Changing Times, Persistent Paradigms: Women and Men at Work in Projects

Associate Professor Erica French*
Queensland University of Technology 2 George Street, Brisbane Queensland
e.mail: e.french@qut.edu.au

Dr. Beverley Lloyd-Walker
School of Management and IS, Victoria University, Melbourne, 8001, Australia.
Email: Beverley.lloydwalker@vu.edu.au

Professor Lynn Crawford
Faculty of Business, Technology and Sustainable Development, Bond University QLD 4229, Australia
Email: lynn.crawford@humansystems.net

*Corresponding author.

Changing Times, Persistent Paradigms: Women and Men at Work in Projects

Introduction

The Australian economy is currently supported by a resources boom and work opportunities in traditionally male dominated fields of construction and engineering and information technology are at a premium. Yet despite more than 25 years of anti discrimination and equal employment opportunity legislation these industries still employ few women in operational or management roles. This paper investigates the issue of the low representation of women in project management and their different work and career experiences through interviews with male and female project managers.

Background

Occupational segregation by sex remains an issue worldwide despite attention, research and equal opportunity legislation for more than 40 years. It is underpinned by the propensity for men and women to work in different occupations (Blackburn, Browne, Brooks and Jarman 2002) and ultimately links to the disadvantage women experience in pay, opportunity and benefits. Anker (1997) points out that occupational segregation is not only endemic across all regions; at all economic levels; in all political systems; all religions and social and cultural environments but that it is the most enduring aspect of labour markets around the world.

Occupational segregation by sex is said to exist when women and men are differently distributed across occupations than they are in employment overall, regardless of the nature of job allocation (Jonung 1984:45). That is, an occupation is said to be (fe)male dominated if its (fe)male share of employment is higher than the overall (fe)male share of employment (Watts 1998). According to Anker (1997) the concerns with such distribution include labour market rigidity and economic inefficiency; the waste of human resources, increased labour market inflexibility; and an economy's reduced ability to adjust to change. Also occupational segregation by sex is detrimental to women encouraging a negative effect on how men view women and on how women view themselves. This in turn negatively affects women's status and income and, consequently, many social variables such as mortality and morbidity, poverty and income inequality. The persistence of gender stereotypes also has negative effects on education and training and thus causes gender-based inequalities to be perpetuated into future generations. This study investigates the low representation of women in project management with a view to understanding their different work and career experiences in project style organisations and the issues of difference in their distribution.

The construction industry provides one example of an industry which utilises the project management approach to work organisation and is the most male dominated of all industries worldwide. Fielden, Davidson, Gale and Davey (2001) note that is the most male dominated industry in the UK (an OECD country) with 16% women employed with 2/3rd of these employed in clerical roles. In Australia the construction industry is the fourth largest contributor to Gross Domestic Product (GDP), accounting for 6.8% of GDP in 2008-09 and as at May 2009 the construction industry employed 9.1% of the Australian workforce, making it Australia's fourth largest industry (ABS Cat 1350.0 2010). However only 11% of construction industry workers are women indicating a high degree of horizontal segregation. In addition most women are in support roles (ABS Cat 4125.0 2012) with only 15% of managers being women and less than 3% of CEOs are female (EOWA 2012) indicating a high degree of vertical segregation.

The rationales for the lack of women in construction are plentiful. Numerous studies, undertaken predominately in the UK, indicate that the image and reputation of a male culture in construction has been identified as a primary reason (Cartwright & Gale 1995; Dainty, Bagilhole and Neale 2001; Fielden, Davidson, Gale and Davey 2001; Worral, Harris, Stewart, Thomas and McDermott 2010). Cartwright and Gale (1995) found that the organisational culture is particularly masculine and that education acts as its gatekeeper, restricting access to that industry by women. This is particularly true for women in project management. Dainty, Bagilhole and Neale (2001), in interviewing 82 matched pairs of women and men in construction found that men gain promotion more rapidly than women, particularly during the first ten years of their careers. HRM practices that maintain current workplace environments were valued by men to support their careers. While men resisted changes to the construction culture, women's priorities were to create a change in workplace culture to facilitate their equal participation particularly through access to greater flexibility of work practice. Fielden, Davidson, Gale and Davey (2001) used a series of focus groups from four areas within the construction industry including building contractors, housing associations, construction organisations and one group of EEO change agents to identify poor image and reputation of the construction industry as the primary barrier with limited terms and conditions of employment; lack of training provided by the industry; male networks and word of mouth recruitment. In addition, they found prejudice against all those not fitting the acceptable stereotype of young, white, male, working full-time and negative attitudes towards women which acted as barriers for women. Worrall et al (2010) interviewed more than 230 construction workers and conducted nine focus groups of women working in the industry and, once again, the male dominated culture and inflexible working practices were identified as the main barriers to women working and being promoted in the industry.

