



# Snapshot

## of Women in Construction

2012

The Built Environment sector has an advantage in that it has a long-standing culture of education and training in the form of on-job learning and apprenticeship models. However, in an era of growth and skills shortages, can the sector really afford to ignore the potential of over half the New Zealand workforce?



## Contents

- Page 1 Profile of two women in construction
- Page 2 Facts and Figures -BCITO Female learners
- Page 3 More Facts and Figures
- Page 4 Snapshot of women in New Zealand
- Page 5 Why should women enter the trades?
- Page 6 Key Barriers : The culture
- Page 7 The family and media portrayals
- Page 8 Schools structures and systems
- Page 9 Overseas models for success - UK
- Page 10 Overseas models for success - Australia and Canada
- Page 11 What's on offer in New Zealand
- Page 12 Where to from here?
- Page 13 Bibliography

Prepared by the BCITO research department using BCITO data and the latest research and policy papers from New Zealand and overseas



# Profile of two women in construction

## Alannah Robinson - Island apprentice

Born and bred on Waiheke Island, Alannah helped her father (a builder) put on joist hangers and nail down decks from a young age. It's not surprising that at school the only subjects she really enjoyed were woodwork and maths, so after leaving school she continued to work with her father renovating houses and doing repair work around the island. After a break Alannah returned to the island and started a carpentry apprenticeship with the BCITO.

**" I like it here on the island. I catch up and see other builders around the place all the time...it's good and there's no judgment about me doing what I am doing."**

**" Another builder and I went over to Great Barrier and built a holiday home with a mezzanine, out of cedar. Seeing the finished product and using all that timber, it was a great job."**

At present Alannah is involved in some of the larger projects occurring on the island. Alannah isn't leaving building or Waiheke Island any time soon.



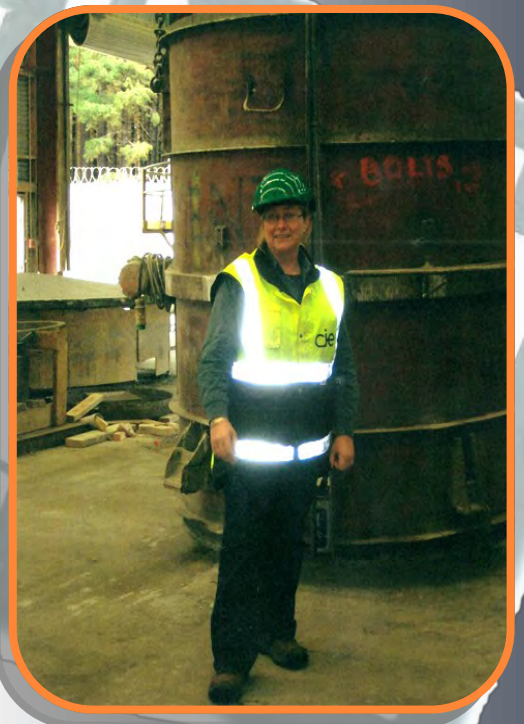
## Julie Deighton—trainer

Julie has been a trainer for sixteen years and likes to be hands on in her role.

**" I'd admit I've had to prove myself, and one way to do that has been for me to get on and show I can do it."**

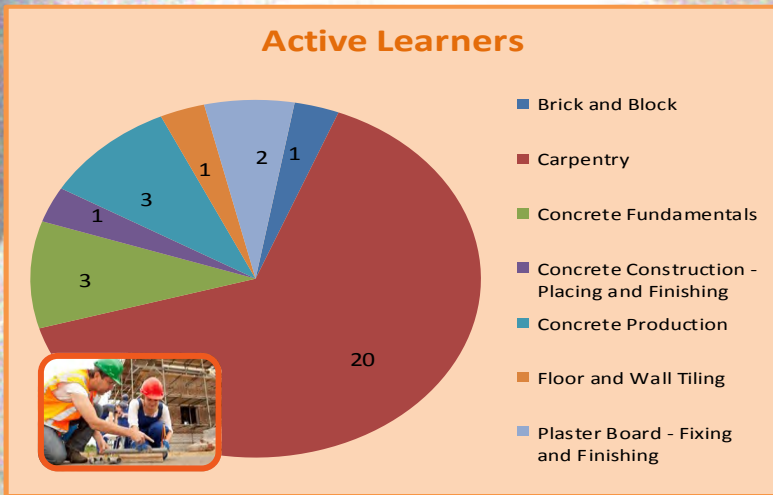
Julie has shown she can do it by completing the Concrete Core Skills certificate as well as a raft of carpentry unit standards. She has also completed certificates in Adult Education and Training, Literacy and Business. Julie has come a long way from the time she thought concrete was what you poured into the ground to make a footpath or driveway. Now she instructs trainees in how to make panels and septic and water tanks.

The " if I can then you can.." approach has also helped with the success of her trainees. Last year fifteen graduated with the National Certificate in Concrete Core Skills and a similar number are on target to graduate this year. The programme is geared to reflect the working world and provides the opportunity for trainees to learn and enhance their skills relating to aspects of concrete pre-casting such as reading plans, bending reinforcing steel, tying in reinforcing and cast-ins, and pouring and finishing concrete.



**"Achievement is good for everyone and pushing them to get their certificates is everything. For the boys to achieve it at the end makes them feel good and it makes me feel good too. "**

# Facts and Figures—BCITO female learners



Most of the trainees who are actively engaged in training (2007-2012) with the BCITO are aged between 20-40 years old.

There are 23 learners in that age group, and eight learners between 43-49 years.

Total	Age
2	19
2	20
2	21
2	22
1	23
1	24
2	25
1	26
1	29
1	30
1	31
2	36
1	37
2	39
2	40
1	43
1	43
4	45
1	49
1	62

About 2/3rds of female trainees are working towards a qualification in Carpentry (64%) with Concrete Fundamentals and Concrete Construction both on 10%. There is a smattering of specialist trades as well; Plaster Board and Floor and Wall Tiling. This contrasts somewhat with overseas apprenticeships, such as in the UK, where women are more often represented in the finishing trades such as Tiling and Plastering.

Overseas trends tell us that female trainees often prefer to participate in short term courses or qualifications which require less time commitment to fit around family and caregiving roles. This appears to be the case for our construction trainees as well.

