



**University of Salford**  
A Greater Manchester University

# Construction and Women

## Promoting Construction Careers for Women in the North West

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# Executive Summary

This report examines the reasons for the lack of women working in a professional capacity within the construction sector, with particular emphasis on the North West of England. The findings are based on an 18 month research project Construction and Women, which was undertaken by a research team from the School of the Built Environment, University of Salford. The research was partially funded by the European Social Fund (ESF) under policy field 5, Improving the role of women in the workplace, and measure 2 Research into discrimination against women.

The research team carried out an extensive review of previous research, and conducted interviews with representatives from the construction, medicine and marketing sectors. The team identified several barriers that discourage women from the entering or remaining in the industry. In order to encourage increased recruitment, retention and progression of women in the construction industry, the research team have made the following recommendations and highlighted certain good practices that employers may wish to implement to promote or protect females in their organisations:

### **Flexible organisational culture**

- Introduce flexible working hours
- Develop 'career break' schemes that may include:
  - Providing re-training for returning employees
  - Providing mobiles, laptop and other facilities and equipment that may enable women to work from home or provide greater flexibility in working patterns
  - Keeping in touch with women during their career break period and updating them with new developments in the organisation

### **Promote women's achievements in construction**

- Promote 'can do' and 'can win' attitudes among women
- Promote role models – identify appropriate role models and introduce them to the public and the construction sector so that it will encourage women attached to construction, or women who want to start a career in construction
- Promote women's achievements through success stories about projects managed and supported by women professionals. This will help to change the attitude of clients towards women's performance

### **Alter the image of the construction professions**

- Organising image campaigns where we can educate young women about professional roles and on the career opportunities available for them in construction. Merely implementing a positive image campaign without revealing the real picture may attract more women into construction but is unlikely to retain them in the industry
- Inviting construction women role models to schools and let them share their experiences with female students
- Organising workshops for women on how to work successfully in a male dominated industry with examples and practical solutions

### **Improve awareness of opportunities in construction**

- Education at a very early age is the best way to improve awareness and understanding of the industry. It is extremely important to increase knowledge about the nature of construction industry's professional occupations, higher education routes to professional status and career opportunities in construction. Young professionals should be encouraged to go into schools and talk about their careers in order to change the incorrect perceptions that many people have towards the construction professions
- Advice should be given to parents and teachers on how to encourage and support daughters who choose to have a career in construction
- Owing to the variety of courses and diversity of career paths, even professional career advisors find the subject of careers advice for construction confusing. It is imperative to prevent career advisors providing inaccurate and inadequate information on the construction industry. Training events should be organised for professional career advisors, at which they can be shown the career opportunities available for women in construction

- The skill shortage is an ongoing problem for the UK construction industry. Employers must be informed as to how the recruitment of more women into the industry can be used to address this problem. They should also be advised on the implementation of Equal Opportunities (EO) recruitment procedures, in order to attract more skilled women into the construction workforce
- The importance of Equal Opportunities (EO) policies must be emphasised to policy makers and it is important to standardise EO recruitment procedures in order to minimise informal recruitment by personal contacts
- Raising awareness of the construction industry among the general public is very important. The contribution of the built environment towards the quality of life goes largely unrecognised by the public. That could be addressed by the following:
  - Senior professionals at a management level to raise awareness of the jobs that women can get in construction
  - As suggested by the former director of Women in Science and Engineering (WISE), women's achievements should be revealed to politicians and the media. A lack of awareness of women's achievement in Science, Engineering and Technology among politicians and media representatives could be one of the major causes for a lack of awareness among the public. The message would easily and quickly reach the public through such means
  - Public awareness activities should be held, not only by the education centres, but there should be a tri-pod collaboration between such centres, the government and industry

### **Improve the working environment for women**

- Provide separate facilities for women on site, including toilets and changing rooms
- Provide uniforms designed for women; men's clothing is often an inappropriate size and uncomfortable for women to wear
- Monitor the attitudes and behaviours of co-workers towards female professionals
- Allocate more than one woman for site based jobs, because when women are not isolated they can make a change in the structural factors

### **Develop networking and promote existing initiatives**

- Promote mentoring and develop networking among professional women in construction
- Increase awareness of the purpose of existing initiatives that target women
- Circulate information about the initiatives to Human Resource (HR) management departments of construction organisations, schools and career advisors





# Contents

<b>Executive Summary</b>	<b>2</b>
<b>1 Background to the Project</b>	<b>5</b>
1.1 Objectives	5
1.2 Methodology	5
<b>2 Characteristics of the Construction Industry</b>	<b>7</b>
2.1 A definition of the construction industry	7
2.2 Construction as a multi-disciplinary field	7
2.3 The perceived masculinity of construction	7
<b>3 Women and the Construction Industry</b>	<b>8</b>
3.1 The image of construction	8
3.2 Knowledge of career opportunities in construction	9
3.3 Organisational culture	10
3.4 Working practices	11
3.5 Training and Continuous Professional Development (CPD)	13
<b>4 Recommendations</b>	<b>17</b>
4.1 Flexible organisational culture	17
4.2 Promote women's achievements in construction	17
4.3 Alter the image of the construction professions	18
4.4 Improve awareness of opportunities in construction	18
4.5 Improve the working environment for women	19
4.6 Develop networking and promote existing initiatives	19
Appendix A: <b>References</b>	<b>21</b>
Appendix B: <b>Contributors</b>	<b>23</b>
Appendix C: <b>Sample of Respondents</b>	<b>25</b>



