. It has also taken a special interest in helping people from Indigenous and refugee backgrounds, as well as those with dyslexia and women interested in entering the construction trades. While it has strong social ethos, it is also organised on the basis of tight commercial discipline. It prefers not be defined as 'not for profit' but rather as a 'for purpose organisation', with the purpose being 'helping others'.

Small Business 1 (New South Wales) is a Sydney-based carpentry company that works within the inner metropolitan areas. The business specialises in structural carpentry, such as walls, floors and roof frames in residential houses. The business has been engaging apprentices for over 11 years. It currently directly employs two apprentice carpenters, one in his first year (17-year-old male) and one finishing his fourth year (24-year-old male), along with two licensed carpenters, in addition to the owner, who is also a licensed carpenter. The number of employees varies from year to year and has been as high as ten, including four directly employed apprentices. The business also sub-contracts other carpenters from time to time. While there is little formal mentoring, there is considerable informal social support provided due to the business owner's strong commitment to the pastoral care and support of young apprentices.

Small Business 2 (Western Australia) operates and is based in the suburbs of Perth and specialises in fixing carpentry, such as hanging doors and fixing skirting, shelving, eaves and decking. The owner is a qualified carpenter who has been self-employed for the past 14 years and has operated his current business for over 10 years. He spent the first few years by himself before going on to engage 10 apprentices. He currently employs two 17-year-old first year apprentices and another qualified carpenter. His wife handles the

administration of the business and the apprenticeships, as well advertising for and recruiting apprentices. The business has never engaged formal mentors, or considered doing so. The workplace is viewed by the apprentices as a good working environment, with informal mentoring support provided by the business owner and other licensed tradesmen onsite, as well as informal peer support.

Group Training Organisation 1 (Tasmania) has been in operation for over 30 years. It specialises in the construction industry, with approximately 70% of its 120 apprentices on its books being engaged in mostly traditional carpentry. In the past at its highest point, it supported 150 apprentices, and at its lowest, 110. The organisation's host employers are mostly sole traders with a smaller number of apprentices engaged with large construction firms. There are seven-and-a-half full-time-equivalent staff employed: the operating manager, four field officers, a finance officer and an administrative officer. Formal mentoring and pastoral care are delivered through the group training organisation's field officers. The organisation does not engage external mentors as this is viewed as the organisation's role. Each field officer looks after between 30 and 40 apprentices.

Group Training Organisation 2 (Western Australia) was established 30 years ago to supply the furnishing industry and was previously also a registered training organisation (RTO). At its height, it had 150 apprentices on its books. The organisation now has approximately 80 apprentices in furniture and building, with around 10 carpenters and 30 cabinet makers. Its staff includes the CEO, who is also the operating manager, an administrative officer, who looks after recruitment, and normally also two client service managers (field officers). However, at the time of the case study, only one client service manager, who had been hired a few months ago, was employed. The organisation was in the process of hiring a second client service manager and the CEO was currently partially filling that role. The organisation has not engaged external mentors to directly support its apprentices as that may potentially interfere with the relationship the organisation nurtures with the apprentice. The client service manager is required to check on apprentices at least once every six to eight weeks. However, if an apprentice is having issues then they will check in much more frequently.

Findings from the cross-case analysis

Finding 1: Formal mentoring arrangements were common.

Formal mentoring arrangements, based primarily on apprenticeship coordinators and group training field officers, were in place in most of the organisations studied, the only exceptions being the two smaller organisations directly employing apprentices.

At the time of the project fieldwork, of the eight organisations studied, only one (MGT) supported roles expressly described as 'mentors', and these personnel are not part of its core group training business.¹⁰ All group training organisations and the two large firms,

¹⁰ The MGT mentors were employed under the federally funded Australian Apprenticeship Mentoring Program. MGT made a conscious decision to separate the Mentoring Program and its GTO activities. It did not want to confuse the apprentices or host employers by introducing another MGT person into

however, employed very senior personnel responsible for the pastoral care or welfare of their apprentices. At Hutchinson Builders this was the responsibility of the Director of the Workforce Development Unit and especially the Apprentice Development Coordinator in that unit. The latter oversaw the development of individual training plans for each apprentice. Integral to these was the clear specification of roles for site supervisors and the senior team member responsible for the apprentices. While this primarily concerned the development of technical skills, it was also recognised that apprentices often needed assistance with developing life skills. The situation was similar but arguably more highly developed at Fairbrother. Responsibility for the firm's apprentices and apprenticeship program was a large component of the job of one of the firm's two senior construction managers in the southern section of the Tasmanian Division. He oversaw career induction processes to both the industry and the workplace. Part of the former involved ensuring that apprentices in their first and second years received training from OzHelp in mental health and suicide awareness. He also oversaw the screening of the seasoned carpenters to whom new apprentices were to be allocated. As one apprentice put it: 'the company recognises not all leading hands are good teachers ... a few are recognised as being very good'.

Group training is well known for providing what is often described as 'pastoral care' for its apprentices. This ethos was strong in all four group training organisations studied. At the heart of this was the role of the field officer. At MGT, these staff would assist in matching apprentices to host employers, help to devise training plans and, if problems emerged, assist with redeploying apprentices if either work ran out or circumstances required the apprentice's relocation. At MGT the field officer is required to physically visit each apprentice every eight weeks. This was to ensure that the operational matters associated with the apprenticeship were working and to confirm that the apprentice received regular constructive feedback on their skill development and on-the-job performance. The frequency of the visit schedule also helps the field officer to develop a rapport with the apprentice. But it also ensured that someone outside the immediate work setting understood the apprentice's personal context and that as a novice in the trade. Similar sentiments and accounts of the role and importance of field officers were provided by the two smaller group training organisations.

ECA has devoted special attention to the pastoral care role of field officers, with usually one field officer for every 50 apprentices. Their role is to manage the relationship between the apprentice and the host employer and in many cases they are as much a mentor for the employer as for the apprentice. The key activities they perform include:

- *organising inductions*: both into the apprenticeship at large and with particular hosts
- *mediating conflict*: this is not common, but does happen. This can involve facilitating the resolution of differences, as well as arranging for the redeployment of the apprentice to another host if necessary

the relationship. Its GTO apprentices continued to receive pastoral care support from field officers without the intervention of a mentor.

- *organising referrals*: where a serious problem emerges the field officer may not be able to provide the solution but can offer informed advice about how issues can best be resolved
- *providing mentoring*: providing advice and support as needed. Apprentices can text them at any time
- *providing support with 'life administration'*: they often help with paperwork and finances, helping young people to sort out transport and housing rebates, all the helpful work that is not covered by the traditional conception of mentoring/pastoral care.

Through the course of the interviews with ECA personnel, it became clear that considerable effort had gone into understanding what pastoral care means. The organisation has an official two-page policy statement on this subject. A particularly thoughtful former field officer articulated the qualities ECA valued and endeavoured to nurture in this stratum of its workforce:

It is not just a matter of being available or making contact with apprentices ... you need to be able to get people to speak ... you have to have your ears open all the time ... a good field officer knows how to probe – not all can do this ... As ex-tradespeople they are trouble-shooters by nature. They have an investigator's mind ... you need to control the flow of information ... you need to be able to put issues in context ... not all field officers can do this ... you have to want to develop and value these skills.