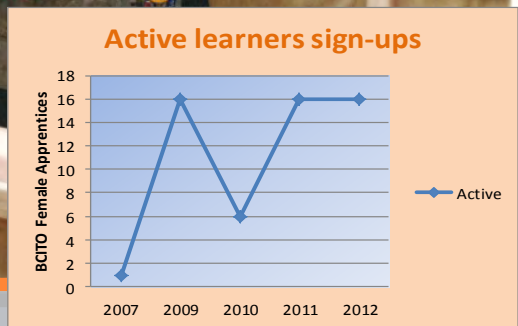
The BCITO designs short duration programmes for organisations as diverse as insurance companies, timber retailers, and the government, and there is a considerable uptake by females working within these organisations.

The number of active female trainees in short duration programmes since 2009 is 31, with three completions so far.

Note: This compares to 32 active female trainees in the TEC funded qualifications (see analysis above) from 2007-2012.

- Of the aforementioned 31 trainees, three are also working towards the Concrete Fundamentals qualification (which takes approximately one year to achieve)

35 female trainees achieved their programmes (or qualifications) in the period 2007-2012.



# More Facts and Figures—BCITO female learners

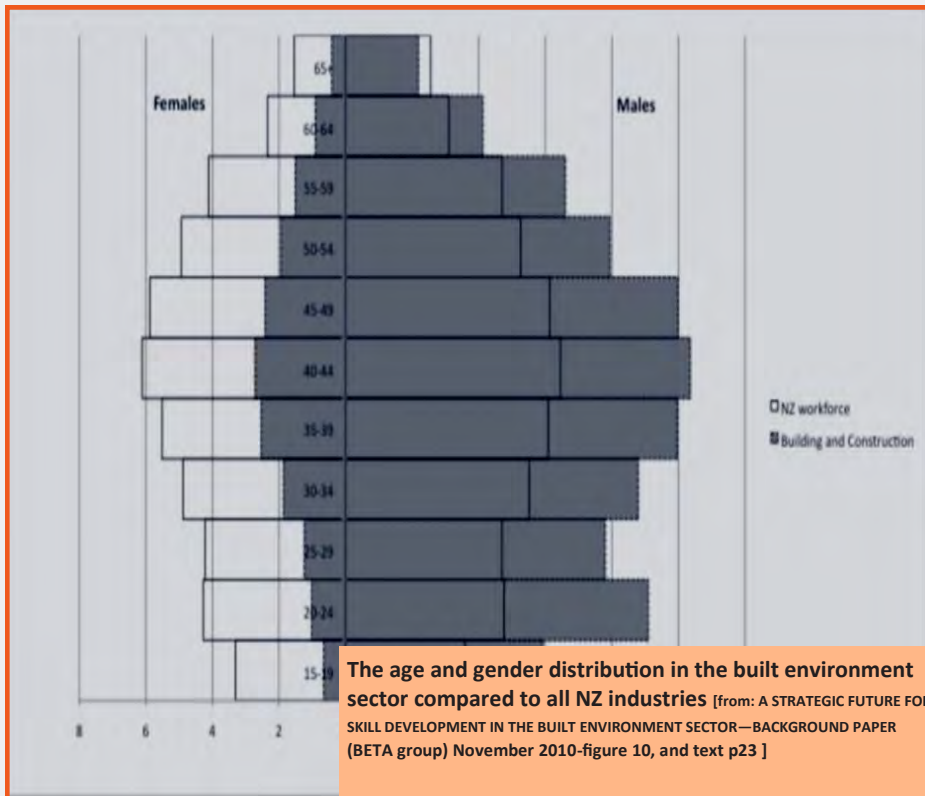
Women make up just 17% of the built environment workforce compared to 47% of the workforce as a whole and are under-represented in the sector as a whole across all age groups.

## Issues:

Women make up just 17% of the built environment workforce compared to 47% of the workforce as a whole. In many parts of the sector anecdotal evidence suggests that many women are employed in occupations that support the industry, such as office managers and administrators, rather than in core occupations. This gender distribution may be an issue for the sector in the future, particularly if there are barriers to women entering into the core occupations within the industry.

## Possible Responses:

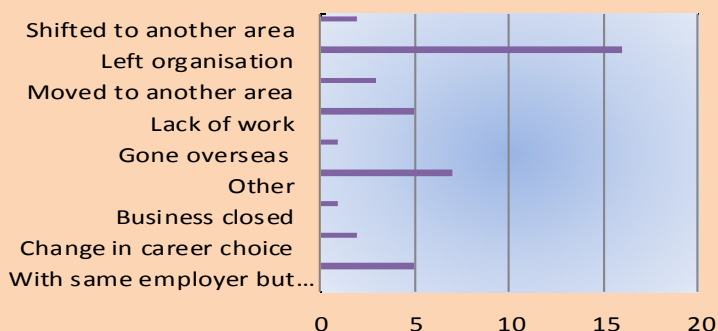
- Identify any barriers for women to work in the industry.
- Promote the industry to women.
- Create industry role models - women that can help promote the industry to others.
- Increase female interest by developing career paths that use on-the-tools skills and move into other related occupations (e.g. kitchen designer, management).



It is interesting to note that of the 46 learners who have withdrawn from training in the period 2007-2012 [see graph] five learners have stayed with the same employer even when training had ceased, and five learners have lost their jobs because of the tight economic conditions over the last few years. Travel and moving to other areas and other employers, emphasize the difficulty finding employers to take on female trainees and continue their training once employment has ceased. The majority, moreover, left the industry without a clear indication of why this happened. It is important, for future growth and participation, especially in the core occupations, to clearly identify what the barriers may be for women working and training within the building and construction industry.

## Facts and Figures—BCITO data

### Reasons for termination of training



**The Gateway programme** strengthens pathways for students from school to further education and training or employment. Senior secondary students (Year 11 to Year 13+) in the Gateway Programme undertake structured workplace learning across a range of industries and businesses around New Zealand, while continuing to study at school. This is a promising development for the BCITO, with five from eight successful completions of female learners from this programme over the last three years.

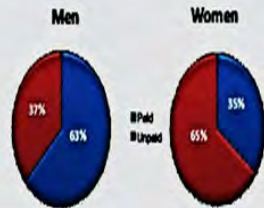
# Snapshot of women in New Zealand

## Snapshot of Women in New Zealand

[1] Ministry of Women's Affairs Briefing to the incoming Minister of Women's Affairs, Dec 2011 p14 partial graph (and BCITO sourced photo)

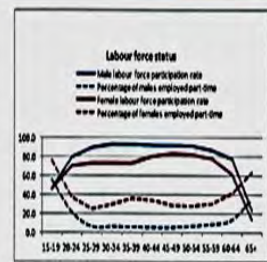
### Unpaid work

Women do more unpaid work, the majority of their productive time is unpaid.