# 1 Background to the Project

This report presents the findings of an 18 month research project Construction and Women (CAW). The research was partially funded by the European Social Fund (ESF) under policy field 5 and measure 2. CAW aimed to identify the causes for the lack of women professionals in construction, both in industry and academia, and with a particular emphasis on the North West of England. The report concludes with recommendations to encourage women to pursue careers in construction, and improve retention of women in the industry.



## 1.1 Objectives

The lack of women in the construction industry has been a concern for many years, attracting government and industry-wide attention. In recent years, the issue has gained greater prominence due to the widespread skills shortage facing the industry. Despite this attention, there has been little change in the number of women working in the industry. Numerous initiatives promoting construction careers to women have been developed, but as yet, have failed to yield the desired effect.

The major objectives of this project are to:

- Examine the background to the problem, including women's under representation in construction, both in industry and academia;
- Review recent initiatives that have attempted to encourage women's participation in the construction sector;
- Explore women academics' and industrialists' perceptions and experiences within the field to discover what factors influenced their professional career and continued development;
- Examine the effect of culture on the employment of women in the construction sector;
- Consider whether lessons can be learnt from other professions; and
- Provide recommendations (including training needs) and good practices to aid the recruitment, retention and progression of women in construction.

In this context, this project concentrates on how the construction sector within the North West of England can successfully recruit, retain and progress professional women.

## 1.2 Methodology

An extensive literature review was undertaken to identify current practices and barriers that may prevent women entering construction, and to contextualise the research team's findings. The review focused on women in construction, women in academia, and women in construction related academic posts. The literature review was also used to examine the ways in which other sectors – medicine and marketing – have become accessible careers for women.

Interviews were chosen as an appropriate method for this study as they are ideal, 'for capturing the experiences and lived meanings of the subjects in everyday world', and as they allow subjects to convey to others their own situation from their own perspective and in their own words (Kvale, 1996). Semi-structured interviews were used as these have the advantage of being a 'halfway house' between the rigid layout of a structured interview and the flexibility and responsiveness of an unstructured interview (Moore, 2004). They permitted the collection of both structured information, and people's views and opinions, allowing spontaneity in the interviewer's questioning and the interviewee's response. The process of constructing and using qualitative research interviews was split into four steps: defining the research questions; creating the interview guide; recruiting participants; and, carrying out the interviews (King, 2005). Interview guidelines were formulated

separately for each sector. All interviews were taped using an electronic voice recorder, thereby permitting the conversion of the recorded voice into text.

The recruitment of participants to a qualitative interview study depends on the study's aim, and its theoretical, epistemological and methodological position (King, 2005). Men and women working in a professional capacity in construction are represented in a wide range of organisation types, including consultancy, contracting, client, and education-related organisations. The sample of respondents for this study is provided in Appendix C.

The analysis of interview data followed the process outlined by Miles and Huberman (1994, Page 10-12): 'qualitative analysis involves three activities: data reduction, data display, and conclusion drawing'.

The first stage was a process of selecting, focussing, and simplifying the interview transcripts. Before starting the analysis, a transcript of each interview was prepared. A transcript is the mere text which is used to identify data consisting of words which have become recorded without the intervention of the researcher through an interview. The data reduction was done by reading through the transcripts and extracting the most relevant data for all of the questions listed in the interview guidelines, and any additional questions that were raised during the interview. This process identified a number of issues under the major themes of the project.

The second stage in the analysis process was the data display. This was done by producing a data matrix. A data matrix is produced by tabulating the interview data; the respondents were listed as columns and the questions as rows. Four data matrices were created: the construction industry; construction academics and researchers; the medical sector; and, the marketing sector. This permitted a comparison between the sectors and provided an important reference tool when developing the recommendations.

The final stage of analysis was to display the data and draw conclusions. The analysed data was broken into relevant themes, rather than by developing a detailed account of each question, which would make the section very lengthy and unstructured.



## 2 Characteristics of the Construction Industry



### **2.1 A definition of the construction industry**

Construction is one of the most important industry sectors in terms of economic growth and employment. The construction industry has been defined as one that employs workers in two main categories: managers and professionals, who plan, organise, and advise on specialist functions or field activities, and direct and coordinate all activities and resources involved with construction operations; and, construction trades, who construct, install, finish, maintain and repair internal and external structures of domestic, commercial and industrial buildings and civil constructions (Employment Service, 1990).

