Gender Diversity in Non-Traditional Industries – Fact or Fiction?

C.T. Watt

University of Technology, Sydney, NSW, Australia.

Corresponding Author

C.T. Watt, University of Technology, Sydney, Faculty of Design, Architecture and Building, PO Box 123, Broadway, NSW, 2007, Australia. Phone: 02 9514 8727, e:mail: Chivonne.watt@uts.edu.au

Abstract

This paper will explore gender diversity through the representation of women in several non-traditional industries in Australia. The construction, project management and academic sectors have been selected as they are perceived to be disciplines that are dominated by men. Through identifying what research has been undertaken and the programs that have been instigated through industry associations, an agenda for addressing gender diversity can be established.

A review of the political environment in which these non-traditional sectors operate provides a framework to understand the policies and laws that guide gender diversity in Australia. The Federal Government are conducting a review into the Equal Opportunity for Women in the Workplace Act 1999 (the EOWW Act) and the Equal Opportunity for Women in the Workplace Agency (EOWA). Through providing inclusive reforms, men and women will have the opportunity to work in a fair and equitable society where gender is not an issue.

Keywords

Gender diversity, project management, non-traditional industries, women

Introduction

The recent announcement by the Federal Government to review the legislation and management of women's rights in the workplace reignited the debate that women are not treated equally, particularly in non-traditional sectors. To launch these reforms, The Hon Tanya Plibersek presented statistics that show a continued low representation of women in positions of influence. A review of the literature will be presented to highlight research into women in construction, project management and academia. The information will be presented from a selection of international articles that will show how unfortunately and despite the introduction of various initiatives, women remain under represented and marginalised in these non-traditional sectors. The role that the construction and project management industry associations play in working with the government, organisations and members is presented in terms of their level of female representation and the programs that are specifically targeting this gender issue. A review of women employed and studying in non-traditional sectors in the academic sector is presented through studies undertaken by the University of Technology, Sydney.

Government Drivers

The Federal Government manages the status of women in Australia through the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA). The provision of these services is provided through the Office for Women under the leadership of The Hon Tanya Plibersek MP, the Minister for Housing and the Minister for the Status of

Women. At the 2009 Australian Women's Leadership Symposium the Minster stated that 'Gender equality is best advanced through whole-of-government engagement, otherwise known as gender mainstreaming or gender sensitive policy making.' [1] The current representation of women in politics is highlighted by the following statistics:

- 30% of Australian Parliamentarians are women
- 58% of the 160,000 public service employees are women with only five departmental heads being female
- 34% of the seats on Australian Government Boards and bodies are held by women yet only 22.3% hold a Chair or Deputy Chair position.
- Three out of seven High Court Justices are women.

To address these issues of under-representation, the Government has instigated several initiatives. These include the establishment of a Women's Interdepartmental Committee (IDC) to improve the interaction between government departments who are working on women's policies. A gender assessment trial within FaHCSIA will be undertaken to address if and how gender was considered in the development and implementation of selected policies and programs and gender pay gaps, levels of women in senior positions and the availability of flexible and family friendly conditions.

The EOWA Australian Census of Women in Leadership, released in October 2008 [2], showed that for the first time since the Census was initially conducted in 2002 female representation at board director and executive management level in ASX200 organisations declined. Also the number of companies with no female executive managers increased from 40 % in 2006 to 46% in 2008. The Census was further analysed in a report [3] that found one in 14 of ASX200 executives considered to be key management personnel are women. The report also shows remuneration for female executive managers represents a gender pay gap of 28% which is more than 10% higher than other employees.

One of the most significant programs that the Government is undertaking is a review of the Equal Opportunity for Women in the Workplace Act (EOWW) 1999 and Agency (EOWA) which will be managed by the Office for Women. The Act is administered by EOWA and aims to promote merit in employment, equal employment opportunity and eliminate discrimination and encourage consultation between employers and employees on these issues. The Act requires organisations with 100 or more employees to report to EOWA on measures they are taking to promote equal employment opportunity for women in their workplaces.

Products of our Past

Papers have been produced on many themes associated with women working in non-traditional fields such as construction and academia. A study of women in the construction industry in the United Kingdom by Sommerville et al [4] proposed solutions to avoid the 'demographic time-bomb' by addressing barriers for women to enter the construction industry. These solutions were presented in terms of shifting the perceived image of the industry through collaborative networks, address training requirements and providing alternative options for engaging and retaining women in the workplace. In a Women in Management Review (1994)² [5] the findings of a study of women in the construction

¹ Plibersek MP, Hon Tanya. 2009 Australian Women's Leadership Symposium, Keynote address, Canberra, 2009.

