

Young People's Job Perceptions and Preferences

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Schools

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Garforth Community College
Ratton School
ETC
GCS
Golborne
Broadwater School
Blenheim
Dakfarm Community School
Howard of Effingham
Imberhorne
Glyn TC
St Theresa's

Colleges

Wigan and Leigh
Accrington and Rosse
Bury
Carlshalton
East Surrey
Godalming
South Thames
Merton
Cricklade
Fareham
Portsmouth
Totton
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Executive Summary

Aims and Objectives

This report examines possible causes of gender segregation and its link to skills shortages in the UK labour market, by investigating young people's perceptions about work and their preferences for jobs. In particular, the aim is to identify ways of ensuring that young people's occupational choices are not determined by their gender or stereotypical views about whether females or males can do particular jobs. (i.e. only women can become nursery nurses and only men can become plumbers).

Interviews, document analysis, surveys and an intervention were used to collect evidence from young people aged 14 to 19 years. The research focused on particular areas of work - nursery nursing/child-care, elderly care assistants, hairdressing, travel agency, plumbing, mechanics, building and carpentry, being a chef, and telesales, as well as jobs which young people identified as being of interest to them.

Background

The UK is currently experiencing skills shortages in a number of skilled trades such as plumbing, engineering, construction and in care work of all kinds. This has been attributed to a major demographic shift in UK society combined with an increase in the range of work in service-oriented and information-based jobs, driven by consumerism and advances in IT. Many of the areas of work that have skills shortages are also very segregated by gender. In the UK, the proportion of men to women in child-care is 1 to 300 whilst in plumbing, the proportion of women to men amounts to around 1 in 200.

Key Findings

Young people hold very strong stereotypes about the types of jobs that are appropriate for men and women. These gender stereotypes pose barriers to stop young people going into non-traditional work. This is because young people *use* them as the basis for actively selecting themselves into or screening themselves out of the market for certain jobs. Job adverts and college prospectuses may perpetuate gender segregation in the implicit gender messages they convey.

Although the research found some convergence in what boys and girls say they actually want from their work, boys were still more inclined than girls to value a "high pay potential" whilst girls are more oriented to job conditions (especially the opportunity to combine work with having children) as well as the more *intrinsic* aspects of jobs, such as being able to "make a difference". Overall boys ranked pay potential as their most important job attribute whilst for girls, pay ranked 11th in the list. For girls the opportunity to combine work with having children was at the top of the list of their priorities.

Young people know very little about the details of work in particular jobs and about the kind of pay and lifestyle that different jobs offer. Boys in particular have very basic perceptions of work that is traditionally done by women. Both boys and girls were aware that male dominated work was better paid than female dominated work, but young people's pay estimates for all kinds of work were very variable and not well related to actual rates of pay.

Personal experience is clearly the primary source of all job knowledge derived either *directly* (through work shadowing/observation or actual work experiences) or *indirectly* (through talking to family or friends actually in the job). Young people also appeared to rely very heavily on their own 'personal instincts' as to what is right for them or not. College students in particular, were most reliant on personal instincts (e.g. personal interest in skills acquired in their course, previous practical experience) over for example course length or college location.

Overall the young people in the research said parental advice is the most frequently sought and useful of sources for making job, career and course decisions than advice obtained from friends and teachers. Formal advice from career talks and services, college open days and prospectuses were judged the least sought after. Girls appear to be more open to the use and influence of sources beyond parents including teachers, friends and formal career services consistent with their more social and relationship oriented approach to life generally. The fact boys rely on parental/family sources for their choice of course or career could be due to a more "approval oriented approach" to decision making or simply because they have an anti-school tendency.

Formal sources such as the internet, leaflets, careers talks, do not feature much in young people's reports of what sources of information or advice have been of most use to them in their occupational decision making. Of the formal sources of advice, *college open days* were rated as the most helpful. Overall, findings also highlight the relative insignificance of formal career services including and most notably, Connexions, as a form of contact and source of career advice/guidance.

Only 4% of the 120 students interviewed mentioned interviews with Connexions as a useful source of career guidance/advice. Only about a quarter of the 2,447 young people surveyed said that the information they received about careers from a Connexions advisor was useful in making a decision about a particular course or career. In addition only half of these said that this contact was useful and only a quarter of these said that it had made any difference to their vocational decision.

Only 20% of the students surveyed had been able to take part in work experience placements organised through school and a third of these said that the placement had not been in the area of work that they had asked for.

The research also involved class-based exercises in which young people worked with concrete information about the pay and lifestyles that different jobs would provide. When given this information they are more likely to consider jobs which are not traditionally done by their own sex. Girls were especially likely to change their views about male jobs in response to information relating to work-life balance, such as hours of work and potential flexibility. Job preferences were however also influenced by whether the young person had confidence in his or her ability to do that job.

An in-depth study of students that had selected but then left non-traditional NVQ courses showed that they did so because they had not felt supported sufficiently as an 'atypical' student during their training. Girls undertaking for example, plumbing course, and men undertaking, for example, childcare courses, need to feel that there is support for them as potentially the only man or women on the course in order to be motivated to complete the course.

Conclusions

The power of gender stereotypes and identities to dictate occupational perception, preferences and decisions is undeniable. However what boys and girls say they want from their jobs is more similar than different and if young people have more information about the details of work, pay and lifestyles they are less concerned by gender stereotypes. It therefore seems likely that gender segregation can be reduced by engaging young people with information, advice and guidance which focuses on the realities of job tasks, pay and lifestyle. Therefore, there needs to be a better way of signalling to young people the benefits of particular career choices.

Recommendations

- Encouraging more young people to take non-traditional routes in their working lives will eventually breakdown gender segregation because the stereotypes about gender will change.
- Changing the way jobs are represented in the media will create role models and change associations about work and gender.
- Colleges should provide appropriate support to young people who train for jobs which are not traditionally done by their gender- i.e. girls doing mechanics, plumbing, building; boys doing child-care, hairdressing. Support should be explicit, acknowledging gender differences and working with them.

- 'Holistic careers guidance including time set aside within the school timetable to facilitate a much more proactive approach to informing young people about work. This could be done in school through class-based practical exercises and project work to increase young people's understanding of the realities of job tasks, pay and the lifestyle that different pay levels provide.
- Good quality work placements could play an important role if they were adequately organised and funded to a level where they were able to give young people meaningful work experience in their areas of interest.
- Parents play a key role in the process of occupational choice and so they need to be provided with better information and support in order to enable them to help their children make the best possible choices for their futures.
- Information, advice and guidance to young people should include details about the pay, the work-life balance and lifestyles associated with different kinds of jobs

1. Introduction

Aims and Objectives

The aim of this report is to examine some of the possible causes of gender segregation and their impact on skills shortages in the UK labour market. This aim takes account of the longer-term challenge of changing gender stereotypes that may pose constraints on the vocational pathways and lifestyle choices taken by young men and women.

In particular, the report attempts to identify ways of ensuring that young people's occupational choices are not determined by gender or stereotypes about gender. To this end, we examined the job perceptions and preferences of young people aged 14 to 19 years at the interface between education and training and the world of work.

The research was guided by the following objectives:

Objective 1

To understand 14-19 year olds' job perceptions and evaluations across selected male-dominated and female-dominated skill-shortage areas, identifying in particular the role played by gender in explaining these perceptions and evaluations.

Objective 2

To map 14-19 year olds' job preferences, interests, values, intentions, and decisions, exploring in particular the role played by:

1. Gender
2. Job Adverts and College Prospectuses
3. Parents
4. Schools,
5. Guidance Specialists and
6. Colleges

Objective 3

To investigate how understanding of pay levels, and the lifestyles associated with these, might influence young people's assessments of different types of job.

Objective 4

To investigate why students who take vocational training courses that are not traditionally studied by their own sex, change their minds and decide to leave.

Objective 5

To produce practical recommendations for addressing gender segregation and lessening their impact on skills shortage in the UK.

Economic and Social Context

It is well established that the UK faces skills deficits particularly in vocational areas like childcare, elderly care, plumbing, engineering and construction (Miller, Neathey, Pollard, Hill & Ritchie, 2005). This has been attributed to a major demographic shift in UK society, caused by an increasingly aging population and declining fertility, combined with an increase in the range of jobs afforded by a change in the nature of work (i.e. service-oriented, information-based) driven by consumerism and advances in IT (Ackerman, Goodwin, Dougherty & Gallagher, 1998). One interesting aspect to the skills deficit is that gender segregation is particularly strong in areas of work which are experiencing skill shortages (Miller, Neathey, Pollard & Hill, 2004).

The UK job market remains heavily segregated by gender (DfES, 2003). In the UK, the proportion of men to women in child-care is 1 to 300 whilst in plumbing, the proportion of women to men amounts to around 1 in 200 (Office for National Statistics, 2003). Gender segregation in work is not limited to the UK; a similar pattern has been reported throughout all EU member states (Rubery & Fagan, 1995; Thewlis, Miller, & Neathey, 2004).

Gender segregation is also at the root of other major socio-economic problems, not least a continued gender gap in earnings (Ashe, 2005). Whilst the Equal Pay Act (1970) creates a legislative imperative on employers to treat men and women equitably 'in the same job', this does not account for the fact that traditionally female-dominated vocations tend to be lower paid (and lower status) than the male-dominated jobs. According to the recent ASHE (2005) figures, women working full-time earn, on average 13% less than men working full-time. For part-time work the gap is much larger, women who work part-time earn 41% less per hour than men working full-time. This is starkly illustrated by average earnings in the child-care sector amounting to £12,211, almost half the £23,751 average for plumbing occupations (ONS, 2003).

The EOC maintains that Modern Apprenticeship (MA) Schemes should be a key focus for challenging gender segregation as many MA schemes unwittingly reinforce gender stereotypes by recruiting students who fit traditional profiles. However, this can be attributed in part to *gate-keeping* practices by employers (on whom MA schemes depend) and in part due to self-selection processes (i.e. only traditional applicants may apply) (Miller, Neathey, Pollard, Hill & Ritchie, 2005). Preoccupied with completion rates, employers are more likely to invest in the 'typical' than the 'atypical' candidate as a relatively unknown quantity. Some employers also appear to hold a persisting misperception that women make unreliable trainees due to their reproductive roles (Fuegen, Biernat, Haines, & Deaux, 2004). Boys on the other hand may not be recruited into jobs like childcare because of the tendency of childcare 'purchasers' to attribute suspect motivations to men who want to work with children (e.g. assumptions of paedophilia) (Cameron, Moss & Owen, 1999). The EOC suggests that for MA schemes to be levers of change, they would need work in close partnership with employers to actively attract, recruit and support the atypical student.

Gender segregation and Occupational Preferences

Some of the gender segregation in today's labour market may still be accounted for by discrimination, but it is also *perpetuated through young people's perceptions that certain jobs are more or less appropriate for them depending on whether they are male or female*. Gender segregation in fact continues to be one of the strongest influences on young people's occupational choices, over and above actual ability (Miller, Neathey, Pollard, & Hill, 2004).

Miller, et al (2004) asked children aged 7 to 11 whether certain jobs were thought to be more suitable for women, men, or equally suited to both sexes. Many jobs were seen in a gender-stereotypical way by both boys and girls. Miller and Budd (1999) also found that individuals' preferences remained largely restricted to those jobs that were viewed as in keeping with stereotypes about jobs appropriate for their own sex.

Miller, Neathey, Pollard, Hill and Ritchie (2005) identify major perceptual and attitudinal barriers to the pursuit of atypical training not only among young people themselves but also among those who guide them in a vocational setting. Young people in the main, demonstrate a lack of basic interest in acquiring the knowledge or skills required by atypical jobs whilst Connexions do not see it as part of their vocational remit to challenge this, and have been reported to demonstrate a degree of moral reluctance to do so (see also Miller, Neathey, Pollard, & Hill, 2004).

Bandura, Barbaranelli, Caprara & Pastorelli (2001) argued that women's career interests are restricted because they believe they are not capable of undertaking traditional, stereotypically male occupations, even if encouraged by parents or teachers to either broaden or heighten their academic aspirations. The key to self-efficacy is a belief in one's capability to achieve or master something (Feehan & Johnston, 1999; Vrugt, 1996). Thus, young people grow up believing that they are capable of some jobs but not others. Bandura and colleagues (2001) found that efficacy beliefs are strong predictors of occupational choice. Both boys and girls with higher academic and occupational self-belief considered a wider range of career options.

However, Nevill and Schlecker (1988) found that whilst girls with greater levels of self-efficacy were more willing to pursue *non-traditional career-paths* than those with lower levels, they still preferred traditionally female occupations over non-traditional roles regardless. McCracken and Weitzman (1997) pointed out that the career aspirations of young women began to converge with those of young men during the 1990s and Marini et al. (1996) likewise reported a closing of the gender gap in value placed on rewards such as pay and prestige. However, importantly, Johnson & Mortimer (2000) later found that despite valuing extrinsic rewards highly, young women in their study still placed a greater value on intrinsic, altruistic and social rewards.

Another consideration is that young girls may become more aware than boys of the need to consider the possibility of running a home and family alongside their job (Curry & McEwen, 1989). Such awareness may limit them to consider traditionally feminine jobs that can be done part-time or which they think can be easily reconciled with family life. It may simply be the case that traditional gender socialization and perceived or actual sexism limit the types of occupations young women perceive as being available to them (Swanson & Woike, 1997). However, inaccurate or insufficient information about jobs in general, may perpetuate the idea that only certain jobs are suited to them. In research on recruitment and selection processes, the opportunity to preview the job through first-hand experience results in more realistic perceptions of the job (Gardner, Foo & Hesketh, 1995). This in turn can facilitate a more faithful process of 'matching' self to job with the potential to break down stereotypes of what the job can offer (Vandenberg & Scarpello, 1990).

Young women may vary in their aspirations for work and family. Hakim (2002) describes 'work-centred', 'adaptive' and 'home-centred' work orientations amongst women. Work-centred women are said to be more confident about non-traditional masculine-style careers, and be less concerned with future family commitments thus enabling continuation of a vocational course. Adaptive and home-centred women would be less likely to follow a non-traditional career path due to their consideration of how they will reconcile work with possible caring commitments. Work-centred women may be more influenced by job status. Since far fewer female-dominated occupations than male-dominated occupations have high status, young women who seek high status have little choice other than to look outside traditional occupations (Miller & Hayward, 2002).

A particular difficulty also lies in persuading men to consider traditionally feminine areas of work. It is well established that girls are much more liberal than boys in their occupational contemplations (Miller & Budd, 1999) with boys far less likely to consider atypical work than girls (Morris, Nelson, Rickinson, Shoney & Benefield, 1999). For men, salary and status may be an additional factor that compounds gender segregation issues (Cameron, Moss & Owen, 1999). However the extent to which different types of rewards, both intrinsic (e.g. what might be especially satisfying about a particular job), and extrinsic, (e.g. pay, conditions) are associated with so-called male-dominated or female-dominated jobs is largely unknown. While there is extensive literature on women undertaking what could be seen as "men's work" ('taken women') (e.g. Ely, 1994) there is relatively little research on men who perform what could be seen as 'women's work' (Cameron, Moss & Owen, 1999).

The tendency to overlook issues concerning men in female roles may reflect gender studies' predominant focus on women and the absence, until recently, of consideration of issues concerning men and masculinity from mainstream academic research. The lack of literature on men in non-traditional occupations means that little is known about the motivations and experiences of men in 'female-dominated' occupations and how men may manage any potential conflict between the 'feminine' nature of the job and their gender identity.

To summarise, gender segregation may not arise through discriminatory practices but also and perhaps more fundamentally, through the choices made by young people in their perceptions of what kinds of work they are most suited to. Men and women do prefer jobs in keeping with their gender and for women in particular this may in part arise from deep seated concerns about their capability to master 'male' jobs. Aside from this, men and women may nonetheless find themselves attracted to jobs not in keeping with their gender because of a perceived alignment with their own fundamental interests and life-orientations. It is through these *perceptions of jobs* that we can seek to understand occupational preferences and decisions.

Here, we therefore look in detail, not only at young people's occupational preferences but also at perceptions of jobs in skill shortage areas, including factors such as the type of work involved, who typically does the job and why, and what these jobs offer in terms of income and lifestyle. We maintain that it is not enough to argue that skill shortages are explained in part by gender, we need to know exactly why and how this comes about from young people's point of view. We focus particularly on the preferences and perceptions of 13 to 16 year olds because they are on the bridge between education and the world of work. This may help us to identify leverage for intervention. By looking specifically at job perceptions and linking these perceptions to vocational choice, we can pay close attention to the ways in which gender can influence the decisions made by young people.

Method of Investigation

Six studies were conducted: document analysis, in-depth, school based 14-16 interviews (n=120), school survey (n=2,447), school intervention evaluation (n=284), college survey (n=537) and 16-19 college interviews (n= 17).

Document Analysis

This study examined the content of job advertisements and college prospectus course descriptions in male-dominated (plumbing, mechanics) and female-dominated (nursery nursing, hairdressing) jobs. It is assumed that once a young person has reached the stage of considering a job advertisement or a college course description, he or she will have made an initial decision regarding occupational choice. The content of job advertisements and/or course descriptions may nonetheless have the potential to attract or deter the reader from continuing with a chosen path. A selection of job advertisements were examined from the national press, trade magazines and online job search engines, as well as course descriptions from a variety of college prospectuses (paper format as well as online) from across England (*Technical details in Appendix 1*).

14-16 Interviews

A series of one-to-one interviews with 120, 14 to 16 year olds were conducted. All students expressed an intention to progress their post-16 education through the NVQ route or equivalent. They were recruited from across four large vocationally-oriented secondary schools in the South East of England.

The purpose of the interviews was to invite open-ended reflection on job perceptions, job preferences, personal job decisions and the influences taken into account in making these decisions. In particular the aim was to find out what young people of this age group know about certain jobs, what they think about these jobs and where they obtained their information. Interviews were conducted with pupils during morning registration periods and lasted up to 30 minutes each. Job intentions are described in *Appendix 2*. Each student was presented with three jobs: one male-dominated (either plumber or car mechanic), one female-dominated (either nursery nurse or hairdresser) and one neutral job (either chef or telesales) requiring similar level vocational qualifications. Many jobs were in areas of skill shortage. The interviews were highly structured but with scope for open ended exploration through probing or clarification as required. The interviews (*Appendix 3 for Interview Schedules*) began with personal reflections, moving on to consider in detail the jobs of interest to the study before ending with some more personal reflections.

School Survey

2,447 mixed ability students took part in the survey, (1,229 boys; 1,149 girls) recruited from years 9, 10 and 11 (aged 13-16 years) from 14 state sector secondary schools across a broad geographical spread within England (North East, South East, Midlands, South West). The majority were British-White (87.8%). Students were studying for an average of 10 GCSE's with a range of 1 to 14. The survey examined job preferences and perceptions in a variety of ways. Respondents were asked to evaluate and describe their ideal job as well as the job they felt they were most likely to do. They were also asked to evaluate jobs across four male-dominated skill shortage areas (plumber, mechanic, builder, carpenter), and four female-dominated areas (nursery nursing, care assistant, travel agent, hairdresser).

School Intervention Evaluation

A simple classroom based exercise was developed which involved working with information about *either* the average pay *or* the job conditions (working arrangements and schedules) of key jobs. The intervention was implemented in two state senior schools (*Appendix 3 and 4*). The purpose was to examine whether these exercises would influence student job evaluations compared six weeks before and then immediately after the intervention. 284 mixed-ability students (112 girls, 172 boys) were recruited to this field experiment from years 9 (aged 13-14 years), 10 (aged 14-15 years) and 11 (aged 15-16 years).