### **2.2 Construction as a multi-disciplinary field**

The construction industry has distinctive characteristics that separate it from other industries (Harvey and Ashworth, 1993). It is project oriented and therefore an organisation is disbanded upon the completion of the task (Giritli and Oraz, 2004). In financial terms, the industry converts financial investment into physical assets such as industrial plant, buildings, roads, and general infrastructure. This creation of fixed assets to enable other economic activities to take place is an extremely important aspect of the industry. The construction industry is not a single body, but a collaboration of many stakeholders from various disciplines so that it gives employment to various professionals and workers at different levels. Thus, it involves multi-tasking activities and multi-disciplinary personnel. Construction is relatively labour intensive; it uses a higher number of workers per unit of output than most other industries. The industry makes use of a wide range of components, such as bricks, tiles, steel sections, and joinery fittings, with each manufacturing industry employing a large workforce. While being a market for other industries, construction also assists the development of other industries. As a result of these backward and forward linkages, it is difficult to define a clear boundary to the construction sector.

### **2.3 The perceived masculinity of construction**

The culture of the construction industry is openly masculine. The male values of the industry are exemplified by long working hours, working away from home, geographical instability and a highly competitive culture.





## **3 Women and the Construction Industry**

The Construction Industry Training Board (2003) revealed that women constitute only 9% of the construction workforce. Of these, 84% are in secretarial posts, 10% work in a professional capacity, and the remaining 6% work in the crafts and trades. In educational terms, the number of women entering university has continued to increase over recent years, with women now accounting for over 50% of the student population. Despite this, women only constitute 8% of construction students. Women academics have gone from a position of almost total exclusion, to the maintenance of relatively stable horizontal segregation, and vertical segregation by grade. Despite the introduction of Equal Opportunities policies by many universities in the 1990s, it remains male dominated. Overall, women hold only 35% of full-time academic posts and account for only 10% of Professors. The figures are even more revealing in the case of construction; whereas 24% of education Professors are women, only 0.5% of the UK Professoriate in construction-related fields are women.

The lack of women in construction has been a concern for many years. The studies in these areas have been invaluable in pinpointing the factors militating against the participation of women in the construction work place, and in particular, the recruitment into the construction professions (Agapiou, 2002). These factors are discussed below, based on a survey of the literature and interviews with construction professionals.

The literature identifies the industry's image as a significant factor against the entry of women. The predominant image of construction is that of a male-dominated industry requiring brute strength and a good tolerance for outdoor conditions, inclement weather and bad language (Agapiou, 2002). It is principally this image that discourages women from entering the industry.

The image of the construction industry was identified by all the respondents as a major barrier for recruitment, development and retention. Although significant for both genders, it was felt to be particularly significant for females. In academia and research, respondents suggested that image is not a significant factor. However, a minority suggested that the negative image of construction might discourage women from choosing any career in a construction related field, including academia and research.

### 3.2 Knowledge of career opportunities in construction

The construction sector's image problem is compounded by a general lack of knowledge and information about the industry, the career opportunities it can offer, and the qualifications that are required (Fielden et al, 2000). Teachers, parents, career advisors and school students have only a vague, superficial knowledge of the industry. The CITB (2003) found that parents, teachers and school children believe that jobs in the construction

**"My image of construction is...it's dirty, cold, anti-family friendly, very substantially destructive to home lives. The construction site, in particular, uses discrimination and bad languages at higher levels"**

(Male, 42)

#### Other Sectors

People typically view the medical sector as a prestigious profession. Although medicine used to be the epitome of a male-dominated profession, this image did not totally discourage women from choosing a career in medicine. The number of women entering into medical sectors has increased for a variety of reasons: a change in admissions procedures; the need for doctors to treat female patients; the introduction of flexible working practices; changes in the general practitioner (GP) contract; and, introduction of mentoring. Further, and in contrast to construction, the positive image of the medical sector has made parents, teachers, careers advisors and friends more likely to encourage women to select a career in medicine. Socialisers have had a significant impact on the numbers of women entering medicine. Many medical professionals have either parents or close relations already working in the sector and thus a good awareness and knowledge of the opportunities available.

### 3.1 The image of construction

The image of the construction industry is typically portrayed as promoting adversarial business relationships, poor working practices, environmental insensitivity and a reputation for under performance (Construction Industry Board, 1996). The construction industry has an industry wide problem with 'image' which makes both men and women reluctant or uninterested in the industry (Bennett et al, 1999; Fielden et al, 2000).

industry are limited to bricklaying, joinery, and painting and decorating. Although a greater awareness has been found among 'A' level students and undergraduates, with regard to professional activities such as engineering and architecture, the status of the industry as a career opportunity does not compare favourably with other options (Harris, 1989). This is mainly because the girls' career choices, and in particular their encouragement to enter non-traditional occupations, is strongly







**“I decided to become a Civil engineer when I was very young. I never wanted to do anything else. My dad is a Mechanical Engineer; he told me not to be an engineer because he wasn’t satisfied with my degree in that career. He asked why didn’t I become a lawyer or a doctor..”** (Female, 27)

#### Other Sectors

The public’s perception of the marketing sector is somewhat neutral – neither positive or negative – as they have a limited knowledge and awareness of career options. The selection of marketing was primarily driven through personal interest in related subjects while undertaking formal education.

influenced by their family, friends and teachers (Agapiou, 2002) who have only a superficial knowledge of construction.