While there has been some turnover amongst field officers, it has been limited. The stability of staff has meant the organisation has acquired over time a team with the skills noted above.

Finding 2: Systemic informal support embedded in apprenticeship cultures of development was more significant.

Mentoring arrangements are not the whole, or even the most important form of, social support provided to apprentices. Highly customised support (both professional and personal) was provided to all apprentices through informal arrangements associated with vocational development on the job. This was especially the case in the two small organisations employing apprentices directly.

As traditionally conceived, an apprenticeship involves a three-way relationship between the apprentice, his or her employer and the provider of underpinning knowledge (TAFE in many of the cases studied). All parties to this learning situation contribute to the development of the apprentice. Arguably, the most significant is their workplace supervisor. The significance of this was particularly clear in the case of the two smaller organisations employing apprentices directly. Unconstrained by organisational protocols because of their size, they customise their apprenticeship offerings. And the customisation addresses matters associated with social and emotional development – not only technical education. As one interviewee from the small Tasmanian group training organisation observed: while larger companies can provide significant formal organisational support such as having a nominated apprentice coordinator and dedicated staff for safety and HR issues, there is usually a far more personal relationship between

the apprentice and the supervising tradesperson in small businesses. Several of the apprentices from such organisations noted that they regarded the owner—manager as providing a strong personal role model, not merely for technical skills, but for working life more generally.

While not as intensely personal, sentiments of a similar nature, highlighting the de facto support associated with their apprenticeship, were noted by nearly all of the apprentices interviewed. It was commonly acknowledged that the key sources of such support were the apprentices' immediate supervisor, other supervisors at the worksite, associated sub-contractors ('subbies') and more experienced apprentices. Fairbrother apprentices were particularly strong on this point. As one second year apprentice put it: 'Fairbrother's is much like a big family ... the apprentices talk to each other a lot ... tell each other mistakes to avoid ... the company teaches you to look out for others'.

Similar sentiments were expressed by apprentices from East Coast Apprenticeships. One noted: 'we are all like a family on site — we all look out for each other and help each other out'. And another reported he felt safe because 'the host [employer] will always have my back'.

There was a close connection between the formal structures of support associated with technical apprenticeship training in the larger organisations and the more informal support provided on personal matters. As one of the most senior construction managers at Fairbrother explained, the company 'earned respect amongst apprentices' by its comprehensive approach to skill development. This provided the context for apprentices 'feeling safe' to discuss personal problems. A program manager at ECA made a similar observation: 'You can't just contract in pastoral care ... you need to have it embedded in an employment relationship. This means you have a better connection with the apprentice'.

A very good example of this was provided by an experienced supervisor at Lend Lease who had previously been an MGT apprentice. He regarded informal mentoring — even of apprentices not allocated to him — as part of his role. He often provided unofficial updates to the apprentice coordinator, noting in particular where he thought there might be emerging risks. He defined mentoring as 'having someone to look up to ... have a laugh, have a joke but at the same time explain things and get their confidence up'. He reported that he sees many apprentices who are very reserved and who will not seek help even if they do not understand something or need help. He reportedly saw his role as building their confidence to enable them to feel they can ask any questions about the work they do. As he noted: 'apprentices shouldn't be feeling embarrassed about asking questions'. He also noted it was easier to get apprentices to open up about their personal issues if they have a professional relationship and have talked about work and skills matters before in a work-related context.

Experienced work group members who were not even employees of the company hiring apprentices also provide support. This was noted by several apprentices at Hutchinson Builders. One second year apprentice from this firm noted: 'Everyone is a mentor here ... even tradies like plumbers and sparkies ... no one ever brushes you off ... everyone has time to help you'.

Apprentices at this organisation had received considerable informal support of this nature, especially in learning new skills and for advice on other aspects of life. One fourth year noted that he was attracted to mastering management skills and realised he had to carve out learning opportunities and find the support to get them. As he explained: 'I got a lot of information from subbies'. Another fourth year noted he had received good support from [the Apprentice Development Coordinators] over the years, but at site level, Hutchinson's staff had only been one source of development. According to him: 'I never had a[n official] mentor ... people find someone and stick with them. I've never worked with too many other apprentices ... you learn as you go along. You learn as you carry a load'.

Several ECA apprentices reported similar experiences of support from experienced workers who were part of their work group – but not 'official colleagues'. One of these noted that while the older hands sometimes become frustrated, it is usually with the situation, not with the apprentice. And another explained: 'most experienced tradies are happy to take time out to teach you because you eventually help make their life easier on the job'. One apprentice went as far as to observe that 'we are all like a family on site – we all look out for each other and help each other out'.

Most important in this regard is the support that the apprentices provide to each other. Many later year apprentices noted they had been taught a great deal by senior apprentices early in their careers and now they were doing the same. The practice appeared to be particularly advanced at Fairbrother. One apprentice put this way: 'the company regularly advises you to help others, especially new ones'. A final year Fairbrother apprentice spoke for many when he stated:

at the end of my first year I worked under some third year apprentices ... they taught me well as they knew where I was at as they had only recently been there themselves ... I've done the same. I'm now helping the younger apprentices too.

The apprentices from MGT hosted with Lend Lease noted that supervisors would 'look out' for the apprentice, and this often extended to ensuring continuity of association with the same supervisor over four years to support coherence in their professional and personal development. This continuity also deepened the bond between the apprentice and the seasoned tradesperson. A number of interviewees reported that sometimes TAFE teachers would pick up problems or potential emerging problems in apprentices. These would then be reported back to the company employing the apprentice for appropriate attention.

Figure 2 summarises the wide network of agents involved in developing apprentices. All cases studied revealed that 'support' concerned the personal and not only the professional development of the apprentice. The figure highlights the variety and depth of support found in the case study sites. This comes from three distinct sources: the labour market, the education sector and government agencies. Formal support from agencies such as apprenticeship registration bodies were not noted by any interviewees.

Figure 2 Dimensions of support surrounding carpentry apprentices in the organisations studied



Several of those interviewed noted that educators, especially TAFE teachers, often played a caring role beyond that of formal learning. The source of support most commonly identified was related to apprentices' status as paid workers. At the most immediate level this concerned the seasoned tradesperson as their formal supervisor. Just as importantly, it often involved other tradespeople – either fellow employees or subbies (and this included tradespeople beyond that of carpentry). Agents operating at enterprise level, such those in human resources and apprenticeship coordinators, were also valued by many of the apprentices interviewed. And beyond the enterprise, support was reported from group training organisation field officers and organisations such as OzHelp. Overwhelmingly, it was the support associated with their being embedded in the labour market that was consistently noted as being of most value to apprentices. In a nutshell, evidence of a supportive culture of craft was extensive amongst the apprentices and all those involved in developing them interviewed for this study. Members of the craft (and allied trades) often actively helped to support new entrants to navigate both changes in the life course, as well as the transition from novice to fully qualified carpenter.

Finding 3: Support arrangements were integral to business models.

These comprehensive systems of support are integral to distinct business models concerned with social as well as organisational sustainability and involve extending the apprentice model of vocational development both above and below the traditional trades.