College Survey

The college sample comprised 537 NVQ students in years 2 or 3 of their training course, of which 245 were male and 458 were female. Students were sampled from 13 vocational colleges across England (North East, South East, Midlands and South West). Students were aged between 16 and 19 years (mean age 17). The NVQ courses targeted for participation were plumbing (n=31), carpentry (n=43), nursery nursing (n=79), elderly or social care (n=73), construction (n=80), hairdressing (n=102), travel (n=68) and mechanics (n=57). All nursery nurses and care assistants were female, whilst all plumbers, mechanics and carpenters were male. There were 3 females among the 80 construction students (86% male), 2 males among the 102 hairdressing students (98% female), and 9 males and 58 female travel agents (87% female).

The college survey matched the school survey in all aspects, other than where questions were adapted to investigate reasons behind choice of vocational course and to examine whether course expectations are fulfilled. As for the school survey, students described designated jobs across a set of attributes. They described jobs across four male-dominated skill shortage areas (plumber, mechanic, builder, carpenter), and four female-dominated areas (nursery nursing, care assistant, travel agent, hairdresser).

16-19 College Interviews

The aim of this study was to explore the experiences of college students (aged 16 to 19 years) who had taken courses that are not traditionally taken by their sex and had decided to leave. Interviews were conducted with 17 (7 male and 10 female) leavers of vocational (NVQ) courses inviting them to reflect openly in particular on their reasons for leaving in the context of what in hindsight might have prevented them from leaving. The only structure imposed on interviews was focusing it on reasons for leaving. Technical Details are provided in *Appendix 5*

2 Analysing the Skill Shortage Problem through Job Perceptions and Preferences

Our analysis will have five parts. Firstly we look at how job stereotypes have become associated with gender stereotypes as a major barrier to the entry of new recruits. Secondly, we look at the way young people *use gender stereotypes* as the basis for selecting or rejecting jobs as suited to themselves. Thirdly we see how job adverts and college prospectuses contain traditional gender messages that perpetuate gender segregation. Fourthly, we investigate formally the extent to which gender can dictate job choices over and above the status of jobs and personal interests. Finally, given the all-pervading impact of gender on occupational choice, we investigate in detail both differences and similarities in occupational preferences and decisions.

Job Stereotypes as Gender Stereotypes

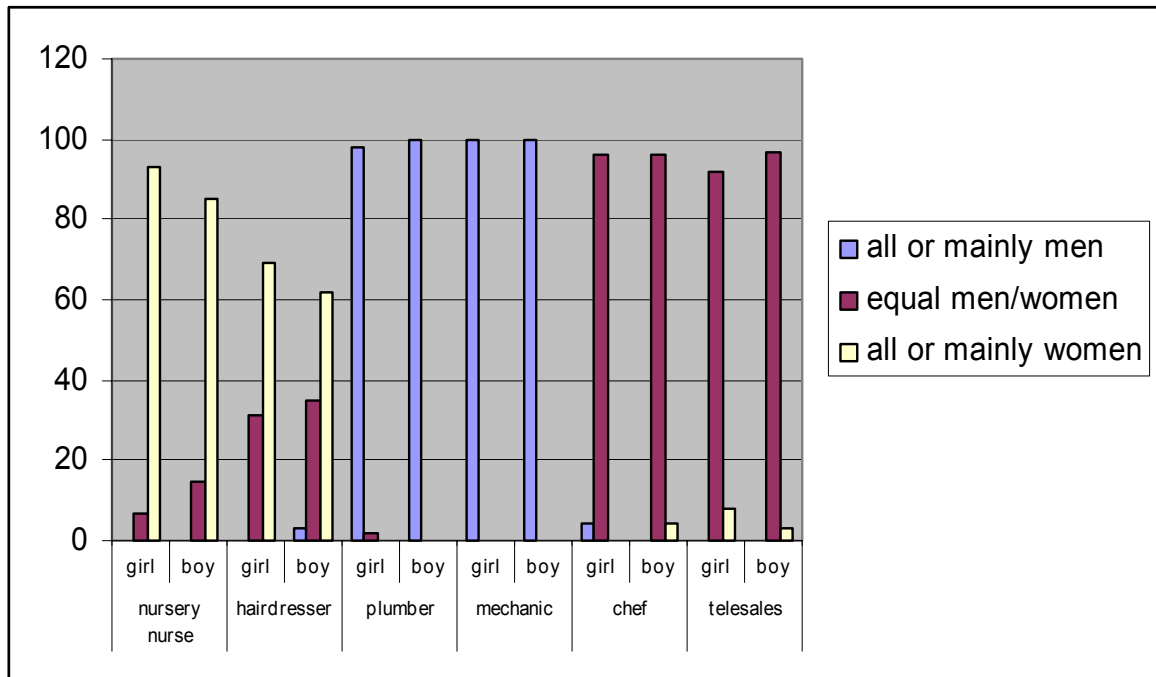
There is a wealth of research now demonstrating strong links between job perceptions and gender stereotypes. Gender stereotypes are a set of specific beliefs about the characteristics that women and men are likely to possess. Characteristics associated with women emphasise the importance of relationships and a sociable approach to life (e.g. cooperative, team-oriented, sociable, relationship oriented) as well as an expressive nature (e.g. caring, sensitive, gentle) (Bem, 1981; Spence, 1980). Male traits on the other hand emphasise an individualistic and instrumental approach to life (e.g. energetic, individualistic, proactive, dominant, means-end oriented, assertive, strong). These female and male characteristics are most popularly known as 'feminine' and 'masculine' traits respectively.

Research has found that people think that success in certain occupations requires characteristics stereotypical of a particular sex (e.g. Eagly, 1983; Silverstone & Towler, 1986). Thus, success in male-dominated managerial occupations is explained using stereotypically male traits like assertive, instrumental, task-oriented (Schein, 1975; Brenner, Tomkiewicz, & Schein, 1989; Ryan & Haslam, 2005) and women in managerial roles are rated higher on 'masculine' traits than other women and also men in non-managerial positions (Ledet & Henley, 2000). This finding applies to a range of sex-dominated occupations (see Bond & McQuaid, 2004 for review). The general finding seems to be that gender stereotypes lead people to believe that certain occupations (e.g. nurse, secretary) are "female" occupations, requiring expressive traits and others (e.g. mechanic, engineer, builder) are "male" occupations requiring individualistic or instrumental traits (Gatton et al, 1999).

Some have argued that gender stereotypes become associated with certain jobs because of gender segregation (e.g. Eagly, 1983). Thus, if girls account for the majority of child-care jobs, these jobs become 'female' jobs associated with a female stereotype. However, in practice linking gender stereotypes with certain jobs is probably a combination of both the nature of the work involved (which convey images of masculinity or femininity) and gender segregation.

Our findings confirm the perceived association between jobs and gender. In our interviews we asked students planning to do a post-16 years NVQ qualification to give us their views on how men and women are distributed across six jobs, a number with skill shortages (plumbing, mechanics, nursery nursing) and two without (telesales and chef). Strong gender segregation emerged in perceptions (Figure 1). For example the chart shows that 100% of boys felt that all or nearly all plumbers are men.

Figure 1. Young peoples perceptions of how males and females are distributed across jobs in skill shortage areas.



Nursery Nursing

The majority of the sample (88%) described nursery nursing as either 'all women' or 'mainly women' (Figure 1). The main explanation offered was either that 'women are more suited to it' (e.g. 'female-focused job', 'female-job', 'children and caring are women's work', 'women can look after children better', 'needs maternal instinct', 'comes naturally to a woman') or that 'men are not suited to it' (e.g. 'men are not tolerant', 'men don't have a clue', 'not a manly job', 'men go for bigger jobs', 'men wouldn't be able to do it', 'funny for men to do it'). Those who saw the job as equally men and women said that "both men and women can do the job" and that "everyone loves kids".

The typical nursery nurse was mostly described as female (18%), young (7%), caring/gentle (7%), good with kids (15%), patient/calm (15%), outgoing/friendly (7%), and kind/helpful (17%). Other less frequently mentioned attributes were organised (2%), strict (5%), and fun (3%). More boys (31%) than girls (4%) described the typical nursery nurse as 'female' and 'patient/calm', whilst girls were more likely to mention 'kind/helpful' and 'outgoing/friendly' (girls 37%; boys 13%).

Reasons given for why a man will typically not want to do nursery nursing mentioned *image* (e.g. 'not manly', 'girly job') (34%), *job content* (e.g. changing nappies, taking kids to the toilet, cleaning, responsibility) (50%) and *job conditions* (e.g. noise) (16%). Boys were more likely than girls to mention *image* as off-putting (boys 46%; girls 21%), whilst girls were more likely than boys to mention *job content* as off-putting (changing nappies, responsibility) (girls 42%; boys 15%).

When asked to consider why a man might want to do nursery nursing, 74% replied along the lines of 'because he obviously enjoys working with kids', 8% said 'the same as women', 7% 'because he wants to learn more about kids', 5% 'because he's dodgy', 4% 'because he is in touch with his feminine side', and 2% 'because he doesn't care what people think'. One girl offered a spontaneous comment that 'men make good role models so there should be more in the job'.

Hairdressing

Both boys and girls said that hairdressers are mostly women, though a good third described an equal proportion of men and women (Figure 1). Explanations referred simply to the fact that the job is 'feminine' (66%) attracting only atypical boys (e.g. 'girly job', 'blokes would be thought of as being gay', 'women have got more skill for that kind of thing', 'men accused of being gay'). Others (32%) – all male, noted on the contrary that there is nothing inherently

'female' about the ability to cut hair and in principle both could do it (e.g. 'either can do it', 'anyone can do it', 'both barbers and hairdressers exist').

The typical hairdresser was described as 'sociable' (e.g. 'gets on well with others', 'enjoys working with others', 'chatty', 'friendly', 'bubbly', 'talkative', 'outgoing') by both boys and girls (49%). Other characteristics mentioned include fashionable/trendy/stylish (12%), 'girly girl' (5%), young (3%), artistic (10%), gay (7%) and boring (7%).

Reasons offered for why a man would take up hairdressing include simply an interest in cutting/styling hair (e.g. 'likes cutting hair', 'likes working with hair', 'likes creating hairstyles', 'likes being creative') (67%). Less frequently mentioned reasons were being 'gay' (7%), 'working with people' (5%), and 'good pay' (5%). One of the main off-putting factors for men was said to be the 'gay image' (e.g. 'branded gay', 'makes you look gay', 'girls taking the mick'). Some (24%) said that 'just dealing with people's hair' is itself off-putting. 3% said 'working mainly with women' (and all the 'girly things that go with it') as most off-putting.

Plumbing

Not surprisingly, the majority of the sample (both boys and girls in equal proportions) said that either all men or mostly men would be typical of plumbing (Figure 1). Explanations for this were either that plumbing is simply 'a man's job' (e.g. hard, physical work', 'dirty, heavy', 'lifting, need strength', 'heavy, active work', 'it's a man's job, you need muscle') (45%) or that women are not inclined to want to take up 'dirty work' of the kind foreseen in plumbing (e.g. 'women don't like the work', 'women just don't want to do it', 'women don't like getting dirty') (55%). Boy and girl explanations did not differ.

When reflecting on the 'typical plumber', half the sample (50%) mentioned either 'a man' or the 'macho' nature of the job as the core characteristic. Of this half, girls (68%) were more likely to mention this characteristic than boys (36%). Other mentioned characteristics were 'friendly/helpful' (16%), 'fat and lazy' (11%), 'wheeler-dealer' (4%), 'thick' (4%), 'middle-aged' (2%), and 'hard working/hands-on' (2%).

Thinking about what might drive a woman to take up a 'macho job' like plumbing, the majority of both boys and girls said that it would be because of a fundamental interest in the job (e.g. 'likes being practical', 'likes fixing', 'likes manual labour', 'enjoys working with her hands') (60%). Others said that 'money' might be an enticement (18%) and also the 'helping' nature of the job (5%). 5% didn't know. A proportion said it might be because the woman had 'something to prove' (12%).

The 'dirty, smelly, messy and unhygienic' nature of the job (e.g. 'getting wet', 'drains, smells, etc.', 'sewage', 'dealing with grease', 'smelly', 'dealing with toilets') was said to be the most off-putting aspect of plumbing to a woman (70%), by especially boys (boys 84%; girls 54%). Other reasons were the physical nature of the work (e.g. 'lifting', 'hard work – you have to be strong', 'heavy work', 'using tools') (9%) and 'the potential for male teasing or harassment' (e.g. 'men ogling, making fun of not doing the job well') (4%). 5% said 'nothing', 7% said 'everything' and 4% said 'no different from men'.

Mechanics

Both boys and girls described the car mechanic job as either all or mostly men (Figure 1). Girls (62%) were more likely than boys (42%) to reason that this is simply because mechanics is 'a man's job' (e.g. 'guys and cars go together', 'it's a guy kind of thing', 'manly job') whilst boys (58%) were more likely than girls (38%) to explain that girls are simply 'not suited' to the job because of its 'macho' implications (e.g. 'women aren't attracted to grease', 'women typically don't do dirt and fixing', 'never seen a girl car mechanic', 'women don't want to break their nails').

Descriptions of the 'typical' mechanic were highly gender based. Girls (60%) described the typical mechanic as a 'macho man' (e.g. 'macho', 'strong man', 'blokes', 'muscular'). Boys also described the car mechanic in this way (33%) but were also likely to mention a basic 'enjoyment of cars' as the defining factor (boys 37%; girls 15%), as well as 'being hands on/practical' (boys 17%; girls 8%). Both boys and girls alluded to a 'pub-going/drinking beer' stereotype (boys 7%; girls 8%) and also that the typical mechanic just doesn't mind getting dirty/greasy (boys 7%; girls 12%).

Looking at why a girl might nonetheless want to become a car mechanic, most (77%) said that it would be because of a strong interest in cars (e.g. 'likes cars', 'to fulfil enjoyment of cars', 'interested in mechanics'). A proportion (23%) of especially girls (girls 29%; boys 18%) said that it might be that the woman might want to prove something (e.g. 'to prove that girls can do it, to prove to self', 'to prove a point that women can if she's interested', 'show that she's good enough'). Boys and girls did not differ in their explanations.

Girls said that the most (91%) off-putting aspect of being a car mechanic is the fact of having to get dirty/greasy (e.g. 'working in a dirty environment', 'grime', 'greasy', 'getting dirty', 'grime'). 9% said that the job 'isn't girly' and may involve 'cutting up your hands' or 'breaking your nails'.

Chef

The majority of both boys and girls described chefs as being 'equally men and women' (Figure 1). Most (94%) appeared to agree that 'both could do the job just as well' and that there is nothing inherently male or female about it (e.g. 'anyone can do it', 'both can cook', 'both find it attractive', 'both are capable of cooking', 'men and women can both be creative', 'it's a unisex job', 'popular job for both men and women', 'lots of famous men and women'). A small proportion (6%) said that men tend to dominate the profession (e.g. 'men like to do it better'). The typical chef was described in the main (65%) as 'someone who likes food' or who 'enjoys cooking' (e.g. 'likes cooking', 'like's food and cooking', 'someone with a taste for good food', 'someone who likes working with food'). Other descriptions were 'hard working' (6%), 'young' (6%), 'directive/strict' (14%), 'comfortable working under pressure' (12%), 'creative' (14%), 'varies' (8%), and 'either a man or woman' (6%).

72% of the sample said that the reason why someone would become a chef is because they enjoy cooking (e.g. 'like working with food', 'like new food', 'interested in food'). Other less salient reasons were 'the ability to cook well' (13%), the opportunity to work in a pleasant working environment (e.g. 'flexible hours', 'working with others', 'see results of work', 'fun, nice smells' (9%) and good pay (6%). Off-putting factors were mainly the image of having to work under pressure (e.g. 'working under criticism', 'pressure', 'rushing about', 'the long hours', 'fear of mistakes', 'stressful', 'long nights and long hours', 'hot', 'unhappy customers', getting shouted at by people like Gordon Ramsay) (44%) and the messiness of the job (17%). However, 32% said that there was nothing particularly off-putting about the job. Other odd mentions were 'having to wear a hairnet' (2%) and having to deal with meat if a vegetarian (6%).

Telesales

Almost 95% of the sample (Figure 1) said that both men and women are equally likely to be in telesales because in principle 'anyone can do it' (e.g. 'both can do the job equally well', 'anyone - if they want to do it', 'not a manly or a womanly job', 'doesn't have masculine or feminine features to the job'). A very small percentage said that telesales is 'mainly women' (5%) because 'basically it's girly job' (e.g. 'answering phones', 'speaking nicely').

The typical telesales person was described as either 'confident' (e.g. 'confident on the phone') (31%), 'persuasive' (e.g. 'someone who can argue for something', 'someone who can make you buy things', 'someone persuasive, sneaky, can get round people') (21%) or 'someone not clever' (e.g. 'someone ignorant', 'someone without good education', 'someone not clever') (40%); a small percentage however said 'clever' (4%) or 'fat/unfit' (4%).

Reflecting on why someone might want to be in telesales, both boys and girls speculated that they would be good at communicating and selling e.g. 'like to sell stuff', 'good talking skills', 'good at persuading people' (45%). 19% said that the job is 'easy' (e.g. 'because it's easy', 'can't be bothered to find anything else', 'easy job - fit in with social life and kids', 'like not to have to very much'). 8% said because the person might 'like talking on the phone' and 24% said because of not being able to get anything else because of not achieving GCSE's. 4% gave a miscellany of reasons including 'ugly - cannot be seen', 'boring', 'can speak push'). The most off-putting aspect of telesales was described as 'sitting down all day on the telephone' (e.g. 'long hours sitting down all day', 'talking on the phone all day') (61%) and also, for especially girls, 'negative customer responses' (e.g. 'rude customers', 'talking to grumpy people', 'getting shouted at') (13%). 4% just said it would be 'boring'.

How do young peoples image of themselves as girls or boys impact on their attitudes to jobs typically done by the other sex?

The above analysis shows how job perceptions are heavily influenced by 'who' is most typically doing the job (i.e. relative proportions of male and female employees) as well as the nature of the work involved. This in turn has led to jobs being linked with 'masculine/feminine' stereotypes reflecting traditional gender roles (Dunnell & Bakkan, 1991). Research has shown that these stereotypes are then used by young people, rather the details of the job per se, as the basis for making job decisions. In this way, young people accept or reject jobs because of a gender image as 'me' or 'not me' long before they have even considered whether they can actually do the job (Hackett 1997; Yowell, 2000).

It is generally agreed that the maintenance of self-consistency is critical to job decision making and that people select from various job options by imagining the typical person (e.g. 'typical plumber', 'typical nursery nurse') who would be associated with them. They then choose the job alternative which provides the best match to their own self-image (Niedenthal, Cantor & Kihlstrom, 1985; Setterland & Niedenthal, 1993). This kind of self-to-job matching process is supported by many studies of young people's decision making (Martinot & Monteil, 2000). For example, adolescent girls who describe themselves as to some extent 'masculine' are more likely to prefer male-dominated occupations (Feather & Said, 1983). Hannover and Kessels (2004; 2005) also found evidence for self-to-job matching in academic choices among high school children. In their studies, girls studying traditionally female university subjects were more likely to describe themselves as feminine than girls studying non-traditional subjects. The same has been found for boys who describe themselves as masculine (e.g. Nosek, Banaji, & Greenwald, 2002; Kessels, 2005).