In perpetuating the male dominated culture in the industry, Ellison (2001) found the very low representation of women within senior management groups has meant biased decision-making by a male dominated core. Using the findings from 2000 surveys of female and male surveyors, Ellison found that despite women and men having equal educational qualifications, women remain under promoted in comparison with men, yet women are not physiologically or rationally disinclined to invest time, money or effort into the advancement of their careers in this sector. Adeyemi et al (2006) identified one perpetuating factor of the male dominated culture in construction, that of women themselves. In interviews with female professionals in the construction industry in Nigeria, it was found that women viewed some jobs as suitable to women and some for men. Specifically, outside jobs were viewed as male and inside jobs viewed as female. It was determined that this was due to the hot tropical sun in Nigeria.

While women do not participate equally in the construction industry worldwide and those who do, work in predominately service roles, there are women making inroads into traditional male jobs in construction. Those who do remain in the industry often occupy special niches to avoid the male culture (Gale 1994) or develop bespoke long-term careers for individuality and to avoid any resistance through the male dominated culture (Dainty, Bagilhole and Neale 2001).

Anker (1997) identifies four major causes of segregation in organisations. They include natural differences where men and women do different jobs because they have different biologically based capacities; social differences where men and women are segregated because of socially constructed beliefs that certain jobs are appropriate for males and others for females; organisational difference where systems and employer biases advocate against women usually on economic grounds and labour market requirements; and individual differences where men and women's different expectations led to different skills

development and different career experiences. However the rise of the professional is not addressed. Project management offers a different context in which to consider occupational segregation by sex and gendered career development. It is a profession which is growing world wide and one that transcends an industry type, a nation or a jurisdiction and often exists within complex environments. "the membership of project management associations and professional bodies in various countries is reported to be growing at 40,000 per annum and some predict the demand for project management professional will continue to outstrip supply (Young and Young 59:2011).

Despite the universality of project management and the relatively new development of the profession evidence of segregation by sex appears to exist. The results of the Project Management Institute's "Pulse of the Profession Survey" (2008) show that only 38% of project management professionals are women (Henderson et al 2013). Studies continue to show that sex segregation in project management remains and is due to various causes including biases in organisational culture (Cartwright & Gale 1995) role and status incongruity (Gale and Cartwright 1995) the perpetuation of masculinisation of project work from demands for efficiency (Lindgren & Packendorff 2006) and masculine logic embedded within the profession (Buckle & Thomas 2003).

However institutional theory offers another perspective for understanding sex segregation in a profession. Organisations are socialised into similar behaviours despite any industry or structural difference, in order to gain acceptance. DiMaggio and Powell (1983) propose that organisations become more homogeneous through adopting similar formal structures and processes despite different operating technologies or cultures, compelled through three forces. These forces include the forces of legislation and regulation (coercive); and the push of professional values (normative) and the desire for copying (mimicry) behaviours particularly in times of great uncertainty. Project management as an organising principle lends itself to some of these forces for isomorphism. First in the past 20 years project management has grown in its professional status as indicated by the growth in numbers in professional bodies; also the growth is not seen to be equal in both men and women. Second project management by its very nature operates in environments that encourage great uncertainty encouraging mimicry in uncertain situations.

In this study we sought to identify how men and women are experiencing both their work and their careers in project organisations and whether their organisations implement equal employment opportunities strategies to intervene in the work experience of women and men, and whether these are supported by the members of the organisation. We explored characteristics of the experiences in the project management organisation and the challenges men and women faced in developing their careers in project management. We also sought to identify whether either men or women in these organisations believed that women experience project work or their careers in project management differently to men.