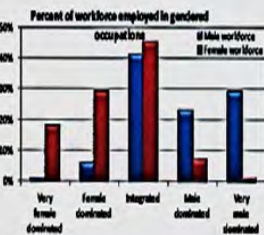
### Work

New Zealand's female labour force participation rate is the ninth-highest in the OECD at 72 percent.



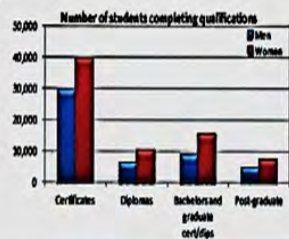
### Where women work

47 percent of the female workforce work in female dominated occupations.



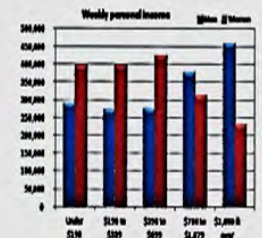
### Educational outcomes

At all levels of education, women are qualifying at higher rates than men.



### Income

Women are more likely to be earning a low income, compared to men.



The traditional trades such as carpentry, plumbing, motor mechanics, and the electrical trades continue to be male-dominated (90%+ male.) Workers in these trades are also more likely to work long hours and there are fewer people working part time.[2] Since women currently represent under 10 percent of all industry trainees (including Modern Apprentices) this pattern doesn't look as if it will be changing any time soon. Gender segregation patterns in the traditional trades remain essentially unchanged, despite the many and varied attempts to intervene. These have included 'Girls can do anything' advertising campaigns and policy initiatives designed to encourage women to consider a range of career options, but which failed to resolve the multi-faceted challenges. Quoted from: Trading Choices: Young people's career decisions and gender segregation in the trades Report prepared for the Ministry of Women's Affairs by the New Zealand Council for Educational Research, September 2008 J Roberts, Ben Gardiner, J Gilbert, Karen Vaughan

The briefing paper suggests that future policy initiatives to increase women's economic independence need to focus on the factors that can support women to more fully access economic opportunities and resources—especially within the built environment sector. These include:

- Supporting women on low incomes and benefits into sustainable, quality work
- Strengthening ways to enable women's employment, such as affordable, quality childcare, flexible work (which is especially important if women are to actively participate in the traditional trades) and a tax-transfer system that ensures an adequate net return from paid work
- Encouraging women into higher paid, less-traditionally female work.

As can be seen from the above graph, although educational outcomes for women in New Zealand are better at all levels than men and their participation rate within the workforce is high, within industry women still work in female dominated occupations, which means they are for the most part confined to hairdressing, retail and tourism / hospitality, where women are more likely to be earning a low income. Women also do the majority of unpaid work—caring for family and other dependents, which can and does impact on their ability to participate actively in full time paid work in the sector.

[2] An integrated change programme across government agencies, parents, schools, tertiary educators and employers is needed to support women entering and building successful careers in vocational trades. [Why don't more women go into the vocational trades? Whangarei: NorthTec. Scripps J, 2006, p6]

# Why should women enter the trades?

Since the 1970s, there has been a steady progression of women, especially married women, participating in full time work. At the end of the September 2009 quarter, women's participation in the labour force was at 62.3 percent compared with 74.1 percent for men. [1] The built environment sector employs a considerably higher proportion of males than the New Zealand average with 83% of the sector being male compared to 53% for the total workforce. However, as the total New Zealand population ages and the numbers aged over 65 years will increase significantly, there will be a need to maximise the potential of young women as they enter the labour market with workplace training as the key to improving or creating new workforce skills.

**Research undertaken by the Ministry of Women's Affairs in 2011** [Women in trades: Interviews with employers and tradeswomen] shows that by having more women in their firms, there can be strong benefits for the employers, other employees and the women themselves. A clear message from those interviewed for the research project is that employing women increases the value of the services being provided by the firm. For many of the firms, having a tradeswomen is a distinct competitive advantage, both from the specific skills that the women bring to their roles, and their approach to customer service.

**The key benefits that emerged for employers** are the following:

- Women working in a male-dominated industry mellowed the culture and benefitted the workplace
- Employing women gave their business a competitive advantage
- Women brought different skills to the roles, for example, excellent attention to detail and good customer service.



**The key benefits that emerged for the women** employed in trades are the following:

- Women felt pride in working with their hands and felt a sense of achievement from their work
- Many women observed that, on the whole, trades workplaces had changed, and more diversity was welcomed
- While heavy lifting and hard manual work is still a feature of some workplaces, meeting health and safety requirements means that the physical requirements of the jobs are manageable for women
- Women enjoyed the benefits of earning while they learnt (which means that they didn't require a student loan)
- Women developed best in their roles when they had a supportive employer
- Women make good tradespeople. (Three of the women interviewed had won apprenticeship awards, and there are many other examples of women, while under-represented in their chosen occupation, are over-represented in awards given).

Although most of the women interviewed perceived that they had not experienced any barriers to working in a male-dominated trade, some had experienced difficulty finding an employer who would offer them an apprenticeship. They also commonly expressed the reason they believed women did not work in trades was that they were not provided with the information that this was a career option.

**The research found that women developed best in their roles when they had a supportive employers and many who were working in the industry, and enjoying success in their jobs attributed this most to women who were in management or decision making roles within the company.**

[1] Identifying Emerging Industries - Report to Ministry of Women's Affairs, June 2010] The fields where emerging industries can be found in New Zealand are: biotechnology, food and beverage, creative industries, information and communication technology, specialized manufacturing, wood building and interiors, education and consultancy services, tourism, healthcare and sustainability. Internationally, these sectors are situated within the mainstream of global trends like bio economy, green growth and the knowledge-based economy. Labor market research from Australia and the US shows that in most of these areas, female employment is already high and expected to grow. Statistics for New Zealand confirm these results. Women work predominantly in the service industries and emerging industries provide a large number of service jobs.