In academia and research, respondents selected a career in construction due to personal interest, with the exception of one, who was influenced by family members and teachers. In industry, most of the professionals were specifically advised by family members not to choose a career in construction.

Of four women interviewed, two had their immediate family members in construction. One of them, who is a young civil engineer, was discouraged by her father when she decided to choose construction as her career.

Career teachers and advisors were perceived by school students, undergraduates and graduates to provide inaccurate and inadequate information on the construction industry. Owing to the variety of courses and diversity of career paths, even professional career advisers find the subject of careers advice for construction confusing (Gale, 1994a). It would appear that construction is perceived negatively, even by professional careers advisors, so that it leads them to discourage the females who are willing to choose a career in construction.

### 3.3 Organisational culture

The construction industry displays a macho culture where relationships are characterized by argument, conflict and crisis (Gale, 1994b). As a result, employees – male and female – find that they are exposed to an extremely hostile environment. Women who are attracted to the construction industry face the same stereotypical barriers as women in other sectors. In this male dominated profession, there are added stereotypes regarding the nature of the profession and the professionals themselves (Langford et al, 1994). Bagillhole et al. (2000) noted that the construction workplace has been described as among the most chauvinistic in the UK, with an extremely macho culture which is hostile and discriminatory against women. This results in gender differentiated career opportunities, which have an inevitable consequence of high staff turnover of women in construction companies (Davidson & Cooper, 1992). Dainty et al. (2000) found that younger women tend to become disillusioned with their career choice more rapidly than men, and seek to leave the industry early on in their careers.

Davey et al (1999) state that in the construction industry male values are the norm, such as long working hours, competition, independence, and full time working, and that rewards and the expectations for career achievement are paramount. Davidson (1996) and Davidson & Cooper (1992) indicate that women who seek entry into male-dominated cultures either have to act like men in order to be successful, leave if they are not adaptable to the culture, or they can remain in the industry without behaving like men but tend to maintain unimportant positions. Further, the recruitment process in the construction industry is said to show bias against female workers. Dainty et al (2000) found out that male managers use discriminatory recruitment practices which put many women off applying for new positions with contracting organisations. Further, it has been reported that the culture of construction organisations permits informal recruitment practices; these can include advertisements and brochures depicting male values and interests, unstructured interviews, discriminatory selection criteria and sexist attitudes (Fielden et al, 2000). It was also pointed out that construction workers are expected to work outside during the cold winter months, often in dirty conditions, which in their opinion makes the industry unattractive, particularly to women (Fielden et al, 2001). Therefore, the male dominated culture can be especially destructive for women entry, career development and retention in the construction industry. However, faced with these cultural barriers, some women still seem able to gain a higher degree of career satisfaction and optimism than their male counterparts, as they continue to enter former male roles (Nicholson and West, 1988).



**“First we have to find out where this discrimination is taking place. We need to differentiate between groups within the University. There is a real discrimination, particularly between low skilled manual jobs such as cleaners or kitchen staff or porters. But at the professional level within Higher Education, there isn’t any discrimination at all”** (Male, 39)

In contrast, within academia it is relatively easy for a woman to progress. The Higher Education sector in England is going through a job evaluation exercise, and is looking at diversity issues, equal pay for equal roles and equal pay for males and females for the same role. Though there remains some discrimination against females in Higher Education, particularly in professional roles, its influence is minimal.

The males and females who are attached to the industry generally accept that it is not that easy for women to progress well.

However, one leading woman engineer indicated that she personally had not faced any difficulties so far in her career progression.

Therefore a generalisation about the difficulties or discrimination for women in a male dominated sector is not sensible without knowing where the discrimination is taking place. It depends on the nature of the organisation and the level of the female workers within that organisation.

In terms of culture and the physical workplace environment as factors which influence women’s career progression, the academic environment is more female friendly and accommodative for women to progress. Within industry, the site-based environment is typically seen as hostile to women, whilst the office environment is comparatively accommodative. In recent years, there have been moves by some contractors to improve site conditions for women, but these are sporadic and have yet to change the broader perception about site conditions.

### **3.4 Working practices**

Work-family conflict is defined as a form of inter-role conflict whereby job and family demands cannot be met simultaneously and is an on-going problem for women with career aspirations (Wentling, 1996). The conflict between work and family obligations, that many construction professionals experience, is more acute for women than for men. Recent research suggests that job demands borne by construction professionals are damaging to their personal relationships (Lingard and Francis, 2002). While men and women both need to balance the demands of work and home life, women still bear the primary responsibility for domestic duties in most households (Higgins et al, 2000). Site-based employees, both professional and manual workers, are usually subject to changing work locations. This can involve travelling substantial distances and/ or long periods away from home, a situation which can present serious difficulties in terms of transport and child-care. In a study by Lingard and Lin (2004), it was suggested that women in construction adopt an ‘either or’ approach to career and family. Also it is possible that women’s perception of the need to make a choice between work and family means that women who choose to have a family, develop lower expectations of the work experience and, consequently, the work-family conflict does not negatively impact upon their organisational commitments. However, women who expect to balance both family and career success in the construction industry may experience significant difficulties (Lingard and Lin, 2004).