Method

The exploratory nature of our topic allowed us to investigate the broad issues of career development and planning in Australian project management organisations through a descriptive research design (de Vaus ,2002). We determined to involve project managers from three male dominated industries including construction; engineering and information technology. Our study consisted of depth interviews with project managers in these industries. Depth interviews are relatively unstructured, extensive interviews often used in the primary stages of the research process. Depth interviews differ from traditional interviews in that they encourage discussion on an undisguised subject area without influencing the direction of that discussion except through probe questions intended to

encourage further elaboration (Zikmund, 2003). The interviews took place in a face to face location determined by the interviewees or by telephone. Guiding questions were developed through a literature search and interviews were conducted by each of the writers involved in this project with each interview lasting approximately 30-60 minutes. Interviews were recorded and transcribed verbatim. Participation was voluntary and responses were treated as anonymous and results confidential. A snowball approach to sampling was used. In one case, this began with selection of initial participants from a class of students studying a Project Management Masters. Additional respondents were then obtained through leads provided by initial respondents. In another case, a brainstorming session with practitioners led to the identification of potential interviewees selected with a view to diversity in terms of industry and career longevity.

A total of 33 interviews were conducted. A distinction was drawn between Engineering and Construction due to differences in the culture and practices of heavy engineering and building construction companies in Australia. Engineering organisations tend to have a strong engineering culture. They traditionally employ people with degrees in engineering and are primarily involved in large engineering and infrastructure projects. Construction companies that focus primarily on buildings rather than infrastructure also employ engineers but many of their employees, including senior management, may not have a first degree. They may have begun "on the tools" with apprenticeships in areas such as carpentry and joinery. Building construction companies will have a number of employees with degrees in various disciplines such as construction management and quantity surveying. Business and Information Technology were combined as for those involved in projects in the business sector there is often a nexus between the two.

Table 1: Research participants by industry and gender

	Construction	Engineering	Business/IT	Total	%
Male	5	10	8	**23**	69.70%
Female	4	3	3	**10**	30.30%
Total	**9**	**13**	**11**	**33**	100.00%

To provide a basis for identification of potential generational differences in career paths and expectations, the interviewees were also categorised according to age (Table 3).

Table 2: Research participants by generation and gender

	GenY	Xers	Boomers	Total
Male	2	11	10	23
Female	2	6	2	10
Total	4	17	12	33
%	12%	52%	36%	100%

The transcripts of each interview were analysed and coded by the researchers with the support of qualitative analysis software, Atlas.ti (Friese, 2012) in order to identify themes that shed light on the career paths of project managers in Australia.

Findings

1. Predominately more respondents identified that women and men experience their careers in project management differently. Two thirds of respondents believe women experience difficulties in their PM careers related to lower pay; fewer opportunities; and less support.

"Definitely; where I am working now with the project managers per se; there aren't any female project managers at senior level; but on the frontline there are two female PMs and where I come from there are more women. (Female – Engineer)".

"Yes absolutely. The classic glass ceiling and the classic boys club! (Male – IT).

"I think PM is a very demanding profession, and I think for some people, both men and women, if you have considerable commitments outside of work that can make it very difficult. It's a very demanding profession and if you are trying to get a work life balance that can be very challenging indeed. (Male – Business)

"Last night "State of Origin" (football game) my client was taken out with all the big wigs and my boss was going along, not me, even though I'm the project manager of that project; which happens every year. [The] sic last origin game, a few weeks ago, a subcontractor invited all our project managers to an event, except for me, because I'm female, which I'm really ticked off at, but apparently I would make everyone else feel uncomfortable because it was males only. It was an invitation for project managers. So annoying! (Female – Construction)".

2. This occurrence is not related to industries although some of the respondents in business, and information technology presumed that industry differences might be prevalent with their own industries being less discriminatory.

"It depends on the environment and industry. If you were in mining, you might have some issues. If you were in agriculture, you might have some challenges but certainly in the industries I've been exposed to, the consumer packaged goods and the financial services, it hasn't. (Male – Business)"

3. Almost equal numbers of men and women across all those industries surveyed except IT believe that women are given different jobs to men in project management. All those in IT acknowledge that women and men in information technology work in similar roles. However in construction and engineering the results show that both men and women believe that the distribution of jobs and roles differ on a gender basis.   Furthermore this is discussed in a rather traditional way with one respondent blaming the lack of women in the industry rather than the industry's lack of support for women. Still another discussed the value of women as some sort of social control mechanism.

"No, I think the jobs have been equal, be it project coordinator or project manager there's men and women at all levels (Male – Business)."

"Certainly not by me, but what I am seeing now at the moment there's not a lot of them [women], so I don't see that they would if there was. I know it's a boys club especially in mining but there are a hell of a lot of positions that could be held by women that aren't. So I encourage them to get out there and find work, I would hire them in a second if I could find them (Male – Engineering)."