**Research commissioned for the BCITO (2006)** also found the other employers, males working in the industry, industry federations, school career counselors and training providers noted the ability of women to excel in the finishing trades, be meticulous in their work and raise onsite behavioral standards: Refer to p29 Women in the New Zealand Building and Construction Industry—The Untapped Resource? Emily Hodgkinson 2006

# Key barrier? The Culture

in the Built Environment sector is often perceived as lacking in customer focus, demonstrating poor risk management, being slow to embrace change, and create barriers to entering or changing roles within the industry. It is not always well coordinated and skeptical of 'outsiders' to the industry. [Source: Built Environment Skills Strategy p8] The latter point refers to the diversity of labour source found especially in the (statistical) outliers – migrants and women. The culture is often more than just skeptical of 'outsiders' and several research projects carried out in New Zealand over the last six years add valuable insight into the culture and barriers to participation inherent in many building sites and small building firms throughout the country.

Emily Hodgkinson, in her analysis of women in construction for the BCITO, states that a lack of leadership within the industry over the promotion of diversity coupled with a lack of knowledge among employers and other industry members about the benefits of diversity and Equal Opportunities business practice has led to the very severe gender imbalance within the industry. [Women in the New Zealand Building and Construction Industry-The Untapped Resource? Emily Hodgkinson, prepared for the Building and Construction Industry in 2006 pii ]

**In a survey of Year 11-13 [formerly 5th form to 7th form secondary schooling] females in 2006, it was found that an astonishing 26% were interested in pursuing a career within the building and construction sector.[2] but this has not translated into workforce participation.**

The researchers from NZCER (refer to Footnote: Trading Choices) state that part of the problem with gender segregation in the trades is that it is not actually recognized as a problem by many of the young people involved as girls tend to stress that, while they *can* enter any job, they *personally* do not wish to enter male-dominated jobs. This applies because of the perception that the nature of trades work and training requires (male) strength, dirt versus cleanliness (female) and practical (male) versus theoretical (female) characteristics. Very few interviewees noted that strength is neither a fixed state nor a male-specific quality:

**Most females are not strong enough so there are physical barriers. Also, not many females are interested in it.** (Senior Secondary student, male)

**There is that physical side of building that girls can't always do. Girls can't always lift a beam.** (Senior secondary student, female)

However, workarounds are suggested at times (while still maintaining the implicit gender stereotyping.)

**There are some safety issues if you aren't strong enough... so the physical side of things can be an issues [for women]. But there are tools that can help out.** (Apprentice, male)

A report by the Human Rights Commission's relates a number of historical issues have led to low participation rates by young women. It also asserts that broad societal changes in gender desegregation in New Zealand have barely impacted

In the Emily Hodgkinson report the main attractions were the ability to 'create' (30%) and high wages (24%) followed by the opportunity to handle machinery, work outdoors and finally (3%) getting paid while completing their training. (pp21-22).

Equal Employment Opportunities Discussion Paper on the Modern Apprenticeships, The Human Rights Commission McGregor & Gray, 2003, p2] This report concluded that it is a current policy challenge to combat 'discriminatory attitudes and practices', and provided 12 specific recommendations designed to address these. Trading Choices: Young people's career decisions and gender segregation in the trades Report prepared for the Ministry of Women's Affairs by the New Zealand Council for Educational Research (NZCER) September 2008 J Roberts, Ben Gardiner, J Gilbert, Karen Vaughan (Quotes and commentary)

on the vocational trades sector and voices the belief that participating industries have strongly entrenched gender barriers which make them particularly unattractive to young women.

**I think the maternal instincts of females have an impact – suits other sorts of jobs.** (Apprentice, male)

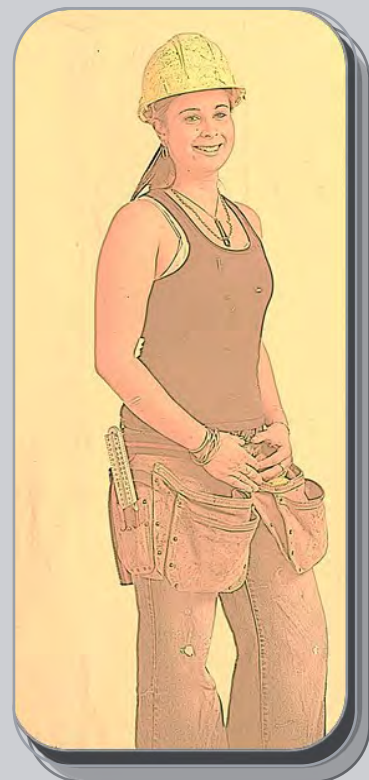
**I'd never been in an environment like that, being on construction sites – it's not just the fact they are all guys but it's a culture, they own it and it's established. You have to fit in with them. Not so much the company but the sites... I struggle sites-wise – with toilets and sanitary things. I know it's illegal not to give girls a toilet but it's not worth the hassle and I don't want to be 'that chick'.**

There are strongly defined male oriented networks for recruiting into the industry.

**I tried finding a job but there weren't any advertised and I had no contacts in the business...** (Apprentice, female)

There is also strong resistance, both active and passive, to women entering and continuing within the trade. This can impact on women's decisions to enter the trades, and the likelihood that they will remain over time. It is for this reason that it can be described as discrimination. [p58]

**The older guys didn't think that girls were up to that kind of work at all. They thought we were good for staying at home in the kitchen kind of thing. It wasn't so much about me as females altogether..It was just the fact that I was female 'in a man's job'. I mean I was passing and doing well. I could have done it. I was a definite possibility if I had wanted to do it. But in the end I didn't want to.** (Ex-trainee, female)



This picture fits with recent Northland research which surveyed 24 vocational trades employers that claims:

**Overall the employers' responses to the survey clearly indicate that the most significant barrier to women successfully entering and prospering in vocational trades is the attitude of the males who run the businesses.**

[Why don't more women go into the vocational trades? Whangarei: NorthTec. Scripps J, 2006, p. 24]

# The Family, and Media portrayals - for better or worse



**Family relationships and activities have a powerful influence on young people's sense of who they are and can be when creating a career pathway.** Although participants from the NZCER study reported that their parents apparently support whatever they might choose for study or work, it is clear from other research (overseas and in New Zealand) that family background, experiences, and conversations throughout a young person's upbringing make some decisions more likely than others.

The ways in which families influence young people vary according to the broader context the family operates in (social, economic and ethnic), the structural features of the family and the family processes. In turn, these are influenced by the personal characteristics of the young person, including gender and birth order.

