



# Getting in, Getting on...in Construction

## Modern Apprentices in Scotland

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A significant aspect of the work of the Centre has been research to understand the experiences of women training in the construction sector in Scotland and initiatives undertaken with ConstructionSkills to make the sector more inclusive.

Jenny Tizard began her working life as an apprentice working in construction in Yorkshire, where she was usually the only woman on site. She taught engineering in universities and further education colleges and spent nine years working on the University of the Highlands and Islands Project. She is now living and working in Auckland, New Zealand

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## **Preface by ConstructionSkills**

Welcome to this study of the Construction Apprenticeships Programme in Scotland.

ConstructionSkills in Scotland ran a number of initiatives to address the workforce imbalance in the construction sector in relation to gender occupational segregation and a lack of applicants from people who are black, Asian or from other ethnic minority groups. In the main, success has been modest and we have to understand the reasons why people either do not see construction as a viable career option or leave to join a different sector.

The sector has a professional and well-qualified workforce, who operate in a way that demonstrates equal opportunities are available to all and relevant policies are followed and respected. It is encouraging to read that employers and new entrants alike believe that bullying and harassment of any kind should not be tolerated in the sector. However, it is apparent from this report that much still needs to be done to address the outdated external image of construction.

Equal opportunities legislation and policies have achieved significant progress in rights for all to fair and equitable employment. This momentum continues with the introduction of the new Equality Act 2010 reinforcing the legal and economic dimensions of having a diverse workforce. The adoption of best equal opportunities practice by many employers within the sector needs to be better promoted. However, this research also found that some individuals act as 'unofficial gatekeepers' preventing people from under-represented groups taking up a career in construction.

I believe this report is an important piece of research that generates some essential questions. Why, for example, only 1% of the workforce at craft level are women? I hope that the reader will find inspiration or ideas to seek new ways of welcoming women and people from minority groups into construction and, in doing so, tackling the barriers both internal and external for the benefit of employers and employees alike.

Jacqueline Kerr  
Equality & Diversity Adviser

**ConstructionSkills Scotland**



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# 1. Introduction

## Context

The purpose of this research is to gain a broader perspective on reasons for under-representation of female craft apprentices in the construction sector. The research was funded by ConstructionSkills Scotland, and was undertaken by the Scottish Resource Centre for Women in Science, Engineering and Technology, part of Edinburgh Napier University.

The construction industry is a significant and growing contributor to the Scottish economy. In 2007, it was worth an estimated £7.3 bn in 2000 prices, accounting for around 8% of the UK total construction output (ConstructionSkills 2008, p.2). In 2006, the sector employed 212,400 people (ConstructionSkills 2008, p.1). The sector is dominated by small companies: 55% have fewer than 5 staff, and 79% employ 10 or fewer staff. These small companies account for approximately a quarter of all employment in the sector. Only 4% of companies employ 50 or more staff but they account for 42% of all employment (ConstructionSkills 2003, p.4).

A detailed breakdown of how young people taking up construction Modern Apprenticeships compare with all college students in Scotland is presented in Appendix to this report. Whilst the modern apprenticeship in construction appeals geographically to all communities in Scotland, the take-up is strongly gendered with low representation of female students. In 2008/9, women made up less than 1.5% of the 4689 construction apprentices in Scotland, and this pattern is also reflected in the take-up among disabled students and students from non-white/other ethnic groups. The available data demonstrate that the modern apprenticeship in construction appeals primarily to white able-bodied male candidates. This pattern is replicated at industry level, where women represent less than 10% employees and remain concentrated predominantly in administration.

The reasons behind this are multiple and complex. They might include gendered stereotyping of the construction sector, peer/family influence, lack of positive role-models, perceived and actual barriers to access for disabled students or students from non-white/ minority ethnic backgrounds. However, the available data clearly suggest that the construction sector at present is not attracting the full range of talent in Scotland and does not encourage participation from all sectors of society.

This research explores some of the issues which may underpin this limited diversity profile of modern apprenticeships in construction in Scotland. By identifying the impacts of individual, cultural and organisational contexts within which the decisions to join the sector are made, and some of prejudices associated with the construction sector, it suggests ways in which diversity issues can be addressed in the construction industry in Scotland.

## About the research

The investigation was undertaken using 3 surveys: one of apprentices, one of further education lecturers and one of employers. In addition, a statistical analysis was made comparing the demographics of apprentices in construction to all further education students.

The research was also informed by the experience of the Research Team who were involved in delivering equality and diversity workshops with apprentices in colleges. One outcome of the research has been the development of initiatives to make the construction sector a more welcoming environment for all Scottish students. This work is being undertaken by ConstructionSkills and the Scottish Resource Centre for Women in Science, Engineering and Technology.

The survey of apprentices explored their attitudes to their careers, why they had chosen them, how they saw their futures and how they valued their opportunities and experiences as

apprentices. The survey also explored apprentices' attitudes to women as colleagues and towards bullying at work. Both lecturers and employers were asked about their attitudes to women working at trade level and what might be done to encourage more women into construction.

### **The Construction Modern Apprenticeship framework: the role of employers and ConstructionSkills**

The recruitment and selection of Modern Apprentices is primarily the responsibility of employers. In order to successfully complete the apprenticeship, apprentices must be employed for the duration of the apprenticeship. ConstructionSkills support organisations that are eligible to deliver apprenticeships with grants. Applicants for apprenticeships undertake a Skills Learning Exercise to establish their suitability for the programme.