This process of matching is largely unconscious. By aged 8, children make these kinds of stereotypical job choices, matching self to occupations based mainly on gender. This pattern does not appear to change much with the onset of adolescence (Croll, 2005; Lauver & Jones, 1991; Sellers, Satcher, & Comas, 1999). However, some have found that occupational aspirations do alter in late adolescence and early adulthood (e.g. Shu Marini, 1997; Rindfuss, Cooksey & Sutterlin, 1999), although the reality is that in the UK many critical academic/career choices have already been made by the age of 14 (EOC, 2004). The choices made at 14-16 in fact strongly determine the options subsequently accessible to an individual for both employment and higher education (Miller et al. 2004).

Our school survey involving 2,447 young people from years 9 to 11 (aged 13-16 years) confirmed this picture of the self-selecting young person expressing job preferences that perpetuate gender segregation. Boys (n=1229) are significantly more likely than girls (n=1149) to express a desire to do plumbing, car mechanics, carpentry and building (Figure 2). Girls are in turn significantly more likely than boys to express a desire to do child-care, care assisting, travel agency, and hairdressing (Figure 3).

Figure 2. Young peoples preference ratings of male-dominated jobs.

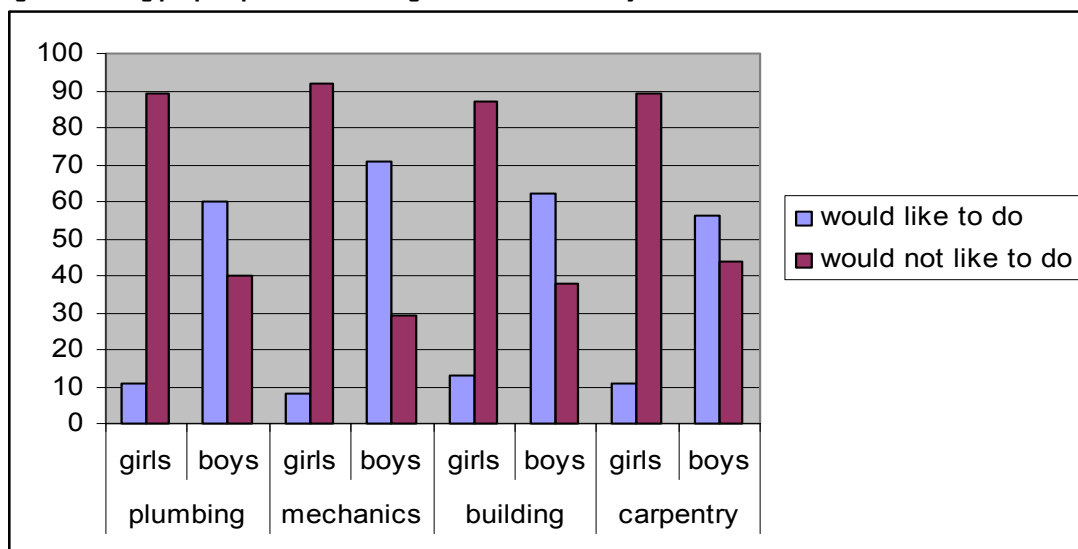
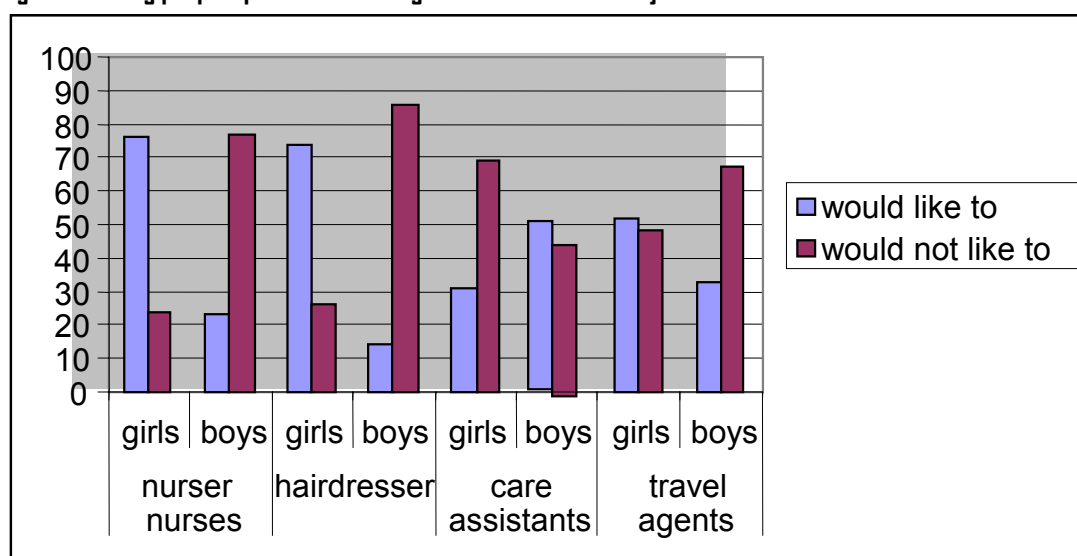


Figure 3. Young peoples preference ratings of female-dominated jobs.



Our interviews with 60 boys and 60 girls from years 10 and 11 (aged 14-16 years) explored these self-selection processes in more detail with reference to four jobs (car mechanics, plumbing, nursery nursing, hairdressing). The interview sampled was explicitly recruited to reflect the views of young people planning to do NVQ training.

Nursery Nursing

Almost 68% of boys rated nursery nursing as unattractive relative to only 14% of girls; in turn, almost 70% of girls rated nursery nursing as attractive relative to only 9% of boys. Those who were not attracted to nursery nursing reasoned that working with children simply did not appeal to them (e.g. 'being around kids is not interesting', 'don't like kids', 'don't get on well with kids') or that it is 'just not me'. A small number said that either that it was 'girly job' or that it would not lead them anywhere. Those who were attracted to nursery nursing said that they liked working with kids (e.g. 'I like children', 'It's fun to look after children', 'I like babies. I'm good at looking after them') or that the job amounted to an overall 'positive work experience'.

Asked to think about the 'image' of nursery nursing as a job choice, more boys than girls talked about it as a 'girls job', 'not really for men' (29%), although both boys and girls described it as 'in general a good job to have' (e.g. 'respected job', 'trusted', 'devoted') (40%). More girls than boys think others see nursery nursing as 'hard work' (7%), 'fun or exciting' (7%). Other less frequently mentioned images were 'boring' (10%) and 'bad money' (3%). 85% of boys said that their friends would tease them (e.g. 'weird for a guy to do', 'teased', 'laugh at me', 'feminine job', 'loser', 'idiot', 'stupid') if they took up nursery nursing. The majority of girls (53%) on the other hand described their friends as having positive reactions – being pleased or proud of them, 'looking up to them' for 'being such a good person'. 34% of girls however said that their friends would be largely non-committal (e.g. 'it would not matter to them') about them taking up nursery nursing.

Most girls said that their parents would largely react very favourably to them taking up nursery nursing (60%); others said they wouldn't mind (15%). Boys were no more likely than girls to describe their parents as having 'negative reactions' to them taking up nursery nursing, although for different reasons. Girls mainly talked about their parents having higher expectations of them (22%) whilst boys thought that their parents would judge them as 'not being serious' (i.e. 'strange', 'weird', 'outrageous', 'kill me', 'disappointed') (24%). Nonetheless, 42% of boys said that their parents would support and encourage them if they really wanted to do the job.

A high proportion of both boys (52%) and girls (85%) believed that they had the ability to be a nursery nurse; more boys (39%) than girls (11%) nonetheless said that they could not. The biggest reason why not was being 'unable to cope' (e.g. 'would not be able to cope', 'couldn't handle the kids', 'couldn't handle the responsibility', 'not tolerant enough', 'not patient enough'). Some – all boys – also said that they lacked the skills.

Hairdressing

Girls (73%) were more likely than boys (13%) to rate hairdressing attractive, whereas boys (66%) were more likely than girls (4%) to rate it as unattractive. Girls (70%) emphasised an intrinsic interest in 'beauty' things (fashion, style, playing with hair, beauty treatments) as the main driver of attraction to hairdressing, while boys (60%) cited the opposite (i.e. lack of a basic interest in such things). Some boys said that hairdressing was a job for gays' (19%).

A quarter of the sample (comprising mainly boys) described the image of hairdressing as primarily a 'girls-job' (e.g. 'girly job', 'girly/blonde bimbo', 'a job for women or gay men'). Other images given were 'good job' involving skilled work (26%), 'fun/creative' (17%) and 'glamorous/trendy' (14%). Negative images are 'not well paid' (5%) and a job for someone who has failed their exams/who is not very clever (12%).

Girls said that their friends would be largely positive about taking on hairdressing (92%), whilst boys said that their friends would probably 'tease' them about doing 'girls job' (73%), using labels like 'gay' or 'weird' (e.g. 'gay or stupid', 'take the mick', 'think I was gay'). Girls also say that their parents would also be likely to react positively whereas boys thought that their parents would react more negatively - e.g. 'could have done more with my intelligence', 'disappointed', 'could do better', 'think I was gay', 'think I'm stupid'. However, a fair proportion of boys (43%) reckoned that their parents wouldn't mind.

Girls (85%) were more likely than boys to say they would have the ability to be a hairdresser if they wanted to, with boys (50%) more likely in turn, to say that they would not. However, a good number of boys said that they could do the job too (44%). Explanations for inability were principally about not having either the skill, desire or the potential to learn the skills needed.

Plumbing

76% of girls described plumbing as unattractive relative to only 11% of boys; in turn, 73% of boys consider plumbing attractive relative to only 6% of girls. Plumbing was considered unattractive because of 'negative job conditions', especially its association with toilets, nasty smells, and getting wet (52%). Boys were more likely to mention a lack of interest in basic pipe work. Other less frequently mentioned reasons were being unable to visualise doing it (7%) or because it's a 'mans job' (3%). Apart from a basic interest in fixing pipes (14%), those who saw plumbing as attractive described it as a good trade – it pays well, is a trade in demand and has good career prospects (23%).

Invited to consider the 'image' of plumbing, the majority said reckoned it would be seen as a 'good respected job' including good pay (36%). A small proportion mentioned 'hard working' (17%) but another small proportion associated plumbing with 'cowboys', 'con men', 'loafers' and 'fat men' (14%). 11% described it as a 'mans job'. Other negative images were 'dirty and messy' (14%) and of being something done by those who are 'not very clever' (5%). 3% associated plumbing with 'being self-employed'.

Boys thought that their friends would think they had made a good decision if they took up plumbing (36%), whilst girls (93%) said that their friends would be 'shocked' (e.g. 'you're joking', 'odd', 'weird', 'I've gone funny', 'they would laugh') by their decision. 10% said their friends wouldn't mind and 10% said they didn't know how their friends would react. Boys (72%) also thought that their parents would *approve of* their decision but girls (78%) anticipated that their parents would disapprove and like friends, be quite shocked about them taking up a 'man's job'. 22% of boys and 15% of girls said their parents 'wouldn't mind'.

Predominantly boys (boys 67%; girls 22%) said that they could do plumbing if they wanted to whilst mostly girls said that they could not (girls 52%; boys 30%). Of the girls who said they could not, this was put down to not being suited to

the job because of its manual (e.g. 'not strong enough', 'not good at physical work') and/or potentially 'dirty' nature (e.g. 'don't like to get dirty'). Boys who reckoned that plumbing was not within their capability attributed this to the complexity of the job or the need for specialist training.

Mechanics

75% of boys described mechanics as attractive relative to 10% of girls; in turn, 70% of girls were more likely to rate mechanics as unattractive relative to 6% of boys. Especially girls (girls 60%; boys 7%) said that they have a basic disinterest in cars and everything they signify in terms of oil and grease and that it is basically a 'boys job', whilst 7% of boys said they are attracted to the fact that it is a 'boy's job'. Those attracted to being a mechanic justified either a basic interest in fixing cars (43%) or in simply working with their hands (11%).

44% of the sample – especially boys, described the image of mechanics in general as 'a good skilled job earning a good living'. More girls (40%) than boys (9%) described the image of the job as 'mainly for boys' largely because of the basic requirements of the job (e.g. 'a job for strong men', 'mainly blokes do it'). Other images described are 'hard work' (9%), 'dirty and messy' (14%), and 'knowledgeable about cars' (5%). 5% didn't know. 50% of boys reckoned that their friends would say it was a positive move to take on mechanics whilst 50% said that their friends wouldn't mind. 46% of girls said that their friends would be 'surprised' if they went into mechanics (e.g. 'why is she doing that?') and an additional 40% said that their friends would probably tease them about it (e.g. 'they say I was a bit mad', 'they'd think I'd gone crazy'). Two-thirds of boys said that their parents would be positive about them becoming a car mechanic relative to a quarter of girls. In turn, over two-thirds of girls said that their parents would react negatively or be shocked/surprised if they went into mechanics (e.g. 'could do better', 'unfulfilled potential', 'higher expectations of me').

Over 60% reckoned they could become a mechanic if they wanted to, although this was mainly boys. Nonetheless, 42% of girls said they could, if they wanted, do mechanics. Of those who said they could not become a mechanic, both boys and girls explained that this was largely due to a lack of basic interest/inclination or that they did not have the necessary knowledge. A small proportion of girls said they couldn't become mechanics because of a basic dislike of getting dirty.

Analysis of Gender Messages in Job Advertisement

Background

According to the Equal Opportunities Commission (2004), and following the Sex Discrimination Act 1975 (as amended), an advertisement might state expressly that a man or a woman is required for a particular job, or suggest by the terminology used, or by illustrations, or some other means, that there is an intention to discriminate on grounds of sex. There are limited circumstances in which it will be lawful to restrict a post to a person of a specified sex. By s.38(3) of the Sex Discrimination Act (SDA) a job description with a clear reference to gender/sex (such as 'waiter', 'salesgirl', 'postman' or 'stewardess') is taken to indicate an intention to discriminate, unless the advertisement contains any indication to the contrary.

Section 48 allows employers to "encourage" members of one sex only to take advantage of opportunities for doing particular work where that sex is under-represented in the workforce as set out in those provisions. An advertisement could lawfully include a statement encouraging members of the under-represented sex to apply, although the advert must not suggest that applicants from the other sex will be discriminated against in terms of who is selected for the position. Furthermore, an advertisement could contain a job requirement which could potentially constitute unlawful indirect sex discrimination e.g. a requirement to work full-time, or a mobility requirement.

Generally, advertisements communicate information by their visual appearance and the language used to describe jobs. The Advertising Association in the UK has defined advertisements as "messages, paid for by those who send them, intended to inform or influence people who receive them".

Manca and Manca (1994) argue that advertising works in three different ways. First, it presents a way of understanding and interpreting our social world. Second, it categorises different types of message according to current meanings and interpretations, where "appropriate gender behaviour" may be one form of message. Third, the ideological functioning of advertising works in such a way that despite the possibility of many meanings, a particular meaning is produced (e.g. that caring jobs are most suited to women). In this way the individual is initiated into particular ways of seeing the world.

Content analysis has often been used as a means of studying advertisements and many researchers have identified a distinctive pattern of gender messages using this method. Courtney and Whipple (1983) pull together findings from a number of content studies and list some of the most significant trends regarding the portrayal of gender in advertisements. They cite in particular the results of a 1972 study, commissioned by the National Organisation for Women in the USA, as reported by Hennessee and Nicholson (in Courtney & Whipple, 1983). This organisation studies a total of 1241 advertisements over a period of one-and-a-half years, focusing specifically on the portrayal of women. They found that 42.6% of women were shown doing household chores, while the accompanying men were depicted as incompetent but very good at advising. 37.5% of the women were shown as adjuncts to men, while only 0.3% were seen as autonomous and a further 16.7% were shown as sex objects. The main emphasis of the report was placed on how the pervasive nature of such images can have a profound effect upon the self-images and behaviours of both men and women.

Peirce (1989, in Fowles, 1996) made the link between this research on adults and the way that children's genders were depicted throughout the media. Research looking at the gender images of young people under the age of 20 conveyed by three major USA network channels over a period of one week, showed that the activities children were engaged in were 'typical' of gender stereotypes. For example, girls were shown playing with dolls, dressing up, helping in the kitchen and talking on the telephone, while boys participated in sports, played at fighting and behaved mischievously. Peirce summed up by suggesting that 'the girl's place is in the home, and the boy's place is wherever he wants to be'.

Other researchers have noted stereotypical gender messages in job advertisements. For example, Fowles (1996) found that the main characteristics to shine through in pictures of women in advertising were most likely to be 'niceness' or 'tenderness', while boy characteristics were more likely to be linked to 'toughness' or 'expertise'.

Content Analysis

We studied a number of job advertisements and college prospectuses found in the national press, trade magazines and online job search engines, as well as course descriptions from a variety of college prospectuses (paper format as well as online) from across England. Two researchers reviewed, independently, a number of job advertisements and course prospectuses to develop a set of categories. Second, the researchers compared notes, discussed possible differences and reached agreement on two sets of categories (one for job advertisements and one for college prospectuses). Third, the researchers applied the set of both categories to code job advertisements and college prospectuses. Job advertisements were randomly selected from on-line websites using general search engines (e.g. Yahoo). Job centres, recruitment agencies and trade web sites were scanned for vacancies and job advertisements were selected in a random fashion by two researchers (10 job advertisements per occupation targeted). Trade magazines and National press publications were not utilized in the analysis as these publications did not have vacancies of interest to the current work. College course prospectuses were randomly selected from a collection requested from 30 colleges across England.

Prospectuses were screened by two researchers. Only prospectuses containing course descriptions of targeted occupations were included for analysis. Of those, 10 course descriptions per occupation were chosen at random. In total, 40 job advertisements and 40 course descriptions were content analysed. This sample size was randomly fixed in view of the difficulties entailed in finding vacancies for some of the targeted occupations.

The reliability of our coding process was above the accepted rate using Cohen's kappa=0.7 (Miles and Huberman, 1994). Coding units were sentences. Photographs and/or illustrations accompanying job advertisements and/or

college prospectuses were also included in the coding. Coding units for photographs/illustrations were the pictures themselves.

Nine categories were developed from job advertisements:

- 1) gender specific (e.g. "man needed").
- 2) type of person required (e.g. "matured and experienced").
- 3) working conditions (e.g. "working in a busy garage").
- 4) salary (e.g. "£1700 pa").
- 5) qualifications and experience (e.g. "previous experience required").
- 6) duties (e.g. "work involves ...").
- 7) career promotion and progression opportunities (e.g. "career progression on offer").
- 8) training offered (e.g. "ongoing training"), and
- 9) perks offered (e.g. "private healthcare offered").

Ten categories were derived from course descriptions:

- 1) gender specific (e.g. "course especially designed for women").
- 2) requirements for course (e.g. "NVQ Level 2 required").
- 3) outlets after course (e.g. "you will be qualified to work in...").
- 4) personal qualities (e.g. "you will require the skills to communicate...").
- 5) environment of course (e.g. "vehicle body repair facilities of the highest standard").
- 6) type of work involved (e.g. "hands on or desk based").
- 7) skills needed (e.g. "you will need to demonstrate a level of literacy").
- 8) stereotypic gender pictures (i.e male mechanics and female nursery nurses).
- 9) pictures opposite to stereotype, and
- 10) subjects involved listed (e.g. "subjects include: install hot/cold waters systems/heating/sanitation").

The final stage involved the coding of 10 job advertisements per occupation (40 in total) and 10 college prospectuses per occupation (40 in total) with the help of a statistical package (SPSS). Categories were exclusive, coded sentences or images fell in one category or another, and exhaustive, in that all possible coded cases were included.