² Gale, A. W. 1994 Women in Non-Traditional Occupations: The Construction Industry. Women in Management Review, Vol. 9 No. 2, 1994, p. 8. MCB University Press.

industry in the United Kingdom found that 'education appears to be a gatekeeper to the construction culture'. The study found that both men and women have the same level of knowledge and that individual construction managers may take a "gender-blind" perspective which cultivates a culture of crisis, conflict and masculinity. Five years later Fielden et al [6] found that women represented 13% of the construction industry workforce and that segregation based on sex was acceptable. The barriers were similar to those identified by Sommerville et al [4] and included reduced opportunities for entry into training programs, gender bias in terminology perpetuating a poor image of the industry, male dominated training courses, recruitment criteria, lack of support from people in senior positions and non-inclusive family practices. At the same time Bennett et al [7] conducted focus groups and a quantitative survey of students and practitioners and found that even though women had attained a higher level of qualification earlier in their careers, there was little difference between men and women in terms of career expectations and actual work experiences.

In the project management sector a two-part discussion paper on gender and culture by Gale and Cartwright [8] and [9] provided a précis of women's role in this sector. This review was a result of the first British Management Colloquium at Henley Management College (1993) and the Internet Congress workshop (1994) on Women in Project Management. The first paper investigated gender composition of the UK workforce presented in terms of areas of high concentration of women (education, health and services such as banking, insurance and retail) as opposed to low levels of representation (construction, science and engineering). The review compared women in management and business throughout Europe, the disproportionate representation of men (92%) and women (8%) in the construction sector by occupation and membership levels of men and women in construction associations. The second part in this study looked at the impact of organisational culture on gender equity. Gender bias of a project team and an individual was differentiated by country - masculine behaviours are associated with Anglo-Saxon environments and feminine behaviours are associated with Scandinavian environments. These cultures in turn favour different managerial styles, such as 'survival of the fittest', which can impact and potentially polarise the gender balance. The study also presents traditional, such as construction, and non-traditional project-based industries which appear to be the opposite of the gender definition of traditional and non-traditional sectors.

The history of women in academia presented in a paper by Freeman (1977) [10] includes references to earlier studies that identifies women in academia as being on the 'fringes of the economic mainstream'. An examination of the social backgrounds of men and women across all levels of the academic profession focused on parents working in professional occupations and having graduate educational levels, the single marital disposition of female academics (40%), lack of children of those women that did marry (46%), low professional ranks, higher levels of teaching, less publications and less pay than their male counterparts. Pell (1996) [11] confirms these findings over a decade after Freeman's paper with a review of female science academics in American universities. Women are under-represented (22%) with a review of the self esteem and aspirational factors that may contribute to this figure from early childhood, adolescence, college years, graduate schools and job entry. Pell proposes a number of steps to address the issues female academics face such as 'higher unemployment, difficult working conditions, lower wages and fewer promotions than their male peers'. These include becoming involved in faculty programs, working closely with students, advisees and

2848.

Freeman, B. C. Faculty Women in the American University: up the down staircase. Higher Education 6, 1977, p. 165.
 Pell, A. N. Fixing the Leaky Pipeline: women scientists in academia. Journal of Animal Science, 1996, 74: p.

colleagues and writing papers and book chapters. Similar to the papers written on the issues facing females in the construction industry Goode (2000) [12] reviews equal opportunities in universities and the under-representation of women in senior positions and research activity. Issues presented include systematic discrimination through informal networks and exclusion which resulted in an 'alienating culture'. The progress of women in academic institutions was presented as relying on support and commitment from senior levels, networking to appear 'visible' for career progress, and involving more women in peer reviews. Discrimination of women in academia is expanded through the work undertaken by Knights and Richards (2003) [13] who identified the hidden agenda behind the production of knowledge and the identity of self, as Pell presented in 1996 [11]. These two aspects are seen through a lens of masculine reasoning, norms and practices. Emerging themes in the academic sector are identified by Morley (2005) [14] as involving social transformation of higher education based on social groups and gender equity. These are aimed at addressing 'exploitation, marginalisation, powerlessness, cultural imperialism and violence in academic life and in the wider civil society'⁵.

Where are we Now?

The representation of women in different sectors can be described in terms of the information provided through the representative associations. Through these associations data can be interrogated to determine the gender diversity in each sector and the level of commitment that exists to balance gender representation.

Construction

The building industry is represented by the Australian Institute of Building (AIB) which was founded in 1951 to influence policy and introduce changes to the commercial, technical and regulatory environment. The association represents building professionals, associate professionals and technicians engaged in building practice, teaching or research throughout Australia and overseas. The AIB is the accrediting body for universities and conducts a continuing professional development program which includes a Construct Conference series. Information is exchanged through several publications and the AIB supports the Australian Young Builder Alliance.