ConstructionSkills, colleges and employers have responsibility for registering apprentices with the Scottish Building Apprenticeship & Training Council and the awarding body - the Scottish Qualifications Authority. Most construction youth apprenticeships last for 4 years and adult apprenticeships last for 2 years. Apprenticeships include an element of work-based learning and an element of attending college in the form of either block attendance or day release.

## 2. Apprentice Survey

The Scottish Resource Centre for women in Science, Engineering and Technology conducted the survey from October 2009 to May 2010 using an online questionnaire. Members of staff from a wide range of Scottish colleges who teach Modern Apprenticeships in construction were asked to encourage their apprentices to access the survey hosted on a dedicated web page. The researchers had no direct access to apprentices.

### Who the respondents are

Overall number: 141 respondents

By trade: most representation came from the following trades:

Painting and decorating	(30%)
Carpentry and joinery	(26%)
Ceiling fixing	(9%)
Roof sheeting and cladding	(8%)

By college: overall, 141 respondents attending eight colleges in Scotland. The majority of responses came from:

Edinburgh's Telford College	(37%)
National Construction College, Glasgow	(34%)
Jewel & Esk College	(14%)
Forth Valley College	(10%)

By level:

1 <sup>st</sup> year apprentice – 73 respondents	(52%)
2 <sup>nd</sup> year apprentice – 46 respondents	(33%)
3 <sup>rd</sup> year apprentice – 4 respondents	(3%)
National Progression Award (NPA) at SCQF level 5 – 18 respondents	(13%).

By age: 84% of respondents were between ages of 16 and 20

By gender: 98% of respondents were male (138 respondents), 2% female (3 respondents)

### 2.1 Main Findings

**FINDING 1: respondents enjoyed their work and were positive about their career choice.** This was true for both male (98%) and female (2%) respondents.

**FINDING 2: encouragement by families was the most significant influence on apprentices in the survey; teachers were the least important influence.** To encourage more apprentices to train in construction, promoting the opportunities to parents might be more effective than targeting teachers.

**FINDING 3: most respondents had some experience of work in the sector before taking up their apprenticeship.** To encourage more school leavers to train in construction, pre-apprenticeship work placement and work experience opportunities need to be offered to girls through the skills for work programme and other initiatives.

**FINDING 4: respondents were confident about their careers. Many of them were interested in setting up businesses and in working abroad.** It is attitude, rather than physical strength or mental ability that will enable them to succeed. Entrepreneurship skills should be supported and embedded into the curriculum if not already available.



**FINDING 5: being made redundant, rather than failing to reach the required standard, is seen as the most likely reason for not completing and apprenticeship.** Apprentices see the economic climate, rather than personal failure, as the greatest threat to their future in the sector.

**FINDING 6: bullying and offensive behaviour at work were seen as an issue of concern by a significant proportion of respondents.** A large majority of the apprentices felt bullying was never acceptable. Just over half felt that action should be taken against it. Respect for others was important to almost all of the respondents.

**FINDING 7: apprentices think women do not provide a different perspective in construction and that little can be done to encourage more women into the industry.** Responses to this question were a strong contrast to the views of employers and lecturers, and revealed some prejudice against women in the industry.

## 2.2 Questions and Responses

### Would you recommend this apprenticeship to friends?

As Table 1 below shows, nearly all of the apprentices had a positive view of their apprenticeship, responding affirmatively when asked about various aspects of their current working arrangements. This included overall enjoyment of their work experience, being part of the team, getting along with other people, learning what is involved in the trade, learning new skills and knowledge, and using the skills that they already had. This overall satisfaction with experiences on the programme translated into the willingness by most respondents to recommend apprenticeship as a career option to their friends. All three of the women respondents were enthusiastic about their apprenticeship and would recommend it to their friends.

**Table 1: Experiences at work**

How would you rate your experiences with your current employer?	A lot	A little	Not at all
I learn what is involved in the trade	80% (113)	17% (24)	3.5% (5)
I get along with other people	80% (113)	16% (22)	4% (6)
I learn new skills and knowledge	79% (111)	18% (25)	4% (6)
I use the skills I have	77% (109)	19% (26)	4% (6)
I enjoy the WORK itself (the actual things you do)	75% (105)	23% (32)	3.5% (5)
I enjoy my experiences at work	67% (95)	28% (40)	4% (6)
I feel part of the team	66% (93)	27% (38)	7% (10)

Response rate 100% from 141 respondents

A small minority would not recommend the apprenticeship to friends, but only one respondent said he would leave the construction sector having qualified. The others would set up their own business or move to another employer.

**FINDING 1: respondents enjoyed their work and were positive about their career choice**

## What attracted you to work in construction?

The apprentices were attracted by what they saw as:

- Good career prospects (76%)
- Variety (73%)
- Good pay (65%)\*

As Table 2 shows, apprentices were most likely to have been influenced in their decision to train in construction by advice from a family member, and over half had a family member in construction. They were least likely to have been influenced by teachers - none of the women had been encouraged by teachers: one woman had been influenced by a family member, another by a careers adviser.

