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wave WOMEN IN ADULT AND VOCATIONAL EDUCATION

'I can't think of any occupation women can't do!'

Career Pathways for Women and Girls: Emergent and Non-traditional Occupations and Industries (Viable Work)

June 2011

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Career Pathways for Women and Girls: Emergent and Non-traditional Occupations and Industries (Viable Work)

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CONTENTS

INTRODUCTION 4
Viability Indicators 6

APPROACH 6

FINDINGS AND DISCUSSION 7
Viable Work for Women and Girls 7
Women's Participation in Skills Shortage and Job Growth Areas 8
The Green Economy 13
Emergent (Green) Industries 14
Identification Of Australian Government Strategies And Funding Initiatives In VET, Including Employment Creation Programs 16
Findings: Surveys of Tradeswomen Project Participants 21
About The Trades Women 21
Five critical factors emerge as key findings: 22
Participants' Comments 23
About the Tradeswomen's Careers 23
The major influences in choosing a trade 23
The positive and negative features of trade occupation 24
The trade as meeting career expectations 25
About Promoting Careers in Trades to Girls and Women 26
Recommending trade training and work to girls and women 26
Critical factors identified to encourage more women into careers in trade areas 26
Comments on experiences of being a woman in a male dominated trade and to how this can help other women in other industries 27
Other trades occupations and industries identified as offering viable employment and careers for women 28
Action to encourage and support women to enter and forge careers in trades . 28

EXAMPLES OF BEST PRACTICE: GENDER SENSITIVE PROGRAMS AND SUCCESSFUL STRATEGIES FOR WOMEN IN EMERGENT AND NON-TRADITIONAL AREAS OF WORK 29

STRATEGIES TO ATTRACT WOMEN AND GIRLS TO EMERGENT & NON-TRADITIONAL OCCUPATIONS AND INDUSTRIES 31
Rationale 31

POLICY ACTION FOR IMPROVED VIABLE EMPLOYMENT FOR WOMEN 35
Rationale 35

RECOMMENDATIONS FOR ACTION 41
PROJECT PRODUCTS 43

INTRODUCTION

That, in C21st Australia, there is still the need for concern and action after more than three decades of enquiries about the status of women and so the need to advocate for their access to gender sensitive training for and employment in emergent and non-traditional occupations and industries highlights both deeply ingrained cultural attitudes about what is appropriate work for women and for men, and by default their place in society; along with enduring outmoded work practices and workplace cultures accompanied by gendered pay inequities.

It is well recognised that broad cultural attitudinal change is required in relation to perceptions and stereotypes about what is women's work and men's work in Australia is urgently needed, but difficult to bring about. Male champions in boardrooms, a plethora of women role models, activists, along with industry and community education campaigns supported by policy are all required to shift long-held entrenched beliefs and practices that channel people into careers based on gender stereotypes. Similarly, while there are moves in the way work is structured, along with technological advances that support flexible work, this structural/organisational shift needs impetus to generalise new 'norms' and so bed down widespread change that will support family friendly workplaces. Such changes could well enhance the possibility of building a critical mass of women in male dominated industries and occupations.

As argued recently by Graeme Samuels, Chair of ACCC[1]:

> (w)e need broad changes in cultural attitudes – and that will be more effective than, for example, narrow process changes or similar isolated initiatives. We need to break out of the male-club mentality[2].

He goes on to advise there are two key reasons why a cultural shift, including organisational/workplace cultural change, to actively plan and work towards increasing the profile and positioning of women workers is important:

- We are potentially cutting off a huge number of strong and innovative contributors
- All the data shows that we're in for a real talent squeeze – we need all the options we can get![3]

However, the enduring disparate levels of women studying and/or training for and employed (at all levels) in so-called 'non-traditional industries and

[1] ACCC: Australia Competition and Consumer Commission

[2] Samuel G, 2011, Women and Leadership Australia. '*Right women right place, right time'*. Address by G Samuel, chairperson ACCC at Australian Women's Leadership Symposium Melbourne 26/6/11 http://www.accc.gov.au/content/item.phtml?itemId=994084&nodeId=fb8cc23b6ffc2b7923b856cfbef5158c&fn=SPEECH%20-%20G%20Samuel%20-%20Women's%20leadership%20-%2024%20June%202011.pdf accessed 27/6/11 p10

[3] Ibid p7

occupation, and potentially in emergent industries also point to policy failures that must be addressed, not only to benefit the economic and social well being of women and their families and communities, but also Australia's national economic well being. This is especially significant, given recognised contemporary and future skills shortages in male dominated industries and occupations, as it is to ensure that emergent industries do not perpetuate the gender bias that exists in Australia's labour force. Further more, given current initiatives and generous federal funding allocated for the provision and availability of apprenticeships in the industries and occupations that are both earmarked as facing serious skills shortages and dominate 'non-traditional' areas of study and work for women and girls, gender neutral implementation of such initiatives has the capacity to further entrench gender bias. Recognition that women are 'economy builders' is well overdue[4].

This project has been funded by economicSecurity4Women that contracted WAVE to undertake the investigation and materials production that will inform an advocacy campaign. It aims to build a map of potentially viable work for Australian women by identifying industries & occupations with viable career pathways – work that is emergent, in identified areas of existing &/or potential skills shortages; including non- traditional male dominated fields - where the existing participation of women remains at a low ratio.

It is hoped that mapping and investigating this idea will provide a foundation from which to devise strategies to identify and target areas where initiatives for women and girls can be implemented to increase and support their engagement and inclusion in industries and occupations that offer career paths, sustainable employment, transferable skills and financial benefits.

WAVE is concerned about the continuing inequities experienced by many women in work, including that mirrored by the pattern of enrolments in the VET sector. Investment in accessible, affordable and relevant education and training for women and girls must be increased and supported by policy initiatives. Similarly, equitable employment outcomes, including the gap between educational outcomes and employment for women, are an area that requires urgent attention. Vocational training in areas of high skill demand and in the emerging green economy is also essential for women.

In summary:

- Women are concentrated in feminised fields of training and work.
- Women are under-represented in emerging and growth areas with better than average remuneration opportunities, such as green industries, technology, mining industries and managerial occupations.
- Women are concentrated in casual and part-time work, which makes

[4] Turner Zeller K, October 2009, *Women on track: Addressing Skills Shortages in Transport and Construction Industries*. OfW/WLDP Project WAVE http://www.wave.org.au/index.php?option=com_content&view=article&id=87:women-on-track-addressing-skills-shortages-in-transport-and-construction-industries&catid=46:projects&Itemid=59

them vulnerable in times of economic downturn while also providing them with less opportunity for work based training and career progression.
- Women's earnings on average are below those of men.
- Significantly more women than men live in poverty and below the poverty line.

Viability Indicators

This Project investigates and seeks to promote the notion of the career viability (industry and occupation) for women through information available via Australian Government's website: www.joboutlook.gov.au

While recognising the rich debates relating to meanings associated with the concept of career, this project adopts a pragmatic understanding; that career refers to sustained and sustainable employment in an occupation (or profession) that requires specialised education &/or training, has a knowledge and skills base that evolves, and can be followed albeit flexibly, with incremental progression in pay and occupational level and status, over time. In this way, 'career' is much more than 'a job'. By considering the attraction to and suitability for a career in an occupation or industry, rather than viewing paid work as an end in itself, a longer-term view is possible for those (in this case women and girls) seeking training for paid work.

The factors considered to identify viable work include the requirement that an existing or emergent industry &/or occupation will:
- have a good record of employment opportunities, supported by identifiable pathways to careers that evolve from such employment;
- recognise skills, and expertise in pay levels and work conditions and/or offer above average remuneration opportunities;
- expect growth or are sustaining themselves, and
- plan for and promote future needs that includes women

While family friendly work practices and flexible work are considered essential indicators of viable work and workplaces for women, the capacity to assess these factors in the industries and occupations identified is beyond the scope of this project.

APPROACH

A multi-dimensional approach has been utilised to inform the findings and material production that are outcomes of this project, given the educational and advocacy work is to follow. Apart from this report, the project will

produce 'stand alone' material products that can be used online and/or reproduced for information sharing and advocacy related strategies to enhance the representation of women and girls in the fields selected.

The following table provides an Overview of Approaches utilised, along with data and products generated.

Table: Overview of Approaches

Approach	Activities	Products
Review of relevant Government websites and recent literature	*Sourcing and investigation of Government websites relevant to training and careers/jobs, to identify industries and occupations offering viable career pathways for women and girls. *Desktop review of recent stats, research and literature relevant to above	*Identification of industries and occupations for viable work *Identification of available resources and issues, including VET
Establish partnership between WAVE & SALT (*Supporting & Linking Tradeswomen*)	*Approach by WAVE to SALT *Meetings and discussions between (WAVE) National Co-Coordinator and Coordinator: SALT	*Agreement re Project Collaboration *Project Collaboration *Ongoing partnership between WAVE & SALT
Primary data Collection	*Workshop and focus group with women tradeswomen coordinated by SALT with WAVE. (See Attachments One, Two, Three)	*Generation of stories from tradeswomen
Analysis and collation of data	*Tradeswomen's stories *Jobs Outlook- Occupations & Industries	*_Working forward: stories of women with careers in trades. 8 SALT individual stories_ *_Analysis of Stories_ *_Strategies to attract women to emergent and non-traditional occupations& industries – Rationale_ *_Viable Work- e- publication Summary_ *_Viable Work –e-publication: Career Advisors_ *_Viable work – e-publication: Value added recruitment_ *_Project Policy recommendations_

FINDINGS AND DISCUSSION

Viable Work for Women and Girls

In the five years to May 2010, total employment in Australia increased by 10.6 %. The largest employment increases in the five years to 2015-16 are projected to occur in Mining (6.1%p.a.), Health Care and Social Assistance (4.5%p.a.), Electricity, Gas, Water and Waste Services (3.9%p.a.) with the largest number of new jobs expected in Health, Care and Social Assistance, Construction and Professional, Scientific and Technical Services[5].
In the next five years to 2015-16, employment is expected to increase across almost all industries, with the exception of manufacturing[6], which is the only industry where employment is expected to decline.

Women's Participation in Skills Shortage and Job Growth Areas

- Female workers have the highest employment share in 7 of the 19 broad ANZSIC industries, with the largest in Health Care and Social Assistance (56.4%).
- The industries that recorded the largest number of new jobs for females, in the past five years, included Health Care and Social Assistance, Education and Training and Professional, Scientific and Technical Services.
- The number of female workers decreased in Manufacturing and Information Media and Telecommunications. (SkillsInfo 2010)

Women are well represented in the **Professional, Scientific and Technical Services** at 54.4%, with higher levels of female full time employment (27.8%) than in other industries (24.7%). The industry has higher than average median full-time weekly earnings. However, women are concentrated in the lower paid areas of Veterinary Services (below average median full-time weekly earnings), as well as Legal and Accounting Services and Market Research and Statistical Services, areas also more likely to have part-time employment.