As noted in the review of the literature on apprentices, Fuller and Unwin (2008) have shown that not all apprenticeship work placements are equal. They highlight the importance of distinguishing between 'expansive' and 'restrictive' workplaces. The former provide an environment in which experienced workers share their skills with apprentices, have the time to allow apprentices to learn from their mistakes, are often involved in relevant communities of practice and encourage experimentation. Restrictive

workplaces, on the other hand, are preoccupied with meeting immediate operational needs, are impatient with error, have weaker networks of engagement and allow little time for reflection for developmental purposes, either organisational or individual in nature. All the organisations studied were at the 'expansive' end of this spectrum – and it was this feature of their operations that provided the frameworks for the comprehensive and informally customised support that apprentices valued so highly.

Such arrangements do not flourish by accident. In all of the cases studied they were integral features of distinct business models. These models have been built around reputations for producing quality work and which eschew short-run cost minimisation and/or maximisation of shareholder value. Organisations differed, however, in the extent to which they 'reached out' to the community, 'reached up' the occupational hierarchy and 'reached down' to marginalised groups in providing social support based on the apprenticeship model of vocational development.¹¹

Finding 3a: Amongst the larger 'best practice' firms, integration with business models involved extending the apprenticeship model of support to managerial occupations

Placement quality was clearly connected with the quality of work undertaken by the organisations. It is well known that the construction industry is characterised by intense competition. All of the cases studied have devised ways of flourishing by maintaining both commercial viability and quality work. This achievement was most clearly formulated in the two large construction firms studied: Hutchinson Builders and Fairbrother. From a 'near [organisational] death' experience in the mid-1960s, Hutchinson has consciously restructured and repositioned itself over subsequent decades. Three distinct phases can be identified over this period. Each stage has entailed changes in three domains:

- *repositioning itself in the market*: initially from pitching for work based on 'size and sector' to becoming primarily client-focused, irrespective of size or sector of work
- *restructuring internal operations*: shifting from a traditional family firm to one with modernised technology, programming, scheduling and quality control, along with flatter management structures
- *developing and refining key relationships*: initially with the key technical stakeholders in construction production networks such as sub-contractors, suppliers and architects to, more recently, building stronger networks of support with a new,

¹¹ In making the reference to the apprenticeship model of learning covering jobs in occupations above and below trades level, the analysis is building on the long-standing insight of the labour market segmentation literature, in which the labour market is helpfully understood as being comprised of a many 'non-competing groups'. This is an expression from the nineteenth-century labour market economist, Cairnes and also noted by John Stuart Mill (Villa 1986). While it is often theoretically possible for people to move in a linear fashion through connected educational pathways and labour market careers, the reality is often very different. People often tend to occupy distinct labour market segments and move within them more often than they move between them. For a recent comprehensive analysis of this in the agricultural, finance, engineering and social and health care sectors see the 14 reports associated with the 'vocations' project supported by NCVET 2011–14, whose research findings are summarised in Wheelahan, Buchanan and Yu (2015).

younger breed of property developer interested in long-term relationships with a reliable and competitive supplier of quality building services.

Absolutely central to the firm's ability to achieve ongoing changes of the scale and depth required have been building and deepening the capacity to produce a superior level of managerial competence through its apprenticeship arrangements. As such, its apprenticeship model has 'reached up' the occupational hierarchy to ensure it produces project managers and future senior executives within the firm who know the basis of the building trades (especially carpentry), but who have also rounded out their vocational development in managing and controlling the construction process. Given this, it makes absolutely rational economic sense for the firm to invest in the development of its apprentices. They are the life blood, not just of the firm on building sites, but within the firm's governing structures. In achieving this outcome, the firm has also built up in-house training capacity to deliver the off-the-job training element. This means this aspect of the apprenticeship can dovetail precisely with the firm's operational imperatives.

At Fairbrother, the quality of the support arrangements for its apprentices takes a slightly different form, reflecting a different trajectory of business model development. After commencing operation as a family firm in north west Tasmania in 1973, it grew progressively larger over the course of the next two decades. Ad hoc expansion was replaced by transformational change and growth following multiple challenges, both personal and commercial, in the late 1990s and early 2000s. Associated with the transformational change were creative and thoughtful responses to two particular setbacks. The first involved the deep challenge experienced by the owner—manager: grappling with the reality of a child who developed a particularly acute form of schizophrenia as he matured during his late teens and early 20s. The second involved two serious financial setbacks arising from engagements with developers in the Sydney and Melbourne property markets, in which losses totalled in excess of \$4 million.

These experiences have profoundly shaped the firm's business model. The firm has never lost its deep commitment to delivering quality work based on technical excellence in production and grounded in trade skills. This has, however, co-existed with a deep sense of humanity; that is, valuing integrity in all relationships and decent treatment for clients, employees, sub-contractors and the community at large. The crises of two decades ago triggered organisational innovation, which can be characterised as shifting from being a family firm based on quality trades work to building a community-minded firm, underpinned by deep commercial competence and organised around the apprenticeship model of learning. As the author of the recently completed history of the company puts it: 'Fairbrother has moved from being a company that simply builds large buildings, to one that makes people's lives better' (O'Brien 2015, p.154). The firm has always valued the ethos of 'get the job built, you can't just meet budgets' (Manager interviewed). This now occurs in the context of very rigorous risk assessments and risk management processes. While it has a very large standing workforce, currently over 500 employees, on any one site there can be as few as three Fairbrother employees and rarely does its workforce constitute more than 10% of a project's labour input. This blend of a large number of direct employees working with a large network of sub-contractors allows it to manage significant training overheads for its labour force — but

not so large that it compromises its commercial viability. In addition, its systematic approach to training is not simply a community service producing a public good. Expenditure on skill development is seen as an investment and not a cost. As one site manager observed, 'better initial training for new recruits delivers much higher apprentice productivity in later years'. Like Hutchinson, its apprenticeship reaches up the occupational hierarchy to build a talent pool capable of running a large socially minded construction firm in the future. Fairbrother also 'reaches out' to help provide social structures of support for the industry and the communities in which it operates. The clearest examples of this are its involvement with bringing OzHelp to Tasmania and the Common Ground Tasmania (that is, low-cost accommodation for disadvantaged citizens) initiative, as well as the firm's support for community-based sporting events. Such initiatives are, however, kept within sustainable bounds.

Both Hutchinson and Fairbrother are extremely impressive firms from a commercial success and productive performance perspective. In both, rich structures of support are integral to their apprenticeship offering. Fairbrother, in addition, has pushed the limits in showing how firms can assist in providing support to the industry and the community more generally. The way by which the group training companies extend the benefits of quality structures of support beyond the traditional 'trades training' model has been by 'reaching down' the occupational hierarchy.

Finding 3b: Amongst the larger best practice group training organisations, integration with business models also involved extending the apprenticeship model of support to occupations and individuals not normally involved in trade training.

As demand for training in the traditional trades has fluctuated since the 2008 Global Financial Crisis, ECA has successfully adapted its business model (and secured ongoing employment for all staff) by extending the apprentice model of vocational development, and its associated structures of support, by 'reaching down', as well as 'reaching up' the occupational hierarchy. In recent years, it has built up the capacity to offer a suite of programs relevant to a wide range of potential labour market participants who would not normally be involved with the traditional trades. Indeed, it has gone to considerable lengths to offer pathways for people who would normally have little hope of entering the trades, by devising programs based on the apprenticeship model of learning. These programs are briefly summarised below.