**Table 2: Influences on the choice of construction**

What influenced your decision to train in this sector?	Yes	No
Advice from family members	63% (89)	37% (52)
After I left school and had started work I realised that I could train for a better opportunity through an apprenticeship in Construction	48% (67)	52% (74)
Work experience whilst I was at school	45% (64)	55% (77)
Careers advice	40% (56)	60% (85)
I already knew someone doing this who was important in my life	39% (55)	61% (86)
Advice from friends	36% (51)	64% (90)
I was aware of skills shortages in this sector and saw the opportunity to gain well-paid employment	31% (43)	69% (97)
Careers events/taster days/open days	21% (30)	79% (111)
Encouragement by teachers	19% (27)	81% (114)

Response rate 100% from 141 respondents

**FINDING 2: encouragement by families was the most significant influence on apprentices in the survey. Teachers were the least important influence.**

## The importance of work experience to choosing to work in construction

Over 80% of the apprentices, including all the female apprentices, had some experience of working in construction before they began their apprenticeship. This ranged from work experience with family or an employer, to a pre-vocational course. Nearly half (45%) had had work experience whilst at school. This points to a positive correlation between experience of working in construction and taking up a formalised entry route into the sector. If more men and women are to be attracted to train as construction apprentices, more career experience opportunities should be made available to school leavers.

**FINDING 3: most respondents had some experience of work in the sector before taking up their apprenticeship**

\* The Office for National Statistics reported in March 2010 that the highest wages are in construction - the lowest in hotels and restaurants. Average weekly wages were £564 per week in Construction and £303 in restaurants and hotels (ONS 2010, p. 38).

### **What do you plan to do once you have completed your apprenticeship?**

People doing an apprenticeship in construction had plans for their careers that were more concrete and confident than those of university students in the 2008 survey of students studying built environment at Scottish universities (Sharapov and Tizard 2008). In the 2008 survey, 23% of final year male and 19% of final year female university students were unsure about their future plans or had decided to leave the construction sector (ibid.) In contrast, among apprentices, less than 3% planned to leave the sector, with another 10% not sure what they would do.

Future plans that apprentices reported included:

- 75% said they were interested in the possibility of working abroad
- 64% saw being self employed as a long term aim and this was one reason they had done the apprenticeship
- 35% planning to become self employed on completion of the apprenticeship
- 45% saw themselves continuing with their current employer
- 20% planned to continue their education and training

Does this entrepreneurial spirit come as a consequence of working in construction, perhaps being absorbed as part of the workplace culture, or does construction attract people with a 'can do' attitude? Comparing responses of the first year apprentices with older apprentices, the first years were slightly more enthusiastic about self-employment and working abroad. This suggests that people choosing to train in construction at trade level are confident about their ability to plan their careers.

The three female apprentices saw themselves as staying in the sector, either with their current employer or setting up a business. All of them were interested in the possibilities of working abroad.

<b>FINDING 4: respondents were confident about their careers. Many of them were interested in setting up businesses and in working abroad.</b>
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### **What influences success and failure in a modern apprenticeship in construction?**

The apprentices felt that determination, motivation and confidence were the most important factors needed to succeed their apprenticeship. The importance of physical strength was rated below the ability to plan as a success factor by the apprentices. However, all of the women felt that physical strength was significant.

As Table 3 indicates, apprentices felt that the most likely reason they might fail to complete their training was redundancy, which combined with the challenge of finding work in the current economic climate, indicates that the economic environment, rather than personal failure, is the challenge facing construction apprentices. The emerging research demonstrates that the current financial crisis is expected to have a disproportionate impact on women: pre-existing inequalities, which include under-representation of women at all levels of economic decision making and their over-representation in informal, low-paid, and casual employment, are said to be more significant than gender inequalities arising specifically from the crisis (Oxfam 2010).

**Table 3: Reasons why training might not be completed successfully**

Do you think any of the following might prevent you from completing your training?		
Being made redundant	43%	60
Failing my college course	14%	19
Too difficult to find employment after qualifying in current economic conditions	10%	14
Lack of confidence	9%	12
Issues with traveling to and from work or college	9%	12
Interpersonal relationships with people at work	7%	10
Having to work away from home/family	6%	8
Need to earn money now by taking unskilled work	5%	7
Interpersonal relationships with other apprentices	4%	5
Disapproval from family	3%	4
The work is too difficult/ dangerous	3%	4
Access and cost of childcare/ dependent care	1%	1
Disapproval from friends	1%	1
Hours of work	1%	1
None of these	36%	51

Response rate 100% from 141 respondents

**FINDING 5: being made redundant, rather than failing to reach the required standard, is seen as the most likely reason for not completing and apprenticeship**

### **Workplace culture – attitudes of apprentices to bullying and offensive behaviour**

The following section focuses on apprentices' experience of and attitudes towards bullying and offensive behaviour. This survey recognises that the experiences and perceptions of what constitutes bullying and offensive behaviour are often subjective and specific to each individual, depending on their gender, age, ethnicity, socio-economic background, sexuality, disability, and/or religious beliefs. Therefore, no uniform definition of bullying or offensive behaviour was provided for apprentices to evaluate their experiences or attitudes. The findings below might reflect the diversity of perceptions of what constitutes bullying and offensive behaviour within the context of the construction industry.

When asked about offensive behaviour at work towards women, only 11% of respondents reported that they had witnessed or experienced such behaviour (including 2 out of 3 female respondents), 5% preferred not to say and 84% said they had never witnessed such behaviour (including 1 out of 3 female respondents).

About 21% of respondents (including 1 female respondent) reported they had witnessed someone being bullied at work, and 6% acknowledged experiencing bullying (including 1 female respondent).