Construction is the third largest employing industry in Australia (9% of workforce Feb 2011), with a slightly younger workforce than average engaged in mainly full time work. However, it is also the most gender-segregated industry of all 19 industry groups, with male workers accounting for 88.6% of its workforce. Thus women continue to be highly underrepresented in the Construction Industry, with the lowest female employment rate of all industries at 11.4%[7]. Women are employed in areas that have lower than average median full-time weekly earnings. Women are not benefiting from the historical and predicted growth of jobs in this industry.

[5] DEEWR: Industry Employment Projections 2011 Report: http://www.skillsinfo.gov.au/NR/rdonlyres/2122A5A9-D5AF-4394-BCFE-7AD0EC6C5119/0/IndustryEmploymentProjections2011Report_webversion2.pdf
[6] Ibid
[7] Outlook: Construction: http://www.skillsinfo.gov.au/NR/rdonlyres/101E29CB-7D8E-45D8-BDE9-07E39619C865/0/ConstructionReport2011.pdf

Mining has experienced the strongest job growth of all 19 industries over the last decade[8]. However, the Mining Industry's high employment growth rates are also not being enjoyed by women representing just 13.2% of employees, the second lowest of all industries. Women were employed at the highest levels in Oil and Gas Extraction (18%) and this, amongst all other sectors in the industry has above average median full-time weekly earnings.

Women are over represented in the **Education and Training Industry** (Australia's 4th largest industry) with good growth history and expectations, as well as strong income potential. Women represent 69.1% of workers, and are employed at higher levels of full time employment (63.5%) than other industries. The Industry also has higher than average median full-time weekly earnings. However, the lowest income areas include a high concentration of women, for example, Pre-School Education Workers[9].

Women have benefited from increased employment positions in the **Health Care and Social Assistance Industry –** the largest employing industry in Australia with 11.5% of total workforce[10]. 79% of employees in this Industry are women. However, 43.6% of these jobs are part-time, highly casualised and have below average income based on median full-time weekly earnings (In May 2009, the average median weekly full-time earnings income for all industries in Australia was $1000).

At the time this project commenced in 2010, **Retail** employment rates were expected to grow in the next five years. Since that time this industry has been heavily impacted by the Global Financial Crisis. Modest recovery is expected over the next five years. However, women are over represented in this industry (56.2%). A large proportion of this work for females is currently part time (33.8%). Income levels are the lowest of all industries and women are concentrated in the lowest earning areas within the industry [11].

With the above viability indicators in mind the following material was selected and extracted from *Job Outlook - Make Your Career a Reality* (Australian Government)[12].

The factors considered by this project to identify viable work for women and girls include the requirement that an industry &/or occupation will:

- have a good record of employment opportunities, supported by identifiable pathways to careers that evolve from such employment;

[8] Outlook: Mining: http://www.skillsinfo.gov.au/NR/rdonlyres/B9156194-69AC-4097-AB03-85235BF4DAF8/0/MiningReport2011.pdf. It is noteworthy that this addition contains no gender analysis at all.
[9] Outlook: Education & Training: http://www.skillsinfo.gov.au/NR/rdonlyres/5FCC8F9F-19E0-4AFA-9EA3-0C99B73ED0AB/0/OutlookEducationandTraining.pdf
[10] SkillsInfo: Health Care and Social Assistance: http://www.skillsinfo.gov.au/NR/rdonlyres/66356538-473E-4A8D-B795-F55F9F057D85/0/HealthCareandSocialAssistanceReport2011.pdf
[11] Outlook: Retail: http://www.skillsinfo.gov.au/NR/rdonlyres/528BAB6D-5E43-4BC7-9ABC-70F26BFC5B45/0/OutlookRetailTrade.pdf
[12] *Job Outlook - Make Your Career a Reality* (Australian Government) www.joboutlook.gov.au accessed February 2011

- recognise skills, and expertise in pay levels and work conditions and/or offer above average remuneration opportunities;
- expect growth or are sustaining themselves, and
- plan for and promote future needs that includes women

While family friendly work practices and flexible work are considered essential indicators of viable work and workplaces for women, the capacity to assess these factors for the selected industries is beyond the scope of this project.

Significantly, at the near completion of this 2010- 1011 project, and in line with emphasis on emergent and green industries and occupations, DEEWR's *Industry Employment Projections 2011 Report* now directs attention to the **Electricity, Gas, Water and Waste Services Industry**. This smallest employing industry in Australia (1.2% Feb 2010) with an older than average workforce who enjoy higher than average median weekly earnings[13] is now expected to grow at 3.9 per cent per annum totalling 32 400 new jobs, given '*…an increasing focus on green energy solutions and improved recycling services*.'[14] (our emphasis) In 2010, this industry's workforce was predominantly male (73.8%) and characterised by full-time work (90.9%). 'Female employment, both full-time (17.1 per cent) and part-time (4.2 per cent), was below the average for all industries'[15]. It is also this industry that encompasses a number of the industry clusters encapsulated in what is known as 'Cleantech'[16]. This Industry augers well as offering growing potential for viable training pathways and careers for women, as well as demonstrating the fluidity accompanying increasing awareness of the necessity to shift to low carbon/non polluting sustainable industries and occupations.

Project Viability Indicators[17]	**Professional Scientific and Technical**	**Construction**	**Mining**	**Educational and Training**	**Health Care and Assistance**	**Electricity, Gas, Water and Waste Services Industry**
Employment opportunities	High	High	High	High	High	Moderate/Good
Recognized skills by pay levels	High	High	High	High	Moderate	High

[13] Outlook: Electricity, Gas, Water and Waste Services Industry : http://www.skillsinfo.gov.au/NR/rdonlyres/48FF8F3F-931E-4FC0-B16EC91C494B4426/0/OutlookElectricityGasWaterandWasteServices.pdf

[14] DEEWR 2011 op cit

[15] Ibid

[16] '… energy, water and waste water, advanced materials, energy efficiency and manufacturing, transportation, and agriculture. The largest of these sectors is energy and can range from biodiesel, clean coal and fuel cells to wind and solar energy' cited in Clean or Green Technology Investing' http://www.investopedia.com/articles/07/clean_technology.asp#ixzz1Qvr2gzEz

[17] Based on 2010 data

Expected growth	High	High	High	High	High	High
Planning and promotion to include women	Low	Low	Low	n/a	n/a	n/a

When considering the above along with the respective gender profiles of participation, levels of employment of women, levels of female participation in VET training including enrolment in apprenticeship, the nature of jobs (full time, part time, casual) and associated rates of pay in the above, the industry areas and occupations identified for targeting for improved take-up in training and work by women and girls at this time are those associated with:

- Professional, Scientific and Technical
- Construction
- Mining
- Electricity, Gas, Water and Waste Services

At this time in history, it is critical that that the inevitable shift to what is recognised as the 'green economy' is factored in to any consideration of what is viable work and career paths for women. This shift is further evidenced by a recent announcement by ABS, that, following the UN's SEEA[18] conceptual model, it 'now intends to produce environmental-economic accounts across a greater range of dimensions[19] on a regular basis'[20].

ABS summarises the need for this proactive work to inform policy thus:

> For government, it is not enough to know and understand the environmental condition. If it wishes to put policies in place to mitigate and to adapt, it needs to be able to forecast the impact on the economy and on society. Similarly, if it is determining economic or societal policy, it needs to take into account the impact on the environment. A system of environmental-economic accounts is important for an understanding of the inter-relationships, and the potential impact of particular policy positions going beyond the physical measures, to provide an insight into impacts on particular industries, communities and businesses, including the impact of regulation, charges and incentives. Linking

[18] The conceptual model adopted by the ABS and the international statistical community for environmental accounts is the United Nations' System of Integrated Environmental and Economic Accounting (SEEA), which is due to become an international statistical standard in 2012. The SEEA is a satellite system of the SNA, meaning that accounts produced under this standard bring environmental and economic information together within a common framework. This allows for consistent analysis of the contribution of the environment to the economy, the impact of the economy on the environment, and the efficiency of the use of environmental resources within the economy'. http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4655.0.55.001Main%20Features32010?opendocument&tabname=Summary&prodno=4655.0.55.001&issue=2010&num=&view=

[19] The dimensions include: water, energy, land, EPE (environment protection expenditure), Waste, Environmental Industry

[20] Australian Bureau of Statistics (ABS)(2010) 4655.0.55.001 - Towards an integrated environmental-economic account for Australia, 2010. Latest Issue Released 25/11/2010 http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4655.0.55.001

environmental data with socio-economic data will assist policy-makers by:

- enabling analysis of the impact of economic policies on the environment and vice versa
- providing a quantitative basis for policy design
- identifying the socio-economic drivers, pressures, impacts and responses that affect the environment
- supporting greater precision in the development of environmental regulations and resource management strategies
- providing indicators that express the relationships between the environment and the economy
- following an international standard (facilitating international comparisons)
- organising information within a conceptual framework that ensures consistency, completeness and accountability over time.

The regular production of environmental-economic accounts will provide analysts with timely data, in turn allowing data deficiencies to be identified and addressed in a more timely and systematic manner. They will also support a regular and informed dialogue between decision-makers and the broader community on important environmental and socioeconomic issues[21].

[21] ABS: http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4655.0.55.001Main%20Features42010?opendocument&tabname=Summary&prodno=4655.0.55.001&issue=2010&num=&view=

The Green Economy

After reviewing a range of literature, the following understandings have been selected to inform this project. According to a recent Canadian report:

> the emergence of the green economy represents the next stage in the evolution of the environmental sector and is growing in step with increasing public awareness of environmental impact. It can be said that the green economy has experienced rapid growth, in part, as the result of changing demand, where greater emphasis is placed on the sustainability of products and services[22].

Large scale investment will be required in new technologies, infrastructure, equipment, buildings and ways of working to name a few aspects, all of which should result in employment stimulus in (some) existing and also in emergent industries and occupations, through adapting existing jobs and the creation of new ones.

While arguing that no area of the 'traditional' economy will remain untouched by this shift, and based on extensive research, Eco Canada views the green economy as a subset of the entire economy rather than existing outside or in parallel with the traditional economy, defining it thus:

> the aggregate of all activity operating with the primary intention of reducing conventional levels of resource consumption, harmful emissions, and minimizing all forms of environmental impact. The green economy includes the inputs, activities, outputs and outcomes as they relate to the production of green products and services[23].