"Look I think they probably are, otherwise there would be more of me out there (Female – Construction)."

"Yes, I think so. We're never on site, we're always back in the office doing a more....project management is a lot of administration. Essentially you are an admin assistant who deals with the admin for a particular site. We tend to spend a lot of time assessing things back in the office and doing a lot of variation claims, all of that role. The boys will deal with site issues, or deal with the engineers (Female – Construction)."

> *"They [women] are given less site work. It depends on your project as well, and it depends who your client is. It also depends on who your subcontractors are as well. I spend a lot of effort building positive relationship with the contractors – the project managers – from their companies; less with the guys on site. (Female – Construction)"*

> *"For construction I don't think they are given different jobs, I think they are just not pursuing them. When I did my civil engineering course there were only a handful of women that attended the course, I would say less than 5%. It just didn't seem like a career path than women were pursuing. I don't think it's a popular thing for women to be doing. I'd like them to do it because I think that it has a positive effect on the work environment to break up too much testosterone in a room. When you have a lots of guys in the room and throw a women in there, the language becomes better and the punctuation becomes better, same with throwing a man into the mix with a room of women (Male – Engineering)."*

4. The question of a difference between the pay and rewards for men and women was more difficult for respondents to address. In many cases respondents identified that they are unaware of the pay scales of other project managers. All the male respondents indicated that there would not be any discrimination on pay. However four respondents, all women, were able to identify differences in pay while another referred to the differences in rewards which can be more obvious.

> *"With rewards the way that it works here that there are no rewards per se it's recognition. It terms of pay everyone is pretty much on an award or contract, there's no discrepancy there, and it's more the ability to get to the next level. As I said we really don't have many females here at all (Female - Engineering)."*

> *"My male colleague and I undertook the same master's degree in project management at the same time. Upon completion he was given an extra $30,000.00 annually but my salary did not increase and I ended up beating him [on GPA score]. (Both applied for a salary increase upon course completion) (Female – Construction)."*

> *"Yes. We're not supposed to talk about employment, but there's a younger project manager, we're about the same – I've probably got a little bit more experience to be honest. He's about seven years younger. I just found out, I don't even get paid the full PM salary, I only get paid 90% of it, and I'm not even the newest promoted PM in the office and I am the lowest paid (Female – Construction)".*

> *"I don't think there are any differences between pay and rewards [for men and women]. I wouldn't know directly but I wouldn't believe so (Male – Engineering).*

> *"No. I don't think so; it's all based on skill and your performance. (Male – Business).*

5. On the question of gaining equal access to training and development, respondents across all industries agreed that men and women had equal access to training opportunities and mentoring within their industries and within PM.

6. Yet on the question of the development of an EEO policy within their organisation there was indecision; uncertainty and some sarcasm. Two males in business and engineering discussed the lack of programs for white middle aged Anglo Saxon men; and two men in business and IT discussed special programs for people with a disability without any knowledge of programs for women in their organisations. Many respondents discussed the

lack of specific programs but the existence of EEO policy. In the engineering and construction industries respondents talked of a number of initiatives to support women within the industry rather than women in project management.

> *"Being a white middle age male there hasn't really been much that I've had anything to do with. I suppose, not really (Male – Engineering)."*

> *"None comes to mind. They don't run a formal EEO program. There is a policy (Female – IT).*

> *"There are a lot of different programs for women in engineering or women in our company to ensure they are getting the same opportunities that are equal to them (Male – Engineering)."*

> *"I know we have a very strong EEO policy in place. They have a women's group here, they have a group called Women at [company}, they have their own committee, and they have their own functions. They also have a mentor program for the women as well (Male – IT)."*

> *"Yes we have an EEO program for people with disabilities. From this year I have taken on board a deaf trainee and that's been very useful for me because I have never had to manage anyone with a disability before and I am now fully aware of all the issues surrounding and implications a deaf trainee especially. I have also organised training in AusLan which is a new skill which will allow me to communicate with people in the deaf community which I never thought of before and that's something that our company does, it also had an equal rights program and employment opportunities from the gay community so they are very forthright in their equality approach to that (M – IT)."*

7. On the question of the use of mentoring to assist PMs the participants identified that they experienced opportunities for mentoring differently according to the length of time in the industry and gender. Women experience mentors more frequently outside their area or their organisation while men have male mentors within the organisation.