Pre-employment programs

These include a work experience scheme for young people with profound disabilities. It also offers the Trade Outcomes Program (TOP), which is designed to help marginalised individuals to find potential areas of interest and to become motivated – and a potential employer to take them on as an apprentice.

Trade support programs

These include a program that supports businesses considering employing Indigenous job seekers at no cost to the employer. If such firms decide to take on an Indigenous

apprentice, ECA and Mission Australia field officers then support both the apprentice and host employers to ensure that the placement succeeds. The programs also include a Dyslexia Support Program (DSP), which allows ECA to use language-free assessment tools to identify a candidate's capacity for completing a traineeship or apprenticeship. Having identified talented individuals with dyslexia, ECA then works with a range of partners to devise tailor-made pathways to apprenticeship completion.

Adult apprenticeship programs

From 2010 to 2014, ECA coordinated the National Apprenticeships Program (NAP), an ambitious pilot program of adult apprenticeships for the resources sector. This involved recognition of prior learning and coordinating the top-up training – both on and off site – with a number of large resource companies and institutes of TAFE. The pilots ended up training well over 240 participants. They came from one of five streams of labour:

- apprentices who had not completed their trade training
- ex-defence diesel mechanics and electricians
- tradespeople seeking dual-trade status
- Australian residents with overseas qualifications
- trades assistants from the engineering and construction sectors.

Building on the lessons learnt from the National Apprenticeships Program, ECA is now piloting a similar arrangement for refugees. Because no government funding is available for such a pilot, the group training company is financing an initial pilot of 14 refugees itself.

The experiences of Hutchinson Builders, Fairbrother and ECA highlight the importance of understanding that 'apprenticeships' in these organisations involve significantly more than taking on talented young people and teaching them narrowly defined traditional trade skills. On the contrary, in these organisations, apprenticeships involve a concern with developing human capability through a structured approach to on-the-job learning supported by the acquisition of underpinning knowledge off site. This approach is more accurately described as *vocational development* and deals with a wider range of jobs than the traditional trades (that is, labour demand) and a wider range of individuals than those traditionally associated with trade apprenticeships (that is, labour supply). In terms of labour demand, it is used to build capability relevant to both managerial jobs, as well as jobs below trades level. In terms of labour supply, it can develop individuals with professional and managerial aspirations, as well as those who face challenges in obtaining and becoming competent in jobs requiring even intermediate level skills. Table 2 summarises the different types of work and workers involved in the apprenticeship-style arrangements prevailing in the companies studied.

Table 3 Variants of the apprenticeship model of vocational development in the case study organisations: the types of work and workers involved

Variants of the apprenticeship model of vocational development			
	Application to individuals, roles below trades level	Classic model of training for the traditional trades	Application to occupations above trades level
Nature of skill required (labour demand)	1. Develop foundation level behavioural and cognitive capacities, that is, develop to be deployable	4. Prime focus on technical skills, but embedded in deepening of allied behavioural and cognitive capacities	7. As for classical trades, but use as foundation for being highly skilled organisers and managers of production
Tributary streams of labour (labour supply)			
Entry level – youth and young adults	2. Disengaged youth – marginally attached to school and work	5. Well-rounded, educated young people starting out their careers	8. Higher skilled and educated young people interested in and capable of professional managerial career.
Middle-aged and mature workers	3. E.g. refugees, long-term unemployed	6. Adult apprentices embarking on a different career	9. Cadet programs

How to read this table: The rows represent different sides of the labour market: labour demand and labour supply. The first row is that of labour demand (i.e. jobs). The bottom two rows represent different types of workers – entry-level and more mature workers. The columns represent the different levels of skill required and the ability required of different categories of worker. Traditionally apprenticeships have involved primarily the development of technical skills in trade-level jobs (i.e. cell 4) and young people (usually males) with solid educational attainment starting out in their careers (i.e. cell 5). Amongst the larger case study organisations, however, the apprenticeship model is used to prepare a wider range of individuals for a wider range of jobs both above and below trades level. Hutchinson and Fairbrother covered cells 4, 5, 7 and 8. ECA covered cells 1, 2, 3, 4, 5, 6 and 7. MGT, in combination with the BSX, covered all cells.

MGT and Lend Lease’s experience at the Barangaroo site involves elements of ‘reaching up’ and ‘reaching down’ the occupational hierarchy, as well as ‘reaching out’ to the industry more generally. One supervisor from an Indigenous background at this site showed how MGT and Lend Lease worked together, not just to develop him as a carpenter (and future manager), but to support his development as a secure, stable and well-rounded individual. As he put it:

I came from Coffs Harbour originally ... I dropped out of school there in year 10 and became a mischievous street kid ... I moved to Sydney to work in a labouring job my uncle found for me – but it fell through ... I’d just turned 18 and wanted to party with my mates. Sydney has so many openings with clubs, the Cross ... too many distractions ... without them I’d have been lost.

The ‘them’ he was referring to included his uncle, an eight-week TAFE ‘Job Ready’ (that is, pre-employment) course, an MGT apprenticeship (with a field officer actively keeping him ‘on the rails’ every time he fell off) and a long-term placement with Lend Lease (where he worked alongside a number of tradies who acted as mentors), as well as his TAFE training as a carpenter. MGT, in concert with Lend Lease, has for many years endeavoured to increase the number of apprentices from Indigenous backgrounds. Lend Lease has also used its apprenticeships to develop future project managers, as well as future tradespeople. Both traditions continue at Barangaroo. What is particularly distinctive about Barangaroo is the commitment to deepening the skills and education levels of the Sydney construction workforce at large, an objective being pursued through

the Barangaroo Skills Exchange. Their ability to achieve this was a direct result of the fourth key finding arising from this research.

Finding 4: Quasi-apprenticeship support arrangements below trades level required additional stakeholders and resources.

The ability to be more 'socially inclusive' (that is, 'reaching down' the occupational hierarchy) and comprehensive in the support provided was a function of increasing the range of stakeholders involved in sharing the risks and costs associated with supporting individuals at risk of labour market failure or exclusion.

Construction businesses exist primarily to provide a commercial service. Sound business cases can be – and have been – made to justify expenditure in the workforce's skills development as an investment that can deliver profitable results for employers. As shown above, these structures can also provide support for personal development and functioning. But there are limits to what any one business can be expected to achieve in providing support of a more personal nature. The small organisational case studies from Western Australia are instructive in this regard. The small business that directly employed apprentices reported that it had previously employed a talented apprentice who developed significant problems with drug use in connection with family issues. The firm was able to organise a counsellor through the apprenticeship centre and had some assistance from TAFE; however, that did not solve the problem and the apprentice was let go. This experience is in contrast to a similar situation, but with very different outcomes, reported by the small group training organisation operating in the same city. In this case one employer reported valuing the high level of support provided by the group training organisation when one of his apprentices developed a drug addiction and started not turning up to work. He consulted with the group training organisation to find a solution and the young apprentice was put on leave for three months and his participation in a drug rehabilitation program was organised. The apprentice was able to deal with his issues and has now returned to work. The involvement of the group training organisation was an additional institutional support that helped the parties to navigate a difficult episode.