Results

A summary of the findings is presented below:-

Job Advertisements

Job advertisements could be described as almost gender-neutral in tone. However, specific gender differences were identifiable for two categories as follows.

- *Working Conditions* - Within this category, job advertisements for the traditionally female occupations tended to include information on working conditions, whereas job advertisements for the traditionally male occupations did

not tend to contain this information. In addition, the descriptive vocabulary (beautiful setting, lovely building) found in some of these advertisements indicated some gender orientation towards women.

- *Duties Involved* - The opposite pattern was found for this category, with adverts for traditionally male jobs providing information about the specific duties or tasks involved. In contrast, the job advertisements for traditionally female jobs did not tend to include such information. The character of the vocabulary used in these descriptions (rigorous and to the point, e.g. duties include working on renovation, fitting plumbing and heating) points to some gender orientation towards men.

Only advertisements for the caring occupation of Nursery Nurse/Playgroup Worker specified the type of person required for the job (see Box 1 Prototype advert below for a Nursery Nurse). This could indicate a concern with targeting personal qualities typically thought to be characteristic of 'caring/motherly' people.

Advertisements for the job Plumber placed more emphasis on salary (see Box 2 Prototype advert below for a Plumber). Nursery Nurse/Playgroup Worker, Plumber and Car Mechanic job advertisements carried qualifications or experience requirements, and only Hairdresser advertisements did not.

Very few job advertisements specified career prospects, training opportunities or job benefits.

Box 1 Prototype Advertisement - Nursery Nurse

Wonderland Day Nursery is a new nursery in the beautiful setting of Lands End.

We need a great team to complement a great building and as such we require

Qualified Nursery Nurses.

If you are a mature and experienced Nursery Nurse with an NNEB, BTEC National Nursery Qualification (Level 2 or 3) or equivalent we need you. You should be enthusiastic, talented, dedicated, hard working and willing to work as part of a team. Experience of working in a Day Care setting for under-fives and two year minimum experience in a similar environment, essential. You will be required to undergo a Police Search in order to comply with the requirements of the "Protection of Children Act".

An Application Package is available. Please contact:

Box 2 Prototype Advertisement - Plumber

Plumber

Middlesex

Plumbers & Corgi engineers required for immediate start. Ideally aged 30-50 years and of smart appearance. Must have an excellent all round knowledge of domestic plumbing, with a minimum of 5 years experience and good communication skills. Full driving licence, own transport and tools essential.

Duties will include general plumbing, installation of sanitary-ware, showers and trays, checking pre-fitted baths. Some tiling maybe required. Successful applicants will be required to provide a standard disclosure. Disclosure expense will be met by employer. Rates from £25p/hr. Local areas: Hours to suit. Telephone

College Prospectuses

Findings from the content analysis of college prospectuses were not as varied as those of the job advertisements. Course descriptions were overall very uniform and gender-neutral. Nearly all course descriptions included course requirements. Course descriptions mostly included possible careers following course completion. Very few course descriptions specified personal qualities as a requirement for the course. Specific information as to the type of work involved during the course was included in most course descriptions. Almost 50% of pictures/illustrations contained in

course descriptions for Hairdressing were gender stereotypic. Four out of forty course descriptions for the occupation Plumber contained pictures opposite to stereotype.

Discussion

Overall, whilst both job advertisements and college prospectuses were mostly gender-neutral in their content, there are some gender-oriented aspects in the way 'working conditions' and 'duties involved' are described. The gender messages discernible in these advertisements may in turn attract or repel certain types of applicant. The advert for a nursery nurse talks about personal qualities appealing to a motherly caring nature whilst the one for the plumber talks about very concrete duties and is specific on salary. Individuals reading these advertisements might have the ability to decipher and reflect on the gender messages being communicated. It may be possible that by improving the way the school curriculum teaches young people about the benefits and rewards of jobs they in turn will be less swayed by bias in advertisements. As Durkin (2005) has argued, children and adolescents can be discerning readers. However, the fact they *can* may not necessarily imply that they actually do, *do* this in practice (Linn, de Benedictus, & Delucchi, 1982).

The power of boys and girls gender images to dictate job decisions

Gottfredson's Theory of occupational choice (1980; 1996; 2005) argues that the developing individual initially defines themselves in roles typical of their sex that is they are "sex-role oriented". As they mature, they become more sensitive to social status offered by careers and then finally more concerned with the interest or values associated with jobs or careers (interest/value oriented). These steps add onto each other in that first sex-role will rule out certain job possibilities, and then social status will be used to refine the options. Finally, from the final refined pool of options (i.e. 'acceptable alternatives'), interests and values are then used to select the job of choice. In this way, individuals rule out successively more sectors of work as unacceptable for someone like themselves. Those occupations left in the pile are then 'acceptable alternatives' from which the individual will ideally choose a career.

However, an individual may have to make a compromise by relinquishing his/her most preferred alternatives, for more compatible ones. In so doing however, individuals are said to be unwilling to compromise on especially the sex-type of the job followed by its prestige value. Compromises may be made because of factors like geographical area, social class, financial constraints, and so on, as well as personal factors like self-confidence, abilities and achievements.

There is substantial evidence now for the role of all three factors: sex-type, prestige and interests in occupational choice (Taylore & Prior, 1985; Henderson, Hesketh & Tuffin, 1988). However, some have found that sex-type is not always the dominant factor in occupational choice, with either prestige (Leung & Plake, 1990; Leung, 1993) or interests (Hesketh, Elmslie, & Kaldor, 1990) sometimes emerging as the key choice criterion.

Our research looked systematically at the relative power of sex-role, the prestige value of occupations and personal interests to influence occupational choice amongst 14 to 16 year olds (see Technical Report in Appendix 9). 74 state senior school students (38 boys and 36 girls) from 6 different secondary schools, participated in an interview study. Schools were co-ed (2), boy only (2) and girl only (2). Each student participated in an interview consisting of checklists and card sort tasks.

The checklist comprised of The Career Pathfinder (SHL, 2004) as a measure of 'occupational interest' across six categories: people (service and socially oriented, helping others), enterprising (business oriented), data oriented, realistic, ideas oriented and artistic. Sex-role was measured using scales of masculinity and femininity. Prestige was measured using ratings of importance of working in a prestigious or high status job (Hesketh et al, 1989). Additionally, students were asked whether they considered themselves to be a typical boy/girl.

The card sort task presented students with a selection of 54 occupations depicting either a boy, girl or neutral sex-type (against a statistical distribution of boys and girls in the job), prestige level (high, medium, low) and interest type (people, data, enterprising, realistic, ideas, artistic). Prestige judgements of jobs were made using criteria from the International Public Use Microdata Series (IPUMS) Project (McMillan & Jones, 2000). Occupations were printed on cards and students had to sort them into three categories: occupations they would find acceptable to do, uncertain

about, unacceptable to do (consistent with the idea of 'acceptable alternatives'). Finally students chose the occupation they would be most likely to do from each of the three categories (consistent with the idea of compromise): no compromise (unrestricted in their choice), acceptable but not personal favourites (low compromise), and occupations which had been classified as unacceptable (high compromise) (Blanchard & Lichtenberg, 2003). In each condition, students rated the characteristics of the typical person doing the job, the gender ratio and prestige level.

The results showed that:

- There was an association between the degree to which students describe themselves as masculine or feminine and choice of occupation: that is, they chose occupations they perceived to typify these characteristics. That is, girls who saw themselves as strongly 'feminine' were more likely to choose traditional female occupations.
- Girls who described themselves as strongly feminine were more likely to choose a job that they perceived to be 'feminine' than one that was statistically female-dominated. Likewise boys who described themselves as strongly masculine were more likely to choose a job that they perceived to be 'masculine' than one that was statistically, male-dominated.
- Under all circumstances, self-identity as masculine or feminine was preserved over occupational interests in the choices made.
- In situations of unrestricted choice, self-identity as masculine or feminine was preserved over prestige.
- Self-identity as feminine was also preserved over occupational prestige in situations of low compromise (acceptable but not personal favourite) but not high compromise (completely unacceptable), while self-identity as masculine were preserved over occupational prestige only in situations of high compromise.

In short, sex-role and especially self-perceptions of femininity were consistently preserved in occupational choice. Interests appeared to be the least important factor overall. Boys were more sensitive to job prestige than girls when forced to compromise a lot. In practice, it is also likely that 'interests' will be highly gender-oriented (e.g. girls more people oriented, boys more data oriented) such that sex-role and occupational interest may amount to one and the same thing.

Gender Differences and Similarities in Occupational Choice

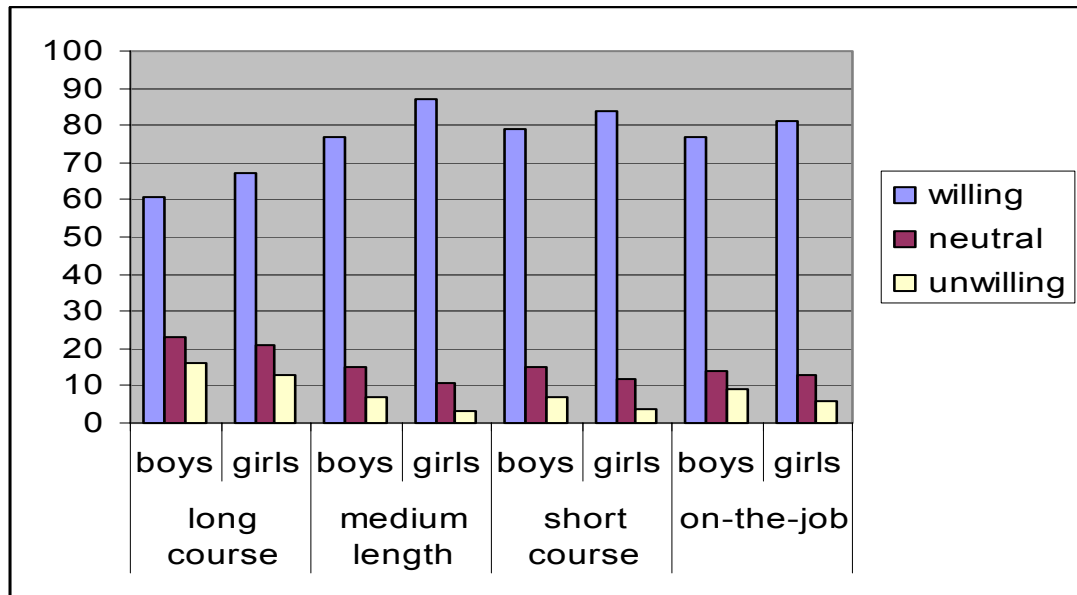
Post-16 Intentions

Just over half (n=1366) the school's sample (56%) said they planned to do A levels at post-16; other plans included doing NVQs (5%) or an Apprenticeship (10%), and getting a job (11%). 14% said they did not know what they were going to do. 4% did not provide any data. Girls (65%) reported being significantly more likely than boys (52%) to plan A-levels and also NVQs (girls 8% versus boys 3%). Boys (17%) in turn seemed more inclined than girls (4%) to Apprenticeships and also to jobs (boys 14% versus girls 8%).

Educational and training Inclinations

79% of the school's sample said that they would contemplate on-the-job training, 82% a short-course, 82% a medium length course, and 63% a long course of education or training (Figure 4).

Figure 4. Young people's attitudes to further education and training.



Put another way, 15% said they would be unwilling to pursue a long course of training, 5% unwilling to pursue a medium length course, 6% a short-course, and 8% on-the-job training. Notably, girls reported being more willing than boys to consider doing any form of further education or training, whether long, medium, or short in duration. In turn, more boys than girls said they would be willing to do on-the-job training.

Most Likely Job Attributes

School survey students were invited to select from a list of job attributes those applicable to their most likely job. These attributes were then summarised into factors.

Six factors were identifiable:

1. Intrinsic job features (referring to the intrinsic aspects of jobs),
2. Work schedules (referring to working hours),
3. Objective job features (referring to intrinsic and extrinsic rewards associated with jobs),
4. Approval (from family, friends, teachers),
5. Societal function (image and contribution to society), and
6. Gender (referring to messy/dirty aspects of jobs and whether you work predominantly in a mixed environment or with only members of your own sex).

Items making up each factor were summed and then averaged to produce factor scores. These are shown in Figure 5 and summarised in Table 1. It is important to note that in the most likely job scenario young people felt they would get a poorly rewarded job (this is shown as a negative score on "objective job features").

Figure 5. How young people picture their most likely job.

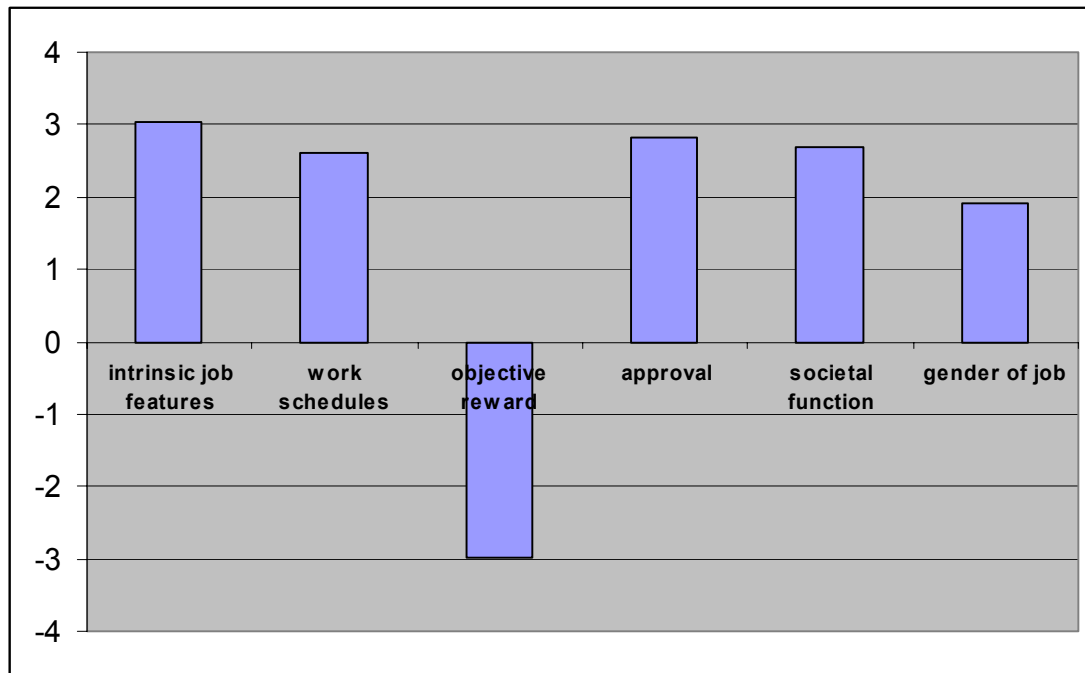


Table 1. How young people rate the features of their most likely job.

Intrinsic job features	Work schedules	Objective job features	Approval	Societal Function	Gender of job
Practical Learn new things Creative Work as part of a team Varied Job Fun See the results of what you do You can meet and be with other people You are responsible for getting things done	Flexible working hours Working hours allow a good social life Combine work with kids No long working hours	Relatively low salary Relatively low chance of promotion Relatively low status Not such a highly respected Job Relatively little job security Relatively little chance to use brain	Friends would approve Teachers would approve Parents would approve	Not Cool/Not glamorous Opportunity to help others Worthwhile to society	Working with others mainly of same sex Messy/Dirty

Overall, the intrinsic features of the job combined with approval from friends, teachers and parents were most strongly featured in the most likely job scenario. Flexible working schedules (*not* involving long hours) and societal contribution were also strongly featured in the most likely job. Gender of job does not feature so strongly. Girls rated job features, approval and societal function more applicable to their most likely job than boys. Boys, in turn, rated the 'gender of the job' as slightly more applicable to their most likely job scenario, meaning that boys more than girls expect to work predominantly with members of their own sex and are more tied to what is 'typical' for their gender than girls (Miller, Neathey, Pollard & Hill, 2004).

Ideal Job Attributes

School survey students did the same exercise in association with their ideal job. This produced a very similar pattern of items in the form of six factors. These results are presented in figure 6 and summarised in Table 2.

Figure 6. How young people picture their ideal job.

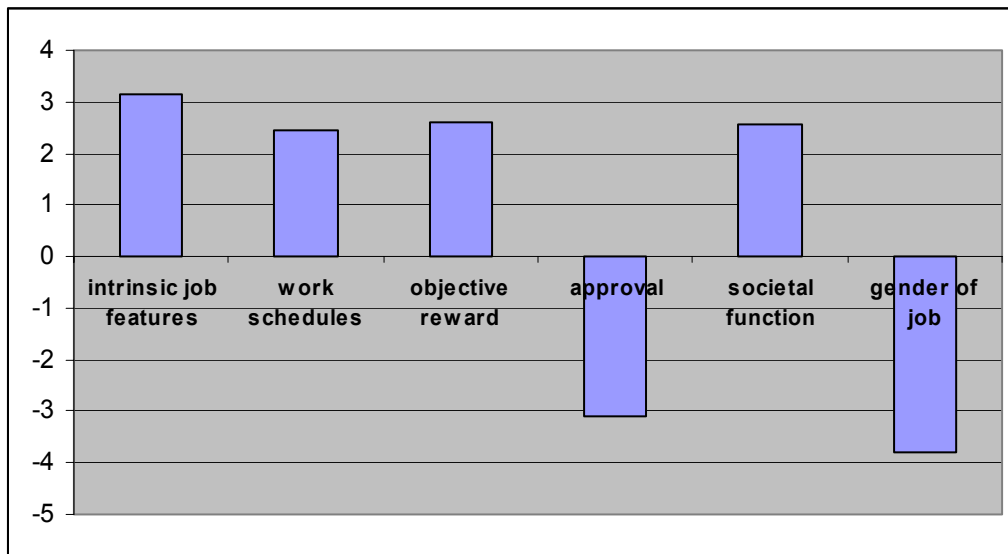


Table 2. How young people rate the features of their ideal job.

Intrinsic job features	Work schedules	Objective Rewards	Approval	Societal Image	Gender of job
Practical Learn new things Creative Work as part of a team Varied Job Fun See the results of what you do You can meet and be with other people You are responsible for getting things done	Flexible working hours Working hours allow a good social life Combine work with kids Long working hours Varied Job Job Security	Good salary Chance of promotion High status job Respected Job	Friends would be <i>less likely</i> to approve Teachers would be <i>less likely</i> to approve Parents would be <i>less likely</i> to approve	Cool/ glamorous Opportunity to help others Worthwhile to society Chance to use brains	Not working with others mainly of same sex Not messy/dirty

The ideal job was high on intrinsic job features and rewards, had a strong societal function. However, unlike the most likely job they will end up doing the ideal job is well paid (the score for "objective rewards is now positive). In the ideal job they also predict they will work in a mixed environment and not in messy/dirty conditions. Notably, the 'working schedules' factor also included the potential for working long hours alongside the ability to combine work and kids or social life. Interestingly, the ideal job appears not to be one that friends, teachers or parents would necessarily approve of (hence the negative rating for "Approval").

To summarise, the most likely job was rated high on intrinsic satisfaction, approval from others, and contribution to society, though lacking in objective rewards including good pay. In the ideal job on the other hand, objective rewards were featured highly although recognising that this might be at the cost of long working hours and potentially also less overt approval from others.

Interview students (n=120) intending to study for NVQs on leaving school were invited to do a similar exercise pertaining to their 'ideal job', this time with 32 different attributes. Appendix 7 gives frequency counts for each attribute as well as for boys and girls separately, with the top ten attributes for each respectively shown in Table 3.