> *"I'm a … Gen X and I've been mentored by Baby Boomers who I respect and I think they've been successful so you follow their ways" (Male Gen X Construction)*

> *"Yes and yes. I have had one who I have had ever since I started … we have been together for 14 years. …He has definitely influenced my career greatly because he works really well and he's more senior than I am and he brings me in on a lot of work and we figure out what needs to be done and then he gets me to do it. (Male Gen X Engineering)*

> *"… a PM* mentor, and personal as well, … he asked me where I want to be, how I'm going to get there, and what he can do to support that, or the organisation can do … he has a bit of power … he could potentially make it happen for me if they saw it as a benefit to the organisation, and my progression, and things like that, so where there's mutual benefit. I think it's changed my career." (Male Gen Y Construction).*

> **Project management*

> *No, not in the industry. I have got a mentor who is external, she's a senior executive in the State Government, and although she's not directly responsible for projects the portfolio she's got is transport, she's familiar with transport infrastructure projects, it's her portfolio but she isn't a hands on project manager. She's been very valuable. (Female GenX Construction)*

> *"I have been fortunate enough to work with a number of senior people who have taken me under their wing and mentored me... I have … cherished and benefitted from the experience. … my mentor was positive and encouraging."* (Male Boomer IT).

> *"… now I'm a mentor for a couple of graduate engineers here on site which means I try and help them through their careers … you need to be able to listen intelligently, and indeed you need to be able to contribute intelligently to such a discussion, otherwise your credibility is lost."* (Male Gen X Construction)

8. Six of the 10 female respondents related that they had some sort of project management qualification including 3 of whom had a masters' degree in project management and one with a Certificate 4 in project management. Six of the 33 male respondents identified that they had some sort of project management qualification including one masters in PM and 3 diplomas or certificates.

9. Gaining access to project management careers proved a different experience for men and women. Most men gained access through their studies in particularly courses such as engineering, construction or IT. Women gained access through other means including work in associated areas such as administration, contracts, or family connections.

> *I qualified as a civil engineer and … I entered the construction the industry. Male Construction*

> *It wasn't my first preference. I had an engineering career for 10 years and circumstantially I was driven down a management consulting path which then led me back to Australia. I then started working for [COMPANY] in Australia. Male Business*

> *I am an engineer by training, my degree was in manufacturing, engineering and business studies and I for a few years worked in an engineering environment. I found myself doing a lot of project work, equipment installation project work, so the people and the process aspects of engineering and manufacturing environments and my interests went more towards that process change and organising people side as opposed to the technicalities of the engineering. Male Business*

> *my careers advisor at university suggested I get into IT. As it was then in the 1970s a very new developing industry so that's how I got into it. I became a trainee at British Post Office, British Telecom. And I went moved on from there. I went from there Male IT*

> *Did engineering … so when I graduated in, it must have been about '98 I think, I worked for a small contracting company, I mostly sort of did small work for the RTA, so the $2 or $3 million, or $4 million for the RTA, and I started on that sort of stuff. So started off there, and that was a sort of small company where you tended to hire engineers to do everything. Male Construction*

> *I'm a civil engineer - not that I do much civil engineering these days but I suppose my first seven years I worked for Vic Roads and as they had then, they had a rotation program for young engineers to go into design areas Male Construction*

> *I focused on construction management as the path forward, all the courses I did were construction management focused. I did major in construction management electives. It was more a development of ideas than a light bulb moment. Male Engineering*

> *… difficult to say how I came to be here, really … I came into the business side of the*

organisation and have ended up here …Female Construction

It was an introduction by a friend for a casual job that led to the finance industry. Female Business

I started working in a contact centre environment, and I managed the disaster recovery section, and I led a team there many years, because I worked for energy Australia. I then had some time off from the business I had an opportunity to work in the learning development part of the business. It kind of went from there then I came across to ORGANISATION and working in the project management area here. Female IT

My current industry is transport and it wouldn't have been my first preference. My previous work had always been on socially disadvantaged community projects. It was always on the educational development project side. I like the educational aspect side of the industry, especially the education and training of employees. Female Engineering

It was a choice for sure. I've doing this now for about 10 years, in this industry. My brother was a builder and expanding his business. He was looking for someone with more generic skills around contract administration, and I was looking for something a little bit different to do. So I got in it through Mike. Now interestingly enough, he's not in it, he'd had enough of the industry, and I'm powering on. Female Construction

When I was younger I moved to the States with my partner at the time who was running a property and construction company. So I started working with him, and my career started working with his company. We worked a lot with distressed assets, and managing the rebuilds and 'refurbs' on a lot of senior care portfolios throughout the south east of the States. I started doing that and thought "You know what, I don't mind this, so I'll keep going". Female Construction.