The fact that BSX and ECA were able to 'reach down' the occupational hierarchy and provide such extensive support for the marginalised apprentice was because they were often aided in doing so by significant public funds. In the case of BSX, Barangaroo gets special 'block funding', independent of the new 'student demand' driven funding model, making these arrangements possible. It also gets dedicated funding for mentors from the federal government's mentor support program. ECA's capacity to successfully provide such a wide array of support to 'at risk' individuals was only possible because it is embedded in an active network of support with a wide range of long-term partners. The key partners included:

- supportive host employers
- training providers, especially in the TAFE sector, such as Skills Tech Australia

- fellow group training organisations, especially MIGAS, Golden West and Smart Employment, with ideas, procedures and benchmarks being actively shared amongst the organisations
- technical experts; for example, psychologists such as custodians of Q Test, the instrument used in the Dyslexia Support Program
- state and federal parliamentary representatives
- local councils (the original sponsors of the group training organisation)
- board members with expertise in business and other intelligence relevant to the organisation's functioning
- federal government funding. When this was available, highly novel programs, such as the second-chance learning for adult apprentices, had the resources to flourish. When it was not available, innovation, such as the proposal to extend this scheme to long-term unemployed refugees, has been hard to launch, let alone flourish.

Pastoral care is not a part of ECA: it is the defining feature of all aspects of the organisation's operation. The arrangements work to prevent, as much as possible, personal problems emerging among apprentices. Over the last 15 years, approximately 10 apprentices have died, nearly all from motor accidents. None have suicided. The arrangements are based around highly skilled field officers. This is, however, merely the most visible part of the support system. Just as if not more important are the structured pathways provided for those seeking access to apprenticeships, either from non-traditional feeder groups or from adults. The entire regime of care, however, only flourishes because of the wide range of partners mobilised to contribute to the operation.

Finding 5: External mentoring cannot be a substitute for poor apprenticeships.

External mentoring programs can complement effective support arrangements; they cannot make up for deficiencies in vocational development arrangements.

The opening chapters of this report noted the growing policy interest in supporting mentoring arrangements for apprentices. The findings of this project highlight caution in expecting too much from these structures. Apprentices report that it is the informal de facto structures of support associated with comprehensive approaches to vocational development they particularly value. And these are embedded in distinctive business models, in which the development of broad human capability is valued, as opposed to the provision of immediately relevant technical skills. But even where quality arrangements of this kind are in place, it is important to acknowledge that sometimes even they may not be enough to engage with apprentices in need of major personal support. The following contrasting cases of how the pressures of major family dislocation were handled for two apprentices supported by the same organisation are worth mentioning. In the first, an apprentice had been 'kicked out' of his family as a result of intensifying clashes over his lifestyle. The firm provided outside mediation, which enabled the apprentice and his family to work through their differences. The apprentice

returned home and stable family relations were restored. As such, the company facilitated a reconciliation of what could have been a serious rupture between parents and their child. In another case, an apprentice was separated from his family because his parents needed to find work interstate. He stayed because the opportunity for an apprenticeship provided by a prestigious host organisation was too good to pass up. He was, however, missing his family immensely. Work was very important for this apprentice as a source of social support. As he noted:

The crew here is always having fun ... I'd be in big trouble [for friends] if it was taken from me as I've taken the job but lost [geographically] my family ... not many of my work mates get it ... I don't like talking about feelings ... I don't see the point.

This apprentice did acknowledge that the host firm's apprentice coordinator (in addition to the group training field officer) 'always visited every couple of months ... he made himself available as someone to talk to ... I've never used this opportunity ... I keep my thoughts to myself'. Like all of the organisations covered in this report, the support systems available to the apprentice were exceptional. But even with systems of such quality the challenges of engaging with apprentices in need of support remain.

It is in this context that reflections on the role of mentors — those independent of group training organisation field officers and host firm apprentice coordinators — are instructive. MGT has in recent years been funded to provide an apprentice mentoring service independent of its GTO services. Rather than adding the dedicated mentoring function to the GTO service model and potentially confusing the apprentices and host employers with the addition of another MGT person, they offered the funded mentoring service solely to apprentices employed outside their network of host employers, that is, to directly employed apprentices. At the core of its activities through this program was a three-stage engagement process:

- The first interaction with an apprentice entitled to its mentoring service is primarily concerned with introductions and getting the apprentice acquainted with the site.
- The second occurs soon after this and involves the apprentices completing questionnaires. These gather general information about the apprentice's practical and material situation in life — not merely his/her working life. For example, data are gathered to ascertain whether they are eligible for a trade support loan, a travel concession card or a car registration rebate.
- The third occurs a month later. In this session apprentices complete a detailed survey that helps to determine aspects about them such as their living arrangements and whether they have had any trouble with the law.

This process results in mentors having a 'profile of information', enabling them to identify apprentices who are likely to need greater support, which can then be offered. There is no need to wait for the apprentices to request their support or be involved in an incident that triggers their intervention.

In terms of the quality of support provided for the purposes of mental health, senior MGT personnel interviewees felt their mentors were able to provide support different from field officers for a variety of reasons, the most important being that field officers are also involved in disciplinary matters. The monitoring function is not necessarily positive for the apprentice – at least in the short run. If the apprentice has been found to be tardy, it is often the field officer who is called in to solve the problem. Field officers are also often called upon to solve administrative problems such as payroll and other anomalies. Given these activities, some apprentices may be reluctant to share sensitive personal information. The scenario is easy to imagine, as one manager put it:

Last week you were asking me about sloppy work and turning up late. Then the next month or a year later, after seeing some warning signs, you enquire: 'are there any problems? Can I help?' Why would the apprentice open up given that experience?

Some field officers do have the ability to play both roles – disciplinarian and carer – but staff with these skills are hard to find. People designated with purely a mentor role can consider the apprentice's welfare as their sole aim, free of the burden of having to appease the employer. They report that apprentices are generally more willing to talk about financial issues and family matters. And while the ratio of mentors and field staff to apprentices is roughly the same (at about 1:70), with little administrative work or having to deal with the employer, the effective ratio is lower. The interviewees noted that, while these differences were real, they should not be overstated and mentors still had to take employer views into account in situations of conflict. But their mentor status appears to give them a greater capacity to grapple with the complex personal issues than was the case for standard GTO field officers. As one seasoned ex-field officer, now a mentor, put it: 'mentors are concerned with the personal dimension of the person not the operational matters of the apprenticeship'. And as another with similar background noted: 'apprentices have been more forthcoming [since the dedicated mentoring arrangements have been in place]'.

The success of the OzHelp program in Tasmania is consistent with this analysis. This program was introduced in Tasmania as a specialised mental health and suicide support service for young people in construction in 2008, when there were 10 suicides annually. By comparison, in 2014, after a steady annual drop in suicides, there was one (OzHelp 2014). It is important to note, however, that both MGT Mentoring and OzHelp operate in conjunction with, not as substitutes for, quality apprenticeship systems of vocational development. The potential benefits of these schemes should not be regarded as in any way able to replace the deep support provided by quality apprenticeship arrangements – on and off the job.

Summary

The dimensions of social support in operation at the case study sites were comprehensive and, more often than not, informal. They were embedded in de facto standard operating procedures and in the wider business models that sustained them. They represented rich social capital at work – complementing the physical and financial capital – and contributed to the economic success of these organisations.