*The influence of families relate to the actual vocational and associated educational outcomes of the young person or the ability of the young person to engage in the tasks associated with career development and establishing a vocational identity. These tasks include the process of self-discovery, investigating options, making decisions and implementing plans.* [Quoted from Bryce, Anderson, Frigo, & McKenzie, 2007 Australian Young People, their families and post school plans: a research review ACER pp5-6]

Family members can and do provide direct advice about career decisions, helping young people to make sense of all the options on offer, although parents sometimes worry that they themselves are not well informed. Material from the young people's interviews suggests that they often reflect the outlook of the older generation's viewpoint. They contend with negative, neutral or mixed family messages about working in the trades and there can also be a strong 'push' for young women to achieve academically in order to attend university. In many cases this is matched by the trades being perceived as a limited career option for 'drop outs.'

For a broad historical analysis of girls in trades training in New Zealand and reasons for low participation and segregation see: *Girls can do anything? Women and industry training in New Zealand*—Lincoln University, Nicky Murray 2004

*My mother was absolutely aghast (with my decision to go into the trades). She wanted me to go to university—she's a school teacher. My dad was stoked—he was in the military and he wanted me to find a direction...He thought that I was suitable for this job. My mother ... was of the mindset that if you are in a trade you are stupid. [She's old school.]* (Secondary student, female.)

Some young women in the survey testing out non-traditional pathways, described having families who consciously encourage participation in trades and trades training, and who disrupt other socially prescribed notions of status and success. This can be particularly powerful when family members are also interested and active in trades-related areas. Such experiences can provide young women with hands-on knowledge about an area (to counteract other messages they might be receiving), thus making it a legitimate career possibility.

*My stepdad is right into DIY. We have good yarns about tools and they (mum and stepdad) do up houses and have a builder that helps them out. Both of my parents think it's cool that I have learnt this stuff.* (Senior secondary student, female)

## Television portrayals of non-traditional occupations

can make young people think, and potentially change, their ideas about what is considered an appropriate career choice for a man or woman. It was observed that there can be a direct link between television and emerging career choices, although media can glorify or selectively represent career options—and can portray them without credibility.

**Advertising non-traditional roles** to open up the option for both genders should represent 'real' people in 'real' work, according to most of the young women surveyed. Within a broad array of media such as flyers, brochures, posters, booklets and so forth it is a powerful medium in which to market future career possibilities.

For an example of non-traditional roles promotion see: *Give Girls a Go! Female Modern Apprentices in New Zealand*  
© Human Rights Commission 2006 ISBN No: 0-478-28617-1



# School structures and systems - providing choices?

The greatest opportunity for change in attitudes regarding trades training and gender reside within the Secondary schools. Young people's school experiences are an important influence, and their school (intentionally or not) plays an important role in 'filtering' the opportunities available to them through the clustering of subject streams which usually means fewer spaces available for 'alternative' subjects [Source of this article - Trading Choices]

**Schools don't do work experience early enough. They organize it two months before you leave school and by then you've taken all the wrong subjects. They should do it in Year 10. Get them interested in the Year 10 and do it then.** (Ex-trainee, female)

The advice that young women receive (from careers advisers, deans, teachers and peers) about what is appropriate for them in relation to their abilities and interests as well as their gender can also have a major impact on future career choices.

Careers advisers often steer them toward more traditional academic career routes whether there is a personality/skills fit or not and there has also been a lack of liaison, knowledge and information about industry training organisations to allow young women to make informed choices.

This advice (and subject choice) is also influenced by the school culture (traditional or progressive and high or low decile) and whether the school is single-sex or co-educational.

**At co-ed schools both genders have more options to do different stuff. At boys' schools it's all technical and at all girls' schools it's about fabrics and cooking.** (Secondary student, female)

Post-school, making decisions about non-academic subject combinations means students often think about earning-while-learning options and working in trades. A way in for female students while still at school can be through BConstructive programmes—which provide a 'taster' for mainly traditional trades, and include level 1 and level 2 skills acquisitions which feed into higher level qualifications in apprenticeships. Then there are Gateway placements which allow one day a week placements with a firm—usually a larger firm—to work in a trade and try out a passion, which may lead on to an apprenticeship (sometimes with the same employer.)

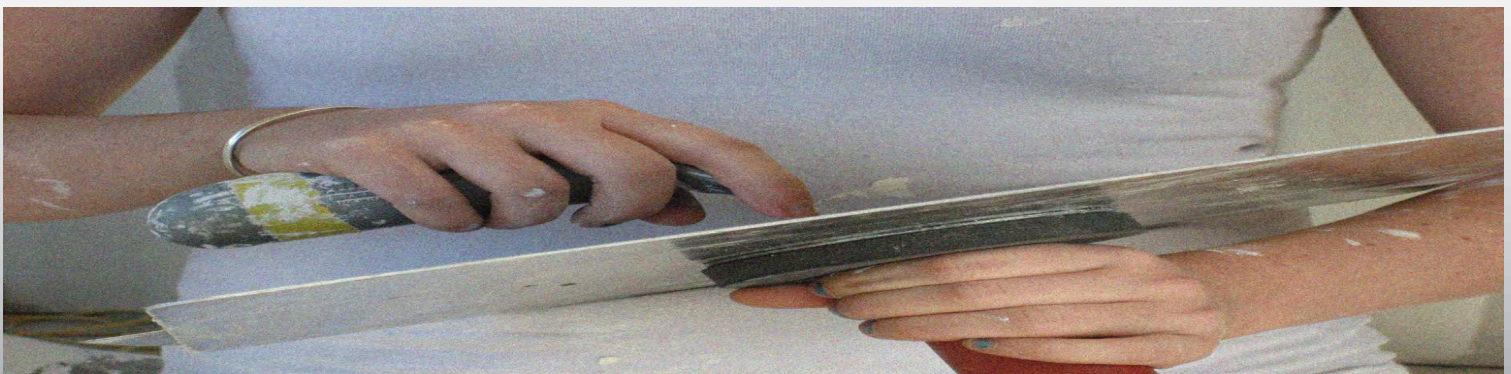
**Peer pressure** Finally, the role of peers should not be downplayed. Teasing, even bullying is very off-putting for those females who are trying out interests which could lead to career choices.