The great majority of respondents (94%) said it was never acceptable to bully people; 4% said they thought it was just a part of being at work and less than 2% felt bullying was acceptable. Furthermore, the majority of apprentices felt that something should be done about offensive behaviour and bullying in the construction sector (see Table 4). A significant

proportion of respondents (72%) said that they had challenged offensive behaviour. However, two of the three women felt that offensive behaviour and bullying were part of the construction industry and one just had to accept it.

**Table 4: Taking action on bullying**

Do you think anything should be done about offensive behaviour and bullying in construction?		
Yes, something should be done	52%	74
Nothing needs to be done, there isn't a problem	32%	45
I think offensive behaviour and bullying are part of the construction industry and you have to accept it	16%	22

Response rate 100% from 141 respondents

Over 10% of apprentices gave additional written comments to this question. Responses included:

- A lot of bullying is actually a bit of banter but there are times when it goes too far*
- It can really mess with people, turn them from bubbly to a closed off person*
- The people caught doing it, should lose their job considering how serious the situation is.*
- People who decide to bully should be Fired and not allowed to work on sites until they have completed a Rehab course or meetings or something along those lines*
- Fines for people who bully or victimise others should be imposed. You could also hand out warnings to those who choose to make others feel bad.*
- People giving offensive or bullying behaviour should be disciplined, and made to think about their actions as they wouldn't like it to happen to themselves*
- Get them out*

**FINDING 6: bullying and offensive behaviour at work were seen as an issue of concern by a significant proportion of respondents.**

### **Women in Construction at Trade Level**

Very few women currently work in construction at trade level. Very few women are training to do so. The 1.4% representation of women in our sample is consistent with national figures. The 2010 Training and the Built Environment Report by ConstructionSkills presents data collected from colleges, private training providers and construction industry training centres across Great Britain on the number of people entering construction training. The report notes that in the academic year 2009/2010 there were 933 (3%) female starters compared to 33,778 (97%) males (CS2010, p. 14).

To assess the extent to which respondents held gender stereotyped attitudes, they were asked to identify whether men or women were best suited for the list of occupations. The results suggest that the majority of apprentices hold stereotypical views about the kinds of work that women and men do. Such views may be one of the contributing factors in making construction less attractive to 'non-traditional' candidates such as black and ethnic minority candidates and women.

### Do women provide a different perspective in construction?

Apprentices were asked whether women provide a different perspective in construction. 37% agreed, whilst 63% of respondents believed that women did not provide a different perspective in construction.

Comments from those that agreed included:

*Some people might feel more comfortable with a woman working in their home, rather than a man. The construction industry has been generalised as a male environment. Times are changing elsewhere, so why not here.*

*They can do. You think construction is only for men but when you see a woman as a painter or something like that, you see that it's not just for men and see it in a different perspective*

*Women tend to think differently from men, and generally find the best ways to go about things. And usually pick up on things done wrong, and get things fixed*

Comments from those that disagreed revealed prejudice against women, including:

*They just get in the way and can't lift and haven't got the ability to do manual labour.*

*When working with female architects in the past I feel they have caused problems through a lack of basic on-site knowledge*

Whilst some comments showed people did not want to differentiate on the grounds of gender:

*Perspectives are not related to gender type*

*Women shouldn't be treated differently from men*

The following table represents a comparative perspective on views expressed by apprentices, employers working within the sector, college lecturers and higher education students on whether women can provide a different perspective in construction, based on the surveys conducted by the Scottish Resource Centre.

**Table 5: Can women provide a different perspective in construction?**

	Apprentices	Employers	College lecturers	Students studying in built environment at Scottish universities
Yes	37%	80%	75%	51% final year male students 81% final year female students

### What could employers and colleges do to attract more women?

Apprentices were asked what colleges or employers could do to encourage women to train and work in construction. The majority thought there was nothing that colleges or employers could do to encourage more women. There were some comments showing hostility to women entering construction trades and sometimes a reluctance to show special treatment for women:

*I am more old-fashioned and think men are better suited to this line of work*

*They would be scared the women would get wolf whistling and shouting*

*I think that the training should be equally available to men and women*

About a quarter of respondents made practical suggestions mostly focusing on advertising and the need to have more active promotion of careers in construction to women:

*The people that you meet can attract women to college and it's becoming more common for women to work in construction*

*Advertise the courses with both men and women in advertisements for construction trades. You rarely see women in the adverts.*

*They could start giving children that are still at school the opportunity to come to the college to see what is going on.*

*Let them try it out for a day and see if they like it.*

*They could make it a more friendly environment for women.*

**FINDING 7: apprentices think women do not provide a different perspective in construction and that little can be done to encourage more women into the industry.**

### 3. Employers and College Staff Survey

The purpose of this survey is to gain a broader perspective on reasons for underrepresentation of female apprentices in the construction sector as understood by college staff and employers involved in training apprenticeships. The Scottish Resource Centre conducted the survey from June 9, 2009 to July 24, 2009 (employers) and November 20, 2009 to April 29, 2010 (college staff) using the online questionnaire.

#### Employers' Survey

An invitation to fill in the survey was emailed by ConstructionSkills Scotland to 639 email addresses of the construction companies registered on the ConstructionSkills Scotland database. 62 respondents completed the questionnaire achieving a 9.7% response rate. Although the majority of respondents represented organisations with 10 to 49 employees (39%), the survey attracted a sizeable number of responses from smaller (28%) and larger organisations (33%).