Conclusion

The argument in brief

This project was undertaken to generate new insights into how workplaces could potentially contribute to the mental wellbeing of young adults. Effective social support can save costs by both reducing the incidence of poor mental wellbeing and achieving more rapid referral to appropriate interventions – where such care is needed. Where such support is limited, the cost can be considerable, not just for the individuals concerned and their immediate families, but also for co-workers and employers, as well as for workers' compensation insurers and government. To date, most research and policy concerning young adults and mental health have focused on 'at risk individuals' and the health system and community interventions best suited as a response for them. The focus of this research project has been different. It has examined the role of workplaces as potential sites of social support as young people become workers. Particular attention was devoted to the case of young apprentices in one trade.

What does social support for young construction apprentices look like in Australia today? While there are formal mentor-like arrangements in place, these are only a small part of the story. Of greater significance to apprentices as they master their trade on the job is the informal or de facto support provided day in and day out by more experienced adults and peers. In the organisations studied – amongst the best firms in the industry in contemporary Australia – these arrangements appeared to work very well. But there were exceptions. Some people do slip through even these 'best practice' structures of support. Therefore, the need remains for a specialised, well-designed complementary support service, one that is explicitly focused on the apprentice as a whole person. Such independent mentors could carefully identify individuals at potential risk and provide an additional 'safe place' to discuss sensitive matters beyond the work setting if it is needed.

It is important to recognise the limitations as well as the strengths of the empirical basis of our findings. The focus of attention was one trade in one industry. A major resource underpinning the support structures was a culture of craft, in particular, pride in undertaking quality trade work. The notion of work excellence was the reference point that enabled older trade workers and more experienced peers to share their domains of expertise with a young apprentice. And the sharing was not just of 'technical trade skills' narrowly defined; it involved passing on expertise that was conceived more broadly; that is, as a seasoned, well-rounded tradesperson.

While some researchers refer to the 'apprenticeship model of learning', we prefer the broader notion of the 'apprenticeship model of vocational development'. The process involves developing the apprentice in more than an educational sense. Many older tradespeople, and especially the leading managers of these organisations, recognised that they were dealing with a person, not just a future productive labour input. Amongst the firms directly employing apprentices, the apprenticeship model of vocational development was integral to their business models. They had extended it up the occupational hierarchy to help to develop future managerial expertise. Amongst the larger group training companies, the model has been extended for the purposes of

second-chance learning. Reaching down the occupational hierarchy, it was used as a framework for helping to develop marginalised and disadvantaged people to the point where they could be competitive in the labour market. Amongst those interested in a second career, the model could be modified – building on trade skills partially held – to provide the accelerated development of tradespeople for the mining and resources sector.

Extending the model of vocational development – for both professional and personal purposes – up the occupational hierarchy could be accomplished within a firm's own resources. Funds can usually be found in any organisation for the development of future leaders. Extending the model for second-chance learning purposes, especially for attracting and including marginalised groups, required the injection of extra resources, both financial and organisational. The successes of ECA and MGT in these endeavours are only possible because of extra government funding and partnerships with supportive employers, creative educators and innovative employment services providers. Such funding and such novel supportive social infrastructure was incidental to – not part of – mainstream funding policy priorities. Put bluntly, these successes flourished despite, not because of, current mainstream VET policy settings.

These findings support and, in a number of cases, extend our understanding of the key issues identified in the established research literature, the most obvious of which concerns the literature on mentoring. All cases studied revealed the critical – often superior – role of the informal and peer-based arrangements by comparison with the more traditional formal and hierarchical arrangements that most often come to mind when thinking of 'mentoring'. Similarly, in building on the apprenticeship literature, this project has underlined the significance of distinguishing between different types of workplace learning situations. All of the sites studied were, in Bardon's (2010) terminology, 'tier one' employers, with completion rates in excess of 90% (that is, approximately twice the industry average). This was a legacy of their expansive (that is, not restrictive) workplace settings. As such, these studies also provide very strong support for the latest directions emerging from 'health and social support' researchers, who have identified the need to extend the notion of social support from beyond the intimate relations associated with family and friends to encompass broader social networks and notions of social capital that include bonds at workplace and organisational level, and the settings in which they operate. Researchers in this tradition have also highlighted the importance of the support arising from 'naturally occurring' social arrangements, as well as not expecting too much from formally devised support interventions delivered by specialised strangers (for example, counsellors and formal mentors).

Importantly, this report highlights – from both the literature considered and the original experiences documented – *the systemic, informal arrangements embedded in everyday work life as the critical forms of social support that make a difference*. Arguably, the most significant original findings concern the importance of understanding how these arrangements are integral (and not incidental) to sustainable business models in the cases studied. Effective social support at work should not, therefore, be regarded as a 'luxury' add-on. Rather, its existence is compatible with commercial success for jobs at trades level and above. If such arrangements are to be viable for more disadvantaged

workers and for lower-grade jobs, additional support, from government and other stakeholders, is needed.

Policy implications

What do these findings mean for devising work-based arrangements that provide quality social support to help young people successfully navigate the transition from school to work?

The best strategy would appear to be to foster an ecology in which strong informal bases of support can flourish. On the basis of this study, the most obvious ecology to nurture would be the *expansive variants* of the apprenticeship model of vocational development. But an integral part of any programmatic intervention should include support for mentors that is formally separate from both the employer and the workplace – as a complement to (not substitute for) expansive apprenticeship arrangements.

Of these implications, the development of the expansive workplace is by far the most important but also the most difficult to implement. In recent years, Australia has invested significant effort in devising mentoring arrangements. Valuable lessons have been learnt. These must be absorbed and appropriate adjustments in program design made. However, getting serious about supporting the apprenticeship model of vocational development requires a far greater reconsideration of policy in the domains of vocational education, employment services and labour relations. It needs to be remembered that comprehensive apprenticeship systems are rare throughout the world. Those operating in Australia were on the verge of collapse in the late nineteenth century. The rise of publicly provided technical education offered the support necessary for transmitting underpinning knowledge. The emergence of industrial arbitration and allied awards provided the support for the development of occupationally defined labour markets with their transferable notions of skills. It also gave recognition to the collective voice of employers and workers to help in defining what the domains of skill were (Shields 1995a, 1995b).

The challenge today is not to merely reproduce what worked at the beginning of the last century; the challenge is to draw out the broader lesson, which is that institutional forms appropriate to the times need to support new ways of defining and developing young people – professionally and personally – in a more inclusive way than that currently encompassed by the classical trades. The development of young carpenters in Australia today is shaped by the legacies of an earlier era. The conception of, and especially pride in, trade skills is a huge cultural resource through which older workers and slightly more experienced peers can connect with new entrants to the labour market. As the cases with the larger organisations showed, this legacy can be extended up and down the occupational hierarchy. But a framework beyond any one enterprise is required to help structure such coherent approaches to vocational development.

Australia already possesses many of the necessary institutional arrangements. Awards have recently been modernised. There is continuing recognition of the importance of off-the-job training in developing underpinning knowledge. Employer and union bodies provide the means for representation and a collective voice. Government subsidies support employers of apprentices and help group training organisations and mentor arrangements to function.

Recent developments in VET policy in particular have not, however, been helpful. Key recent negative initiatives include giving low-quality private training providers access to public funds to 'compete' with TAFE; closure of industry advisory boards, which gave voice to employee as well as business representatives; and further erosion of the remaining modest public funding given to GTOs.