**I think people laughed at first (about me taking furniture making). All our friends, boys and the girls, they would ask "Why are you taking that?" Some of them think you are a dyke. Everyone thought we were crazy.** (Secondary student, female)

**Careers expos** can present a broad range of options for career pathways

**I think events like careers expos are really good. All schools (single-sex or co-ed) get shown the same material. You get areas that are more set up for boys or girls but at least you have a chance to have a look.**

...but students often don't get to these events until Years 12 or 13 by which point they may have already left school or are already committed to other pathways.



## Students' suggestions for improved access to pathways framework in Secondary Schools: Ibid p73

- Make trades-related options more enjoyable and interesting, especially for the non-traditional gender
- Provide more school-based support for non-traditional pathways and provide more school-based support for non-traditional school subjects
- Advertise and tell students that both genders attend non-traditional school subjects and provide more encouragement to females who show aptitude in male-dominated subjects
- Start careers planning in junior secondary school and in later schooling provide Gateway and STAR experiences to more young people and provide more trades-related work experience opportunities to students of all ages
- Provide site visits for young people who express an interest and/or ensure firms have an open-door policy.

# Overseas models for success in the UK



Photo from: Equality and diversity: good practice for the construction sector. A report commissioned by the Equality and human rights Commission May 2011 p16

The lack of steady training and investment is considered to be the key factor to the skills shortages in the UK and is exacerbated by the 'feast or famine' nature of the construction industry.

**Flexible work** is a diversity-friendly tool which is used to attract and retain talented women in the built environment (which also benefits men, older workers and the disabled). It has been reported that there is every reason to think that flexible working in construction in the UK will grow as the industry appears favourable to the concept. It has worked well for larger construction firms in the UK. The uptake is often from women (and men) with childcare needs.

**Respect.** Improved on-site working relationships based on respect for everyone's differences can realise cost savings across the sector. The concept of 'respect' adopted as a universally shared value could help to reinforce the message industry-wide and set higher standards of inclusive behavior. The term, 'respect' is already used by some stakeholders in the UK in varying ways and the sector has responded very positively towards adopting an industry-wide respect agenda. [1]

**Positive Action** programmes can help to counter discrimination which is more likely in an economic recession and is more prevalent in trades. Although they are not legally required, positive measures are allowed by the law to encourage employees and potential employees who are members of particular groups which are under-represented in particular work. For example—job advertisements designed to reach members of these groups and to encourage their applications as well as ensuring that job selection is advertised with open application forms rather than CVs or by word of mouth. [1] p9

**Positive Action investment by the Olympic Delivery Authority** committed to targets to engage women on site by running taster days, supporting prospective employees with; child and health care, targeting local colleges for female prospective recruits and on-the-job learning for women on site including work placements and a program referred to as 'chicks with bricks'. [1] p11



From: Employment and Skills Update January 2011—Photo of Apprentices who gained their qualifications on site.  
[http://www.london2012.com/mm%5CDocument%](http://www.london2012.com/mm%5CDocument%5C)

*At the end of December 2010, over 400 apprentices had experienced work on the construction programme and were employed in 25 trades, working for 62 different contractors. 6% were women, which is three times the national average for women employed in manual trades in the construction industry.*

**Creating an inclusive culture** by improving career progression and retention through **mentoring, network meetings** and in larger firms, personal development workshops for women and other minorities.

A professional engineering company took a different approach to diversity training. Moving away from traditional methods **Arup** created the Inclusive Leadership programme, which won a national award in the UK in 2011.

The programme highlights that everybody has unconscious biases but that self-awareness can help to manage these effectively and help create an inclusive working environment. Working in a traditionally male-orientated sector, Arup has a 9,000 strong workforce with 84% of employees in technical fields, 22% of those being female. Having a diverse talent pool available to them was absolutely essential to the company so women leaders in Arup now make up 13% of the workforce.

[1] Equality and diversity: good practice for the construction sector A report commissioned by the Equality and Human Rights Commission, May 2011

The Women of the Future Ambassadors programme is a unique initiative that connects award-winning women with sixth-formers and provides students with mentors and role models for professions such as project management and quantity surveying. This strengthens the pipeline of talent among Britain's younger women.

**Construction Ambassadors** work in the industry and have been trained by the Construction Industry Training Board. They attend schools across the country to give young people a real life perspective of the industry.

Industry advocates in the UK believe that career advisers in schools can be blamed for the low numbers entering the sector and poor knowledge about the different training and job opportunities. The Apprenticeships, Skills, Children, and Learning Act (2009) introduced a requirement for careers advisors to offer students information about apprenticeships as well as academic routes. The Construction Industry Council has subsequently published a **Career Adviser's Toolkit** (2011) to address the opportunities in the construction sector.

# Overseas Models for Success in Australia

Lack of information, advice and guidance plus the convoluted pathways, terms and systems associated with technical and vocational education are a barrier to the uptake of a career in trades in Australia. New Zealand and Australia share similar characteristics in terms of having an ageing population and increasing skills shortages.

**Supporting And Linking Tradeswomen (SALT)** began in 2009 with a group of six tradeswomen in Wollongong. It became a non-profit association in early 2010 and now has groups of tradeswomen in Wollongong, Sydney and Canberra. Membership is not only women but includes tradesmen and other interested people. SALT aims to encourage and promote the idea that future initiatives need to integrate women into male-dominated areas in order to support the skills drive in Australia. SALT's research indicates that non-traditional trade industries do not consider females as a potential workforce and women and girls do not consider the non-traditional trades as a career pathway unless they are exposed to them from a young age. Source of article: <http://www.worldskills.org.au/supporting-and-linking-tradeswomen/>

**SALT** is working on a number of fronts such as:

- Providing a structured support system for existing tradeswomen
- Demonstrating tradesmen and women working capably together (showing that gender is not the issue)
- Engaging the community in support for diversity and acceptance in the trades
- Starting a mentoring program in partnership with TAFE NSW which trains trades women and tradesmen to support first year female apprentices in an innovative triumvirate mentoring system (much like the new assessment model in the BCITO)
- The establishment of a website which includes support and information for women seeking to join a trade. It also includes information on; pathways, requirements, licensing, training, apprenticeships, what specific knowledge is required for individual trades, CV writing and what to wear to an interview, and uses pictures of real Australian tradeswomen in the workplace. Job opportunities will also be added to this site.
- A campaign designed to encourage Australian Dads to teach their daughters, aged 5-12 years to use hand tools. SALT is also introducing a new initiative to train Australian women of all ages to use hand tools. The concept is to use a highly visible Ute and trailer with tools and SALT tradespeople to conduct; mobile workshops, training, demonstrations, projects and displays.