I guess my role in defence force, as a supply officer, which is a logistics officer, is primarily project management. I worked in supply chain management for submarines. I worked as a watch keeper, which is providing logistic support, material support to overseas deployments. That was tri service position. Deploying and ship and a submarine for sea, and supporting them throughout, you can compare it to managing a fit out. I looked to construction [after I left the Defence Force]. Female Construction

Discussion

Women do experience their access to, and, their work and careers within project management organisations differently to that of men. Numbers indicate fewer women in this area of work in three major industry areas that apply the project management approach to work organisation. Further, despite the likelihood of greater numbers of women with qualifications in the area, their payments and rewards appear to be different to that of men.

Research into addressing occupational segregation, suggests two approaches: the homogenous and multifarious. However due to the array of causes and the burgeoning differential outcomes of sex segregation and discrimination Anker (1997) suggests that multiple policies and programs are needed to address the burden of family responsibilities placed on women, stereotyping and prejudice; educational policies to open access to non traditional occupations for both men and women and equal opportunity and affirmative action to open new opportunities for both men and women. Greater attention is needed at the organisational level examining how careers are embedded in organisations and how managers

and supervisors make the hiring decisions (Browne and Kennedy, 1999), as Perry, Davis-Blake and Kulik (1994) point out that gender-based selection decisions are a necessary condition for gender segregation. However little evidence of this multifarious approach to address sex segregation and discrimination is evident in project organisations.

What is missing in the discussion of addressing sex segregation and discrimination in organisations is a greater acknowledgement of the issues of isomorphism particularly within professions. The replication of "like" systems is encouraged through professionalism and environmental uncertainty such that the implementation of legislation may not be addressing. Institutional theory acknowledges that organisations are influenced by the society in which they operate (Brammer, Jackson and Matten 2012). Indeed, Meyer (2007) suggests that 'new institutionalism' acknowledges the importance of not just the institution or the nation state, but also the individual actor who comes to the institution with socially constructed scripts behind them. Accordingly, as the social institutions that shape organisations and life outside them change, it could be expected that formal and 'informal rules, regulations, norms, and understandings that constrain and enable behaviour' (Morgan, et al. in Bammer et al. 2012: 4) will also need to change. Yet, according to Meyer (2007) this change is unlikely to occur through conscious thought or decision making but through mimicry, legitimating current actions as though they were thought out but in fact no decision is ever likely to have been made. Indeed the current "Pulse of the Profession Survey" (2013) through the Project Management Institute does not address the issue of the low numbers of women in the profession.

Over the past decades countries worldwide have been implementing legislation requiring or encouraging employers to address discrimination in employment, and encouraging equal opportunity to overcome the disadvantage that members of some groups experience in the workplace due in part to segregation or discrimination and the inequity that results. The Australian jurisdiction is unique in that all organisations with more than 100 employees must develop an equal employment opportunity plan for implementation and submit regular progress reports on their achievements. Yet, research shows little substantive change is evident particularly in areas of non-traditional work for women (French and Strachan 2008; 2009; 2013). In a study of the male dominated transport industry, the female dominated finance industry and the male dominated construction industry, organisations are identified as implementing equal opportunity strategies within the so called soft HR area of work organisation to support women moving in and out of organisations to allow for their caring responsibilities and they further address the coercive antidiscrimination legislation through policies to address sexual harassment and pregnancy and breastfeeding many for both mother and fathers as appropriate. But, there is no significant implementation of the recommended equal opportunity strategies within the hard HR areas of recruitment and selection or promotion and transfer or payment and rewards to assist women access male dominated areas including management. Results from our survey support this finding with limited numbers of equal opportunity programs within project organisations other than a policy, and no evidence of any programs designed to support woman in a predominately male dominated area.