In line with this, it defines 'green jobs' as jobs that 'work directly with information, technologies, or materials that minimize environmental impact, and also requires specialized skills, knowledge, training, or experience related to these areas.[24]' 'Green skills' comprise 'the knowledge, training or experience as they relate to technologies or materials that minimize environmental impact,[25]' and will need augmenting with communication skills, the ability to adapt to technological change, knowledge of sustainable development, and the ability to think along interdisciplinary cross industry/organisational lines. In terms of impact on employment, and while setting a future task of calculating the size and composition of Canada's green economy before updating the occupational classifications system to accommodate change, the report contends that:

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[22] Eco Canada, 2010, *Defining the Green Economy.* Labour Market Research Study. http://www.eco.ca/pdf/Defining-the-Green-Economy-2010.pdf
Executive Summary, p3.
[23] Ibid
[24] Ibid p4
[25] Ibid, p5

> the largest influence of the green economy on employment is in terms of jobs being adapted or reallocated, with existing workers having to learn new skills and/or broaden their pre-existing skill sets. The movement towards greening the economy has resulted in a need for increased economic integration and increased demand for a more holistic economic approach[26].

The scale and imminence of this shift is recognised also in Europe, as evidenced by CEDEFOP's 2009 investigation: *Future skill needs for the green economy.* Significantly, this report claims that:

> the shift towards greening the economy will require the second greatest economic transformation after the industrial revolution. We have not paid enough attention to the social dimension of sustainable development: its implications for employment, training and decent work[27].

While examples of good practice exist[28], Australia has been comparatively slow in engaging in significant proactive planning and implementation of strategies including in skills policies for the VET sector in preparation for this shift. In 2008 Hatfield-Dodds et al advised that:

> …current information on green skills and workforce have occurred with regard to the skills and knowledge base of business leaders and capabilities is very poor. No systematic and comprehensive data gathering appears to workforce to be necessary to make the shift to a low carbon or 'environmentally friendly' economy[29].

While activity has since increased considerably,[30] accompanied by ongoing debate[31], little if any includes gender analyses.

Emergent (Green) Industries[32]

[26] Eco Canada Op cit p6

[27] CEDEFOP, 2009, *Future skill needs for the green economy.* Luxembourg, Publications Office of the European Union. http://www.cedefop.europa.eu/EN/Files/5501_en.pdf

[28] Examples include activities by Dusseldorp Skills Forum (http://www.dsf.org.au/)

[29] Hatfield-Dodds et al, 2008, *Growing the green collar economy: Skills and Labour challenges in reducing our greenhouse emissions and national environmental footprint.* CSIRO Sustainable Ecosystems & The Allen Consulting Group report to Dusseldorp Skills Forum Available at: http://www.dsf.org.au/resources-and-research/208-growing-the-green-collar-economy

[30] See for example: Karmel, T, 2010, *Skilling and reskilling for our (greener) future*. NCVER Adelaide p7 Available at: http://www.ncver.edu.au/publications/2235.html

[31] See for example: Karmel, Tom 2010, 'Have greenskills become browned off?' in *Campus Review* 24th May 2010 Available at: http://www.ncver.edu.au/resources/glossary/glossary_full_record.html?query=BROWSE&entry=Green+skills

[32] Much of the this and the following section were contributed by Fiona Shewring

With the continuing debate that surrounds theories of climate change, carbon emissions and the skills required for a sustainable future, the possible emergent green industries will remain dynamic. In 2008 the *Green Skills Agreement* between National, State and Territorial Governments of Australia defined green skills as "the technical skills, knowledge, values and attitudes needed in the workforce to develop and support sustainable social, economic and environmental outcomes in business, industry and the community"[33]. As green skills are incorporated into the economy concerns arise about coping with loss of existing jobs in areas that may no longer be considered environmentally viable, making such jobs less sustainable while identifying and supporting new 'green' jobs and skills. According to Mike Rafferty and Serena Yu[34] there has been a lack of co-ordination in responses from national, state and private enterprises.[35] They also note that there is a lack of detailed information precisely defining green jobs. This may be exacerbated by the dynamic and highly debated nature of a sustainable environment and climate change.

The definition of green jobs offered by the International Labour Organisation (ILO) and the United Nations Environment Program (UNEP) is:

> …work in agriculture, industry, services and administration that contributes to preserving or restoring the quality of the environment while also meeting requirements of decent work –adequate wages, safe conditions, workers rights, social dialogue and social protection.[36]

Major elements in Australia's future as a sustainable country are energy, construction, resources, water and waste management. Currently energy production is highly resource orientated and major emission intensive industries are manufacturing, agriculture and energy production. To date government objectives have been to develop national standards, review training and develop green strategies, much of which is still under political and public debate[37].

Sustainable skills units have been developed for 21 VET Training Packages with the largest being 47 qualifications in the Construction Training Package being affected.[38] As discussed previously, Construction is also an industry with significant current and predicted skills shortages and is a major part of

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[33] Council of Australian Governments, "Green Skills Agreement", 2009
http://www.deewr.gov.au/Skills/Programs/WorkDevelop/ClimateChangeSustainability/Documents/GSAgreement.pdf
[34] Rafferty, M., & Yu, S., 2010 *Skills for green jobs in Australia: unedited background country study.* International Labour Organisation. Skills and Employability Department (EMP/SKILLS) and University of Sydney. Workplace Research Centre (WRC). 2010. Geneva, Switzerland.
[35] Ibid p4
[36] UNEP et al. 2008 cited in Rafferty & Yu, Ibid p 15
[37] Rafferty, M., & Yu, S., 2010 op cit;
Business Group Australia, "Skilling for a Sustainable future in Western Australia" 2010
http://www.businessgroupaustralia.com.au/wpcontent/uploads/2009/03/Greenskillsweb_final.pdf
[38] BGA Ibid Appendix 4

the estimated millions of possible new 'green collar' jobs that are predicted to materialize by 2025/30[39] under the categories of:

- renewable energy
- energy efficiency
- sustainable water systems
- biomaterials
- green buildings
- waste and recycling.

It is likely that the evolution of green jobs will increase as new industries emerge and changes to accommodate carbon trading and reduction of environmentally damages processes and practices are implemented in existing industries. This will largely benefit male dominated industries such as engineering, plumbing, electrical and other construction trades along with some manufacturing industries. New occupations will also emerge in line with the shift to a green economy. However, to benefit fully from this epochal shift, the Australian workforce must be skilled, up-skilled, and re-skilled, with industry resourced to maintain sustainable employment bases, industries and workplaces.

Given the male dominated profile of the industries and occupations most likely to benefit from emergent and green skills, the need for cultural change and proactive targeted strategies to engage increasing numbers of women and girls into training and employment in these industries is timely.

Identification Of Australian Government Strategies And Funding Initiatives In VET, Including Employment Creation Programs

A plethora of Government strategies relating to skills, training, and workforce participation, along with a major review of the VET sector including Apprenticeships feature prominently in the core activity and work plans of the current Australian Government[40] in its attempts to ensure that all Australian have access to decent work, as well as positioning Australia as a productive nation. This is evidenced by plans under the strategy of *Building Australia's Future Workforce*.

Of interest to this Project, and along with special initiatives centering indigenous peoples and those with disabilities, are recent announcements

[39] Australian Conservation Foundation & Australian Council of Trade Unions, "Green Gold Rush", 2008 http://www.dsf.org.au/resources-and-research/210-green-gold-rush

[40] See for example 2011-2012 Budget Fact Sheets re *Building Australia's Future Workforce* relating to training, education and employment, available at: http://www.deewr.gov.au/Department/Budget/Pages/1112FactSheets.aspx

that include VET and workforce participation in the 2011- 2012 Budget[41]. These include undertakings to:

- Build an educated and skilled workforce- $3 billion investment in skills and training initiatives over six years will deliver the skilled workers the economy needs and ensure more Australians can benefit from our growing prosperity.
- Getting Australians ready to work: create opportunities for more Australians, particularly the disadvantaged, under a major workforce participation package.
- Improving employment services to get more Australian into work: Employment services, that will receive a total of $8.5 billion investment over the next four years, will be improved to give unemployed Australians a better chance of finding a job.
- Higher education, skills and training for regional Australians: Regional Australia will receive a $674 million boost to improve higher education, training and employment outcomes.
- Investing in young people for Australia's future: Young unemployed Australians will be encouraged to access new education and training opportunities under a range of initiatives to build the nation's future workforce
- Long-term unemployed: …provide the very long-term unemployed with new opportunities and incentives to gain the experience and skills needed for work.
- Apprenticeships: … invest more than $200 million over four years to boost apprentice completion rates and provide enhanced mentoring services to support apprentices during their training.
- Industry/Government partnerships: industry at the centre of efforts to address the nation's skills shortages: Government will put industry at the centre of efforts to address the nation's skills shortages.
- Investment in the building blocks' of a skilled workforce: remove skills barriers locking thousands of Australians out of the workforce by investing in training to deliver foundation skills.[42]

An earlier example (May 2010), and as part of a four year plan *Skills for Sustainable Growth* the Australian Government announced it would 'invest around $300 million to boost the skills of our workforce, particularly in the construction, infrastructure, renewable energy and resource sectors.' This included:

- up to 39,000 additional training places in sectors facing high skills demands through a $200 million investment in a new Critical Skills Investment Fund;

[41] Media releases with details for the initiatives selected (and more) are available at: http://www.deewr.gov.au/Department/Budget/Pages/1112MediaReleases.aspx
[42] Ibid

- support for around 22,500 new apprenticeship commencements through a $79.4 million extension of the successful Apprentice KickStart aimed at small to medium businesses[43].

The guidelines for the Critical Skills Investment Fund state that the aim is to up-skill existing workers and train job seekers in critical industry sectors with significant aspects of gaining funding involving partnerships between different bodies and Projected Workforce Plans that entail detailed plans all but guaranteeing job outcomes[44]. It is imperative that this initiative builds in strategies to engage women, given that Resources and Construction Industries are traditionally male dominated.

Pre-apprenticeships are a tried and accepted entry and training pathway into trades. Pre-apprenticeships are becoming an increasingly important component of the Australian vocational education and training (VET) system. In 2009 the Australian Government provided additional funding to the State and Territory Governments to expand the number of pre-apprenticeship training opportunities available to young people in the traditional trades in their jurisdictions[45]. Current review of Australian Apprenticeships is underway[46].

However as can be seen by the table below without active intervention this funding and training pathway may not benefit women equitably. The two fields of education that represent almost 84% of all pre-apprenticeships course enrolments are Engineering & Related Technologies and Architecture & Building with males representing 94.69% of these students. Overall women only represent 18.1% of this student base with the majority of them in Food, Hospitality & Personal Service and Health – traditional female employment areas. While women are well represented in five other areas these fields only make up a very small proportion of the pre-apprenticeships- for example Agriculture, Environmental & Related Studies representing only 0.57% of the overall participation.