The AIB supports and encourages equal career opportunities for women in the building and construction sector and promotes positive work environments which are supportive of equal opportunity and responsibility. The AIB has 2500 members in Australia and 78 are women, representing 3.12% of the membership.

A specific interest group has been established in Australia in 1995 to represent women in the construction industry under the auspices of the National Association of Women in Construction (NAWIC). Founded in Fort Worth, Texas in 1953 NAWIC is a not-for-profit association with affiliates in the USA and Canada. NAWIC currently has 1400 member representing a range of construction related occupations. Through various initiatives NAWIC works on raising the profile of women working in the construction industry. One of the major activities undertaken by NAWIC is a joint project with the Office of Women to establish the "building a better future" website that includes stories and images of women actively involved in the construction industry and provides links to websites that provide training and career related information. In 2009 NAWIC launched the International Women's Day Scholarship

⁵ Morley, L. Gender Equity in Commonwealth Higher Education, Women's Studies International Forum, 28, 2005, p. 218.

which provides \$16,500 for women in the construction industry to develop a white paper that can be used as a positive instrument for change in the construction industry. NAWIC also offers a national mentoring program through their NSW Chapter in collaboration with the Master Builders Association of NSW and the Australian Institute of Architects (NSW Chapter).

Project Management

The Australian Institute of Project Management (AIPM) was formed in 1976 to improve the knowledge, skills and competence of project team members, project managers and project directors, all of whom play a key role in the achievement of business objectives, not just project objectives. The AIPM established a Women in Project Management (WIPM) special interest group in 2008 and undertook several joint activities with the Sydney Chapter of the Project Management Institute. AIPM currently has 9,282 members at individual and corporate level across Australia and Asia Pacific. The average number of female to male members over the last five years has remained constant with a summary in Table 2 below:

	2009	2008	2007	2006	2005
Male	86%	86%	86%	87%	87%
Female	14%	14%	14%	13%	13%

Table 2: AIPM Membership by Gender – percentage by year of membership

Academia

When reviewing gender diversity in the academic sector the information can be divided by those working in academic positions and those studying in under graduate degrees at the University of Technology, Sydney (UTS). Initiatives are undertaken through the Human Resources Division and the Equity and Diversity Unit with specific studies managed by Faculties through research activities.

A survey of students enrolled in non-traditional fields of study⁶ was undertaken by Shoemark (2007) [15]. The findings of this survey specifically related to the building sector are that there has been a slight increase in participation of women from 2001 (19.06%) to 2007 (21.9%). The paper covers broad areas of gender equity that concluded with whole of university recommendations. These included developing strategies to engage both men and women in non-traditional fields of study, develop gender balanced programs to meet skills shortages, work with associations and the Government to ensure equitable representation, support academics to deliver appropriate courses in a supportive environment and attract and support potential students through the enrolment process into non-traditional fields of study.

A review of staff at UTS was undertaken in 2009 to determine what formal programs were offered to support and recruit women staff and how they were represented across various committees. The Faculty of Design, Architecture and Building (DAB) has an equal representation of male and female staff across the nine Faculty committees, including student representation. The representation of women staff members in DAB by academic level shows a steady increase in the total percentage of females as seen in Table 3 below. This provides evidence that some of the recommendations from the 2004 Report on Women in Non-Traditional Fields of Employment at UTS [16] may have been adopted. This report presented strategies to ensure success in gender-parity for men and women working at UTS through

.

⁶ A non-traditional field of study is defined as any field of study where the participation by women or men is less than 40% of overall enrolment. Construction enrolments in 2007 at UTS were 22%.

fostering an inclusive culture, recruitment targets in non-traditional faculties and work areas and programs to address: promotion and career progression, remuneration and recognition, retention, career responsibilities and governance and decision making.

Level	2009	2008	2007	2006	2005
A – Assoc Lecturer	83.3%	34.1%	60.0%	33.3%	0.0%
B - Lecturer	46.4%	53.5%	49.6%	42.6%	44.5%
C – Snr Lecturer	35.7%	28.1%	21.1%	20.0%	18.5%
D – Assoc Professor	10.5%	15.4%	16.8%	0.0%	0.0%
E- Professor	28.6%	20.0%	16.7%	18.2%	20.0%
Total	37.8%	35.9%	34.5%	29.8%	29.6%

Table 3: UTS Female staff in DAB – percentage by academic level

Academics at UTS also conduct initiatives in the community to support gender equity. An external study was conducted by DAB with a UTS Gender Equity Grant. This study examined the gender barriers, student recruitment, retention and ongoing career development in the Architecture and Construction industries. The result was the release of a series of documentary films and a website which included interviews with prominent practitioners, early career practitioners, recent graduates and those who have left the industry to pursue other activities. The films have been released to NSW high schools and Architecture and Construction schools in Australian Universities.