**“Even men will like that. The world is changing where men to do half the work in terms of child caring and things like that. It is possible to adopt that kind of a culture in the industry but it will take a long time. It would have to come from the senior management level...”** (Female, 35)

#### Other Sectors

The medical sector shares numerous characteristics with construction: long working hours; stressful work; and, night and weekend work. Such practices are typically viewed as unfavourable to women with family commitments. Given the growing proportion of female doctors, it is clear that in general the medical profession has very few recruitment problems; however, there are certain areas of medicine which fail to attract sufficient numbers of women. For instance women still have difficulty in finding employment at consultancy level. However, the medical profession has made considerable progress in the employment of women.

In the marketing sector, private organisations pose several problems for women with family commitments: over-night work; very long hours; project based work; and, a requirement to travel. The public sector fares more favourably: flexible working hours; an accommodative environment; and less stressful work. Respondents didn't view the culture of the sector as a barrier for women's career development.

Like construction professionals, both the medical and marketing sector professionals highlighted the work-life balance as a major barrier for their career progression. All believed that the introduction of flexible working hours would enhance the work-family balance. In this regard, the medical sector has already managed to accommodate flexible working hours to some extent. However, in practice, flexible working hours are sometime discouraged by employers in the sector.

From the interviews it was found that in an academic culture the organisational structure is flexible enough for many females.

In industry, working long hours and away from home can make a women's life more difficult, as they have to maintain a balance between their personal and professional lives. All the respondents agreed that part-time or flexible working hours would enhance the work-life balance. It was recognised that it would be easier to implement in academia and may present a more difficult challenge in industry, as it is project-based and time is such an important factor. At the very least, many felt it would take a long time to change the culture of the construction industry in order to make working practices more female friendly. Many felt that both genders would like alternative and more flexible working practices.

### 3.5 Training and Continuous Professional Development (CPD)

The mainstream courses and training provided by colleges, training organisations and employers create a whole host of problems for women arising from the male-dominated environment and masculine culture (Gale, 1994a). Recent surveys have suggested that over half of the young women who returned their questionnaire reported during their training period of encountering a general disbelief among male instructors and colleagues that women could be technically competent. Access to high-profile development opportunities (such as to enquiries and working groups) is often gained through informal networks and mentors. Research shows that women tend to lack access to informal networks that provide information about such opportunities. They are also less likely to have a mentor who will signal their potential and provide them with the support needed to ensure success.

In spite of the consistent association of on-the-job development and promotion, research indicates that women are offered fewer developmental experiences than men (Wernick, 1994). Women are also more likely to be found in staff (personnel, HR, communications etc) rather than line (service delivery/ production) functions. Thus, they can lack the kind of work experience that leads to promotion (Economist, 1998). Although increasing numbers of women have appropriate educational qualifications, there is still a perception that there is lack of suitably qualified women for senior management positions. This has been attributed to the fact that women have limited access to the wide range of developmental experiences and activities that build the credibility needed to advance. In contrast, Gann and Senker (1998) suggested that it is due to the continued reluctance on the part of the construction companies to recognise women as an important source of new workers, rather than a lack of access to appropriate training.

In an academic context numerous opportunities are available for academics to develop their skills and careers. It was widely acknowledged that there is no gender bias in accessing opportunities within academic institutions. Training events and Continuous Professional Development (CPD) are available for everyone to develop their personal skills. Also, possible arrangements can be made if they want to develop a specific skill.

Within industry, organised training and development opportunities are less common when compared to academia, with the exception of some larger organisations. Most respondents argued that since there are opportunities available for staff to engage in physical site based activities, the skills can be developed using 'on the job development' or 'learning by doing' techniques.



**“Compared to a small quantity surveying organisation, in academia there are a lot of opportunities to improve our skills. During my first year here I was doing so many courses. Because no one said ‘no’”**

(Female, 45)

#### Other Sectors

In the medical sector, numerous opportunities are available to develop careers and relevant personal skills. It was noted that many training and CPD events are compulsory. Taking exams and tackling projects is encouraged by employers in order to attain promotion. Unlike in construction, gender appeared to be irrelevant and there were no obvious barriers for females to access training opportunities.

Similarly, numerous opportunities are available for women in public sector marketing organisation, and enable them to develop their skills and careers. It was widely acknowledged that there is no gender bias in accessing opportunities within public sector organisations. Also, assistance is often provided if employees want to earn a CIM, PR or other professional qualification. The private sector appears to offer less opportunities for women. Employers are often reluctant to pay for training and many expect employees to have the necessary qualifications at the time of recruitment.

‘On the job development’ or ‘learning by doing’ techniques would be effective in terms of developing technical skills. But, in terms of developing the managerial skills, there is widespread recognition of the need for organised training programmes for professionals.

However, some organisations still promote training specifically for women. This may facilitate women's re-entry into the labour force by promoting education, training, and employment opportunities. The Women's Institute is also involved in training and provision of courses. The Women in Property (WIP) group provides a forum for the professional development of women in the property and construction industry.