Given enrolment patterns in pre-apprenticeships and associated funding, we suggest that without strategies in place to improve enrolment of girls and women, funding of emergent areas such as those identified in *Skills for Sustainable Growth*, could well act to reinforce women's under-representation in emergent areas and over-representation in feminised areas of work and study.

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[43] Department of Education, Employment and Workplace Relations, Media release "Investing in Skills for Sustainable Growth" www.deewr.gov.au 11/05/2010 http://www.deewr.gov.au/Ministers/Gillard/Media/Releases/Pages/Article_100511_171800.aspx accessed 03/01/2011

[44] Critical Skills Investment Fund, program Guidelines, February 2011 http://www.deewr.gov.au/Skills/Programs/SkillTraining/CSIFund/Pages/Home.aspx

[45] Foley P & Blomberg D, 2011, *Pre-apprenticeship training activity*. NCVER Adelaide http://www.ncver.edu.au/publications/2352.html P10

[46] See: http://www.deewr.gov.au/Department/Budget/Documents/20112012/Apprenticeship_Reform.pdf

Course enrolments in eligible pre-apprenticeship courses by field of education and sex[47]

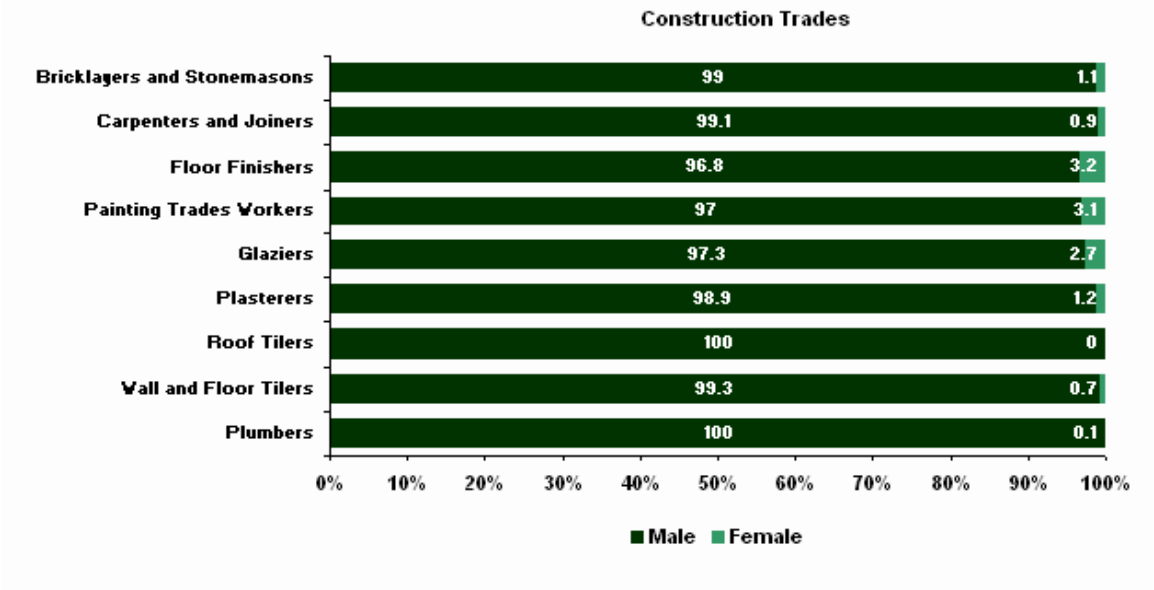
Source: National VET Provider Collection, 2009.

Field of education	Males	Females		Not known	Total	
		Numbers	%		Numbers	%
Natural & Physical sciences	0	0	0	0	0	0
Information technology	17	0	0	0	17	0.02
Engineering & related technologies	32,323	1,866	5.45	24	34,213	52.77
Architecture & Building	19,197	970	4.8	27	20,194	31.14
Agriculture, environmental & related studies	129	247	65.69	0	376	0.57
Health	474	3115	86.79	0	3589	5.53
Education	380	334	46.77	0	714	1.1
Management & commerce	0	0	0	0	0	0
Society & culture	9	80	87.91	2	91	0.14
Creative arts	0	0	0	0	0	0
Food, hospitality & personal service	490	5047	91.01	8	5545	8.5
Mixed field programs	48	45	48.38	0	93	0.14
Total	53,067	11,704		61	64,832	
Total percentage	81.9%	18.1%		0.1%		100

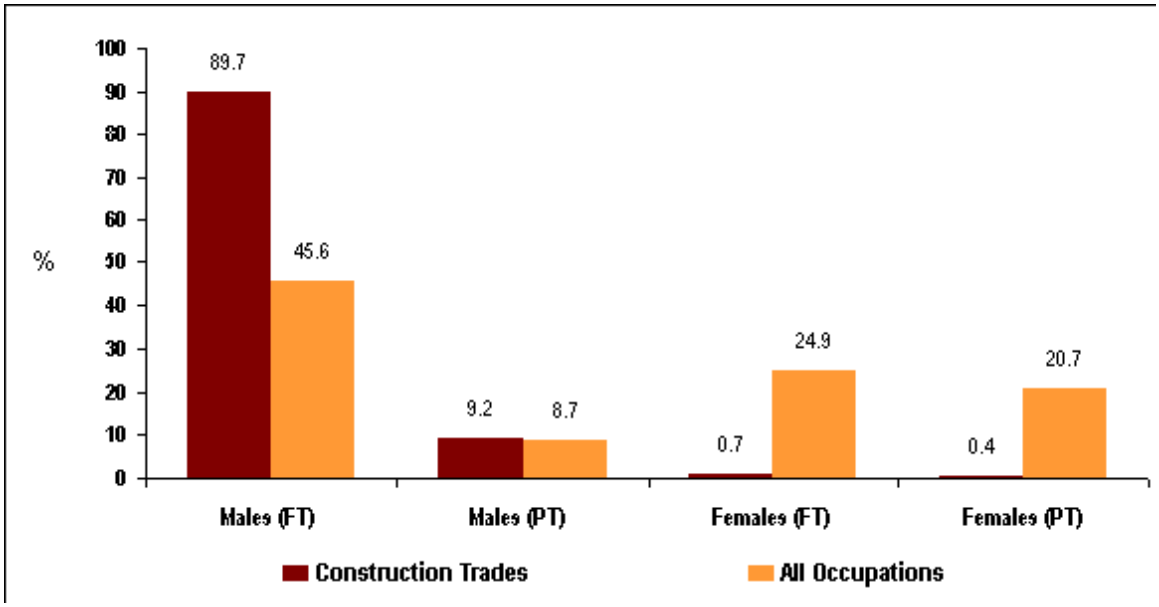
[47] Ibid p 23

This concern is reinforced by evidence of the current lack of women in non – traditional areas such as the Construction trades:[48]

Employment by Gender (% share of employment) - 2009



Employment by Gender and Full Time/Part Time (% share of employment) - 2009



Source: ABS Labour Force Survey cat. no. 6291.0.55.003 (four quarter average)

[48] Department of Education, Employment and Workplace Relations (DEEWR) 2010, Employment Outlook for Construction Trades, pg 12

The $79.6 millions National Green Jobs Corps that commenced on 1st January 2010 for two-year period is another Government 'greenskills' initiative. It targets under or unemployed 17 to 24year olds, providing a 26 week environmental training program and work experience. According to the website[49] there are "over 120 projects available across Australia, including water testing, bush regeneration, planting, surveying, track repairs and construction."

The Australian Apprenticeships Access Program[50] that 'provides vulnerable job seekers with pre-vocational training, individualized intensive job search assistance and post-placement support to help them find and keep an Australian Apprenticeship' has been supported by increased funding ($19.7 Million from July 2012) as a 2011-12 Budget Initiative. Again, while commending this initiative, it also provides opportunity to encourage young women and those seeking to retrain or access the workforce from welfare to enter trades areas that offer viable career paths.

Most (if not all) the above initiatives have the potential to impact positively on increasing the uptake of training and employment in industries and occupations identified as viable (that is mostly in trades and emergent skills areas) by women and girls, both to enhance the economic and social well being of women, and to shift the enduring gendered imbalance that segregates Australia's labour force. Proactive and gender sensitive strategies by Government through policy requirements and Industry collaboration and cooperation in this endeavour would go quite some way to support the necessary cultural change discussed earlier.

Findings: Surveys of Tradeswomen Project Participants

Given the small sample size of tradeswomen who contributed to this Project through a focus group and small survey, we recognise that findings cannot be generalised. However, their stories (see Project Product **Working Forward: Women with Careers in Trades* - 8 SALT individual stories[51]) do give a snapshot into key factors of their careers that reinforce issues raised in and claims made by this Project.

About The Trades Women

- The majority of the women came into their trade having undertaken an entry level women's program [6 out of 8] – 4 from an local on-going entry level course offered through TAFE in painting and decorating for

[49] National Green Jobs Corps. Keep Australia Working. http://www.deewr.gov.au/Employment/JobsandTraining/Pages/newgreenjobs.aspx
[50] http://www.deewr.gov.au/Skills/Programs/PreVoc/AAAP/Pages/AAAccessProgram.aspx
[51] Available from www.s4w.com.au and www.wave.org.au

women, and one through an on-going industry-led women's program – NRMA Jumpstart
- Only half undertook an apprenticeship
- Five (5) of the eight (8) women came into their trade as mature aged learners
- Most are self-employed

Project Participant Overview

	Maree	**Lorraine**	**Fiona**	**Fred**	**Brooke**	**Di**	**Jacqui**	**Cyndi**
Occupation	Painter & Decor-ator	Painter & decorator	Painter & decor-ator	Fitter & Machinist (auto)	Spray Painter (Auto)	Painter & decor-ator	Painter & decor-ator	Sign Writer
Age on Entry	42	42	35	22	19	42	38	22
No. of years in Trade	11	14	17	12	4	8	10	7
Employed or Self employed	Yes incl. Contract work	Self Employed	Employed	Employed	Employed	Yes incl. Contra ct work	Yes	Self Employed
Apprentice-ship participation	Yes	No	No	Yes	Yes	No	No	Yes
Participation in Entry Women's Program	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Five critical factors emerge as key findings:

- Women's entry-level courses are critical to build the numbers of women in trade areas.
- The tradeswomen reported high job satisfaction and are keen to recommend their jobs to other women.
- All stressed the importance of career information as a means to engage more women in trades work and study.
    - The majority of the women considered the school education system has a responsibility to provide improved, holistic career information to girls, including a more diverse range and description of occupations.
    - Careers Advisers were specifically mentioned as having a responsibility to know more about how to promote male dominated fields to girls.
    - School careers days that include input from tradeswomen and hands-on opportunities, thus helping school students examine a broader range of subject electives and pathways were also

identified.
    - Emphasis the practical aspects of the work give girls exposure and opportunities to build skills and confidence.
    - Equal opportunities at work offer a critical career promotional role that would provide confidence for women to enter male dominated trades.
    - Matured aged women returning to work or seeking retraining need tailored career information about the availability of trades work suitable for older women, the small business aspects of trades work and contract and part time work.
- Education about career possibilities, advertising trades to women, being exposed to women who are in trades jobs and mentors supporting women in trade areas including exposure to women trade teachers were all considered essential by the women.
- The workplace culture and lack of critical mass of women continues to be problematic for tradeswomen, who feel too often their skills go under-recognised resulting in additional effort, or continuous effort, to prove their ability.