Conclusions

Women in the construction, project management and academic sectors have been presented historically as being under represented and marginalised. These non-traditional sectors have had a culture of hidden agendas to ensure the status quo is maintained. To counter this pervasive behaviour programs have been developed to provide women with equitable opportunities in male dominated sectors. Have these programs addressed the root cause, have they started to marginalise men and do women actually want to be corralled into highly visible and potentially controversial situations?

The Government is leading the way with a series of reforms and industry associations have instigated initiatives to promote inclusive practices for members. Are these initiatives polarising women *and* men in the workforce, therefore diminishing the opportunities to legitimately provide a balanced environment for all? Policies need to strengthen the position for individuals to respectfully manage their environment to achieve success collaboratively, regardless of gender. As Don Voelte, Chief Executive Officer of Woodside Energy Ltd. said at the 2008 EOWA Business Achievements Awards:

'Diversity, fairness and equality can turn good companies into great companies'

References

- 1. Plibersek MP, Hon Tanya. 2009 Australian Women's Leadership Symposium, Keynote address, Canberra, 2009.
- 2. The Equal Opportunity for Women in the Workplace Agency. Australian Census of Women in Leadership, Canberra, 2008.
- 3. The Equal Opportunity for Women in the Workplace Agency. Pay, Power and Position: Beyond the 2008 EOWA Australian Census of Women in Leadership, Canberra, 2009.
- 4. Sommerville, J., Kennedy, P. And Orr, L. Women in the UK Construction Industry. Construction Management and Economics, 1993, 11, pp. 285-291. The Queens University, Glasgow.
- 5. Gale, A. W. 1994 Women in Non-Traditional Occupations: The Construction Industry. Women in Management Review, Vol. 9 No. 2, 1994, pp. 3-14. MCB University Press.
- 6. Fielden, S. L., Davidson, M. J., Gale, A. G. and Davey, C. L. Women in Construction: the untapped resource. Construction Management and Economics, 2000, 18, pp. 113-121. Manchester School of Management.
- 7. Bennett, J. F., Davidson, M. J. And Gale, A. W. Women in Construction: a comparative investigation into the expectations an experiences of female and male construction undergraduates and employees. Women in Management Review, Vol. 14 No. 7, 1999, pp. 273-291. MCB University Press.
- 8. Gale, A. and Cartwright, S. Project Management: entry into a male domain?: a discussion on gender and organisational culture. Leadership and Organisational Development Journal, 1995, Vol. 16, No. 2, 1995, pp. 3-8. MCB University Press.
- 9. Cartwright, S. And Gale, A. Project Management: different gender, different culture? Leadership and Organisational Development Journal, 1995, Vol. 16, No. 4, 1995, pp. 12-16. MCB University Press.
- 10. Freeman, B. C. Faculty Women in the American University: up the down staircase. Higher Education 6, 1977, pp. 165-168.
- 11. Pell, A. N. Fixing the Leaky Pipeline: women scientists in academia. Journal of Animal Science, 1996, 74:2843-2848.
- 12. Goode, J. Is the Position of Women in Higher Education Changing? Academic Work and Life, 2000, Vol. 1, pp. 243-284.
- 13. Knights, D. and Richards, W. Sex Discrimination in UK Academia. Gender, Work and Organisation, Vol. 10 No. 2, March 2003.
- 14. Morley, L. Gender Equity in Commonwealth Higher Education, Women's Studies International Forum, 28, 2005, pp. 209-221.
- 15. Shoemark, L. The Gender Jigsaw: Participation in Non-traditional Fields of Study, University of Technology, Sydney, 2007.
- 16. UTS Equity and Diversity Unit. Report on Women in Non-traditional Fields of Employment at UTS, Sydney, 2004.

Websites

Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) www.fahcsia.gov.au

Australian Institute of Building (AIB) http://www.aib.org.au/index.html

The Australian National Association of Women in Construction (NAWIC)

Gender Diversity in Non-Traditional Industries – Fact or Fiction? www.aipm2009.com.au
Page 7 of 8

Gender Diversity in Non-Traditional Industries – Fact or Fiction?

www.nawic.com.au

Orijen Mentoring Program http://www.orijen.com.au/constructive-mentoring.aspx

Australian Institute of Project Management www.aipm.com.au

UTS Equity and Diversity Unit http://www.equity.uts.edu.au/about/