According to institutional theory, professions are defined by the norms, values and practices typically present within them. As a result of interaction, the norms and practices of an industry, organisation within it or the profession are reinforced with these practices becoming accepted over time as how things are done in an industry or organisation. These structures and practices that become institutionalised have been found 'to contribute to sex inequality' (Martin 1994). Neo-institutional theory (Carden and Egan 2008; Packendorff 1995) may be applied to projects which can be viewed as institutions, in that they are conducted based on practices and experiences within other, earlier projects. Institutional theory has not often been

applied to project organisations in the past (Packendorff 1995) however more recent research in project management has found institutional theory provides a rich analytical framework in this field (Morris and Geraldi 2011). When new ways of working first led to the use of the term 'project manager' and project management became acknowledged as a profession (Gaddis 1959), the project manager was perceived as a male, usually an engineer. Indeed, the masculine culture of the project-based construction industry has led to it being described as a 'macho profession' (Cartwright and Gale 1995). But project management is now moving beyond the traditional areas of infrastructure, construction and mining to involve people in a wide range of organisations where teams are used to deliver products and services via time delineated projects (Lindgren and Packendorff 2006).

Conclusion

This small preliminary study investigating the differences between the experiences of women and men in project organisations indicates that changes to address sex segregation may not be occurring within project-based or project-oriented organisations. With the projectification (Aubry & Lenfle 2012) of work within organisations leading to temporary internal work arrangements and with contracting or self employment (Peel & Inkson 2004) increasing in popularity new, boundaryless career paths are predicted and discrimination between men and women an unnecessary burden. The increasing number of female professionals attempting career self-management (Sturges 2008) within the project management profession could find their choices are confined whilst the gendered assumptions of project manager success (Thomas & Buckle-Henning 2007), and the masculinisation and feminisation of project-based work identified by Lindgren and Packendorff (2006) prevail. This is especially so whilst behaviour continues to follow patterns linked to institutionalised, presupposed expectations (Ituma & Simpson 2007).

The growth in the use of project management methodology to deliver diverse products and services has inevitably led to a more diverse group of people becoming project team members and moving to project management and leadership roles over time. Indeed, project management has moved from the former male dominated engineering field to female dominated areas such as health, or industries increasingly employing large numbers of females such as banking and finance and law. However institutionalised patterns and gendered assumptions remain and have the potential to influence the career advancement of men and women differently (Bain & Cummings 2000).

References

Anker, R., 1997. Theories of occupational segregation by sex: An overview. International Labour Review. 136 (3), 315-339

ABS Catalogue 1350.0 - Australian Economic Indicators, Oct 2010
http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1350.0Feature+Article1Oct+2010

ABS Catalogue 4125.0 Gender Indicators, Australia Jan 2010 in

Adeyemi A., Ojo S., Aina, O. & Olanipekun, E. 2006. *Gender in Management*. 21(7), 567-577.

Aubry, M., Lenfle, S. 2012. Projectification: Midler's footprint in the project management field. International Journal of Managing Projects in Business, 5 (4), 680-694.

Bain, O., Cummings, W., 2000. Academe's Glass Ceiling: Societal, Professional/ Organizational, and Institutional Barriers to the Advancement of Academic Women. Comparative Academic Review. 44 (4), 493-514.

Bammer, S, Jackson, G., Matten, D., 2012. Corporate Social Responsibility and institutional theory: new perspectives on private governance. Socio-Economic Review, 10 (1), 3-28.

Blackburn, R.M., Browne, J., Brooks, B., Jarman, J., 2002. Explaining gender segregation. Journal of Sociology. 53 (4), 513-536.

Buckle, P. and Thomas, J. (2003), "Deconstructing project management: A gender analysis of project management guidelines", *International Journal of Project Management*, 21, 433-441.

Carden, L., Egan, T., 2008. Does Our Literature Support Sectors newer to Project Management? The Search for Quality Publications Relevant to Nontraditional Industries. Project Management Journal, 39 (3), 6-27.

Cartwright, S., Gale,A. 1995. Project Management: different gender, different culture? A discussion on gender and organizational culture, Part 2. Leadership & Organization Development Journal, 16 (4), 12-16.

Dainty, A., Baglihole B., Neale, R., 2001. Male and female perspectives on equality measure for the UK construction sector. Gender in Management. 16 (5/6), 297-304.

DiMaggio, P.J., & Powell, W.W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48 (2):147–160. de Vaus, D., 2002. Survey in social research 5th ed. Allen & Unwin, Crows Nest, NSW.

Ellison, L. 2001. Senior Management in chartered surveying: Where are the women? Gender in Management. 16 (5/6), 264-278.

EOWA 2011. Industry Snapshot: Construction.
http://www.wgea.gov.au/Information_Centres/Resource_Centre/WGEA_Publications/Industry_Verticals/2011/2011_Construction.pdf Accessed 15 Feb. 2013.