Where respondents are located (by the first part of post code, each mark on Map 1 represents an approximate location of one or several organisations)



**Map 1 Locations of respondents to employers survey**

#### College staff survey

College staff were contacted by email at the same time as apprentices, when departments were being asked to publicise the research. 22 lecturers completed the questionnaire. All of them were male. To protect respondents' anonymity, no personal data was collated, including names of colleges the respondents were coming from.

### 3.1 Main Findings

**FINDING 8: employers and college staff thought there should be more women in construction**

**FINDING 9: employers and college staff thought that lack of opportunities for women to do work experience in construction, lack of encouragement from schools for girls to apply for construction apprenticeships, and the difficulty of combining construction work and family responsibilities were significant barriers in preventing women from entering and developing a career in construction.**

**FINDING 10: employers and college staff felt that there should be more information about role models and mentors in construction, and better career promotion, including targeted advertising and dissemination of best practice examples.**



## 3.2 Questions and Responses

### Should there be more women in construction?

The majority of respondents (about 70% of college staff and 65% of employers) believed that modern apprenticeship in construction (MA) was suitable to both men and women. The remaining 30% and 35% respectively disagreed in stating that it was more suitable for men.

### Are their approaches to work/perspectives different from those of men?

As noted above (see Apprentices Survey), the majority of respondents (75% of FE staff and 80% of employers) thought that women could provide a different perspective in construction. Most employers believed that women had unique 'women-only' characteristics, including the ability to 'think differently' (from men) and be better 'problem-solvers'. Only a minority of respondents (about 5%) stated that diversity of perspectives generally (not linked to the existing or assumed biological or psychological differences between men and women) is beneficial for companies working in the sector.

### Are there any other benefits of having more women in construction?

The majority of college staff and employers agreed that recruiting more girls and women in construction would be good for business. They thought that employing equal number of men and women would improve the image of construction and would create a better mix of skills and talents.

**Table 6: Employers responses to questions about women's employment in the construction sector**

	Agree
If schools were to promote it more actively, girls would be more likely to apply in construction	80%
A workforce that is more balanced with males and females creates a better mix of skills and talents	75%
Recruiting more girls and women into construction would help solve future skills shortages	72%
Recruiting more girls and women into construction would be good for business	62%
Employing equal numbers of males and females would improve the image of construction	59%
Employers would take on women as apprentices if they received extra funding	28%

**FINDING 8: employers and college staff thought there should be more women in construction**

### Why are there so few women?

Respondents were asked to assess the influence of existing or perceived barriers on women’s entry and career development/progression in the sector. Table 7 below demonstrates the extent to which respondents agreed with a series of statements.

Overall, the most serious concerns for respondents were lack of opportunities for women to do work experience in construction, lack of encouragement from schools for girls to apply for apprenticeships, and the difficulty of combining construction work and family responsibilities. For employers who believed that apprenticeships in construction were not suitable for women, the most important factor was that working conditions in construction were not suited to women. A large majority of the respondents rejected the claim that improving working conditions to accommodate women was too expensive. Most college staff respondents believed that tradition, social and gender stereotyping were the biggest barriers to women entering the industry.

**Table 7: Responses to questions about women’s employment in the construction sector**

	Employers Agree	FE staff Agree
There are not enough opportunities for women to do ‘work experience’ in construction	74%	67%
Schools do not encourage girls to apply for MA in construction	69%	67%
Long hours and lack of flexible working makes construction a difficult career for women	35%	48%
Working conditions in construction are not suited to women	38%	43%
Employers in construction find it easier to train men	35%	50%
Women do not want to work in construction because they will get teased	35%	38%
In construction it is hard for employers to combine work and family responsibilities	29%	52%
Women do not want to work in construction because the work is dirty	18%	33%
Improving working conditions to accommodate women is too expensive	9%	10%

Further action is required in addressing the existing barriers that might prevent women from entering the sector (creating more placement and work experience opportunities, promoting careers in construction at the school level, addressing the issues of work-life balance for all employees) and in dispelling the prevailing perceptions of such barriers being a ‘natural’/inherent feature of the sector.

**FINDING 9: employers and college staff thought that lack of opportunities for women to do work experience in construction, lack of encouragement from schools for girls to apply for construction apprenticeships, and the difficulty of combining construction work and family responsibilities were significant barriers in preventing women from entering and developing a career in construction.**

## What could be done to bring more women into construction?

Respondents were asked whether they thought employers would take on more women as apprentices if extra funding was available to support gender equality initiatives. Less than 30% agreed that such funding was required or would be efficient. The quote below summarises the reservations expressed by employers who rejected the need for governmental funding:

*I can't see why additional funding would help in fact I find it sexist that an employer would only consider taking on females if they were given extra money.*

Employers were asked to indicate what support they would find useful in recruiting and supporting female apprentices. The survey offered a range of answer options, which attracted various degree of support from employers in this survey as detailed below:

**Table 8: What can be done to recruit more women into construction?**

What can be done to recruit more women into construction?	AGREE
Information about role models and mentors	52%
Case studies and good practice examples	48%
Support from the college	40%
Diversity training for our staff	31%
Help with a recruitment campaign	29%

Other responses included:

*Sorry just wouldn't take a female apprentice, I'm not sexist.*

*None of the above - a cultural change is required!*

*Rather than a few case studies or training for my staff, funding should be focused on those who have the greatest influence (schools/ colleges/ ConstructionSkills) and re-training these key people in the values of diversity and women in construction*

College staff were asked to identify factors that might prevent apprentices from completing their training. Being made redundant and difficulties in finding employment in current economic conditions after qualifying were identified as the two most important factors. The majority of college staff respondents (80%) disagreed that the following factors had any bearing on completion rates: disapproval from family and friends, difficulties and dangers associated with work, interpersonal relations with other apprentices, hours of work, having to work away from home and family, and issues with travelling to/from work/college. Among those who provided additional commentary, the majority mentioned the role of employers with some employers letting go of apprentices with poor work ethics and little perseverance to complete their apprenticeship, employers withdrawing apprentices from employment for various reasons, and employers keeping apprentices at work when they should be attending the college.