Finally, it is suggested that training programmes should be female friendly and help to:

- Explore the issue of careers promotion as a method for overcoming gender stereotyping and the career professionals' role as 'agent of change'
- Develop strategies to overcome gender stereotyping when offering guidance or information to girls and women
- Share ideas for interesting girls and women to consider engineering construction
- Identify how to implement support measures for those that do enter non traditional careers.







## PROFILE – CONSTRUCTION MANAGER

Name	: Anna
Gender	: Female
Job title	: Construction Manager
Educational Qualification	: B.Eng (Hons), C.Eng,
Professional Qualification	: MICE (Chartered)
Marital Status	: Single
Children	: No
Age	: 40-45
Years of experience	: 23 years

### Career Profile

Anna works as a construction manager in a well-known multi-national contracting organisation. She decided to pursue a career in construction at the age of 16. After doing A Levels for one year, she left school and studied for a vocational qualification in civil engineering. Following this, she completed her A levels and went on to study for a Civil Engineering degree. She looked for opportunities to apply her practical mind, but was also influenced by her father, who suggested civil engineering to Anna. In contrast, she received negative advice from her school tutor when she revealed her interest in civil engineering. Anna had limited awareness about the construction industry before she entered. She had little understanding of the diverse aspects to construction. She is happy that she made the right choice: self-satisfaction; seeing every day differently; facing a variety of challenges; and, resolving problems, are the major factors that motivate Anna to remain and succeed in the industry. She accepts that women have to drive themselves harder to come into the profession, but feels it is relatively easy to progress in the industry; she does not feel that she is held back because she is a woman. The organisation she is working for is very supportive and opportunities are available for everyone to get diverse experiences in the work. She is happy that her career choice is fully supported by her family members. Although she encounters certain barriers in her career progression, she apportions them to the nature of the business, rather than to gender and discrimination. Anna feels that schools must be targeted so that educators have a better understanding and knowledge of the industry.





## PROFILE – SENIOR LECTURER

Name	: Carol
Gender	: Female
Job title	: Senior Lecturer
Educational Qualification	: Master of Education
Professional Qualification	: MRICS
Marital Status	: Married
Children	: No
Age	: 45-50
Years of experience	: 27 years

### Career Profile

Carol is currently employed as a Senior Lecturer in a University, but previously worked in the construction industry. She started her career as a quantity surveyor, after following geography at A-level. She was told by a career advisor that since she enjoyed geography, surveying would be an appropriate career. At the time, Carol didn't know the difference between quantity surveying and other surveying related professions, causing her to inadvertently apply for a quantity surveying role. She wasn't strongly influenced by family or friends but was warned by her school career advisor that, 'it was a job for a man'. Despite this, she successfully applied for the quantity surveying position. While working she studied for her RICS exams and successfully completed her professional qualifications. More recently, she chose to move into academia as a senior lecturer. Carol appreciates the differences between the respective working environments of academia and industry, and now feels that academia provides a more suitable workplace for herself and other women, largely due to its greater flexibility. Research outcomes and self-satisfaction from improving people's quality of life are the main factors that motivate Carol in an academic setting. She enjoys many benefits in terms of the opportunities available for her to improve her skills and develop her career. Carol had little awareness of construction prior to beginning her career and is now content that construction was a good choice for her. Carol suggests that the industry can improve through better training and advice for employers in the recruitment and selection of women. She also feels that it is important that employers realise the importance of the work-life balance for women.



## 4 Recommendations

The team identified several barriers that discourage women from the entering or remaining in the industry. In order to encourage increased recruitment, retention and progression of women in the construction industry, the research team have made the following recommendations and highlighted certain good practices that employers may wish to implement to promote or protect females in their organisations:

#### 4.1 Flexible organisational culture

Maintaining a work-life balance is a problem that is common across all sectors. It also presents a challenge for both men and women. However, while men and women both need to balance the demands of work and home life, women still bear the primary responsibility for domestic duties in most households. The conflict between work and family obligations that many construction professionals experience, is more acute for women than for men. Research suggests that job demands borne by construction professionals are damaging to their personal relationships. This was highlighted in a recent speech by Prof. Barbara Bagihole: “the construction industry has higher divorce rate than other industries”. The major reason for this problem is that the construction industry fails to appreciate some of the issues associated with combining work and family commitments, and organisations tend to treat family and work as completely separate.

##### Recommendation

Construction organisations and employers in particular, must understand the importance of the work-life balance. Family needs must be taken into consideration and the ‘either or’ approach should be changed. Though it is a common issue for both genders, women specifically need a compulsory career break during child-bearing, and the opportunity for further breaks while raising children. Bearing this in mind, the following recommendations are made to enable women to more successfully achieve a balance between work and family life:

- Allow flexible working hours based on the magnitude of the family responsibilities women have
- Develop ‘career break’ schemes that may include:
  - Providing re-training for returning employees
  - Providing mobiles, laptop and other facilities and equipment that may enable women to work from home or provide greater flexibility in working patterns
  - Keeping in touch with women during their career break period and updating them with new developments in the organisation

#### 4.2 Promote women’s achievements in construction

Most women from all 3 sectors interviewed felt that they have to work harder than their male counterparts to achieve the same recognition. However, many claimed achieving recognition is not a gender issue; irrespective of gender it happens in organisations. One of the main reasons for women to have such a feeling is the psychology of their own clients. There is a frequent perception among clients, irrespective of whether they are construction clients, patients or marketing clients that male professionals perform better than their female counterparts. Thus, clients or patients often prefer that their project or their health respectively, should be attended to by male professionals. Therefore, females may have to work harder than their male counterparts to be competitive and to prove that they are equally capable. In addition, females are said to have certain psychological feelings which may act as a barrier to them showing capabilities to clients and thus, may have to work harder than their male counterparts. Women have a tendency to lack confidence and self-esteem, and are often less competitive

in nature than men. They have a tendency toward less risk taking and do not seek help.