Participants' Comments[52]

- *WOW[53] course Painting and Decorating, Outreach Courses, murals, decorative effects, interior design and colour consultancy. Gained confidence and experience to enter and complete the trade course. Obtained my license and I am self- employed.*
- *This allowed me to reinvent my work skills from hospitality to painting and decorating and the opportunity to meet women that I later worked with in the industry.*
- *It was great to have the support of the group and be able to talk to people who have similar interests and experiences.*
- *This is a most self-satisfying trade. I enjoy this line of work and would encourage more females to pursue this career.*

About the Tradeswomen's Careers

The major influences in choosing a trade

Of critical importance are the factors of influence that enabled some women to select a trade career pathway. People of influence e.g. family members [2], teacher [1] and women's training programs were identified. Several

[52] All participants' comments are italicised as recognition of their individual voices.
[53] WOW: Work Opportunities for Women (TAFE Course)

women identified a change in life circumstances that led them to a trade pathway. As illustrated in the comments below, it was often a combination of factors that had an influence:

- *I became a painter because I met my second husband who was a painter. I had 5 very small children and we had no money so I started helping him. My teachers at TAFE were also great.*
- *Divorced at 42 - had experience in painting. Did a WOW course in Painting and Decorating.*
- *My teacher. Encouraged me to continue onto the trade and completing it, offering apprenticeship and support.*
- *Always had an interest in painting and the WOW course in Painting and Decorating came up at TAFE. By the end of the 6 months I had decided I wanted to do the trade course.*
- *Work experience with a tradeswoman. Using my hands, being creative, learning on the job i.e. practical learning as opposed to learning in a classroom.*
- *Family, NRMA Jumpstart.*
- *Fought to do metalwork from age 12 as I went to a catholic school and 'women' don't do that trade. I have 3 sisters so I was the son and that was what I was interested in - making things that move etc was better than cooking!*
- *I was always interested in this field as my mother was a fantastic painter and decorator – I was always encouraged to lend a hand – I enjoyed being creative and being able to change certain projects.*

The positive and negative features of trade occupation

Several of the women identified loving the work they do as a highly positive factor in their trade occupation.

Positives

- *more ladies feel comfortable having another woman in their homes, encouraging their friends to hire a woman to work in homes for safety.*
- *I enjoy and have a passion for what I do. Have met any people. Getting paid to do something I enjoy.*
- *Being self-employed sometimes I get jobs because I am a female and can deal with other women better.*
- *Personally I have had great feedback that being a woman and pursuing this career, encouraged, but once I prove I am capable!!*
- *Take more interest in my work - caring, helpful considerate.*

While one participant referred to the 'laid back environment' of her work setting, it is unclear whether she was attributing this attribute of her work

climate with it being a male dominated occupation or not.

Negative aspects of the trade occupation centred on being a woman in a male dominated field:

- *Negative people particularly because I am female.*
- *Being a woman is a positive and negative: negative – I have been overlooked for employment and winning contracts, and having to prove myself.*
- *Love the work; hate the attitude. We shouldn't need to prove ourselves each day when fully qualified. Lack of respect of fellow employees.*
- *Negatives are I have to prove myself all the time – I have to be better than anyone else not just once but constantly – lack of respect.*
- *Negative: question whether I am capable to do work alone.*

Additionally factors such as age and strength were identified as negative factors, as were occupational hazards and risks in the workplace:

- *My age [it's a really physical job].*
- *Don't have the strength of a man when sometimes it's needed, [so I hired 2 males].*
- *Hard to start a family- lots of toxic chemicals.*

The trade as meeting career expectations

Not all of the women had initially sought a 'career' from their trade work but the career satisfaction level reported amongst these women is high.

- *I didn't really have expectations but it has provided me with an amazingly fulfilling career.*

Several of the women reported ambition to see career growth in their futures and had identified goals:

- *I want to go further and run a workshop but want to feel as though my input is important and not just another voice in their ears!*
- *Yes but would like to go further with it.*

One spoke about her late identification of her work as a career:

- *Would have loved getting into it at an earlier age. But didn't realize I could.*

The working climate was identified as having some career setbacks for 2 women:

- *Through my apprenticeship working as the only female in the workshop with 5-8 other males, I was not taught the same things as the men.*
- *Not being recognized as capable.*

Other comments included:

- *My trade expectations are every job is individual and the variety makes it interesting – from my personal point as a sole parent of a disabled child I have been allowed to work to my needs and schedule although offers are probably there to work more I don't take on anything I feel will overload me, physically and mentally.*
- *As long as I keep up to date with qualifications and have the same drive to do well, I will continue to do this line of work.*

About Promoting Careers in Trades to Girls and Women

Recommending trade training and work to girls and women

Seven (7) of the eight (8) women would enthusiastically recommend their trade to girls and women, and 1 felt a woman should make her own decision. However, they also contributed qualifying comments:

- *They deserve to work any trade that they feel will improve the mentality of men thinking they are better. I believe a woman can raise the expectations of a job well done and done well.*
- *.. if it's something they have a desire to do, and understand what's involved in the chosen trade.*
- *But you need to be able to stand your ground. The more diversity we have in the trades the better!*
- *All depends on them. Need to research it properly.*
- *Always recommend it but always let them know that it will be a challenge. The job isn't the challenge but the fellow employees! i.e. men.*
- *They do need to be supported until we have an equal work environment.*
- *The military forces have always had the drive to encourage females – it's all about equal!!! It's a challenge!!! This is the most self-satisfying trade. I enjoy this line of work and would encourage more females to pursue this career.*
- *If that's what they want to do they should go for it.*

Critical factors identified to encourage more women into careers in trade areas

The majority of the women [6] considered the school education system has a

responsibility to provide improved holistic career information to girls, including a more diverse range and description of occupations. Careers Advisers were specifically mentioned as having a responsibility to know more about how to promote male dominated fields to girls.

School careers days that include tradeswomen and hands on opportunities, along with helping school students examine subject electives and pathways were also identified as important factors.

The other most identified critical factor was broader career promotion and advertising independent of schools:

- *More information is needed in advertisements to let girls and women know there are possibilities out there.*

Equal opportunities at work were also seen as having a critical career promotional role that would provide confidence for women to enter male dominated trades.
One participant noted the short term measures directed at women as being insufficient:

- *Every initiative has been short term it needs to be long term – apprentice initiatives have been going for years – 'women's' initiatives are often very short term.*

Comments on experiences of being a woman in a male dominated trade and to how this can help other women in other industries

- *Don't be intimidated by the unknown. Everyone once educated in any field can become skilled and can offer new ideas working in their industry.*
- *I hope so!*
- *I have done school talks and discussed pros and cons. The main con is your name; if a female name is noticed, unless you stand out, you are put aside. You cut a pattern you put it together, then you fit it – describes sewing and metalwork.*
- *As I have personally done well, I would discuss my journey and prove my path that I have taken.*
- *Yes by believing it is possible – by supporting women to know and understand what the jobs are and that they can do this.*
- *I will tell my story how I became a painter and if I can do it, anyone can.*

Other trades occupations and industries identified as offering viable employment and careers for women

The following specific occupations were identified: teaching in their trades, carpentry, cabinetmaker, French polisher, signwriter, engineer, and aircraft mechanic.

Other comments included:

- *I can't think of any occupation that women can't do!*
- *All industries would benefit. Everyone notices different things in employment, male and female.*
- *I can't think of what women can't do! Why can't men and women be involved in all areas if they wish – why does someone else decide what women should do.*
- *Anything, all occupations and industries can offer employment, the woman need to be educated, young, or old, to get out there and go for it.*

Action to encourage and support women to enter and forge careers in trades

Education about career possibilities, advertising trades to women, being exposed to women who are in trades jobs and mentors supporting women in trade areas, including exposure to women trade teachers were all considered essential by the women.

- *Information, Information, Information!! Women and girls need to have this available to make a career choice.*
- *Organise free seminars and bring woman who have succeeded to talk about it. Print fliers and distribute them to mission employment offices.*

Some women also suggested having a Women's Group Training Company or female apprenticeship centre, which would provide specific and tailored support, and courses specially targeting women only, or targeting women learning alongside men were recommended.

One tradeswoman additionally spoke about part time work in trades industries. The availability of part time or flexible employment in trades areas is poorly recognised and could well be a promotional factor to share more widely with other women.

EXAMPLES OF BEST PRACTICE: GENDER SENSITIVE PROGRAMS AND SUCCESSFUL STRATEGIES FOR WOMEN IN EMERGENT AND NON-TRADITIONAL AREAS OF WORK.

Large companies and government agencies are more likely to employ women in non-traditional roles as their equal employment policies tend to be more actively maintained and enforced. Mining, whilst employing a much smaller proportion of the workforce has shown substantial growth of 64% in the five years to 2010[54] and is projected to increase by at least another 17.5% over the next few years. The resources sector is a vital aspect of Australia's national prosperity, contributing 39% of exports and 8% of the gross domestic product. It has a key impact on support industries such as engineering, construction and service sectors. It is also actively seeking to increase the participation of women in its employment base.

The *Resources Sector Employment Taskforce Strategy*[55] recommends that the DEEWR or Equal Opportunity for Women in the Workplace Agency (EOWA) work with Industry Councils and training providers and companies to attract and retain women into the Resources and Construction sectors in both trade and professional occupations as an investment in the future. The benefits listed in the report of employing women in these areas include:

- addressing skills shortages;
- creating more balanced work places cultures which promote job satisfaction, productivity and employee retention;
- Major financial benefits of having more women in senior roles.

Recommendations made in the Report have been accepted by Government, and are accompanied by an initiative to increase women working in resources and construction[56].