FE respondents thought that there was a need for better career promotion, including targeted advertising and dissemination of best practice examples among employers.

The range and nature of responses indicate that there is no one single solution that could remedy the underrepresentation of women in construction. What is clear that there is a need for more information on gender equality, good practice examples, and co-operative working between colleges, schools and employers. This will ensure that the range of practical tools

and mechanisms to address gender imbalances within the sector is known, understood and applied within a variety of employment and learning contexts for the benefit of all men and women who already work in or plan to join the sector.

**FINDING 10: employers and college staff felt that there should be more information about role models and mentors in construction, and better career promotion, including targeted advertising and dissemination of best practice examples.**

## 4. Conclusions and Recommendations

The construction sector offers a satisfying career option to both women and men. The research suggests that more needs to be done to address the gender imbalance in the industry at the trades level. It also indicates that more women might be attracted into the industry if:

- Parents were encouraged to see construction as a positive career choice for their children.
- More pre-apprenticeship opportunities for work experience (placements, taster days etc.) were offered to young women and men.
- Business opportunities and careers in construction were included in the promotion of self-employment and entrepreneurship for women.
- Employers reinforced their anti-bullying policies through regular workforce training in equality and diversity.
- Employers and college lecturers made the advantages they perceive in a diverse workforce clear to apprentices.
- Information about role models, mentors and best practice in employment was more widely disseminated and used to support career advice and recruitment campaigns.

## Appendix

### Statistical Overview

The statistical comparisons below provide a snapshot of diversity of modern apprentices in construction in Scotland. The information is presented in chart form to illustrate graphically the comparisons analysed by:

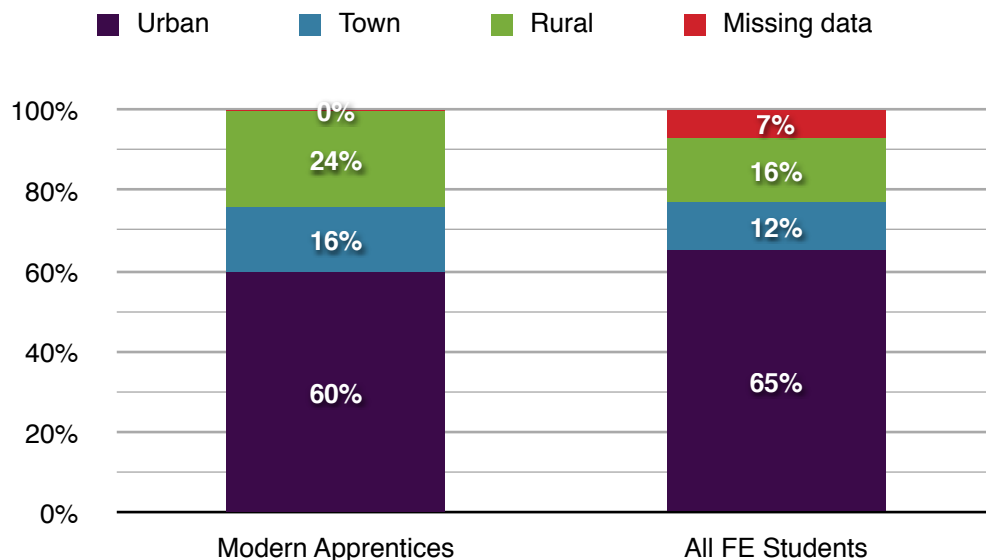
- urban/rural setting
- gender
- ethnicity, and
- disability.

The data on modern apprentices in construction is compared to all students in further education (FE) in Scotland. The information was drawn from the InFact database provided by the Scottish Funding Council<sup>1</sup>.

In 2008-2009, there were 4689 modern apprentices in construction registered by the Scottish Funding Council as funded by the Government Training Credit-Modern Apprenticeship (in comparison to 5,224 apprentices in 2007-2008). These comprised 0.97% of all further education student population in Scotland (483,472 students).