Table 3. A comparison of what boys and girls say are their ideal job features.

Boys Top Ranked Ideal Job Features	Girls Top Ranked Ideal Job Features
<ul style="list-style-type: none"> • The job offers the chance to earn a lot of money (95%) • Learn lots of new things and skills (94%) • This job involves lots of organization and planning (92%) • The job is trendy (89%) • There is a lot travel involved (88%) • You can see the results of what you do (87%) • The job offers good chances of advancement and promotion (86%) • A job that people look up to and respect (86%) • Lots of variety (79%) • Able to combine work and family (78%) • Responsibility for getting things done (78%) 	<ul style="list-style-type: none"> • The job is good for being able to combine work and kids (98%) • The job offers good chances of advancement and promotion (94%) • The job is trendy (94%) • Learn lots of new things and skills (93%) • Job security (91%) • There is a lot of travel involved (89%) • You can see the results of what you do (89%) • A job that people look up to and respect (85%) • Worthwhile to society (85%) • Lots of variety (85%) • Chance to earn a lot of money (83%) • Chance to be creative (82%)

From Table 3, boys and girls agreed that the ideal job would be a respected, trendy and also a secure job, earn them lots of money, afford a learning and also a travel opportunity, offer variety and an ability to combine work and kids, and involve lots of organising and planning. Girls however rated high the ability to reconcile work and having kids and the opportunity for advancement and promotion, whilst boys put earning potential highest on their agenda coupled with the opportunity to learn new skills and spend lots of time organizing and planning. Males were 12% more likely than females to rate 'earning potential' high on importance in their ideal job.

This finding confirms existing work demonstrating that boys rate material rewards higher than girls do. Girls on the other hand rate social and life-style considerations higher than boys (e.g. Marini, Fan, Finley, & Beutal, 1996). It is nonetheless apparent that boys also value the opportunity to reconcile work and kids, and that girls also value earning potential, suggesting some convergence between them in the perceived value of both social and material job rewards (Johnson & Mortimer, 2000).

Looking at what differs between boys and girls across all attributes:

- Boys were less likely than girls to say they want a 'girly job' that involves meeting and being with other people, but are more likely to say they want 'a macho job', one that involves working in a messy or dirty environment, and is practical or hands-on.
- Girls in turn, were more likely to subscribe to a 'girly job' that involves meeting lots of people, but less likely to want a job that is 'macho', messy or dirty, and is practical or hands-on.

Further insights into what young people want from their jobs was gained from asking them to reflect openly on jobs they have considered and then decided against (Table 4). 25% of those interviewed said they had decided against a job because it would be too complex or demanding, and/or too difficult to get accepted into. Another 20% decided against jobs because they felt they were no good at academic subjects relevant to the job or were better at subjects relevant to a different job. Other reality checks on decisions were obtained from anticipating the job to be either less satisfying or fulfilling than hoped or that there would be aspects of the job that would be particularly difficult to cope with.

Other less frequent mentions were low pay, safety considerations (arising in particular from having experienced a family member being injured at work), being unable to visualise doing the job or going anywhere with it, and other more idiosyncratic reasons. Almost a quarter of the sample said they didn't know why they had decided against a particular job and a small percentage said that they had simply changed their mind.

Girls were more likely than boys to report that the job would be too hard for them to get into or too difficult or demanding. Boys however were more likely than girls to say that they discovered that they were better at doing other things.

Overall these findings suggest that young people are highly active in making decisions about what they want based on what they know they can and cannot cope with, combined with knowledge of what they are good at. Consistent with this, most of those interviewed (83%) said that no one had judged any particular job to be unsuitable for them; they had made their own judgement.

Table 4. Reasons offered by young people for not pursuing previously considered jobs.

Reasons for not pursuing jobs considered	Frequency	Boys (%)	Girls (%)
<i>Not good at it</i> (e.g. "didn't think I would be good at it", "poor grades").	8%	6%	9%
<i>Complex or demanding job/too hard to get in</i> (e.g. "difficulty getting in", "complicated job", "stress", "working shifts").	25%	20%	32%
<i>Boring/Won't enjoy it/reality check</i> ("boredom", "some kids are irritating", other things more fun or active or exciting).	11%	9%	13%
Pay is too low	4%	5%	4%
Safety issues (e.g. "dad got injured", "being injured at work")	2%	0%	4%
Could not visualize doing it or going anywhere with it	3%	5%	2%
Simple change of mind/unsure why	8%	8%	7%
Doing better at other things ("I'm doing well in horse riding")	13%	18%	6%
Personal reasons/inhibitions ("asthma", "criminal record", "Not old enough")	6%	8%	4%
Don't know	22%	22%	22%

Of those who had been advised by others against certain jobs, most said that they had been warned off by the 'academic' requirements of a job, whilst others had been put off by references to the low status of certain jobs (e.g.

factory work). Two had been told that their job aspirations were too idealistic (e.g. professional football, acting). Warnings from others – where applicable, were obtained from parents, teachers and also career advisers.

Girls were slightly more likely to report that a teacher had judged a job to be unsuitable for them than boys. Unsuitability was explained in terms of being 'ill-suited' to the job because of over-ambition (e.g. 'not smart enough', 'would not get the grades', 'dyslexic'), personal qualities (e.g. 'I'm not patient enough', 'I don't fit the spec') or poor job conditions (e.g. poor pay, rubbish job).

When invited to explain why they *definitely do not want to do* a particular job, almost 23% of interviewees were unclear and 4% said it was not applicable to them. Of those who gave reasons, these were primarily job specific - i.e. negative job conditions (e.g. 'stressful', 'dangerous', 'dirty') (29%) and features (e.g. 'boring', 'bad pay', 'would get on my nerves', 'don't like blood') (19%), and demanding job requirements (e.g. 'hard work', 'long hours') (22%). Only 3% said that parental/teacher disapproval was their reason for avoiding a particular job. Girls reported being more put off by negative job conditions (dirty, dangerous) and features (e.g. boring, don't like needles) than boys (girls 55%; boys 41%). Boys (28%) were more likely to be unclear than girls (17%) about what puts them off.

A third of the interviewees were however surprisingly unsure about why they will probably end up doing a certain job (Table 5). Those who did speculate were more likely to mention doing *'something in the area of'* rather than citing specific jobs. Reasons given for pursuing a particular job include fulfilling personal goals/ambition, being good at the job, the intrinsic satisfaction from doing the job, and practicalities including geographical location and academic achievements. Boys seemed more persuaded by the *practicalities of a particular job* than girls, and also being demonstrably good at the job they choose to do. Girls in turn seemed more *goal or ambition oriented* than boys. This finding echoes others that have likewise demonstrated a greater sensitivity of boys than girls to the *extrinsic* aspects of jobs (pay and conditions) and of girls more than boys to the *intrinsically fulfilling* (*"making a difference"*) aspects of jobs (e.g. Johnson & Mortimer, 2000).

Table 5. Reasons why young people say they will end up doing a certain job.

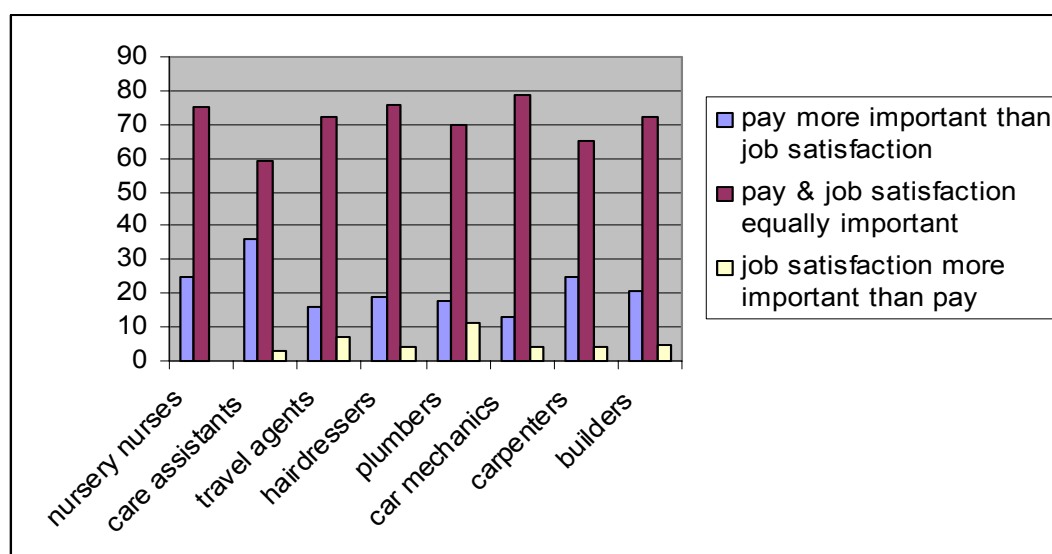
Reasons Provided	Boys (%)	Girls (%)
My aim/goals/ambition/instinct	9%	24%
Good at it/Can do it	19%	11%
Interesting/enjoyable/satisfying/challenging/ fulfilling/love it	17%	22%
Practicalities (<i>depends on GCSE's, moving to coast, where my Dad lives</i>)	20%	7%
Family approval	2%	2%
Unsure	34%	33%
<i>Simple change of mind/unsure why</i>	8%	7%

Interviewees were also asked about the importance of pay to them. Of those who said that pay was unimportant (overall=28%, males=26%, females=30%), the majority justified this with reference to the intrinsic fulfilment of the job as being more important to them. A few also said that pay was simply no big deal for them. Of those who said that pay was important to them (overall 72%, males=74%, females=70%), the majority explained this either in terms of having to earn a basic living, the life style afforded by the money earned or simply money for money's sake. Slightly more boys than girls cited 'life style' needs as the reason why pay is important. 10 students didn't know whether pay was important to them or not. There was no significant difference between boys and girls in the importance of pay.

In the schools survey, 2,447 young people aged 14 to 16 years, responded to a question about the importance of pay relative to job satisfaction. The majority of students (75%) agreed that 'pay and job satisfaction are equally important'. Only 8% agreed that 'pay is more important than job satisfaction'. 17% however said that for them 'job satisfaction is more important than pay'. There were no overall gender differences in response to this question. However, looking at the extremes of reply, more boys (13%) than girls (3%) agreed that pay is more important to them than job satisfaction and significantly more girls (20%) than boys (14%) agreed that job satisfaction is more important to them than pay. This suggests a tendency for boys to be *slightly* – if not significantly more sensitive to the material value of jobs than girls, consistent with previous work (e.g. Marini, Fan, Finley, & Beutal, 1996). Overall however there is a stronger endorsement among both boy and girls that pay and job satisfaction are equally important.

College students responded to the same question yielding percentages reported in Figure 7. By far the majority of students across all courses said that job satisfaction and pay are equally important. Very small proportions of college students (from 0% to 11%) said that pay is more important than job satisfaction. Those doing male-dominated courses were slightly more likely (6%) than those doing female-dominated courses (3.5%) to say that pay is most important. More sizeable proportions on the other hand said that job satisfaction is more important than pay, with those doing female-dominated courses slightly more likely (24%) than those doing male-dominated courses (19%) to say this. Care assistants were especially likely to say that job satisfaction is more important than pay (36%).

Figure 7. The Importance of Pay to College Students.



Overall Summary and Conclusions

Job Stereotypes as Gender Stereotypes

Certain jobs were strongly perceived by both boys and girls as either 'female' jobs (e.g. nursery nursing, hairdressing, care assistants) or 'male' jobs (e.g. mechanics, plumbing, construction). They were perceived as 'female jobs' or 'male jobs' respectively because of the way the 'intrinsic' nature of the work is perceived (i.e. masculine or physically demanding, feminine such as caring) as well as the 'typical' (e.g. macho, caring) person perceived to be found in the job along with the actual distribution of the sexes across these jobs. Masculine work was associated with the physically demanding and the dirty, whilst feminine work was associated with caring and associated qualities. Boys were believed to be largely ill-suited to feminine work, and girls to masculine work, unless they had an unusual interest in, say, working with kids if boy or with cars, if girl.

Self-Selection Processes: Matching Self-to-Job Stereotypes.

Our findings showed that gender strongly dictates how jobs are pictured and talked about, and how job choices are made. Young people matched themselves to jobs using gender stereotypes. Both boys and girls said that whilst in principle they could do a non-traditional job, they did not want to because of a fundamental disinterest or personal incongruence (i.e. 'not me'). Girls were more attracted to male-jobs than boys were to female-jobs suggesting that boys were more constricted by gender than girls were in their choice of job, consistent with previous findings (Miller & Budd, 1999; Morris, Nelson, Rickinson, Shoney & Benefield, 1999). Girls were said to be attracted to male-jobs only perhaps if they want to prove something or will otherwise be put off by the masculine nature of the work and/or potential disapproval from parents. Boys on the other hand were said to be susceptible to teasing if they do 'female work', which for them is the most off-putting aspect. Nonetheless, whilst very few young people said that their parents disapproved of their occupational choices, most believed that their parents would encourage and support them in whatever they decided to do, even if atypical.

Implicit Gender Messages in Job Advertisements.

Content analysis of job advertisements and college prospectuses revealed largely gender-neutral presentations of jobs. However there were some implicit gender messages in how jobs were described, in particular in the relative accent put on the *duties involved* in male-dominated jobs whereas *working conditions* were stressed in female-dominated jobs.. In vocational choice implicit gender messages probably reinforce the gender stereotypes already in place surrounding

certain jobs and to this extent may either attract or repel certain candidates depending on how masculine or feminine they see themselves.

Gender as an overriding factor in dictating job decisions.

Gender stereotypes were found to be more powerful than biological sex, job prestige or personal interest in accounting for occupational preferences. Those who identify with gender stereotypes are more likely to choose an occupation which they perceive matches this, and to rate these occupations more favourably. Traditional theories of occupational choice picture the process as a simple matching of personal interests to certain categories of job. However, findings here show that occupations have different meanings attached to them which young people refer to when forming preferences. In an effort to maintain self-consistency and perhaps also even self-protection, young people seek to pursue occupations that reflect their own identity.

Gender similarities and differences in occupational choice.

Whilst there are some differences between boys and girls in their aspirations and interests consistent with research on sex-roles, we found more similarities than previously recognised. Whilst boys seemed to be slightly more inclined to value the *extrinsic aspects of jobs* such as 'pay', seeing results, planning and organising, responsibility and 'gender' image and girls were slightly more inclined to value *intrinsic* things like fulfilling goals/ambitions, contributing something worthwhile, creativity, learning new things, security and advancement, these differences were small. Overall, there was a lot of overlap in what boys and girls said they wanted from their ideal job as well as what they sought to get in their most likely job. Both valued highly the opportunity to combine work and family life, the opportunity to travel and to learn new things, earning potential, advancement/promotion potential, seeing the results of what they do, job variety, and working in a respected job.

There was no overall difference between boys and girls in the importance of pay. Most 13 to 16 year olds said that both pay and job satisfaction were equally important suggesting more convergence in occupational aspiration between boys and girls than usually reported. Likewise, by far the majority of vocational trainees across both male (mechanics, building, carpentry, plumbing) and female-dominated courses (hairdressing, nursery nursing, care assistants, travel agents) said that both pay and job satisfaction were equally important. Of all the NVQ college students, a third of the care assistants said that job satisfaction is more important to them than pay, along with a quarter of the nursery nurses and a quarter of the mechanics. However, there was nonetheless a slight though consistent tendency for boys to value more than girls the material and other *extrinsic* (e.g. practicalities) aspects of jobs and for girls in turn, to value more than boys the social and other *intrinsic* (e.g. achieving personal goals) aspects of jobs. Like Johnson & Mortimer (2000) then, we can conclude that whilst there was indeed some closing of the gender gap in which aspects of jobs boys and girls say they value more, there was still a gender difference evident in whether the tangible or intangible aspects of jobs were stressed more by boys or girls respectively.

Findings also indicated a high degree of self-screening based on judgements about personal capabilities and/or negative perceptions of training or job demands including long training programmes and the degree of work involved. Adolescents self-selected on academic grounds (i.e. not good at the subjects required to do a job), found themselves drawn to certain jobs because they are 'doing well' in certain subjects, or anticipated the job to be too demanding or difficult to cope with, something they could not visualise themselves doing. Girls were more put off by poor job conditions and features than boys (e.g. dirty, boring), and more likely to report that a teacher had judged a job to be unsuitable for them.

Girls presented themselves as more ambition or goal-oriented consistent with being more willing to consider further education (e.g. A-levels) and training than boys who were in turn more inclined to say they would take up jobs and apprenticeships immediately upon leaving school. The latter contradicts findings reported in other research showing that boys are more interested in 'getting ahead' than girls and that girls are more concerned with interpersonal issues (Knox, Elliot, & Bush, 2000).

Overall these findings suggest that the young people we sampled were highly active in making their own decisions about what they want based on what they know they can and cannot cope with, combined with knowledge of what they are good at. This strongly suggests a role for self-efficacy in occupational choice insofar as beliefs about personal capability are part of job selection (Bandura, et al. 2000). Some acknowledged that they were warned off certain jobs as 'ill-suited' to them because of over-ambition, personal qualities, or poor job conditions. Boys were apparently more drawn to jobs involving tasks they are demonstrably 'good at' (which is a self-efficacy issue) and were persuaded more than girls by the practicalities of jobs including location.

Job decisions appeared to be broadly 'interest' based rather than specific to a job. That is, our young people were more likely to say they want to do something 'hands-on' rather than 'to be a mechanic'. However, interests were also highly gender based. Thus a child-care job was described as attractive because of a basic interest in children whilst a car mechanic job was described as attractive because of a basic interest in cars. As girls are more likely to be interested in children and boys are more likely to be interested in cars, there is already a form of gender segregation (i.e. in occupational interests) apparent well before actual job selection.

Overall, gender may have a largely unspoken role in determining what is socially desirable for a boy or girl to do in the way of work. This restricts young people to deciding from a framework the viable options limited to those prescribed for their gender. When invited to consider the finer details of jobs, what they involve and also what they afford in terms of their life style implications, there was more convergence than divergence in perceptions and certainly a lot more overlap in occupational aspirations than has been previously understood or acknowledged.

3 Job Perceptions and Realities

In this chapter we report young people's job perceptions, what they actually know about certain jobs and on what basis they evaluate these jobs. We then describe an intervention exercise designed to engage young people in serious consideration of the personal life style implications (in terms of pay and working schedules) of particular jobs and examine the impact of this on job preferences. Following this, the kinds of influences and information sources used by young people in the decisions they make are identified. Finally, interviews with students who pursued non-traditional training but who later decided to leave are used to explore the possible barriers experienced when pursuing a non-traditional route.

Job perceptions in skill shortage areas

This section reports on job perceptions obtained from interview and survey data.

Job Perceptions obtained by Interview

Interviews with 120 school pupils (aged 14-16 years) planning to do NVQ's offered an in-depth exploration of job perceptions. Half those interviewed were asked to consider nursery nurse (female-dominated), plumber (male-dominated), and chef/cook (neutral) and the other half were asked to consider hairdresser (female-dominated), mechanic (male-dominated), and telesales (neutral). In one task students were asked to reflect on what each job might involve (e.g. 'What does nursery nursing involve, that is, what do nursery nurses do?', 'What does plumbing involve, that is, what do plumbers do?') and to identify both positive and negative job attributes. Each set of answers (tasks, positive attributes, negative attributes) for each job were coded into categories, as reported below. In a second task students were supplied with a set of 32 job attributes and asked to tick those they would apply to each job as well as those they considered the most attractive and also the most off-putting attributes.