A number of companies in the Resources Sector are making efforts to employ more women and have implemented policies to support their efforts[57]:

- Chevron, Rio Tinto, ConocoPhillips, Woodside and other companies have already implemented programs to improve workplace flexibility with paid parental leave, part-time employment, job-sharing, working from home, compressed work hours and purchased leave.
- Some companies now provide access to childcare.

[54] Department of Education, Employment and Workplace Relations, "Australian Jobs", 2010 p17 http://www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf

[55] http://www.deewr.gov.au/Skills/Programs/National/ResourcesWorkforce/Documents/AGWorkforceStrategy.pdf

[56] See: http://www.deewr.gov.au/Skills/Programs/National/ResourcesWorkforce/Documents/MoreWomenWorkingResourcesConstruction.pdf

[57] *Resources Sector Employment Taskforce Report* Op cit

- Many companies also set targets for women's participation. For example, Rio Tinto sets a target for its annual graduate intake of 30% women, which has been met or exceeded for the past five years.

These policies are credited with increased numbers of women returning to work after parental leave, and more women in senior positions. More women are considering engineering, geosciences and geo-data roles.

- BP Australia credits its policies and recruitment practices to 46% of their work force being female with examples such as 20% of the Bulwer Island refinery staff being female.
- CITIC Pacific Mining now employs 180 women out of a workforce of 580, including 15 female haul truck drivers.
- ExxonMobil is partnered with the University of Melbourne promoting engineering careers to women[58].

Other male dominated industries and companies are also driving change:

- RailCorp (NSW) actively recruit women in occupations, including women executive staff, 23 female trade apprentices and 90 female train drivers.[59] They are also offering Internships[60] and Women in Engineering Scholarships.[61]
- Manufacturing Skills Australia (MSA) advises 'the manufacturing and automotive industries are male-dominated industries. In manufacturing: 72% of employees are male[62], defining 'non-traditional trades as 'a trade where representation of women is less than 10% of workers'. The MSA trades in this category include:
    - Fitting and machining
    - Boiler making
    - Blacksmithing
    - Engineering
    - Mechanical trades
    - Electrical/electronic trades
    - Fabrication trades
    - Aeroskills trades (including avionics and mechanical trade)
    - Wood turning
    - Cabinet Making
    - Automotive technology
    - Automotive electrical technology.

  While also acknowledging the influence women have on workplaces

[58] Ibid 2010 pp 75-77
[59] *Women in Rail http://www.railcorp.info/__data/assets/pdf_file/0017/6470/Women_In_Rail.pdf*
[60] See: http://www.railcorp.info/careers/undergraduates
[61] RailCorp NSW http://www.railcorp.info/careers/undergraduates/scholarships_women
[62] Manufacturing Skills Australia http://www.mskills.com.au/Info.aspx?TAG=MSA.Info.Women

across Australia, and in an effort to attract more women to address acknowledged skills shortages, MSA offers a $5000 study award annually[63], along with other in-house opportunities to support, recognise and promote success, such as that showcasing twenty female apprentices at Qantas.

- University of South Australia with Australian Learning and Teaching Council (ALTC) has produced *Guidelines for the design of inclusive engineering programs*[64].

While these initiatives are to be commended (and hopefully replicated) and will contribute to attracting more women and girls to train and work in non-traditional industries and occupations, progress at a national and generalised level can best be described as glacial. Agreeing with Samuels[65], coordinated and wide spread multi-level and multi-locational change strategies supported by national policies and appropriate resourcing to enhance gender inclusiveness are required. To this end, we charge Government together with Industry with the prime responsibility. This will mean inserting gender analyses as an integral component of all national equity policies, including those that operate in the name of 'social inclusion'. Similarly, this also necessitates National Vocational Equity Advisory Council (NVEAC) to ensure they have membership at Board level with expertise in gender, and to incorporate gender analyses into all their work.

STRATEGIES TO ATTRACT WOMEN AND GIRLS TO EMERGENT & NON-TRADITIONAL OCCUPATIONS AND INDUSTRIES

Rationale

The aim of this section is to consider strategies that encourage girls and women to study and work in emergent and so called 'non-traditional' industries and occupations, most of which are heavily masculinised despite the availability of accredited training through apprenticeships and traineeships and study pathways in higher education that lead to well paid and potentially rewarding careers.

That Australia has one of the most gender-segregated workforces in OECD countries, with segregation being both horizontal (across industries) and vertical (level of appointments) is a well-rehearsed fact. However, that these biases are still perpetuated in an era when women's participation in the labour force is at record numbers and continuing to grow is an indication of just how intractable this issue is. Literature searches reveal a plethora of

[63] See: http://www.mskills.com.au/News.aspx?NewsId=10461&SectorID=0#waw
[64] Mills, J; Ayre M & Gill J, 2010, *Guidelines for the design of inclusive engineering programs* Available at: http://www.altc.edu.au/project-gender-inclusive-curriculum-unisa-2008
[65] Samuels G, 2011, Op cit

research, projects, publications, best practice case studies, strategies and recommendations with a focus on attracting and retaining girls and women into non traditional areas, some of it dated 2, 3 decades or more ago. Indeed, much of the contemporary work in this area offers suggestions that, while being practical, sound and imminently do-able, are 'back to the future' in their similarity to earlier work. Given this, many the ideas listed here may well appear familiar. We make no apology for this - instead, we affirm the worth of these strategies and encourage sustained action rather than 'one off' 'trials and/or short term funded projects, where good work is implemented most often with promising results, then defunded, disbanded and so forgotten, with no long term results.

Online survey research undertaken in late 2009 by APESMA[66] National Women's Reference Group of technical professionals across a range of Australian professions collated the experiences and views of approximately 1100 women respondents (average age 38.3 years), 78% of whom worked in a male dominated industry.[67] This research highlights the critical importance of gender inclusive and sensitive *workplace cultures* built on EEO principles in retaining women in male dominated industries and occupations. Given the urgent ongoing need to implement strategies to both attract then (importantly) retain women workers and professionals, these significant results can be read as signposting strategies required for implementation. Results include:

- 47.4% of respondents stated that their career progression had been affected by workplace culture.
- 67.3% of respondents to the survey (and 71.6% of engineers) said that taking maternity/parental leave (including unpaid leave) was likely to be detrimental to their career.
- Nearly 40% of respondents had been bullied and 38% discriminated against in the course of their professional employment.
- Nearly 20% reported that they had been sexually harassed. Figures for sexual harassment and discrimination were higher in male-dominated industries.
- 50% of respondents said that their career had affected their planning for parenthood. Of those that answered it had, 37.4% responded it affected whether to have any children, 73.7% the timing of children, 43.8% the number of children.
- 55.5% of respondents said that balancing work/life had impeded their career development.
- 43.5% of respondents had children. 71% of those with carer responsibilities said that this had affected their career progression.
- 74.8% of all respondents believed that working part-time has or would

[66] APESMA: **The Association of Professional Engineers, Scientists and Managers, Australia** (APESMA) is a union representing over 25,000 professionals including engineers, scientists, veterinarians, surveyors, collieries staff, architects, pharmacists, information technology professionals, managers and transport professionals.

[67] APESMA, 2010, *Women in the professions: The state of play 2009- 2010. Executive Summary of the APESMA Women in the Professions Survey* Report http://www.apesma.asn.au/

have an impact on their career.
- Nearly one quarter of respondents (23.9%) expected to have left their profession in five years' time. This figure was higher for private sector respondents (29%).
- 48.3% of all respondents, and nearly 60% of engineers, agreed that in their occupation, women have to prove themselves where men are assumed capable. [68]

While the majority of respondents (64.7%) were satisfied (or very satisfied) with their current job, respondents also indicated that their career advancement had been affected by:

- workplace culture (47.4%);
- lack of women in senior roles (47.4%);
- lack of job opportunities (46.8%);
- lack of access to senior roles for women (46.5%); and
- lack of role models (46.4%). [69]

Workplace cultures must be equitable, family-friendly and safe, promoting a climate that enables women to access 'core conditions that are instrumental in promoting female retention and advancement'[70]. In C21st Australia, these features should be a given.

Graeme Samuel, Chair of ACCC[71], provides an example of proactive leadership required to shift the inherent gender bias in Australia's workforces, through the example of inclusive practices in ACCC. As commented earlier, he notes that Australia needs 'broad changes in cultural attitudes'; that such a change would be more effective than 'narrow process changes or similar isolated initiatives. We need to break out of the male club mentality.'[72] He goes on to state that:

> organisations needed to emphasise female role models, while male 'champions' at board level in particular could dislodge 'male-club' thinking, breaking patterns that disadvantaged women from the inside of institutions.[73]

Such widespread cultural change is well overdue. While it can be argued this is the missing link in advancing equality in Australia, sustained vigilance and

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[68] Ibid p3
[69] ibid p6
[70] Ibid p9
[71] ACCC: Australian Competition & Consumer Commission
[72] Samuel G, 2011, Women and Leadership Australia. '*Right women right place, right time'*. Address by G Samuel, chairperson ACCC at Australian Women's Leadership Symposium Melbourne 26/6/11 http://www.accc.gov.au/content/item.phtml?itemId=994084&nodeId=fb8cc23b6ffc2b7923b856cfbef5158c&fn=SPEECH%20-%20G%20Samuel%20-%20Women's%20leadership%20-%2024%20June%202011.pdf accessed 27/6/11
[73] Ibid p 10

insistence on EEO action to ensure women friendly workplaces (good for all employees) from top level employers and managers needs to be supplemented and supported by gender sensitive policies at national level across inter-related portfolios (e.g. Education and Training/VET; Employment; Workforce Participation & IR) and wide spread local action by States/Territories, Industries, Industry Skills Bodies, workplaces, unions and professional bodies. Coordinated gender sensitive action is needed at a number of levels to enhance informed decision making with the potential to widen career options and advancement for women and girls, as well as ensure viable skilled workforces for Australia's future.

This includes, for example: -

- Inclusive curriculum and resource materials from primary school levels on, that portray and so normalise girls and boys, women and men undertaking a wide range of paid and unpaid work, including parenting, caring work and sharing work in the home.
- Career advice for girls (and boys) at school in relation to work experience, and study pathways, including confidence in their ability to learn 'non traditional' skills and have careers in related industries.
- Advice to girls (and boys) undertaking VET in Schools programs – as above.
- Online information relating to career choices, including career paths and future prospects that is gender inclusive and encourages girls and women to 'think outside the square'.
- Advice given to girls and women by Training Organisations and Welfare Agencies and Organisations engaged in enhancing employment participation, whether beginning work, re-entering the labour market &/or retraining.
- Advice available to parents through schools and TAFE/training organisations, including that relating to emergent industries and occupations and future career paths that breaks down gender stereotypes through positive examples.
- Work shadowing for women and girls in male dominated industries and occupations.
- Gender inclusive practices for VET traineeships, apprenticeships and on and off the job training – in both work experience and off the job learning contexts.
- Attention to women friendly inclusive workplace cultures and practices, with active support and involvement from the highest levels (CEOs, Managing Directors, Board members, Departmental and line managers et al).
- Industry specific (including Industry Training Councils) promotions in areas of skills shortages that target women specifically, as well as men.
- Government (Federal, State/ & Territory) training policies and initiatives, including apprenticeships, in areas of skills shortages and emergent employment areas with gender sensitive &/or affirmative initiatives built in.