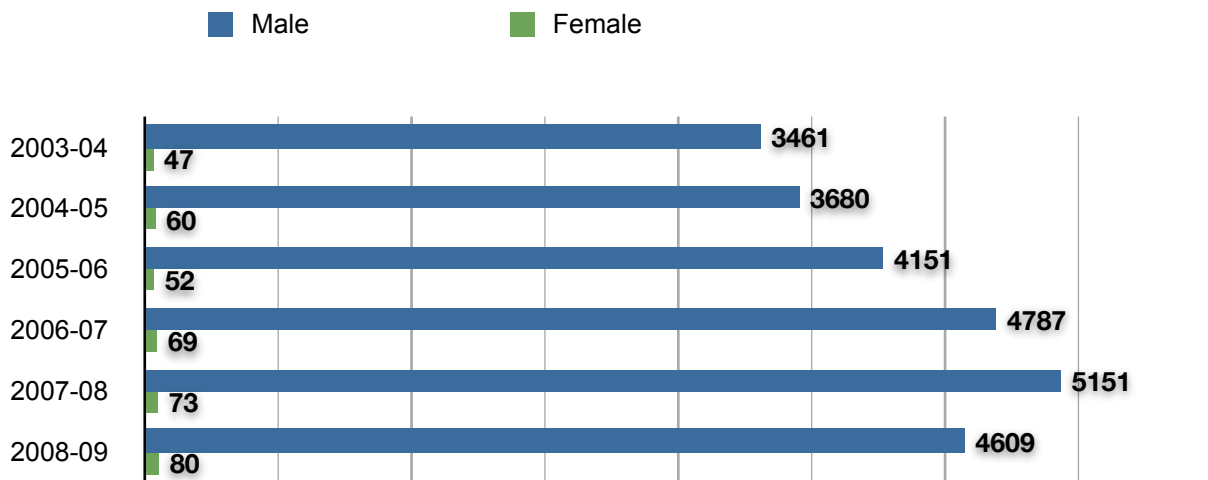
In analysing the available data, it is apparent that whilst modern apprenticeship has a broad geographical appeal with a sizeable number of apprentices coming from towns and rural areas, there is a stark contrast between modern apprentices and the overall FE student population when analysed by gender, ethnicity and disability.

**Chart 1: Modern Apprentices in Construction in Scottish FE Colleges Compared to all FE Students: Urban/Rural classification, 2008-09**



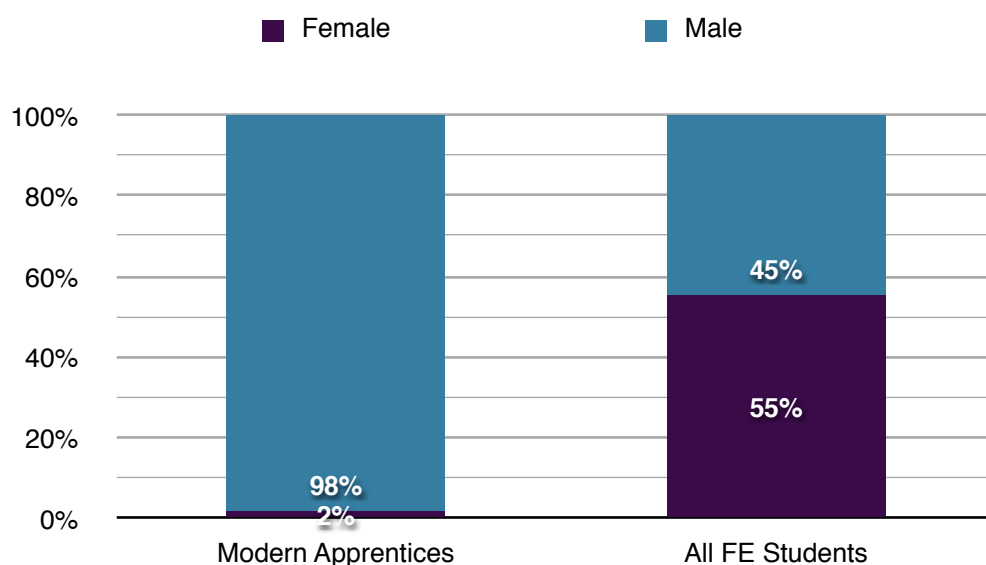
In the year 2008-2009, there were slightly more modern apprentices coming from towns and rural areas in comparison to the overall number of FE students. It illustrates that modern apprenticeship in construction has broad appeal to both urban and rural communities.

**Chart 2: Modern Apprentices in Construction in Scottish FE Colleges by gender between 2003-04 and 2008-09**



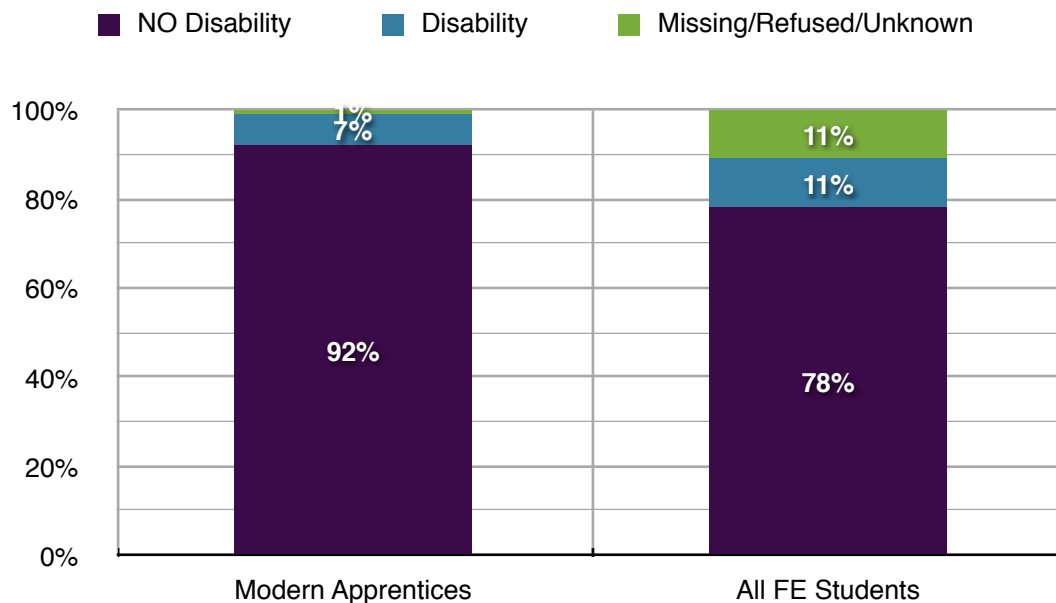
The above chart illustrates that in each of the five years the number of both male and female apprentices has increased. Over the period of six years, from 2003-04 to 2008-09, the number of male apprentices increased by 33 percent, or by 1148 apprentices (including a significant decrease in 2008-09). The number of female apprentices increased by 70 percent over the same period. Though the rate of increase in the number of female apprentices exceeds that of male apprentices, in absolute terms the increase was negligible in comparison to the absolute increase in the number of male apprentices: 33 in comparison to 1148. In the year 2008-2009, female apprentices comprised 1.7 percent of the overall number of apprentices in construction. This compares to 1.34 percent in the year 2003-2004.