Nursery Nursing

Table 6 shows the young people's perceptions of what nursery nurses actually do in their job which were categorized into five different 'broad' tasks: playing with children, teaching children, caring for children, tidying/cleaning the nursery and treating the children appropriately. Boys described the role as predominantly based on 'caring tasks' with

a small proportion mentioning play and teaching. Girls appeared to have a more detailed perception of a nursery nurses' job, including caring, playing and teaching, with a very small number also recognizing its 'cleaning and tidying' components as well as the requirement to treat children appropriately. Both boys and girls also reported similar explanations for the 'positive' aspects of the nursery nursing job, with 'intrinsic reward' being the most often cited positive attribute. With regards to 'negative' attributes, boys were significantly more inclined to mention poor job conditions than girls, who were in turn more likely to mention 'badly behaved/uncontrollable children' as the most negative aspect of the job.

Table 6. What young people say that a nursery nurse does.

Task	Boys (%)	Girls (%)
<i>Play with the children</i> (e.g. "entertainment", "organize activities", "play games").	15%	37%
<i>Teach the children</i> (e.g. "teach children how to do things").	6%	15%
<i>Care for the children</i> (e.g. "help kids go to the toilet", "look after children", "put kids to sleep").	79%	33%
<i>Tidy nursery</i> ("tidy", "arrange books")	0%	4%
<i>Treating the children equally/nicely</i> (e.g. "be nice to kids", "treat kids equally").	0%	11%
Positive Aspects of Nursery Nursing	Boy (%)	Girl (%)
<i>Intrinsic reward</i> of working with kids and watching them develop (e.g. "becoming popular with the children", "children look up to you", "interaction with children").	74%	63%
<i>Experience that can be transferred to bringing up own children</i> (e.g. "experience with kids for own family", "inspire confidence in becoming a parent").	7%	7%
<i>Relatively easy/Laid back</i> ("not too difficult", "nice relaxed environment").	13%	15%
<i>Learning opportunity</i> (e.g. "learning more about children's cultures and how they play").	7%	15%
Negative Aspects of Nursery Nursing	Boy (%)	Girl (%)
<i>Badly behaved/uncontrollable children</i> (e.g. "children can be badly behaved sometimes", "trying to control the children").	13%	44%
<i>Job conditions</i> (e.g. "working long hours", "noise - headaches", "screaming", "constant demands for attention", "tiring", "emotionally draining").	70%	48%
<i>Certain tasks</i> (e.g. "changing nappies", "dealing with children being sick").	3%	3%
<i>Low pay.</i>	13%	4%

From the list of job attributes, the top ten on which there was most agreement are presented in Table 7, as were the ten most attractive attributes and five most off-putting attributes. (*Appendix 7 Tables A7.1, A7.2 and A7.3*).

Table 7. Young people's perceptions of the key features of nursery nursing.

Top Ten Applicable attributes	Boys (%)	Girls (%)
Working in a noisy environment.	62%	85%
Able to combine work and kids.	79%	85%
Worthwhile to society	78%	82%

Opportunity to help other people.	76%	82%
Working as part of a team.	73%	78%
This job is fun.	82%	62%
Job needs specialised skills and abilities.	73%	63%
See the results of what you do.	67%	70%
Allows you to meet and be with other people.	76%	56%
Flexible Working Hours.	79%	70%
Top Ten Attractive attributes	Boys (%)	Girls (%)
Good for being able to combine work and having kids.	76%	96%
Opportunity to help other people.	78%	82%
Worthwhile to society.	76%	82%
Lot of travel involved.	70%	85%
Trendy job.	73%	82%
The job is fun.	73%	70%
Flexible working hours.	58%	82%
You can learn a lot of new things and skills.	73%	58%
You can see the results of what you do.	64%	63%
Chance to be creative.	64%	67%
Off-Putting attributes	Boys	Girls (%)
Messy/dirty environment	70%	56%
Noisy surroundings	57%	48%
Working under pressure.	46%	41%

Hairdressing

The majority of the sample talked of hairdressers as simply people who 'cut hair', although boys were more inclined to say this than girls (Table 8). Boys were also more likely than girls to mention 'sweeping floors' as a primary hairdresser's task. Girls were in turn slightly more likely to talk about hairdressing in specific terms offering examples such as 'styling', 'colouring' and so on. Other less salient tasks mentioned include 'managing accounts' and 'making appointments'.

The most positive aspect of hairdressing offered by both boys and girls was 'the opportunity to meet new people' and 'to socialise on the job'. Other positive aspects include being able to 'cut the hair of friends and family', and 'customer satisfaction'. Less salient mentions included the 'opportunity to keep up with the latest fashion', 'learning to be more confident socially', 'good pay' and especially bonuses/tips, and the 'fun/enjoyable' nature of the job itself. Some, boys in particular, could not cite anything especially positive about hairdressing. Boys were also more likely than girls to mention the pay/tips as the most positive feature. The main 'negative aspect' of hairdressing for some was the fact of having to handle hair all day long, especially 'horrible hair', but mostly alluding to the potentially repetitive nature of the task. 'Making a mistake' (that cannot be rectified) and having to 'deal with difficult customers' were also two negative features. Less frequently mentioned negative aspects include 'long hours standing on one's feet', 'poor pay', the 'camp nature' of the job, and 'sweeping/cleaning'.

Table 8. What young people say that a hairdresser does.

Task	Boys (%)	Girls (%)
<i>Cut hair</i> (e.g. "cut hair").	77%	46%
<i>Doing things with hair</i> (e.g. colour hair, styling hair, hair styling, bleaching, dyeing, highlighting hair, wash hair, shampoo, perms)	10%	31%
<i>Manage accounts</i>	10%	12%
<i>Make appointments</i>	3%	12%
<i>Sweep the floor</i>	39%	12%
Positive aspects of being a hairdresser	Boys (%)	Girls (%)

<i>Being able to cut hair</i> (e.g. “being able to do different styles”).	10%	19%
<i>Customer satisfaction</i> (e.g. “pleasing the customer”, “proud of the job you did”).	10%	12%
<i>Keeping up with the fashion/learning new styles</i>	12%	9%
<i>Meeting new people/socializing</i> (e.g. “talking to customers”, “meet new people every day”).	27%	39%
<i>Enjoyable/fun/creative</i>	3%	15%
<i>Good pay/bonuses/tips</i>	13%	
<i>Nothing/don't know</i>	27%	
<i>Become more confident with people</i>	3%	3%

Negative aspects of being a hairdresser	Boys (%)	Girls (%)
<i>Cutting hair itself</i> (e.g. boring, repetitive, touching horrible hair, handling others' hair).	39%	25%
<i>Cutting hair wrongly/making mistakes</i> (“when things go wrong”, “can't fix mistakes”).	13%	13%
<i>Dealing with difficult customers</i> (e.g. customers who can't make up their mind”, dealing with unfriendly people).	10%	17%
If a boy seen as being “camp”	3%	0%
Cleaning/Sweeping	10%	4%
Long hours on your feet all day	10%	17%
Not well paid	3%	17%
None	13%	8%

Young people judged applicability, attractive aspects of hairdressing and off-putting aspects of hairdressing against the 32 job attributes. The attributes on which there was most agreement are presented in Table 9 as follows (*Appendix 7 Table A7.4, A7.5, and A7.6*). Note how little consensus there was on the most off-putting attributes of hairdressing.

Table 9. Young people's perceptions of the key features of hairdressing.

Top Ten Applicable attributes	Boys (%)	Girls (%)
Practical and hands-on.	84%	97%
Job allows you to meet and be with other people.	78%	97%
Responsibility for other people.	81%	89%
You can see the results of what you do.	75%	93%
Needs specialised skills and abilities.	79%	82%
Learn a lot of new things and skills.	63%	89%
Chance to be creative.	69%	78%
Work independently.	66%	82%
Responsibility for getting things done.	63%	78%
Girly.	63%	78%
Working hours that let you have a good social life.	63%	70%
Top Ten Attractive attributes	Boys (%)	Girls (%)
Job is practical and hands-on	81%	82%
Allows you to meet and be with other people	75%	86%
You can see the results of what you do.	84%	71%
You can learn a lot of new things and skills	66%	78%
Chance to be creative.	66%	78%
Working hours that allow a good social life.	75%	67%
Chance of advancement and promotion	59%	78%
Fun	53%	78%
Trendy	38%	74%

	53%	56%
Off-Putting attributes	Boys (%)	Girls (%)
Involves working in a messy or dirty environment.	56%	52%
The job involves working under pressure.	44%	41%
Do several things at once.	44%	33%
Responsibility for other people.	41%	33%
Do several things at once.	41%	37%

Plumbing

By far the majority of responses to this question fall into the 'fixing things' category followed by 'installing things' (like kitchens and bathrooms), and checking/maintaining (i.e. pipe work systems) (Table 10). Other less salient categories of response include 'call-outs' to houses, shopping for parts and planning the job. More cynical replies included things like 'fobbing people off', early and/or long hours of work, and getting wet/messy. There were no gender differences in perceptions of plumbing.

Both boys and girls volunteered that the most positive aspect of plumbing is that it is a good trade to have that pays well. Boys did mention more frequently the potential to work independently as a positive feature, whilst girls were more likely to mention as positive, the more social and service aspects of the job (meeting people, helping people).

The most salient negative issue appeared to be the 'demands' implicated by plumbing, especially the call-out process (and the implications for hours of work), the travelling, the repetitive nature of the work and the likelihood of having to deal with rude customers. Boys were slightly more likely to mention these things than girls, whilst girls were slightly more likely to mention the job conditions (i.e. messy, dirty, wet) as the most negative feature.

Other more unusual responses include physical threats to health associated with working in sewers and toilets, the potential for not being able to solve a problem, and poor pay.

Table 10. What young people say that a plumber does.

Task	Boys (%)	Girls (%)
Fix things (e.g. "fix drains", "fix kitchens", "fix pipes", "fix leaks", "fix taps", etc.).	52%	
Call-outs to people's houses	9%	15%
Fob people off	3%	0%
Early hours/long days	3%	0%
Check/Maintain things ("check the water", "check plumbing", "clear pipes", "update systems")	9%	4%
Install things ("fit bathrooms", "install taps", "put pipes in houses", "install guttering")	18%	0%
Get messy/wet	3%	0%
Shop for parts/materials	3%	0%
Positive Aspects of plumbing	Boys (%)	Girls (%)
Good money/trade	39%	44%
Working independently	18%	4%
Meeting new people	9%	26%
Helping people	9%	26%
Skills can be used at home	6%	4%
Not too hard	3%	7%
Having fun doing something you like	15%	0%
Negative Aspects of plumbing	Boys (%)	Girls (%)
Job Demands - hard work/long hours/24 hr callouts/traveling around/repetitive, rude customers	30%	19%
Conditions of job - messy/dirty and wet	47%	69%
Might not be able to solve the problem	10%	4%

Physical threats to health (e.g. demands of bending down/crouching down a lot, permanent bad back, cold and wet, poisons, germs from toilets, easy to injure yourself)	10%	4%
Badly paid	4%	4%

Young people judged applicability, attractive aspects of hairdressing and off-putting aspects of hairdressing against the 32 attributes. The attributes on which there was most agreement are presented in Table II as follows (*Appendix 7 Table A7.7, A7.8 and A7.9*). Note that there was consensus on only messy/dirty as an off-putting attribute for plumbing.

Table II. Young people's perceptions of the key features of plumbing.

Top Ten Applicable attributes	Boys (%)	Girls (%)
Practical and hands-on.	91%	85%
Opportunity to work independently.		
Opportunity to help other people.	88%	82%
Needs specialised skills and abilities.	79%	80%
Working in a messy/dirty environment.	88%	70%
Responsibility yourself for getting things done.	79%	78%
See the results of what you do.	76%	73%
Learn a lot of new things and skills.	79%	63%
Chance to earn a lot of money.	82%	56%
Involves working under pressure		
Top Ten Attractive attributes	Boys (%)	Girls (%)
Opportunity to help others.	85%	78%
Chance to earn a lot of money.	85%	70%
Learn a lot of new things and skills.	76%	63%
See the results of what you do.	70%	67%
Allows you to meet and be with other people.	73%	56%
Working hours which let you have a good social life.	70%	52%
Job is practical and hands-on.	79%	37%
Good chance of advancement and promotion.	70%	44%
Allows you to work independently.	61%	46%
Worthwhile to society.	58%	41%
Off-Putting attributes	Boys (%)	Girls (%)
Working in a messy/dirty environment.	55%	89%
Doing several things at once.	46%	48%
Lots of travel.	52%	37%
Working under pressure.	33%	59%

Car Mechanic

The majority of the sample (both boys and girls alike) described the primary task of the car mechanic as 'fixing cars or engines' (Table I2). Boys mentioned 'servicing cars' more than girls did, whilst girls were more likely to mention 'diagnosing' problems as a key task. When reflecting on the positive aspects of being a car mechanic, a third of both boys and girls said that it is the 'expertise' acquired (knowledge acquired about cars, opportunity to learn about cars and what makes them work) that is most positive. Other positive considerations were the potential to fix one's own car or the cars of family/friends, meeting people, the hands-on nature of the job, customer satisfaction, having a laugh with mates and the pay.

On the negative side, the majority of the sample mentioned 'getting dirty/greasy' – again, both boys and girls alike. Boys more than girls, mentioned the potential for injury through accidents. Other negatives cited are the responses of

unhappy/grumpy customers, the perceived long hours demanded of the job, and also the potentially repetitive nature of the job.

Table 12. What young people say that a car mechanic does.

Task	Boys (%)	Girls (%)
Fix cars/engines (e.g. fix broken engines, mend cars, fixing cars, fixing exhaust systems).	63%	65%
Servicing cars (e.g. service a car, change tyres/wheels, change oil, change filters, body work, wash cars, safety checks).	19%	4%
Diagnosing (e.g. discussing what's wrong with the car, analysis of what's wrong with a car, find problems, MOT's, test drives)	13%	23%
Don't know	0%	4%
Make appointments	3%	4%
Buy parts	0%	4%
Write out quotes/give estimates	3%	4%
Positive Aspects of being a car mechanic	Boys (%)	Girls (%)
<i>Knowing/learning about cars</i> (e.g. constantly learning about new engines, get to see different cars, learning how things work in cars, if you like cars its like a hobby).	36%	39%
<i>Fix own and family/friends cars</i> (e.g. repair own car, comes in handy when it comes to your own car).	13%	8%
Meeting new people	7%	4%
Keeping active/hands-on job	13%	8%
Well paid	16%	8%
None/not sure	0%	27%
Having a laugh with your mates	10%	9%
Customer satisfaction	7%	4%
Negative Aspects of being a car mechanic	Boys (%)	Girls (%)
Getting dirty/greasy (e.g. get dirty, grease, getting messy, dirty hands, smelling like a car).	47%	62%
Could get hurt (e.g. injury likely, hurting yourself, dangerous if you do the wrong thing, accidents in garages, hazardous, cuts on skin, fumes)	22%	8%
Long/late hours to meet deadlines/demanding	9%	12%
Repetitive/same thing all day/tedious	16%	12%
Man's job	0%	4%
Unhappy/grumpy customers	6%	4%

Young people judged applicability, attractive aspects of car mechanics and off-putting aspects of care mechanics against the 32 attributes. The attributes on which there was most agreement are presented in Table 13 as follows (*Appendix 7 Table A7.10, A7.11, and A7.12*). Note that there was consensus on only two off-putting attributes for car mechanics.

Table 13. Young people's perceptions of the key features of car mechanics.

Top Ten Applicable attributes	Boys (%)	Girls (%)
Involves working in a messy/dirty environment.	84%	93%
Needs specialised skills and abilities.	84%	89%
Practical hands-on.	84%	89%

See the results of what you do.	72%	89%
Learn a lot of new things and skills.	78%	72%
Opportunity to help others.	72%	82%
Working in noisy surroundings.	78%	78%
Working as part of a team.	63%	70%
Allows you to work independently.	63%	70%
Working under pressure.	66%	67%
Top Ten Attractive attributes	Boys (%)	Girls (%)
Learn a lot of new things and skills.	88%	63%
Practical and hands-on.	82%	67%
Opportunity to help other people.	75%	67%
Involves working as part of a team.	66%	67%
Working hours that let you have a good social life.	66%	56%
Flexible hours.	69%	52%
Chance to earn a lot of money.	69%	41%
Lot of variety.	63%	48%
Specialised skills and abilities.	75%	52%
See the results of what you do.	72%	78%
Off-Putting Attributes	Boys (%)	Girls (%)
Working in a messy/dirty environment.	38%	93%
Doing several things at once.	32%	48%

Job Perceptions Obtained by Survey

The school survey (n=2,447) supplied students aged 13 to 16 years with a list of 28 attributes and asked them to tick their applicability to four male-dominated jobs (plumber, mechanic, carpenter, and builder) and four female-dominated jobs (nursery nurse, care assistant, hairdresser, and travel agent).

Male-dominated Jobs

The main point to note from these findings is that there were few attributes that were consistently applied by either boys or girls, to any particular job. Table 14 below gives the percentage of school students applying each attribute to the jobs in question. Across the male-dominated jobs, the only consistently applied attribute was 'messy/dirty', especially plumbing, mechanics and building. Girls (80%) were particularly likely to picture these jobs as 'messy/dirty'.

Boys more than girls applied the attribute 'opportunity to combine work and family life' to plumbing, and were also more likely to rate plumbing as 'fun', affording a good social life, a chance of promotion, responsibility, status, and a good salary, and consistent with the approval of friends and parents. Girls said more than boys that plumbing secures a good salary, implies long hours, use of brains, and working as part of a team.

There was fairly strong endorsement of the practical nature of the male-dominated jobs and that these jobs let you see the results of what you do, offer variation, afford an opportunity to learn, a degree of responsibility, and that they help others. A greater proportion of students said that building, relative to the other jobs, involves being creative and working as part of a team. Boys more than girls were likely to say that the male-dominated jobs are fun, and that they invite friend and parental approval.

Table 14. Extent of agreement among young people on the key features of male-dominated jobs.

Item	Plumber	Mechanic	Carpenter	Builder	Hospital porter
Messy/dirty	67%	70%	44%	64%	20%
	80%	80%	54%	78%	28%
Chance of Promotion	14%	20%	19%	19%	23%
	11%	16%	16%	16%	29%
Good salary	45%	27%	35%	34%	18%
	38%	23%	30%	29%	18%
Respected job	18%	19%	21%	18%	32%
	18%	19%	17%	16%	31%
Varied Job	34%	34%	30%	32%	29%
	34%	35%	29%	34%	38%
See results	39%	43%	41%	46%	23%
	49%	50%	48%	52%	25%
Opportunity to learn	43%	47%	39%	40%	23%
	49%	50%	42%	45%	27%
Creative	19%	16%	33%	30%	9%
	12%	9%	38%	30%	5%
Opportunity to help others	49%	51%	37%	40%	46%
	52%	56%	35%	38%	55%
Worthwhile to society	45%	39%	32%	43%	30%
	50%	47%	33%	49%	39%
Opportunity to meet others	25%	27%	22%	24%	26%
	30%	28%	22%	28%	38%
Can combine work and family life	38%	23%	25%	28%	24%
	27%	34%	34%	25%	34%
Provides job security	27%	30%	32%	31%	24%
	24%	31%	33%	33%	27%
Flexible working hours	42%	25%	24%	23%	25%
	42%	25%	23%	24%	28%
Opportunity for social life	36%	29%	28%	28%	26%
	29%	36%	35%	34%	33%
Practical	46%	47%	43%	45%	23%
	62%	61%	56%	58%	39%

Team	23% 17%	31% 33%	20% 19%	36% 43%	31% 30%
Fun	21% 9%	26% 9%	25% 12%	24% 11%	14% 8%
Responsibility	51% 68%	45% 64%	43% 61%	42% 56%	37% 54%
Cool	5% 3%	7% 4%	7% 3%	7% 14%	8% 4%
Parental approval	43% 28%	38% 24%	34% 23%	35% 25%	25% 28%
Use brains	20% 34%	34% 40%	31% 31%	26% 27%	20% 20%
Teacher approval	20% 23%	22% 22%	22% 21%	22% 22%	22% 24%
Same sex	31% 31%	29% 28%	23% 23%	28% 28%	14% 14%
Status	28% 21%	23% 19%	21% 13%	22% 16%	19% 16%
Friend approval	34% 25%	39% 26%	30% 27%	37% 26%	24% 27%
Long hours	26% 38%	27% 36%	22% 32%	36% 25%	28% 36%

Key: Boy Girl

Consistent with the male-dominated jobs, there were few attributes consistently applied to female-dominated jobs (Table 15). The attributes securing strongest endorsement for nursery nursing were 'the opportunity to help others', 'respected job' and 'working as part of a team'. It is noteworthy that girls were more likely to apply the more positive attributes to nursery nursing than boys do. The only attribute on which girls and boys appeared to agree on were 'long hours' and 'job security' (with the qualifier that only between 20 and 26% of the sample ascribed these particular characteristics to child-care).