- Gender sensitive and (where needed) affirmative action policies and action plans for recruitment and retention of women, from apprenticeships, graduate employment programs and on, at all levels.
- Mentoring for women and girls, especially in industries and workplaces that are male dominated.
- Sharing and promotion of EEO Women focussed best practice case studies and success stories.

Given the scope of this Project, focus for strategies is limited to the following areas:

- The inter-relationship of VET and Employment
- Workplace culture
- Attracting and retaining women and girls to non-traditional and emergent occupations and industries.

In particular, strategies are provided as website products[74] for: -

- Career Advisors
- Employers - Workplace Recruitment

POLICY ACTION FOR IMPROVED VIABLE EMPLOYMENT FOR WOMEN

Rationale

That, in C21st Australia, there is still the need for concern about the status of women and so the need to advocate for access to training for and employment in emergent and non-traditional occupations and industries for women highlights both deeply ingrained cultural attitudes about what is appropriate work for women and for men, and by default their place in society; along with enduring outmoded work practices and workplace cultures and gendered pay inequities. However, it also points to policy failures that must be addressed, not only to benefit the economic and social well being of women and their families and communities, but also Australia's national economic well being. This is especially significant, given recognised contemporary and future skills shortages in male dominated industries and occupations, as it is to ensure that emergent industries do not perpetuate the gender bias that exists in Australia's labour force.

[74] Available at: http://www.security4women.org.au/ and http://www.wave.org.au/

The following provide evidence of the needs in the area of investigation for this project:

> The Australian Government recognises that skills shortages in the engineering profession are of serious concern, holding back investment and productivity growth. While these issues are most apparent in the resources sector, they also impact upon the effectiveness of other sectors such as manufacturing, construction and civil engineering as well. PM Julia Gillard (Foreword)[75]
>
> There is widespread understanding that Australian industry faces an engineering skills shortage.
> Professional engineers, engineering technologists and technicians have been in short supply in construction, road, rail, power generation, local Government and other industries over a period of several decades. This is a fact recognised by Government reviews, industry surveys and engineers themselves.
>
> This skills shortage is a significant problem for business, the economy and the community, with millions of dollars of cost overruns and opportunity loss as a result. …
>
> **This is an issue of supply.** There is an identified supply mismatch between the number and specialisations of engineering graduates produced by Australian universities and the VET sector, and the identified needs of industry and the community. … Universities and the VET sector are simply not producing enough graduates, leading to increasing reliance on internationally sourced skilled labour in a competitive global labour market. [76]

Although higher education enrolments in other male dominated professions such as law and medicine have improved significantly over the last three decades from very low bases to 50 – 60%, engineering enrolments over the same period have only increased to approximately 15%, with even lower participation rates for construction management.[77] Similar gendered enrolment trends are replicated in 'blue collar' trades areas and apprenticeship enrolment in VET. In these areas in both institutions, 'gender … remains the "elephant in the …classroom"'[78], the associated industries and their workplaces.

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[75] Gillard, Julia, 2010, Foreword by Prime Minister Julia Gillard' in Pearce A; Flavell K; Dao-Cheng, N. 2010. *Scoping Our Future Addressing Australia's Engineering Skills Shortage* Australian National Engineering Taskforce (ATEN) October 2010 http://www.anet.org.au/wp-content/uploads/2010/12/Scoping-our-futureWEB.pdf Accessed 28th June 2011

[76] Ibid p 5

[77] 'Tackling gender issues will increase the talent pool'. In Focus. *Professional Educator.* Vol. 10, Issue 4, June 2011 pp 4-5

[78] Ibid p5; Mills, J. June 2011 *Addressing gender equity issues in engineering.* http://www.altc.edu.au/June2011-addressing-gender-equity-engineering. Accessed 26th June 2011

In previous research undertaken by WAVE in Transport and Construction Industries, women participants asserted that they 'must be recognised as economy builders'[79]. The research also confirmed that:

> Transport & Logistics and Construction industries are … experiencing long term skills shortages. In particular, the growth areas of road transport and trade based construction, are experiencing nationwide shortages. Promotion of these ever changing industries to women and young people is highly recommended. Working conditions including pay, hours, safety, training, career opportunities and work/life balance, must continue to improve and be promoted if women are to enter these industries with confidence. The specific requirements of women who may be interested in entering these industries should be sought so that employers, industry bodies, and Government can begin to tailor and encourage recruitment and promotion packages for women in a more efficient and effective manner. VET must also be tailored to meet industry requirements so that employee eagerness for training is supported by employers, and must promote the involvement, retention and employment success of women students[80].

We acknowledge again that enhancing the participation of women in heavily masculinised industries and occupations has been an entrenched problem for many decades, despite numerous attempts to redress such gender bias, and that this is a complex issue. Acknowledging the dearth of women in science and engineering, and that occupational sex segregation is a core issue in gender inequality and contributes to wage inequality, Lincoln undertook research over a 25 year period (1976- 1995) into the feminisation of Veterinary Medicine in US. She argues that:

> (a) confining limitation for the occupational sex segregation literature has been the inability to determine how many persons of one sex *would* have entered an occupation had the other sex not successfully entered instead.[81]'

The findings of her valuable paper are bound to raise debate – they are provocative and will no doubt be controversial. That said, they are worthy of serious consideration. Wage stagnation over the last two decades in US was been linked as a factor, with men more often choosing the more lucrative fields of business or law over medicine and tending to revise their career plans based on decline in occupational prestige, employment security and promotional prospects. However her research also shines light on the low

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[79] Turner Zeller K, October 2009, *Women on track: Addressing Skills Shortages in Transport and Construction Industries*. OfW/WLDP Project WAVE http://www.wave.org.au/index.php?option=com_content&view=article&id=87:women-on-track-addressing-skills-shortages-in-transport-and-construction-industries&catid=46:projects&Itemid=59

[80] Turner Zeller K, 2009, *Women on track: Addressing Skills Shortages in Transport and Construction Industries*. Paper delivered at AVETRA 2009 National Conference. http://www.avetra.org.au/papers-2009/papers/62.00.pdf

[81] Lincoln, A.E., 'The shifting supply of men and women to occupations: feminization of veterinary education' in *Social Forces* Vol. 88 No. 5, July 2010 pp 1969-1998

take up are of males in feminised industries, in its claim that:

> the devaluation of women's labor may stigmatize occupations with higher proportions of women in them such that jobs performed largely by women pay less than comparable jobs done by men, and men's wages within an occupation are lower the more heavily female-dominated it is[82].

Lincoln contends that:

> declining relative earnings and policies aimed at increasing production of graduates affect applications from men and women similarly, but feminization is driven by the decline in men's rates of college graduation and their avoidance of fields dominated by women.[83]'

These then are among the challenges that require cultural change and gender sensitive cross portfolio policy initiatives to address gender bias, and enhance the uptake of viable careers in non traditional and emergent industries and occupations.

National policies that focus on equity, and specifically acknowledge the complexity and challenges associated with gender and intersectionality have been neglected (and in many cases disbanded) over the last decade and a half, with much gender equity expertise and practices being lost. There has been no national policy framework for women and girls in education since 1996, and the recently expired national policy in VET[84] was never implemented. As well as advocating for the establishment of policy frameworks and national strategic plans for women and girls (acknowledging the diversity than is encapsulated in the word 'women') that in turn inform state/territory policies and resourcing decisions in VET[85], WAVE continues to raise questions about equity and equity policy practices. The current approach in Australia is located under the 'social inclusion' umbrella[86], which does not implement gender analyses, nor include gender as a factor of multiple disadvantage[87]. Rather, the framework takes a gender-neutral stance.

According to Reid, currently there is no 'articulated government view about the meaning of equity', and this is compounded by the manner in which 'the dominant discourse about education is based on a simplification of complex issues, that public policy debate in Australia is 'generally being dumbed down.

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[82] Ibid

[83] Ibid Available at: http://people.smu.edu/lincoln/Lincoln%20Feminization%20in%20Veterinary%20Education.pdf

[84] Australian National Training Authority (ANTA), 2004 *Women: Shaping our future*. Brisbane, ANTA

[85] e.g. eS4W/WAVE 2007, *Towards a sustainable economic future. Women & Vocational Education & Training*; eS4W/WAVE, 2010,*Women & Vocational Education & Training: Strategies for gender inclusive VET reform. A policy background paper.* http://www.security4women.org.au/wp-content/uploads/Women-and-VET-Strat.pdf

[86] See: http://www.socialinclusion.gov.au/Pages/default.aspx

[87] http://www.socialinclusion.gov.au/FAQs/Pages/WhatDoWeMeanBy.aspx

[88] As Reid acknowledges, 'addressing equity in education is difficult and complex work'; it is a 'marathon rather than a sprint'. He states that equity requires policy processes that are:

- Based on a clear and articulated concept of equity.
- Thorough and systematic and recognise the complexities involved in achieving better educational outcomes for 'equity groups'.
- Founded on research and inquiry, and an appreciation of the different contexts in which educational practice operates.
- Trialled and evaluated before being spread widely.
- Wary about reinforcing the very inequities that they are designed to address.[89]

We contend that any articulated concept of equity must also be gender inclusive, in line with international agreements and national legislation. There is a plethora of research relating to the need for gender inclusive policy in VET, including many extensive consultation projects, best practice examples that acknowledge the diversity of women; policy strategies and initiatives that have been trialled and evaluated. What is lacking is the political-cultural will to update, legislate, resource and implement. In the past Australia has enjoyed a proud international reputation as a leader in gender related policy. We argue that, given the urgency of skills shortages in the industries and occupations that are the focus of this project; the seemingly intractable gender disparity in education and especially VET enrolments in study pathways, and the low numbers of women employed in the industries, innovative gender inclusive policy action is needed now as a matter of urgency.

This position is further reinforced by the focus of the UN's CSW 55 2011- *Access & participation of women and girls in education, training and science and technology, including for the promotion of women's equal access to full employment and decent work*, the Agreed Outcomes of which Australia is a signatory[90].