##### Recommendations

This problem can be considered as an internal barrier. A feeling of inferiority may affect progress in their career and prevent them gaining promotions. Therefore construction must:

- Promote ‘can do’ and ‘can win’ attitudes among women
- Promote role models – identify appropriate role models and introduce them to the public and the construction sector so that it will encourage women attached to construction, or women who want to start a career in construction
- Promote women’s achievements through success stories about projects managed and supported by women professionals. This will help to change the attitude of clients towards women’s performance

#### 4.3 Alter the image of the construction professions

Gale (1994) has found through his research that male school students are five times more likely than their female counterparts to consider a career in the construction industry. Females consider the equal opportunities record of the construction industry to be worse than males. More recently, the Construction Industry Training Board found that 63% of young women interviewed felt that it would be practically impossible for women to get jobs in the construction industry. In this context it is obvious that the ‘image problem’ has more impact on women’s career aspirations than those of men.

##### Recommendations

It is important to understand the difference between the ‘negative image of the industry’ and an ‘incorrect perception of the industry’. The negative image is an industry-wide problem, irrespective of whether they are men or women. For instance, the construction industry is typically portrayed as offering low pay, promoting adversarial business relationships and poor working practices, environmental insensitivity, and a reputation for under performance. Solving some of these problems will take a long time and require significant change. However, an ‘incorrect picture of the industry’ can be resolved by educating people, and women in particular. A poor initial understanding of the culture of the industry will make women uncomfortable once they start a career in construction. It is therefore vital that an accurate picture is portrayed, including positive and negative characteristics. This could be achieved by:

- Organising image campaigns where we can educate young women about professional roles and on the career opportunities available for them in construction. Merely implementing a positive image campaign without revealing the real picture may attract more women into construction but is unlikely to retain them in the industry
- Inviting construction women role models to schools and let them share their experiences with female students
- Organising workshops for women on how to work successfully in a male dominated industry with examples and practical solutions





#### 4.4 Improve awareness of opportunities in construction

The lack of career knowledge discussed earlier is another major barrier that will prevent women from considering a career in construction. The decision as to whether to select a career in the construction industry must be informed prior to leaving school, particularly by those who intend to be a construction professional in the future. The more that school students know about the construction industry, the more likely they are to consider, and potentially select a career in a related profession. Career opportunities must be communicated to school students. Further, it is important to educate parents, teachers and career advisors with the knowledge on professional roles and careers opportunities for women in construction, as they have a significant influence on career selection.

##### Recommendations

Education plays an important role in raising public awareness of the construction industry. School students, parents, teachers, industry employers and career advisors must be targeted:

- Education at a very early age is the best way to improve awareness and understanding of the industry. It is extremely important to increase knowledge about the nature of construction industry's professional occupations, higher education routes to professional status and career opportunities in construction. Young professionals should be encouraged to go into schools and talk about their careers in order to change the incorrect perceptions that many people have towards the construction professions
- Advice should be given to parents and teachers on how to encourage and support daughters who choose to have a career in construction
- Owing to the variety of courses and diversity of career paths, even professional career advisors find the subject of careers advice for construction confusing. It is imperative to prevent career advisors providing inaccurate and inadequate information on the construction industry. Training events should be organised for professional career advisors, at which they can be shown the career opportunities available for women in construction
- The skill shortage is an ongoing problem for the UK construction industry. Employers must be informed as to how the recruitment of more women into the industry can be used to address this problem. They should also be advised on the implementation of Equal Opportunities (EO) recruitment procedures, in order to attract more skilled women into the construction workforce
- The importance of Equal Opportunities (EO) policies must be emphasised to policy makers and it is important to standardise EO recruitment procedures in order to minimise informal recruitment by personal contacts
- Raising awareness of the construction industry among the general public is very important. The contribution of the built environment towards the quality of life goes largely unrecognised by the public. That could be addressed by

the following:

- Senior professionals at a management level to raise awareness of the jobs that women can get in construction
- As suggested by the former director of Women in Science and Engineering (WISE), women's achievements should be revealed to politicians and the media. A lack of awareness of women's achievement in Science, Engineering and Technology among politicians and media representatives could be one of the major causes for a lack of awareness among the public. The message would easily and quickly reach the public through such means
- Public awareness activities should be held, not only by the education centres, but there should be a tri-pod collaboration between such centres, the government and industry

#### 4.5 Improve the working environment for women

The physical environment of the construction sector has been identified as a barrier to the smooth career progression of women in construction. Although the office based environment is often viewed as female friendly, the formal structural factors within the site based environment should be changed to make it more female-friendly.