Opportunity to help others was applied to nursery nurses and care assistants by just over half the sample. Both nursery nurses and care assistants were attributed 'respected by others' and 'responsibility', especially care assistants. For hairdressing, a relatively high proportion of students said that it is 'creative', 'practical' and affords tangible 'results', an opportunity to meet people and have a social life, and invites friends approval.

There was less agreement on what exactly is involved in being a travel agent, and the rewards it might afford, except for an 'opportunity for promotion', a 'good salary', and an 'opportunity to meet people'. Similarly, there was no strong endorsement of the attributes associated with being a primary school teacher, except for being 'respected', affording an 'opportunity to help others', 'a chance of promotion', and 'worthwhile to society'.

Table 15. Extent of agreement among young people on the key features of female-dominated jobs.

Item	Hairdresser	Child-care	Care assistant	Travel agent	Primary teacher
Messy/dirty	23% 18%	24% 33%	23% 25%	6% 2%	11% 17%
Chance of Promotion	28% 46%	23% 32%	14% 17%	43% 55%	37% 44%
Good salary	18% 23%	15% 23%	11% 12%	31% 39%	29% 36%
Respected job	22% 26%	36% 52%	44% 56%	21% 27%	41% 56%
Varied Job	22% 29%	33% 43%	34% 42%	30% 36%	35% 41%
See results	41% 56%	27% 33%	31% 39%	21% 22%	35% 41%

Opportunity to learn	35%	28%	21%	21%	31%
Creative	48%	43%	30%	28%	45%
Opportunity to help others	44%	21%	9%	10%	22%
Worthwhile to society	60%	37%	5%	6%	36%
Opportunity to meet others	34%	49%	51%	39%	38%
Can combine work and family life	37%	60%	65%	43%	48%
Provides job security	29%	36%	36%	26%	34%
Flexible working hours	29%	47%	49%	27%	48%
Opportunity for social life	45%	34%	36%	36%	33%
Practical	64%	48%	47%	48%	47%
Team	28%	32%	21%	25%	21%
Fun	47%	48%	31%	37%	23%
Responsibility	31%	26%	25%	27%	32%
Cool	43%	28%	31%	32%	42%
Parental approval	23%	25%	26%	27%	21%
Use brains	26%	35%	28%	34%	23%
Teacher approval	37%	35%	27%	34%	36%
Same sex	53%	47%	33%	47%	44%
Status	39%	21%	23%	9%	18%
Friend approval	51%	40%	40%	9%	36%
Long hours	22%	39%	32%	33%	37%
	29%	53%	45%	39%	48%
	28%	28%	13%	17%	27%
	48%	51%	8%	17%	45%
	32%	28%	38%	31%	33%
	36%	39%	51%	43%	46%
	26%	6%	7%	9%	7%
	53%	6%	3%	13%	7%
	22%	27%	26%	27%	31%
	39%	52%	40%	39%	51%
	22%	20%	19%	26%	33%
	19%	27%	19%	29%	45%
	18%	27%	26%	23%	33%
	22%	37%	31%	29%	42%
	20%	20%	12%	12%	19%
	40%	11%	17%	14%	15%
	14%	25%	16%	20%	29%
	17%	19%	19%	20%	37%
	33%	26%	24%	29%	27%
	60%	51%	33%	40%	49%
	16%	20%	29%	22%	24%
	16%	22%	37%	22%	27%

Key: Boy Girl

The most frequently endorsed attributes of hairdressing were 'the opportunity to meet others', and to be 'creative'. For care assistants, the attributes 'to help others' and a 'respected job' were the most frequently applied whilst for travel agents it is 'a chance of promotion'. Finally, primary school teachers were most frequently seen as having an opportunity to help others in a respected, but also flexible job.

Insider and outsider perceptions compared

College students were invited to apply the same attributes to the job they were training for (i.e. plumbing trainees judge plumbing, nursery nurse trainees judge nursery nursing) as well as to the other male and female-dominated jobs of interest here. The percentage of ticks obtained for each attribute across all eight jobs were then compared across three categories of young people: the 13-16 year old school children, vocational trainees for the job in question and

other vocational trainees taking other course. The findings are reported in Table 16 (with full technical details in Appendix B) and are discussed first by jobs within the male-dominated and then the female-dominated sectors.

Male-dominated Jobs: Plumbers, Mechanics, Carpenters and Builders

Plumbers

There were no absolutely consistent attributes or set of attributes applied to plumbing by plumbing trainees, or by other trainees or students. Just over half of the plumbing students agreed on 'an opportunity to help others', 'messy/dirty' and on the 'practical' nature of the job, and half exactly said that plumbing has status. Plumbing students were less likely than other trainees/students to describe plumbing as 'messy/dirty' whilst they were slightly more likely than them to describe plumbing as 'having status', 'respect', affording an 'opportunity to help others', for 'promotion' and to 'be creative. On the other hand, they were slightly less inclined than other trainees and students to say that plumbing involves responsibility, affords flexible hours, an opportunity to combine work and family life and to meet people.

Table 16. Examples of Discrepancy between Insider and Outsider Perceptions of Male Dominated jobs.

Perceptions of plumbing	14-16 year olds	Plumbing Students	Other college students
Messy/dirty	72%	53%	61%
Chance of Promotion	12%	25%	14%
Respected job	17%	34%	19%
Varied Job	33%	44%	34%
See results	42%	41%	44%
Creative	15%	28%	13%
Opportunity to help others	49%	56%	42%
Team	20%	44%	21%
Status	24%	50%	29%
Friends approval	29%	25%	29%
Long hours	31%	31%	40%
Perceptions of mechanics	14-16 year olds	Mechanic students	Other college students
Messy/dirty	73%	70%	69%
Chance of Promotion	18%	30%	16%
Good salary	25%	35%	21%
Respected job	18%	30%	16%
Varied Job	34%	44%	30%
Creative	13%	30%	7%
Worthwhile to society	42%	51%	46%
Opportunity to meet others	28%	39%	23%
Flexible working hours	24%	35%	23%
Team	31%	42%	33%
Responsibility	53%	33%	53%
Perceptions of carpentry	14-16 year olds	Carpentry students	Other college students
Messy/dirty	47%	24%	41%
Chance of Promotion	17%	26%	17%
Good salary	31%	44%	36%
Respected job	19%	27%	20%
See results	43%	34%	44%
Team	19%	33%	21%
Responsibility	51%	24%	54%
Status	17%	27%	20%
Long hours	26%	10%	32%

Perceptions of building	14-16 year olds	Building students	Other college students
Messy/dirty	69%	45%	63%
Chance of Promotion	17%	28%	11%
See results	47%	54%	48%
Worthwhile to society	45%	61%	46%

Car Mechanic

The only attribute endorsed by a high proportion of mechanic students for mechanics was messy/dirty, and on this there was strong agreement across both insider and outsider perspectives. Just over half of the mechanic students agreed on 'worthwhile to society' and the 'practical' nature of the job, and almost half said that it is an 'opportunity to help others' and 'to learn'. Mechanic students were more inclined than both sets of other students to say that mechanics is a respected, varied, fun and creative job with status, affording a good salary and in which there is a chance of promotion, an opportunity to meet others, to work as a team and to secure approval from parents and teachers.

Carpenter

There were no strong attributes on which carpentry students agreed were applicable to the carpenter job. 44% of carpentry students thought that carpentry affords 'a good salary'. Carpentry trainees were nonetheless slightly more inclined than others to say that their job is respected, affords status, a chance to work as a team and of promotion. On the other hand, carpentry students were slightly *less* inclined than others to say that carpentry is messy/dirty, an opportunity to learn, involving responsibility, seeing results, and affording hours that facilitate combining work and family or a social life.

Construction - Builders

Consistent with the findings for other male-dominated jobs there were few characteristics that were consistently applied by construction students (Table 16). Just over 60% of them see building as 'worthwhile to society' and just around half describe it as 'practical' and affording an opportunity to 'see results'. Construction students were slightly more likely than other students' to note an opportunity to see results, some 'fun' in the job, status, a chance for promotion, and the ability to secure approval from friends. These students were slightly *less* inclined though to describe their job as messy/dirty, the opportunity to learn, to help others, to combine work and family life, or to have a social life, and as affording flexibility in hours.

Overall, there was not much consensus across vocational trainees in the male-dominated jobs on the attributes applicable to their respective jobs. Trainees were nonetheless more likely to note the potential 'rewards' of their job than those looking at the job from the outside. Trainees were especially likely to note the 'respected' nature of their job and its 'status' in society. Proportionately fewer trainees noted the 'messy/dirty' nature of plumbing, building and carpentry - though not car mechanics. The low proportion of trainees describing their respective jobs as having flexible hours (and affording an opportunity to combine work and family and/or a good social life) may be because of current course demands and commitments rather than because the job per se does not afford these things. The low proportion of students saying that their job enabled them to 'see results' may also be a function of a trainee status. In carpentry training for example, 'seeing results' may not be as immediate as for plumbing, building or car mechanics.

Female-Dominated Jobs: Nursery Nurses, Hairdressers, Care Assistants, and Travel Agents

Nursery Nurses

Nursery nurse trainees demonstrated strong consensus in their description of nursery nursing as fun, practical, worthwhile to society, affording an opportunity to combine work and family life, and to work as part of a team (Table 17 with full technical details in Appendix 8). Two thirds of them also described nursery nursing as creative, affording

visible results, an opportunity to learn, to meet people, and to help others and securing the approval of both parents and friends. Around half of them described nursery nursing as messy/dirty, a varied job, affording a chance of promotion, involving the use of brains and a degree of responsibility for getting things done. All of the attributes with the exception of 'cool' and 'good salary' were in fact more likely to be applied to nursery nursing by trainee nursery nurses than by other trainees or students. Only 11% said that nursery nursing pays a good salary and only 6% said that it is cool.

Table 17. Examples of Discrepancy between Insider and Outsider Perceptions of Female Dominated jobs

Perceptions of nursery nursing/child-care	14-16 year olds	NN/CC	Other college students
Messy/dirty	27%	50%	21%
Chance of Promotion	27%	50%	26%
Good salary	18.1%	11.2%	16.9%
Respected job	43%	70%	36%
See results	29%	66%	31%
Opportunity to learn	34%	63%	30%
Creative	27.5%	66%	23%
Worthwhile to society	40%	70%	36%
Can combine work and family life	38%	70%	31%
Practical	29%	76%	31%
Use brains	24%	56%	24%
Status	22%	45%	26%
Perceptions of Item	14-16 year olds	Hairdresser	Other college students
Chance of Promotion	35%	52%	40%
See results	46%	53%	44%
Creative	50%	61%	48%
Practical	44%	67%	44%
Team	25%	44%	29%
Cool	38%	54%	37%
Long hours	16%	34%	22%
Perceptions of care work	14-16 year olds	Care Assistant	Other college students
Messy/dirty	23%	40 %	23%
Chance of Promotion	15%	28%	14%
Opportunity to learn	25%	38%	21%
Opportunity to help others	56%	67%	52%
Opportunity for social life	29%	16%	22%
Practical	30%	47%	31%
Team	37%	60%	35%
Use brains	18%	32%	20%
Perceptions of travel agency	14-16 year olds	Travel agent	Other college students
Chance of Promotion	48%	61%	45%
Good salary	34%	20%	28%
See results	21%	29%	18%
Opportunity to learn	24%	43%	25%
Creative	8%	17%	6%
Flexible working hours	28%	12%	27%
Status	20%	38%	19%

Overall, nursery nurse trainees were extremely positive about the job they are preparing for and substantially more positive about it than other trainees or students looking at nursery nursing from the outside. However, they also appeared to be more realistic than outsiders about the costs (e.g. not a good salary) and demands (e.g. messy/dirty). Recognition of the messy/dirty nature of the job by 50% of the trainees puts nursery nursing into the same bracket as some of the male-dominated jobs (e.g. plumbing and building).

Hairdressers

Two thirds of the hairdressing trainees described hairdressing as practical, creative and affording an opportunity to meet people. Over half described it as providing visible results, cool, providing an opportunity for promotion and securing the approval of friends. Hairdressing trainees were also more likely than others' to say that hairdressing provides status, a chance of promotion, to see visible results, an opportunity to learn, fun, cool, practical, a chance to be creative, to help others, to work as part of a team and to meet people, securing parental and friends' approval, involving the use of brains, and long hours. Overall, hairdressing trainees were much more likely to note the positive aspects of their job than trainees preparing for other jobs or school students.

Care Assistants

Two thirds of the care trainees said that their job afforded the chance to help others and to work as a team. Other attributes were much less consistently applied. Care assistant trainees were more likely than trainees in other jobs to say that the job is messy/dirty, practical, a learning opportunity, affords visible results, status, job security, flexible working hours, the chance to work as a team, secures the approval of parents and friends and involves the use of one's brain. Care trainees were *less likely* however to say that the hours of work involved in their job will afford an opportunity for a social life.

Travel Agent

The only consistently applied attribute by trainee travel agents to their job was 'a chance of promotion' and just over half said that it provided the chance to work as part of a team. Trainee agents were more likely than other trainees and also students, to see the job as granting respect and status, as providing a chance for promotion, to be creative and an opportunity to learn. Trainee agents were less likely however than other trainees/students to say that travel agents' get a good salary.

Overall, trainees in the female-dominated sectors were much more likely to describe their job in positive terms whilst also recognising some of the realities (e.g. messy/dirty nature of caring for children or the elderly) and also the costs (most notably a low salary).

Perceived Sources of Job Knowledge

During interviews, students were invited to reflect not only on what they knew about certain jobs but also how they came about this knowledge. Both boys (47%) and girls (52%) said that they knew about nursery nursing mainly from personal experience (including work experience but also memories of being at nursery or of taking brothers/sisters to nursery). Family members were also cited by 28% of boys as being a key source of their knowledge of nursery nursing. Likewise, the majority of the sample (58% boys, 58% girls) reported knowing something about hairdressing from personal experience, either from having their own hair cut or from knowing family members or friends already in the job (33% boys, 26% girls).

The majority said that they knew about plumbing on the other hand, from 'family' experiences/reports (39% boys, 23% girls) or from friends and acquaintances (19% boys, 30% girls), call-outs to their home (7% boys, 11% girls) and TV (26% boys, 4% girls) with some admitting that they really did not know anything substantial about plumbing (10% boys, 22% girls). There were no overall gender differences in how knowledge was believed to be acquired, although boys – as apparent from the above, were slightly more likely to mention experiences arising from 'family' including work shadowing experiences and also TV. Likewise, the majority of the sample said that they knew something about car mechanics from either their family (47% boys, 48% girls) or friends (41% boys, 26% girls). A small percentage said that they had acquired their knowledge through the experience of going to garages and seeing car mechanics at work (e.g. during an MOT on the family car) (4% boys, 16% girls).

Pay Perceptions of Jobs

The school students interviewed offered very speculative and diverse perceptions of pay, making it difficult to categorise them in any meaningful way. Students gave hourly rates, daily rates, weekly rates and annual salaries. Benchmark salaries in weekly net, take-home terms are given below for 2005:-

Job	Weekly Net Salary
Nursery Nurse	£ 208.49
Plumber.....	£ 581.85
Car Mechanic.....	£ 264.74
Hairdresser	£ 232.22

- Estimates of hourly rates for nursery nursing ranged from £3 to £25 and weekly rates varied from £10 to £400, and annual salary was estimated between 10k and 20k a year. Some gave verbal replies like 'not a lot'. In their pay evaluation of nursery nursing, over a half of the sample felt that it is 'neither, well or badly paid'. A quarter of both boys and girls felt it was 'badly paid' but as many again felt it was 'well paid'. None of them said that nursery nursing is very well or very badly paid. On average the pay of nursery nurses was probably *estimated about right* by the young people sampled here.
- Estimates of hourly rates for hairdressers ranged from £4.50 to £10, daily rates varied from £10 to £70, weekly rates varied from £50 to £500, and annual salary was estimated between 10k and 20k. Verbal replies included 'don't know', 'depends on commission', 'depends on tips', and 'depends on salon'. In their pay evaluation of hairdressing (Table 43), more girls than boys rated it as 'well paid' and also 'badly paid' whilst more boys than girls rated it as 'neither, well or badly paid'. No one rated hairdressing as 'very well paid' but one student rated it as 'very badly paid'. On average, the salary of a hairdresser was *substantially over-estimated* by the young people sampled here.
- Estimates of hourly rates for car mechanics ranged from £3 to £20, weekly rates from £50 to £1000, and annual salary from 14k to 30k. Verbal replies were 'depends on which garage', and 'a lot; and there were many 'don't knows'. In their pay evaluation of car mechanics, more boys rated it a 'well paid' than girls who in turn were slightly more likely than boys to say it is 'neither, well or badly paid' or 'badly paid'. No one rated mechanics as either very badly or very well paid. On average, the pay of mechanics was *substantially over-estimated* by the young people sampled here.
- Estimates of hourly rates for plumbing ranged from £3 to £80, daily rates ranged from £70 to £500, weekly rates varied from £200 to £700, and annual salary varied from 20k to 70k. Some just said 'high' or 'depends on company' and other said they didn't know. In their pay evaluation of plumbing (Table 18), there was a positive skew towards 'well paid' and 'very well paid' amongst both boys and girls. On average the pay of plumbers was *fairly well estimated* by the young people sampled here.

Overall, estimates for traditionally female jobs were lower than for traditionally male jobs, consistent with the reality of higher average pay for jobs dominated by men. Recognition of the especially high pay potential for plumbing was also apparent with estimates of annual salary up to 70k. Qualifiers such as 'depends on...' salon, garage, company, commission, tips, etc. though vague, were also based on the reality of pay for the jobs in question.

Table 18. Young people's pay evaluations of vocational jobs.