As noted at the very end of our summary of findings, the arrangements documented in this study generally flourished despite and not because of current policy settings. So, while the formal elements of an effective apprenticeship model of vocational development survive, its future is far from secure. As noted in research previously commissioned by NCVET (for example, Wheelahan, Buchanan & Yu 2015), the design of the system around dismembered notions of competence has meant that concern with a broader notion of developing human capability has been lost. If we see our concern as being with the development of human capability, the issue is not just 'technical competence', narrowly defined. It is a capability to act effectively in the world as an autonomous agent. And not just in the workplace, but in life. Work is (potentially) a great site of learning – and also support. In this sense vocational development can be seen as concerning the development of not merely one aspect, but of the whole person:

- as a worker becoming technically 'competent'
- as a citizen becoming 'educated'
- as an individual nurturing 'mental health'.

Better mentoring arrangements are a necessary, but not the most important, condition for achieving these outcomes. The essential ingredient is a quality approach to vocational development. The elements of an effective apprenticeship system exist and provide the framework for this foundation. A concern of the researchers is whether the current trajectory of policy is weakening, not strengthening, this legacy. While the formal elements are in place, it is an inclusive vision of developing human capability that is missing. The sites studied show that this vision can be a reality: in an industry with completion rates hovering around 50%, these sites had rates of apprenticeship graduation in excess of 90%. The cases studied, however, are essentially islands of excellence in a sea of mediocrity. The challenge is to create the conditions where they come instead to define the mainstream.



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Appendix A – Report on the quantitative phase of this project

The focus subjects of the first quantitative phase were young Australians aged 16–24 years in their first year of an Australian apprenticeship or traineeship, who were:

- employed through a group training organisation or
- employed directly by an employer (direct employer).

Survey development and administration

The youth survey was developed with reference to existing survey instruments and was piloted with a group of current and recently completed apprentices and trainees for cognitive testing and completion time within the 10–15 minute target range. Feedback was also sought from Group Training Australia (GTA), the national association representing group training organisations across Australia, and from a manager of a group training organisation relating to both the youth and organisational surveys, and from supporting material.

The youth and organisational surveys were administered online using Qualtrics, a secure and highly encrypted software package. The survey was accessible from internet-enabled mobile phones, with a paper option also available on request. Entry into a prize draw for movie tickets was offered as an incentive for youth participation. Apprentices/trainees were asked to provide an email and/or phone number to enable contact for future follow-up surveys within the following 12 months. Apprentices/trainees were linked to their employing organisation employer via a unique identifier.

Recruitment

Apprentices and their employing organisations were recruited directly through approaches to employers (GTOs and direct employers). Managers of organisations were first contacted and invited to participate in the study. Organisations that agreed to participate in the study were asked to complete an organisational survey and to distribute an invitation to participate in a youth survey to their commencing apprentices/trainees. Group Training Australia Limited provided a complete list of GTOs in their association. An invitation to participate in the study was emailed to all GTOs registered with GTA (n = 89), with phone and email follow-up over April–May 2014. GTA also promoted the study in its email bulletins. For the recruitment of direct employers, the Commonwealth Department of Industry provided a list of all employers (n = 21 088) that were registered as employing apprentices or trainees aged 16–24 years who had commenced in 2014. A random sample of 500 was initially contacted via email (if available) or mail (if no email available), with phone follow-up in June 2014. A further random sample of 500 was emailed or mailed.

Findings from the youth survey

Of the 89 GTOs approached to participate, 44 GTOs agreed to participate, although only 22 completed organisational surveys. In total, 144 apprentices and trainees engaged with GTOs completed youth surveys. Of the 1000 direct employers randomly invited to participate, 97 agreed to participate, with 29 completing organisational surveys, and 31 directly employed apprentices and trainees completing youth surveys by 31 August 2014. Of these responses, 123 of 178 (69%) of the GTO-engaged youth had less than 50% of data points and only 113 (63%) full data. The similar figures for the 31 direct employer apprentices were 66%, respectively.

The 209 respondents to the initial youth survey were invited to participate in a follow-up survey conducted December 2014 – January 2015. Participants in the initial youth survey were contacted by email and phone (if this was provided), with follow-up emails and phone calls undertaken. This resulted in 78 responses, with 62 from GTO and 16 directly employed. Due to the low response rate of the follow-up survey, only data from the first survey will be reported.

The results show that just over half the respondents were male (51.2%), while the majority (50.9%) were aged between 18 and 20 years in the year that they completed the initial survey. One in five (21.6%) were younger than 18 years and 22.1% were 21 to 24 years. Over 40% had completed Year 12 schooling, while 23.6% had completed a VET qualification, most likely a certificate III or IV qualification (13.3%) or a certificate I or II (7.9%). The majority were living in a major city (56.9%), with 17.3% in inner regional Australia and 5.4% in outer regional Australia. Only 1.5% were living in remote or very remote Australia.

Wellbeing of apprentices

The figures in table A1 report on the surveyed wellbeing measures. Generally, a significant majority (around two-thirds) reported positive wellbeing outcomes across a range of measures, including feeling optimistic, feeling useful, dealing well with problems, thinking clearly, and feeling able to make up their mind. The exception to these generally positive outcomes was a relatively high proportion (16%) indicating that they rarely felt relaxed. A closer inspection of the data suggested that this was strongly associated with low satisfaction with working conditions and pay. Further, around one in 10 reported rarely or never feeling close to other people. This result is particularly important for the study, which seeks to establish the importance of work-based support (including support provided by colleagues, mentors and supervisors) for wellbeing.

Table A1 Wellbeing measures

Wellbeing item	Percentage of valid responses		
	Often/always	Sometimes	Never/rarely
Feeling useful	77.6	16.7	5.7
Able to make up my mind	77.6	18.6	3.9
Thinking clearly	73.1	18.6	8.3
Feeling optimistic	71.8	21.8	6.4
Dealing with problems well	71.8	22.4	5.8
Feeling close to other people	62.8	26.3	10.9
Feeling relaxed	48.7	35.3	16.0

Notes: n = 156. Sample size reduced due to partial responses.

Satisfaction levels

Overall, the surveyed apprentices reported high levels of satisfaction with their training, with 86.69% claiming they were satisfied or very satisfied. When asked about specific aspects of their experience, a similar proportion reported satisfaction with their on-the-job training (82.3%) and social relations (85%). Significantly lower proportions reported satisfaction with their working conditions (71.4%) and their off-the-job training (60%).

Table A2 Satisfaction with apprenticeship

Aspect of apprenticeship	Percentage of valid responses	
	Satisfied/very satisfied	Neutral or worse
Overall satisfaction with apprenticeship	86.6	13.4
Social relations	85	15
On-the-job training	82.3	17.7
Working conditions	71.4	28.6
Off-the-job training*	60	26.9

Notes: n = 147. Sample size reduced due to partial responses.

*13.1% of respondents reported receiving no off-the-job training.

Mentoring support provided

Overall, three-quarters of respondents said they received mentoring support; 78.9% of GTO-engaged and 58.3% of direct-employed respondents reported having received some form of mentoring support. Of those who reported receiving mentoring, approximately 60% reported receiving support from their GTO contact, their host company supervisor or manager, and their more experienced colleagues. A third reported receiving mentoring from peers or other apprentices. Only 10% of respondents, predominantly those engaged by a GTO, had reported receiving mentoring from an external mentor.