## Overseas Models for Success in British Columbia and Canada

Although women have made significant inroads into the male-dominated professions of law and medicine, this progress hasn't been matched in other traditionally male-dominated fields such as the trades. Also, occupational segregation in skilled trades have had a much lower profile in the political and public forum in British Columbia and Canada. Women are clustered in the lower-paying trades and the available female pool of labour is overlooked in discussions about how to mitigate the existing and expected labour shortages.



**Women Building Futures (WBF) Edmonton, Alberta** is an example of a current programme that offers women a broad range of services, and **engages with employers** to place graduates and mediate between them on an ongoing basis. It also successfully and effectively leverages multiple funding sources. [Source: Women in Trades Discussion Paper, Industry Training Authority, Canada December 2008 Dragana Vojakovic p31—which explains the full range of services and partnerships involved] *Sondra Austin admits the Women Building Futures is “one of the best decisions of her life”. It not only offers training, employment and mentorship for Canadian women, it also gives them an affordable place to live while they study. The training centre operates from a converted warehouse downtown and features 42 affordable housing units, eighteen for women with children.*

Canada Mortgage and Housing Corporation (CMHC) helped founder Judy Lynn Archer develop the business plan and directed her to federal and provincial groups that could help advance the project. CMHC and the Government of Alberta also contributed more than \$3.4 million through the Affordable Housing Initiative for the apartments the women live in while in training. From: [http://www.cmhc-schl.gc.ca/en/inpr/afhoce/sust/sust\\_012.cfm](http://www.cmhc-schl.gc.ca/en/inpr/afhoce/sust/sust_012.cfm). See Project Profile for more details

**Trade Up to Your Future, Manitoba** is a similar programme aimed at women on social assistance which offers ongoing post-graduation support. It is noted in the discussion paper that many employers started recruiting women directly into permanent roles without the wage subsidy (which had been used as an incentive to hire) once the programme got underway. [Women in Trades Discussion Paper (Ibid) pp 32-33]

# What's on offer in New Zealand?

New Zealand shares many points of similarity with the UK, Australia and Canada in terms of the barriers and minority status of women participating in the non-traditional trades. Gender segregation patterns in trades remain essentially unchanged, despite the many and varied attempts to intervene, and this is the point—interventions designed to change culture and ingrained attitudes have been shown, on the whole, to be short-lived and ineffectual. The briefing paper by the **Ministry of Women's Affairs** [Snapshot of Women in New Zealand, Briefing to the incoming Minister of Women's Affairs 14 December 2011 p7] suggests that future policy initiatives to increase women's economic independence will need to focus on the factors that can support women to more fully access economic opportunities and resources—especially within the built environment sector. These include:

- Supporting women on low incomes and benefits into sustainable, quality work strengthening enablers of women's employment  
**This is starting to be used to good effect in the Positive Action programmes in the UK and SALT in Australia**
- Flexible work - which is especially important if women are to actively participate in the construction industry  
**This is gaining traction in trades workplaces in the UK**
- Encouraging women into higher paid, less traditionally female work.  
**Trade Up To Your Future (Manitoba) is a great example from Canada.**

All the programmes which have been and are continuing to be successful overseas require long-term planning, multiple funding sources, sustained political drivers and policy and buy-in from trades—SMEs and especially the employers.

**The BCITO** commissioned a detailed and in-depth study into the situation of tradeswomen in the construction industry (2005-2006).

[Emily Hodgkinson report]

Six main barriers to engagement within industry were identified. These are:

1. Lack of leadership over the promotion of diversity
2. Poor overall public image of the industry
3. Lack of knowledge among employers and other industry members about the benefits of diversity and Equal Opportunities business practice
4. Lack of knowledge among New Zealand women about the options available to them in the industry
5. Stifled opportunities for women already working and training in the industry
6. Lack of support for those women already working and training in the industry.

Developing a culture of diversity was the first recommendation, and the BCITO has come some way to achieving this with the appointment of women in management and qualifications development and quality assurance roles as well as the development of field staff in educational and diversity principles. There has also been a concerted effort at rebranding and promoting women in industry and considerable marketing effort has gone into encouraging women into the specialist trades as well as carpentry.

Work is still ongoing, and needs to be enhanced in partnership with schools and employers to improve knowledge of the construction industry and its career options. There is the need to create and sustain social networking opportunities with industry and policy input as well as input from industry organisations, PTEs and providers to assist women into management and future business ownership opportunities. As young women tend to enter the industry via education and

Through the marketing of the BConstructive and Gateway programmes to employers, career advisers, parents and the young women themselves, then through mentoring—preferably female (**the TAFE Mentoring in Partnership programme is a good working model**) and liaison with industry, the BCITO can achieve successful outcomes and create and build upon sustainable growth of female apprenticeships into the future.



## The National Association of Women in Construction (NAWIC)

was initially founded in Texas in 1952 by a group of 16 women and has since grown into an international organization which is going strong in the USA, UK, Canada, Australia, South Africa and New Zealand. There are now branches in the main centers of New Zealand. The Wellington branch has been going since 1996. Events are attended by members and non-members from a database of 300 women including trades, quantity surveyors, site supervisors and project managers, suppliers, designers, architects, engineers, and lawyers.

NAWIC encourages women to pursue, establish and sustain successful careers in the construction industry. Regular events are also held to inform and up skill women in construction and to promote networking and information sharing among for the betterment of the construction industry. For more information

see: <http://www.nawic.org.nz/>

# Where to from here?

It is not possible to provide an exact 'recipe' of factors that result in particular career decisions or gender biases regarding occupations within industry, but some of the factors that appear to open up non-traditional trades-related pathway options for some young women, include: [1]



- Families that consciously disrupt gender stereotyping (and/or challenge preconceived notions about status and success within the sector) and that are interested or active in trades-related areas
- Media and careers information that realistically presents (credible) individuals/characters in (realistic) non-traditional careers, in addition to further support for young people's capacity to make sense of (and perhaps critique) media/information messages
- Schooling that minimises the academic/vocational divide, and provides active support for girls to explore trades-related learning experiences (in ways that do not close off other options.) The new **vocational pathways in schools** could eventually facilitate this process for the two-thirds of young people who will never study for a degree but could forge clear pathways to other valuable careers [2]
- Trades training and work that legitimates women's place in the field; challenges the predominantly male culture and participation, and resists discrimination and double standards.