The Agreed Outcomes Statement sets out a clear rationale, and set of actions under five categories: -

- Strengthening national legislation, policies and programmes.
- Expanding access and participation to education (and training).
- Strengthening gender-sensitive quality education and training, including in the field of science and technology.

[88] Reid, A, 2011, 'What sort of equity?' in *Professional Educator.* Vol. 10, Issue 4, June 2011 p3, 4.
[89] Ibid, p 4.
[90] Commission on the Status of Women (CSW) 55 Agreed Conclusions 14 March 2011: http://www.un.org/womenwatch/daw/csw/agreedconclusions.html

- Supporting the transition from education to full employment and decent work.
- Increasing retention and progression of women in science and technology employment.

This document, including the focus on science and technology that is foundational to and underpins knowledge and skills in the 'non-traditional' and emergent industries and occupations that are the focus in this Project, provides further compelling impetus and obligation for action in gender sensitive policy especially for VET in Australia.

Along with national policy action, for improved sustainable and viable employment for Australian women and girls, and as a Project outcome, we require:

- the promotion and provision of gender sensitive career counselling, to result in broader subject selection (including science and technology) by women and by girls in schools to counteract the perpetuation of segmented fields of work and study;
- a reinstatement and re-commitment to the value of pre-vocational programs for women returning to work after raising children, caring or moving from income support;
- a shift in workplace culture in male dominated industries to work practices and processes based on EEO and work/family principles - women-friendly environments, to attract and retain a critical mass of women, including their promotion to occupations at all levels;
- promotion of industry and employment based work experience and work shadowing programs, and training programs for women and girls to address skills shortages and offer opportunities in emergent industries and occupations and viable career pathways to full employment and decent work;
- recognition that increased qualifications for women do not necessarily result in improved employment outcomes and that structural reforms are needed.

We call on Industry to ensure that:

- Industry Skills Councils act as facilitators in addressing the gender imbalance of these industries, and recognise women as a part of the skills shortage solution in both the construction and transport industries providing focus, coherence, independence, extensive networks and real industry leadership;
- strategies be implemented to address working conditions including pay equity, flexibility of hours and job sharing, provision for child care, safety, mentoring, and work/life balance in line with current best practice, including gender auditing of workplace practices;

- industry based women's organisations be identified as sources of numerous good practice initiatives and expertise which can be invaluable guides;
- industry best practice initiatives in marketing promote the benefits that the employment of women will have in meeting demand and link this promotion to training pathways to women and girls;
- in-work and work experience mentoring programs be expanded, and include women in industry mentoring women in training and entry level positions.

In relation to Career Counselling, to promote pathways into a broader range of careers through career advice, we require that:

- whilst the VET system responds primarily to the training needs of industry and employers, it must also consider the needs of women and girls undertaking or attempting to undertake training, including improvements in quality, to participation outcomes and flexibility in delivery means;
- career planning information provided at all education levels be actively informed by labour market analysis and trends within a framework that recognises gendered workplace implications and women's continuing poorer labour market outcomes, to improve women's long-term economic well-being;
- industry best practice initiatives promote pathways through marketing and employment strategies to target girls in schools through career advisors networks and direct marketing campaigns, through to promoting career progression in employment for women within attainable and open recruitment based on the Equal Employment Opportunity principles.

RECOMMENDATIONS FOR ACTION

economicSecurity4Women and WAVE call on the Australian Government to:

- implement as a matter of urgency Agreed Conclusions from CSW55, viz: Access and Participation of women and girls in education, training and science and technology, including for the promotion of women's equal; access to full employment and decent work[91];
- make women's learning needs central to all VET strategies and policies, including the forthcoming National Equity Blueprint. This requires an explicit recognition of women *per se*, to adequately redress issues of intersectionality (indigenous women, women with disabilities, CALD women, low SES women, rural women and so on);

[91] Commission on the Status of Women (CSW) 55 Agreed Conclusions 14 March 2011: http://www.un.org/womenwatch/daw/csw/agreedconclusions.html

- implement strategies for VET based on gender analyses to inform a training framework able to provide opportunities for women at different stages of their life cycle and appropriate to their needs and circumstances. Again, such analyses must include attention to issues of intersectional issues and related disadvantage;
- ensure gender expertise on all national VET equity advisory committees & VET working groups;
- ensure gender analysis and provision for implications of such analyses informs all COAG consultations especially those relating to VET reform[92];
- implement a VET strategic framework for women with clear priorities & accountability mechanisms, including linking VET funding arrangements to key performance indicators for women, especially those most disadvantaged (indigenous and disabled women and girls);
- collect, analyse and publish performance and outcome data that include trends over time and are disaggregated by gender and demographic characteristics. Such data will assist in the identification of trends and issues, development of strategies to address these, and ongoing monitoring;
- provide accessible gender sensitive career counseling (including VET in schools) to broaden subject and course selection by girls and women in schools and VET, to enhance career pathways and meaningful employment outcomes for women and girls as well as addressing Australia's gender segmented labour force;
- reinstate and recommit to the value of pre-vocational or 'stepping stone' programs for women returning to work after raising children, caring or from income support;
- develop, implement and monitor programs that promote women into non-traditional trades and professions, with particular attention to addressing preconceived ideas about the capabilities and attributes of women and the workplace cultures and requirements of such trades and professions;
- design and implement a national program in partnership with strategic corporate and industry partners to redress entrenched cultures in masculinised industries and occupations to increase enrolments in VET and higher education and so critical mass of women in such industries and occupations;
- ensure that employment creation programs and employer based incentives designed in response to skilling Australians for future employment opportunities, for skill shortages, emergent industries and occupations include initiatives that benefit women and girls, and include quotas &/or targets where necessary to address Australia's gender segmented labour force[93];

[92] Of high significance at the moment are COAG initiated inquiries relating to VET system reform including: Foundation Skills; Apprenticeships and Traineeships; Assessment in VET; Teaching in VET.

[93] Of significance here for example is the recent announcement of $200 million Critical Skills Investment Fund to improve skills in the resources sector – a heavily masculinised sector

- ensure that the Australian Apprenticeship Program and the Australian Apprenticeship Access Program be vehicles to promote pre-vocational and vocational trades to women and girls to enter male dominated industries.
- ensure that the Productivity Places Programs identify women and girls as part of the skills shortage solution both in relation to retraining of existing workers into pathways into emergent and non-traditional fields, and for new job seekers via the Job Services Australia to progress into pathways into these industries
- ensure provision of local, accessible, flexible and culturally sensitive training, at low or no cost, so that training-related initiatives and policies benefit all who are currently outside e workforce or seeking to improve their existing employment status and security;
- promote industry and employment based training programs aimed at recruiting women into industries that value flexible work practices for men and women to enable caring responsibilities to be met.

PROJECT PRODUCTS

The following products have been produced as outcomes of this Project. They will be utilised for educational purposes and advocacy campaigns, both electronically and via other means. They are available from Project partners' websites:

economic Security4Women: http://www.security4women.org.au/
WAVE: http://www.wave.org.au/

Products

- *Viability indicators, viable work: Selected industis and occupation* (WAVE Viable Work Jobs Outlook Summary[94])

- *Working Forward; Women with Careers in Trades* - 8 SALT individual stories.

- Key Findings (Summary): Participant Surveys.

- Strategies to attract Women to Emergent and Non-traditional Occupations and Industries (Viable work) – Rationale.

- Viable Career Pathways for Women and Girls: Summary (e-publication)

[94] 2010/2011 data extracted (February 2011) utilised in this Summary is updated in the report with information just released.

- Advice for Career Advisors: Engaging Girls in a Broader Range of Careers. e-publication for careers advisors.

- Advice for Employers. Value Added Recruitment – Attracting Women to your Workplace. Viable Work. e-publication for employers.

- Policy Action for Improved Viable Employment for Women.

ATTACHMENTS

Focus Group Questions sheet (Attachment One)

Consent form (Attachment Two)

Participant demographic information sheet (Attachment Three)

Attachment One

About You

1. Name or pseudonym:
2. Trade occupation:
3. Age on entry to trade:
4. Number of years in trade:
5. Employment: Tick [….] Employed or […..]self-employed:
6. Did you do an apprenticeship? YES/NO If not please describe how you entered this trade.

7. Have you participated or benefited from any programs to promote trades to women? YES/NO. If YES which program?

Permissions

Your agreement to permit use of your material for this project is appreciated.

*I give permission to have my story included in this project [you will see a final version] YES/NO

*I give permission for my photo and use of my words to be included in this project YES/NO

Signed:

Date:

My email address is:
[If no email provide a mobile or postal address to see edited version]

About your career

8. Do you see the work you do in your trade as meeting your earlier expectations of a career?
9. Who or what were the major influences to you choosing this trade?

10. Describe what you love about your trade?

11. Would you recommend girls and women enter a trade. And why?

12. Over the past 3 or 4 decades many initiatives have been trialled to encourage more women to enter the trades. Participation however remains low. What critical factors do you feel can lead to more women having a career in trade areas?

13. Do you consider that your experiences of being a woman in a male dominated trade area can help other women in other industries? If so please describe how:

Other comments:

Thank you

Attachment Two

Consent form

Project title: Career Pathways for Women and Girls: Emergent and Non-traditional Occupations and Industries (Viable Work)

Project partners: WAVE and SALT, funded through economic Security4Women

Participant's name: .....

Contact details: ….…….

……

Participant's pseudonym:
To ensure confidentiality and protect your privacy, please select a pseudonym (name) you would like us to use when referring to you, in any documentation relating to this project. A given name will be sufficient.
……

The nature and purpose of this project has been explained to me. I understand and agree to take part.

- I understand the purpose of the project and my involvement in it.
- I understand that I may withdraw from the project at any stage and that this will not affect my status now or in the future.
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.
- I understand that I will be audio taped.
- I understand that the tape will be retained for the purpose of analysis by the researchers only.

Signed…….**Date**…….

I have provided information about the project to the participant and believe that he/she understands what is involved.

Researcher's signature and date……...

Attachment Three

Focus Group Meeting 31st March 2011

Participant Demographic Information

About You

9. Name or pseudonym:
10. Trade, occupation and level (if more than one, please list each):

11. Age on entry to trade:
12. Number of years in trade:

13. Employment:
    1. Employed
        1. YES NO
        2. Permanent Contract
        3. Full Time Part time Other
    2. Self-employed:
        1. YES NO
14. Did you do an apprenticeship? YES/NO
    1. If not please describe how you entered this trade.

15. Have you participated or benefited from any programs to promote trades to women? YES/NO.
    1. If YES please give details

    Were these programs useful? YES/NO
    Please give reasons/comments