French E., Strachan G., 2013 Equal Employment Opportunity and its links to the participation of women in the Construction Industry: The Case of Australia, presented at Equality, Diversity and Inclusion Conference 2013 Athens 1-4th July 2013

French E., Strachan G., 2009. Evaluating Equal Employment Opportunity and its impact on the increased participation of men and women in the Transport Industry in Australia'. Transport Research Part A: Policy and Practice, 3A (1), 78-89.

French E. Strachan G., 2007. Equal Opportunity Outcomes for Women in the Finance Industry in Australia: Evaluating the Merit of EEO Plans. Asia Pacific Journal of Human Resources, 43 (3), 314-332.

Fielden, S., Davidson, M., Gale, A., Davey, C., 2001. Women, Equality and Construction, The Journal of Management Development. 20 (4), 293-304.

Gaddis, P.O. 1959. The Project Manager. Harvard Business Review. May-June, 89-97

Henderson, L. S., Stackman, R. W. and Koh, C. Y. 2013. Women Project Managers: The Exploration of Their Job Challenges and Issue Selling Behaviors. International Journal of Managing Projects in Business. 6 (4): in press.

Ituma, Q., Simpson, R., 2007. Moving beyond Schein's typology: individual career anchors in the context of Nigeria. Personnel Review, 36 (6), 978-995

Jonung, C. 1984. "Patterns of Occupational Segregation by Sex in the Labor Market." In Sex Discrimination and Equal Opportunity: The Labor Market and Employment Policy, edited by G. Schmid and R. Weitzel. London: Gower Publishing Company. Karmel, T. and M. MacLachlan. 1988. " Occupational Sex Segregation-Increasing or Decreasing." Economic Record 64:187-95. King, M.C. 1992. "Occupational Segregation by Race and Sex: 1940-88." Monthly Labor Review 115(4):30-37. Nermo, M. 1996. " Occupational Sex Segregation in Sweden, 1968

Lindgren, M., Packendorff, J., 2000. Living by projects: A gender perspective on international project management11th AGRH conference 'Internationalising Human Resources Management?' in Paris, France, November 16-17, 2000.

Lindgren, M., Packendorff, J., 2006. What's New in New Forms of Organizing? On the Construction of Gender in Project-Based Work, Journal of Management Studies, 43 (4), 841-866.

Martin, J., 1994. The Organization of Exclusion: Institutionalization of Sex Inequality, Gendered Faculty Jobs and Gendered Knowledge in Organizational Theory and Research. Organization, 1 (2), 401-431.

Meyer, J. 2008. Reflections on institutional theories of organizations. In R. Greenwood, C. Oliver, R. Suddaby, & K. Sahlin (Eds.), *The SAGE handbook of organizational institutionalism.* (pp. 790-813). London: SAGE Publications Ltd.

Morris, P., Geraldi, J. 2011. Managing the Institutional Context for Projects. Project Management Journal, 42 (6), 20-32.

Packendorff, J. 1995. Inquiring into the temporary organization: New directions for project management research. Scandinavian Journal of Project Management, 11 (4), 345-354.

Peel, S., Inkson, K. 2004. Contracting and careers: choosing between self and organizational employment. Career Development International, 9 (6), 542-588.

Sturges, J., 2008. All in a day's work? Career self-management and the management of boundary between work and non-work. Human Resource Management Journal, 18 (2), 118-134.

Thomas, J.L., Buckle-Henning, P., 2007. Dancing in the white spaces: Exploring gendered assumptions in successful project managers' discourse about their work. International Journal of Project Management, 25 (6), 552-559.

Tomaskovic-Devey, D., Skaggs, S., 2002. Sex segregation, Labor Process Organization, and Gender Earnings Inequality. American Journal of Sociology. 108 (1), 102-128.

Watts, M. (1998). Occupational gender segregation: Index measurement and econometric modeling. *Demography (Pre-2011), 35*(4), 489-96. Retrieved from http://search.proquest.com/docview/222950285?accountid=13380

Worrall, L., Harris, K., Stewart, R., Thomas, A, McDermott, P., 2010. Engineering Construction and Architectural Management 17 (3), 268:281.

Young, M., Young, R., 2012 The Rise and Fall of Project Management: are we observing the birth of a new discipline? Journal of Project, program and Portfolio Management 3 (1) 58-77.

Zikmund, W.G., 2003. Business research methodsThompson Learning, Mason, OH.