NZCER also suggests that some of the shortcomings could also be addressed via two 'traditional' strategies:

- Improving the distribution, access, quality and accuracy of information about the trades by marketing them to non-traditional audiences (females in particular) [3]
- The creation of female-centered environments and approaches to (early) trades training.

However, in blending the interview evidence with current thinking about education and careers in the 21st century, NZCER argues that a more strategic approach might be to attend to the 'bigger picture' context in which these inter-related factors occur and are experienced, that is:

- Acknowledging how 'knowledge society' developments and various 'new' ideas about career make many past approaches less useful
- Rethinking trades-related occupations in the new context in ways that allow gender to be less of a constraint on young people's decision making.

Theoretical and practical work that focuses on the knowledge society, a 'new work order', and New Zealand's 'culture of innovation' signal that forging a career is becoming much more complex than it was in the past; employability and workforce *development* issues are superseding previous concerns about training/workforce *participation*; 'old' categories of skills and occupations are transforming into something more fluid and uncertain; and the shape of trades-related occupations may soon change along with the ways that women and men think about such occupations.

**Rather than developing policies designed to 'clean up' the past, the Ministry of Women's Affairs (and other agencies) could develop approaches that focus on crafting a transformed future by building on and strengthening policy work and other interventions currently being developed or reworked, as well as acting as a 'bridge' between past-oriented and future-oriented approaches.**



[1] Main source of article from : NZCER Trading Choices—Executive Summary Josie Roberts, Ben Gardiner, Jane Gilbert & Karen Vaughan 2008 [2] see: [www.itf.org.nz/skills-and...pathways-and.../vocational-pathways/](http://www.itf.org.nz/skills-and...pathways-and.../vocational-pathways/) [3] This strategy is also highlighted in the Built Environment Skills Strategy report—2012 (p14) which states the need for Industry Associations and Institutes as well as Careers NZ to develop and implement a whole-of-sector marketing plan promoting the sector and highlighting building sector roles as careers rather than jobs, and making use of mixed media to attract young people, migrants and women into the industry and connect with other workers in the industry.



# Bibliography

## AUSTRALIA

*Australian Young People, their families and post-school plans: a research review* Australian Council for Educational Research April 2007 T Frigo, J Bryce, M Anderson, P McKenzie

*Supporting women in non-traditional trade.* Illawarra Institute TAFE NSW Australia 2008 Fiona Shewring

*The female 'tradie': Challenging employment perceptions in non-traditional trades for women* Occasional paper NCVET, Illawarra Institute TAFE NSW Australia 2009 Fiona Shewring

## CANADA

*Women in Trades* Discussion Paper, Industry Training Authority Canada December 2008 Dragana Vojakovic

## NEW ZEALAND

*Briefing to the incoming Minister of Women's Affairs*, Ministry of Women's Affairs Dec 2011

*Built Environment Skills Strategy* Productivity Partnership February 2012 and *A Strategic Future for Skill Development in the Built Environment Sector* Background paper November 2010

*Girls can do anything? Women and industry training in New Zealand* Lincoln University. 2004 Nicky Murray

*Identifying Emerging Industries* - Report to Ministry of Women's Affairs, June 2010 Gender and Diversity Research Group AUT University RESEARCH TEAM Dr. Stefan Kesting, Jean Lin, Dr. Judith K. Pringle

*Modern Apprenticeships: Training for the boys?* And Equal Employment Opportunities Discussion Paper for the Human Rights Commission 2003 Dr July McGregor and Lance Gray

*Options for the development of Resources to promote Women into Trades (draft)* prepared for the Ministry of Women's Affairs July 2010 Heathrose

*Trading Choices: Young people's career decisions and gender segregation in the trades* Report prepared for the Ministry of Women's Affairs by the New Zealand Council for Educational Research September 2008 J Roberts, Ben Gardiner, J Gilbert, Karen Vaughan

*Why don't more women go into the vocational trades?* Whangarei: NorthTec. 2006 J Scripps

*Women in Construction - The Untapped resource? - An analysis of women in the New Zealand Building and Construction Industry* As part of a Master in Engineering Management Degree, University of Canterbury, New Zealand Feb 2006 Emily Hodgkinson

*Youth labour force trends, issues and solutions* EEO Trust March 2011 Research and analysis by Dr Mervyl McPherson

## UNITED KINGDOM

*Equality and diversity: good practice for the construction sector* Equality and Human Rights Commission UK May 2011 Jan Peters and Melanie Allison Katalytk

*Inclusivity: the Changing Role of Women in the Construction Workforce* Chartered Institute of Building (CIOB) UK 2006 Sonia Gurjao

*Report on the Commission on the Status of Women (CSW)* United Nations Economic and Social Council —55th session of the Status of Women March 2011 (Internet resource)



# Building CAREERS

**BUSINESS OWNER**  
Own your business and your future!

**QUANTITY SURVEYOR**  
Project quantities and cost management, construction can't start without you.  
**Goal: Diploma in Quantity Surveying**

**PROJECT MANAGER**  
Manage large scale commercial projects. Hotels, stadiums or apartment complexes!

**CONTRACT MANAGER**  
It's all about the 'bottom line'. Manage finances and control costs – are you within budget?  
**Goal: Diploma in Construction Management**

**QUALIFIED PROFESSIONAL**  
Congratulations! From here you can opt for more training or start your own business. The sky's the limit.

**SUPERVISOR**  
Moving on up! Supervise on site staff and subcontractors and keep the site safe by managing health and safety.  
**Goal: National Certificate in Construction Trades (Supervisor)**

**CONTRACT SUPERVISOR**  
Oversee multiple contracts, programme control, supervision of health and safety on site. You're in charge and no two days will be the same!  
**Goal: National Certificate in Construction Trades (Main Contract Supervision)**

**GO DIRECTLY INTO AN APPRENTICESHIP**  
Kick start your career and head straight into your apprenticeship from school.

**APPRENTICESHIP**  
Earn while you learn practical skills on the job! Build your knowledge with study through the self-paced learning package or off job training.  
**Goal: National Certificate**

**AT SCHOOL**  
Gear up for a career in building and construction by taking the **BConstructive programme** and get work-ready with a **BCITO Gateway package**.

**PRE-TRADE TRAINING**  
Learn foundation knowledge and skills on a pre-trade course at a private training establishment or polytechnic.



MANAGED APPRENTICESHIPS  
**0800 4 BCITO**

BCITO.org.nz