##### Recommendations

The culture of the industry partially contributes to the physical environment and facilities provided on site. Changing culture is not easy and is unlikely to be a quick process. Mere change in the physical structural factors will not address all cultural problems, as culture includes, among other things, the way of talking and the way of behaving. However, by changing physical structural factors, the industry can become more receptive to women. This could be achieved by the following:

- Provide separate facilities for women on site, including toilets and changing rooms
- Provide uniforms designed for women; men's clothing is often an inappropriate size and uncomfortable for women to wear
- Monitor the attitudes and behaviours of co-workers towards female professionals
- Allocate more than one woman for site based jobs, because when women are not isolated they can make a change in the structural factors







#### **4.6 Develop networking and promote existing initiatives**

Dainty et al (2000) found that women may not remain in the industry after education due to the inaccurate picture of the industry portrayed by recent recruitment initiatives. Their research found that women are more likely to be attracted to the industry by targeted recruitment campaigns, and they noted that women who had entered the industry due to such initiatives 'have a poor initial understanding of the culture of the industry and the inherent difficulties of working in such a male dominated

#### **Recommendations**

There has been a wide range of initiatives taken by various benefactors in order to attract and retain more women into construction. For instance, the UK Resource Centre (UKRC) has the 'Women Returners Strategy', the aim of which is for greater work life balance for all in Science, Engineering and Technology (SET) occupations to enable employers to make better use of all the talent available. It develops partnerships to create better conditions for qualified women to return to SET careers through provision of advice, mentoring and networking, training, and flexible work placements. The Oxford Women's Training Scheme (OWTS), which is a voluntary sector women's training organisation, offers IT, construction and personal development training to women with few previous qualifications and a lack of access to mainstream training provision. However, there is a question mark over whether such initiatives are reaching the women who most need support. These initiatives must be promoted more widely. Typical beneficiaries from such initiatives may include: young women who are interested in a career in construction; women who are already in construction and would benefit from personal development; and, women who need a career break, or returning women who may want to work in construction again. The following may address these challenges:

- Promote mentoring and develop networking among professional women in construction
- Increase awareness of the purpose of existing initiatives that target women
- Circulate information about the initiatives to Human Resource (HR) management departments of construction organisations, schools and career advisors.



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# Appendix B: Contributors

## Construction and Women Steering Committee

All steering committee members have played an important role in providing knowledge, experience and advice that helped to direct the research project.

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## European Social Fund

The European Social Fund (ESF) helps people improve their skills and, consequently, their job prospects. Created in 1957, the ESF is the EU's main source of financial support for efforts to develop employability and human resources. It helps Member States combat unemployment, prevent people from dropping out of the labour market, and promote training to make Europe's workforce and companies better equipped to face new, global challenges. The research was partially funded by the European Social Fund (ESF) under policy field 5, Improving the role of women in the workplace, and measure 2 Research into discrimination against women.

## School of the Built Environment, University of Salford

The School of the Built Environment is the UK's top rated, research led school for the Built Environment. Its internationally renowned academics, many with practical experience, come from professional and culturally diverse backgrounds to offer students leading edge, world class thinking. It currently has over 850 undergraduate students, some 200 Masters students and 130 PhD research students, from all over the world. The School offers a range of management focused, professionally accredited, undergraduate and postgraduate taught courses, developed with the construction and property industries, to meet their needs for future innovative leaders.

## Research Institute for the Built and Human Environment, University of Salford

BuHu is the internationally recognised centre for research in the Built and Human Environment. It comprises 90 research active academic staff, of whom 20 are internationally leading Professors, more than 35 research assistants and over 170 research students. BuHu collaborates with over 500 companies and clients around the world and make significant contributions to innovations and improvements in industry and the environment. In recent times BuHu has attracted research funds and support totalling more than £30M. It has produced more than 300 journal articles, 600 conference papers, 50 major project reports and supported 200 research events, including its annual International Research Week (IRW), which incorporates a two day international conference, an industry day and a two day international postgraduate research conference. The Institute has also initiated 8 EPSRC and EU funded networks.

## Other Contributors

The research team would like to thank all the people who took part in interviews. Their willingness to participate and give their time is much appreciated. Further details on the sample of respondents included in Appendix C.

## Appendix C: Sample of Respondents

	Target group	Sector	Job titles
1	Professional men and women	Construction Academia	Lecturers, Senior Lecturers, Programme Director, Head of School, Associate head of research, Associate head of teaching
2	Professional men and women	Construction industry	Engineers, Quantity Surveyors, Project Managers, Construction Manager, Deputy Construction Managers, Design and Planning Manager, Business Development Director, Managing Partner, Technical glazing supervisor, Commercial Manager
3	Professional women	Medical sector	Doctors, Senior House officers in Psychiatry, Senior house officers in Anaesthesia, Consultants Paediatrician,
4	Professional women	Marketing Sector	Marketing Officers, Marketing external relations officers, PR Managers, Press and PR Manager, Senior Account Manager, Marketing Analyst

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