This was most commonly in the form of face-to-face contact (over 80%), with 29.5% of respondents reporting meeting with their mentor daily, suggesting that their mentor is at their workplace. A further 16.4% reported meeting with their mentor weekly and 25.3% on an as-needed basis. Consequently, a very high proportion (85.1%) of apprentices receiving mentoring support said they were satisfied or very satisfied with the mentoring provided in their apprenticeship or traineeship.

The feedback from the apprentices regarding improving mentoring support was generally positive but respondents consistently pointed out the need to have frequent

communication – either with more frequent visits, availability by phone or email, and responding to questions – as well as improved communication skills. Also requested was more tailoring of feedback and goal setting to individual needs. Overall, 81.7% (83.2% GTO-engaged and 75% direct-employed) of respondents reported feeling supported or very supported in their apprenticeship or traineeship.

Types of support

The results in table A3 show that a significant proportion of surveyed apprentices recognised the availability of practical support in the form of on-the-job skills development (84.2%), development of skills for job performance (87.9%), and the presence of a role model (76.8). In addition, there were high levels of recognition of the availability of support for issues arising from their work and training, including with their co-workers (82.7%), their training provider (80.0%), and with issues concerning harassment or discrimination (89.9%).

These high levels of perceived support are particularly positive, as significantly lower proportions of respondents had actually reported using them directly. For example, around one in four had used support when having an issue with a co-worker and just over one in five used support in association with workplace harassment or discrimination. For those who accessed support, respondents often found that support useful, with most types of support attracting over 90% of respondents reporting that the support received was useful.

While the results show that there is commonly support available in skills development and work-readiness, there was relatively low perceived support in the area of careers advice. These results also point to possible gaps in the support structures with respect to personal issues (including health, money, and substance abuse). Importantly, there were significant expressions of interest in accessing support in these areas. For example, over three-quarters of those who had not used career advice support were interested in doing so. Likewise, over half were interested in receiving money advice and personal development guidance.

Table A3 Types of support used by apprentices

Type of support	Percentage of valid responses			
	Available	Used	Found useful	If not used, interested
Support for workplace harassment/discrimination	89.9	22.3	92.6	41.2
Developing skills needed for work	87.9	76.3	97.8	75.0
On-the-job skills development	84.2	72.5	97.6	73.9
Support for issues with co-workers	82.7	25.8	86.7	45.0
Support for issues with training provider	80.0	29.0	88.6	46.8
Help settling into new job/work routine	79.3	66.2	96.2	49.0
Available role model	76.8	52.7	93.3	41.4
Help with technical knowledge and homework	73.6	52.6	95.2	68.7
Available confidante	65.7	33.3	95.2	36.0
Support for health issues	65.0	25.6	90.0	40.4

Notes: n = 156. Sample size reduced due to partial responses.



Appendix B – Evolution of the research question and design for this project

Einstein once famously observed that generating new knowledge is difficult. Often the best we can do, he observed, is to devise more appropriate questions to consider. This project provides clear evidence of the wisdom of this insight.

Original formulation of research questions

This project was devised by a cross-disciplinary team of researchers with expertise in labour studies and mental health. While there is growing interest in the nexus between young people's mental health and structures of social support, there is relatively little literature on how work functions — or does not function — as a potential source of such support. To help shed light on this nexus it was proposed to focus on that part of the labour market which is recognised as providing well-defined structures for making the transition from school to work: the apprenticeship system. As is well known, this system dates from the Middle Ages and was, historically, as much concerned with managing the transition from childhood to adult status as it was with skill formation. In its earlier manifestations apprenticeships involved one family handing its son over to another family for upbringing. The relationship was non-contractual, based as it was on an indenture — a status, not a commercial association. Traces of this earlier conception of the apprenticeships remain to this day. Many involved in the system, especially in the group training network, talk of their responsibility for 'pastoral care' and 'mentoring' — and not simply their roles in the transmission of technical trade skills. Given this situation, the research team believed there would be value in comparing the mental health situation of apprentices in arrangements with strong mentoring/pastoral care with those where such arrangements were not as strong. This informed a precise research question and three ancillary ones. These were to be answered on the basis of a two-stage longitudinal survey.

Guiding question:

Can mentoring and pastoral care help to support the mental health of young Australian apprentices (16–24 years) in the critical transition from school to work?

Ancillary questions:

- Is there an association between the provision of mentoring/pastoral care and better mental health and wellbeing outcomes for Australian youth enrolled in the first three to six months of their Australian apprenticeship?
- Do the level and type of support matter?

- If there is any effect, is it mediated by structures of support provided by participation in group training arrangements by comparison with being directly engaged by the employers?
- Is there a relationship between mentoring/pastoral care support, apprentice health and wellbeing and engagement and retention outcomes?

As is explained in more detail in appendix A, despite considerable care in the questionnaire design and conduct of an internet survey, supported by phone follow-up, it proved not feasible to obtain a sample size large enough to make robust comparative findings. A radical reformulation of questions and associated research design was needed.

Initial reframing of the questions

Given the difficulties of a survey-based research strategy, the research team concluded it was necessary to base the project primarily on qualitative research methods. This involved the examination of the mentoring and pastoral care arrangements associated with apprenticeships through the conduct of organisational case studies. These studies were based on interviews with managers, tradespeople and apprentices. To help keep the focus of the research tight, it was decided to explore arrangements associated with one trade: carpenters. And to ensure that stronger analytical findings could be derived from the study, organisations were selected strategically and not on an ad hoc basis. The intention was not merely to obtain rich description, but rather insights derived from recognised 'best practice' or 'leading' firms and, if possible, comparisons with more mainstream practice. The research questions of interest became as follows:

- How do organisations that are widely recognised as leaders in providing social structures of support operate?
- In particular, what is similar and what is different amongst organisations providing highly supportive apprenticeship arrangements?
- How, if at all, do recognised industry leaders, in terms of social structures of support, compare with other (what could be termed 'fair to average quality') organisations?

The revised research design worked far better. Four large 'best practice' organisations were easily and quickly identified. The first four – the priority ones – approached all agreed to participate in the study. Four smaller organisations were approached. Amongst this group it proved more difficult to separately recruit 'best practice' and more typical sites. Instead, four smaller organisations that employed apprentice carpenters were studied to capture the dimension of diversity in current arrangements in such organisations.

NVETR Program funding

The National Vocational Education and Training Research (NVETR) Program is coordinated and managed by NCVET on behalf of the Australian Government and state and territory governments. Funding is provided through the Australian Department of Education and Training.

The NVETR Program is based on national research priorities and aims to improve policy and practice in the VET sector. The research effort itself is collaborative and requires strong relationships with the research community in Australia's universities and beyond. NCVET may also involve various stakeholders, including state and territory governments, industry and practitioners, to inform the commissioned research, and use a variety of mechanisms such as project roundtables and forums.

Research grants are awarded to organisations through a competitive process, in which NCVET does not participate. To ensure the quality and relevance of the research, projects are selected using an independent and transparent process and research reports are peer-reviewed.

From 2012 some of the NVETR Program funding was made available for research and policy advice to National Senior Officials of the then Standing Council for Tertiary Education, Skills and Employment (SCOTESE) Principal Committees. They were responsible for determining suitable and relevant research projects aligned to the immediate priority needs in support of the national VET reform agenda.

For further information about the program go to the NCVET Portal <<http://www.ncver.edu.au>>.



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