**Chart 3: Modern Apprentices in Construction in Scottish FE Colleges Compared to all FE Students: Gender, 2008-09**



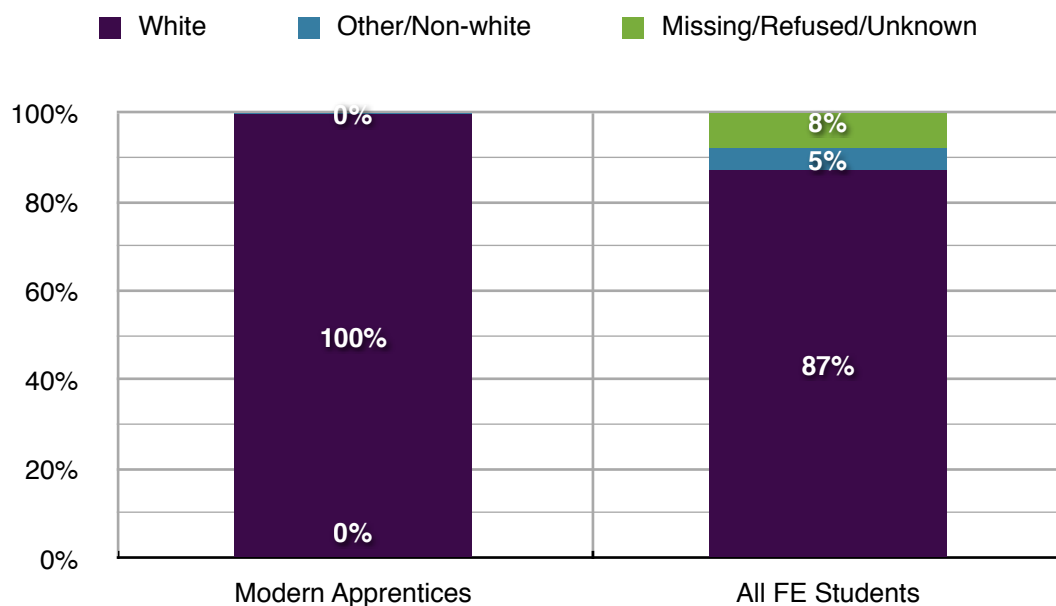
In 2008-2009, 55% of all FE students in Scotland were female. However, in spite of women representing more than half of all FE students in Scotland, the proportion of women undertaking modern apprenticeships in construction approximates to 2%, or 2 in 100. The statistics demonstrate that the modern apprenticeship in construction in Scotland remains a male-dominated domain.

**Chart 4: Modern Apprentices in Construction in Scottish FE Colleges Compared to all FE Students: Disability, 2008-09**



The available statistics on disability do not provide a complete picture in that some 11% of all FE students have either refused or not provided relevant information. Therefore, a direct comparison with modern apprenticeships requires a degree of conjecture. At face value, it would appear that modern apprenticeships in construction attract less students with disabilities. It would be interesting to establish whether this lower level of take-up is due to the career choice of students with disabilities, or whether perceived or existing barriers to access prevent the take-up by students who would have otherwise preferred a career within the sector.

**Chart 5: Modern Apprentices in Construction in Scottish FE Colleges Compared to all FE Students: Ethnicity, 2008-09**



In 2008-2009, 5 percent of all FE students indicated that they were from non-white/minority ethnic background compared to 0.4 percent of modern apprentices from non-white/minority ethnic backgrounds. The data indicates that among all FE student population at least 1 in 20 students is likely to be from non-white/minority ethnic group in comparison to 1 in 200 students undertaking modern apprenticeship in construction. By way of comparison, in 2001, 2 percent of the Scottish population (or 1 in 50 of the Scottish population) were from a (non-white) minority ethnic group<sup>2</sup>. The available data on the ethnicity of students is not fully comprehensive: 8 percent of all FE students are from undetermined ethnic background compared to 0 percent of modern apprentices, who have not identified their ethnic background.

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<sup>1</sup> See <https://stats.sfc.ac.uk/infact/>. In performing the multivariable analysis, the following variables were used: (a) Source of finance of fee for student: Government Training Credit - Modern Apprenticeship, (b) Funding subject group: Construction and Property (Built Environment), (c) Statistic: number of candidates as count.

<sup>2</sup> Scottish Executive (2004) *Analysis of Ethnicity in the 2001 Census: Summary Report*. Office of the Chief Statistician, Edinburgh.



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