How do you rate the pay for nursery nurses?	Frequency (%)	Boys (%)	Girls (%)
Very badly paid	0%	0%	0%
Badly paid	25%	24%	26%
Neither badly or well paid	52%	55%	48%
Well paid	23%	21%	26%
Very well paid	0	0%	0%
How do you rate the pay of hairdressers?	Frequency (%)	Boys (%)	Girls (%)
Very badly paid	2%	0%	4%

Badly paid	15%	13%	19%
Neither badly or well paid	53%	66%	39%
Well paid	29%	22%	29%
Very well paid	0%	0%	0%
How do you rate the pay of car mechanics?	Frequency (%)	Boys (%)	Girls (%)
Very badly paid	0%	0%	0%
Badly paid	7%	3%	12%
Neither badly or well paid	48%	44%	54%
Well paid	45%	53%	35%
Very well paid	0%	0%	0%
How do you rate the pay of plumbers?	Frequency (%)	Boys (%)	Girls (%)
Very badly paid	2%	0%	4%
Badly paid	9%	6%	8%
Neither badly nor well paid	17%	9%	17%
Well paid	40%	49%	47%
Very well paid	23%	36%	27%

Pay Perceptions of young people's Chosen Job

The 120 young people interviewed about their intended job were very vague about the pay associated with what they wanted to do in the future with very few being able to articulate anything specific (11%). Even those who did produce a ball-park figure, these were offered tentatively and as a result of 'guesswork'. Most students gave broad brush answers such as 'good' ('a lot', 'pretty good', 'really good'), 'average' ('standard', 'average', 'alright'), 'poor' ('not that good', 'naf', 'bad') (46%) or qualified their speculations with 'depends on ability' (e.g. 'gets better with experience', 'lower when you start') or acknowledgement that it is likely to vary (31%). Quite a large proportion (13%) said that they simply did not know. Thus, whilst pay was said to be important by nearly all of those interviewed, few could articulate a precise figure or even a vague estimate for their intended job. Boys and girls did not differ in this.

Challenging Traditional Job Preferences

It is clear from the above analysis that gender was a strong constraint on job preferences because jobs were perceived in gender stereotypical ways. The 14 to 19 year olds we sampled did not appear to have much knowledge about what is actually done in certain jobs nor the reality of what these jobs could offer in terms of pay or life-style.

Our findings nonetheless also showed that boys and girls appeared to want similar things from work: there were some gender differences but also many similarities. This suggests that were young people to appreciate the realities of what jobs actually involve (including the benefits they offer) beneath the stereotypes, there may be *inside attractions* that they might otherwise have overlooked. For example, plumbing is a job in which one meets new people on a daily basis, often visiting their homes etc.

However, the young people we interviewed and also surveyed largely viewed plumbing as a messy/dirty job with no particular potential for socialising and meeting people. *Yet if in descriptions of plumbing jobs, the more social aspects of the job were detailed or emphasised young women might be more attracted to this line of work.* The key in this respect would be to help girls to put the job into a wider context of opportunities and circumstances rather than being put off by surface characteristics with masculine overtones (e.g. physical work, dirty work, macho work). After all, child-care – which on the surface is more attractive to girls, does also involve its own fair share of dirt and mess, lifting/carrying and general 'hands on'.

Here we report on a study which tested this reasoning by looking systematically at the impact of more realistic job knowledge (salary potential and life-style implications) on job preferences. We designed an intervention involving two state sector secondary schools in the South East of England, technical details for which are reported in Appendix 3.

Aim and Design

The aim of the investigation was to develop a simple classroom based exercise that involves working with information about *either* the average pay *or* the job conditions (working arrangements and schedules) of jobs in designated skill shortage areas and to test whether these exercises could make any real difference to young people's job preferences. The students job preferences were measured at least 6 weeks before students took part in one of these two exercises as well as immediately afterwards, as a benchmark for assessing change.

Sample

284 mixed-ability students (112 girls, 172 boys) from two state secondary schools took part in this study including years 9 (aged 13-14 years), 10 (aged 14-15 years) and 11 (aged 15-16 years). The students in years 10 and 11 were studying for GCSE exams, while those in year 9 had recently or were in the process of choosing GCSE subjects.

As each school was comparable against size, demographic and educational criteria, students were assigned to each of the two 'interventions' by school. The pay exercise was undertaken by 170 students from one school (98 boys, 72 girls) whilst the job conditions exercise was undertaken by 114 students from the other school (74 boys, 40 girls)¹.

Method and Procedure

The jobs evaluated by students were four male-dominated (plumber, builder/bricklayer, car mechanic, and carpenter) and four female-dominated (hairdresser, elderly care assistant, nursery nurse/playgroup worker and travel agent). Students provided their preferences on three-point scales indicating for each job the extent to which they 'would like to do it', 'would like to do it a bit', or 'would like to do it a lot'. The pre-intervention survey also included a well-established robust measure of career self-efficacy or *self-confidence in being able to pursue a career* (using the Middle School Self-Efficacy Scale, Fouad, Smith, & Enochs, 1997) and a measure of gender identification (i.e. degree of personal affinity with the traits 'masculine' and 'feminine' respectively).

The efficacy measure asked students the extent to which they agreed with 22 statements about what they could do (e.g. "Choose a career in which most workers are the opposite sex") on a five point scale from 'strongly agree', 'agree', 'uncertain', 'disagree', to 'strongly disagree'. This measure was included to see if being confident about pursuing a career would moderate the impact of the intervention on perceptions. The gender identification measure asked for how much students would describe themselves as 'masculine' and 'feminine' respectively along a four-point scale ranging from 'highly', 'moderately', 'slightly' to 'not at all'.

The Pay Exercise

The pay exercise gave students information about the typical monthly wage earned by each of the eight jobs for the local area in which they lived and then asked them to assess what kind of *material life style* could be afforded them by these jobs (in terms of rent for living accommodation, car loan instalments, and other living expenses). Three life style scenarios were described implicating low (1 bedroom flat, Nissan Micra) medium (2-bed apartment, Volkswagen Golf) and high (4-bed house, BMW320) material value respectively. For each scenario, students were asked to indicate which of the eight jobs described could afford each of the three, incrementally more costly life styles.

The Job Conditions Exercise

The job conditions exercise gave students information about working arrangements (i.e. relative flexibility in working hours available) for each of the eight jobs, and then asked them to assess what kinds of *social life style* each job would be conducive to against five different scenarios (single working parent; keen to socialise; sole provider for young

¹ Unequal cell sizes arose because the sample was opportunistic and also because of the repeated measures component of the experiment which meant that students had to be matched at time 1 and time 2 So that their evaluations could be compared in relation to the exercises they had done.

family; first job after college; working couple no children). In addition this exercise invited students to indicate which of the five life style scenarios would be most closely tied in with their own longer term aspirations.

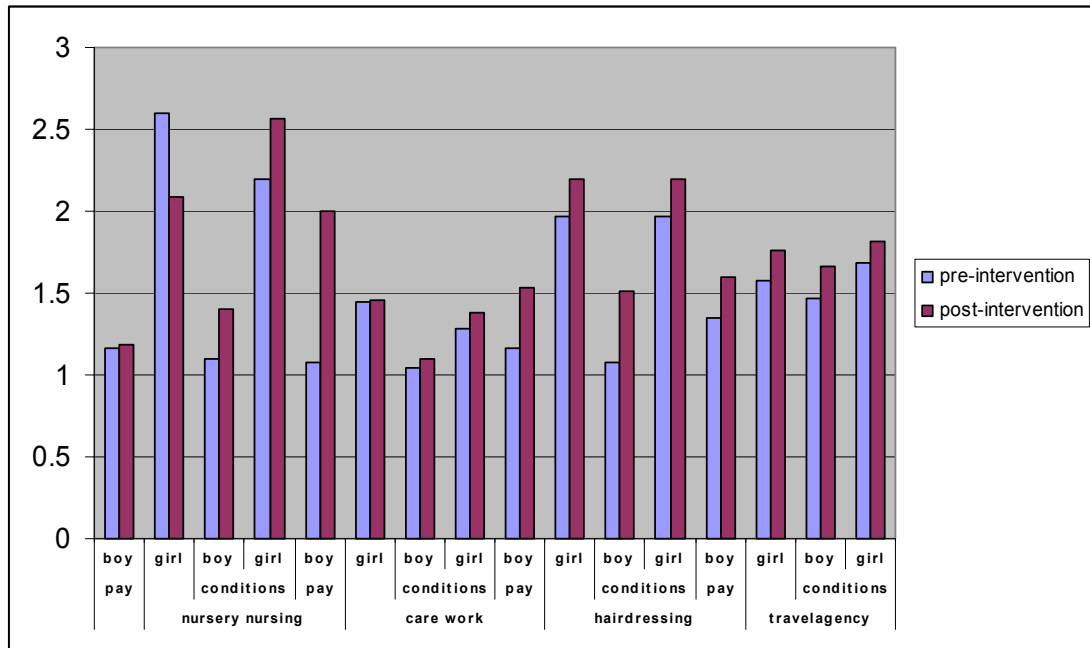
Both exercises were designed to engage students at a personal level to think about jobs on a realistic basis against their own life style aspirations rather than simply giving them information. Exercises were integrated into the regular school day at the discretion of the Head Teacher and took students on average, 10-15 minutes to complete irrespective of which particular exercise they were given.

Results

Female-Dominated Jobs

Boys shifted more than girls towards more positive preferences of female-dominated jobs and the 'pay' exercise generated a greater shift in ratings than the 'job conditions' exercise, especially for students (whether boy or girl) who described themselves as 'feminine' (Figure 8).

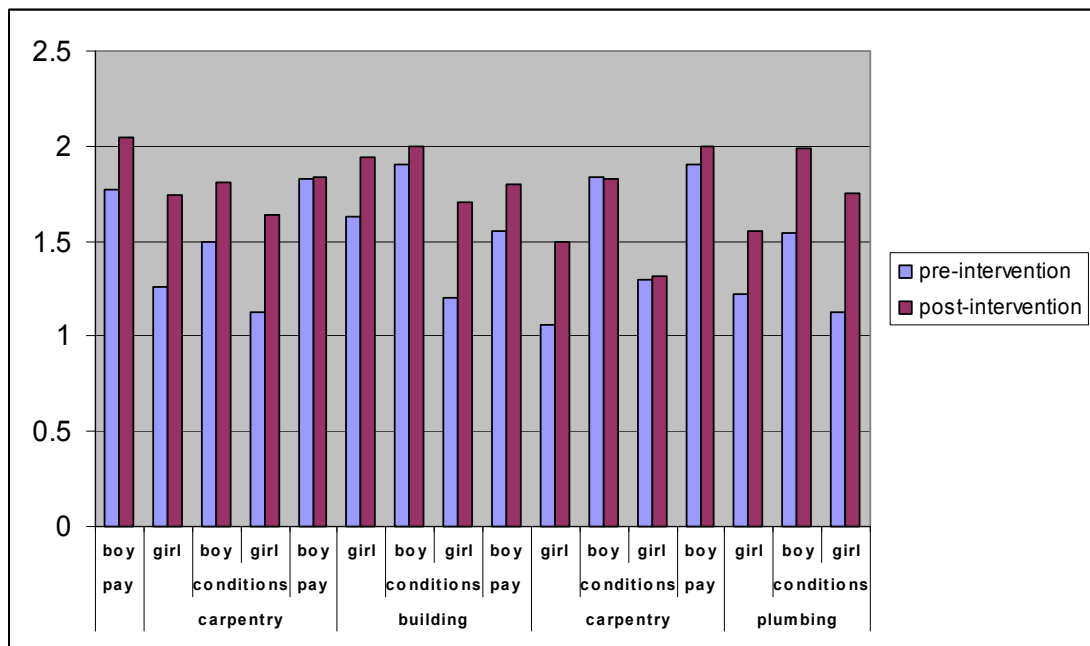
Figure 8. Shifts in Job Preferences from before to after a classroom based intervention: Female-Dominated Jobs.



Male-Dominated Jobs

Girls shifted more than boys towards more positive preferences of female-dominated jobs and also the 'job conditions' exercise generated a greater shift in ratings than the 'pay' exercise, especially for students (whether boy or girl) who described themselves as 'masculine' and/or who were high on self-confidence (Figure 9).

Figure 9. Shifts in Job Preferences from before to after a classroom based intervention: Male-Dominated Jobs.



Conclusions

The experiment demonstrated a real potential for knowledge of realistic job information to reduce the extent to which gender determines job preferences. Whilst students did still express strong gender-based preferences, working with information about pay and job conditions in relation to various concrete life style options (varying in either material or social value respectively) increased the personal attractiveness of all eight designated jobs.

This confirmed the potential benefit of the classroom -based exercise as a facilitator of realistic job knowledge. If in the practice of selecting for jobs, realistic job previews can assist work adjustment via an unspoken process of 'matching' self to job, it follows that the same kind of process could be harnessed at the stage when pivotal career decisions are made. If a young person can picture jobs more realistically in terms of the rewards available, it follows that he or she should be in a better position to self-select from various job/career options. To this extent, jobs previously disregarded on the basis of gender stereotypes may be re-considered.

The shift in preference for female-dominated jobs however was greatest for boys, particularly in response to the pay exercise whilst the shift in preference for male-dominated jobs was greatest for girls, particularly in response to the job conditions exercise. These findings confirmed previous work showing that young girls are generally more sensitive to the social aspects of jobs (like 'job conditions') than boys, whilst boys are in turn more sensitive to the more material aspects like 'pay' (e.g. Marini, Fan, Finley, & Beutal, 1996). However, the anomaly in these finding is that boys shifted towards more *positive* views of female-dominated jobs in response to *low pay* information.

The fact that boys felt more positively about traditionally feminine jobs despite discovering that the salary levels are low can be viewed in the context of the findings that both boys and girls shifted towards more positive views of all jobs, irrespective of their relative material value in life-style terms. This is most probably because young people seem to know very little about jobs or pay and thus any information appears to increase the attractiveness of work they had not previously considered. In reality the salary attached to many traditionally feminine jobs, would not be enough to allow its recipient to live in many parts of the UK without relying on additional income from parents, partner or benefits.

The jobs we invited young people to consider were limited in range and the information given about pay and lifestyles fairly limited. Interventions designed to facilitate more realistic job knowledge would need to be tailored to the education levels and interests of the students and reflecting more specifically the choices they would be faced with.

With regards to shifts in association with male-dominated jobs, findings showed that self-efficacy or career self-confidence also explained some of the positive change in ratings made by especially girls. *This suggests that realistic job knowledge may be necessary but not in itself sufficient to encourage an increased consideration or take up of male-dominated jobs: students must also feel confident that they are able to do so.* The role of self-belief in decision making about jobs is now well established (e.g. Bandura et al, 2001; Ferry et al, 2000) but the confidence issue in association with especially traditionally male jobs may be attributable to the perceived higher status of these jobs relative to work traditionally done by women (ONS, 2003).

In conclusion, this study demonstrated the capacity for young people's job preferences to be altered positively by engaging them with information about pay and working conditions. Whilst traditional, stereotyped preferences remained strong, the impact these have on preferences can be tempered by knowledge about the personal implications of jobs in life style terms. It helped also if the student had some confidence in his or her ability to do certain jobs as this moderated the extent to which – especially girls – seriously entertained the possibility of taking-up male-dominated jobs.

Overall it would appear that a realistic appreciation of the 'details' of jobs and in particular what kinds of rewards they offer, can highlight job possibilities for young people they might not otherwise have considered. Girls (especially those who considered themselves less feminine) were especially likely to change their views about traditionally male jobs in response to information about job conditions in social terms (e.g. hours of work and potential flexibility).

External Influence on Decision Making about Jobs.

In this sub-section, we refer to interview, school and college data to examine what kinds of external influences matter most to the decisions made by young people (Technical details in Appendix 3).

As part of the interviews on job perceptions, students were invited to tell us what information they used in deciding on the kind of work they would like to do, what would change their mind about their job preferences and how they felt their parents felt about the work they intended to do. They were also asked to indicate where they had found career information and how useful it was, as well as the critical factors (from a designated list) underlying their choice of job.

What information do students use to make job decisions?

Sources of information students' reported using to make job decisions are primarily obtained through personal engagement (e.g. family advice/role models, work experiences, lessons, inspired by own interests) or informal interpersonal contact with others (e.g. friends, teachers) (Table 19). Only a very small proportion of students (14%) said they used formal methods of career advice (via advisors, leaflets, websites) as useful sources, with only 4% of this proportion referring to interviews with career advisers. These formal sources of information were more likely to be used in combination with other more personal sources. Almost a quarter (22%) said they relied heavily on their own inspiration to make their decision with around 6% of them stating that this inspiration was gained through prior knowledge of the job and its specifics. The others could not articulate where they got their personal inspiration from. Overall, the informal and personal sources presided over the formal and impersonal sources of information in their impact on decisions made.

Analysis showed a significant difference between boys and girls in the type of information used for making a job decision. Boys more than girls said they relied on family advice/role models as their primary source of information; they also relied more heavily on work experience, the internet and on personal instincts on what is appropriate for them. Girls relied more on formal sources, especially career leaflets, but also teachers and career advisers, as well as a miscellany of other personal/idiosyncratic sources.

Table 19. Information used by young people in making their job decisions.

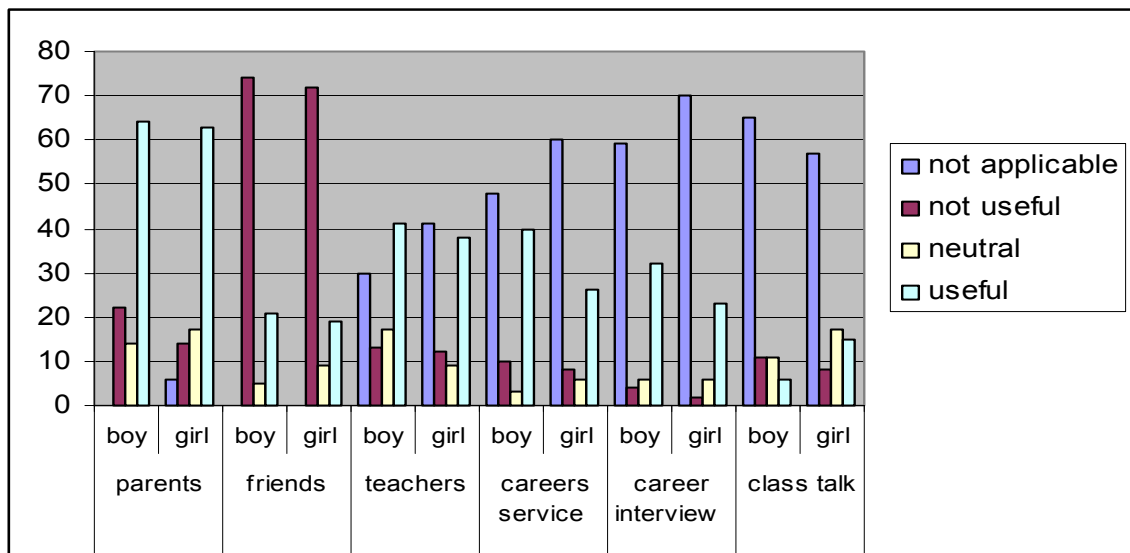
Information source	Boys (%)	Girls (%)
1. Family advice/role models/informal chatting	28%	15%
2. Work experience – both self-initiated and formal/organised	19%	13%
3. Interviews with Careers Advisors	2%	6%
4. Career Leaflets/Information/College Prospectus including Connexions pack	2%	13%
5. Talking to Teachers/Lecturers including College Open Days	3%	7%
6. Lessons in School (e.g. child development)	2%	2%
7. Internet including Connexions website	6%	2%
8. Inspired by Friends/Talking to People	3%	7%
9. Inspired by own interests/enjoyment: "what I fancied"; "what I think I will enjoy", "instinctual", "media images", "think I will be good at it".	20%	11%
10. Personal and Impersonal Sources in combination (e.g. talking to others, family, website, leaflets, lessons, visits from people)	6%	4%
11. Existing knowledge of job perks and conditions including Pay and Hours	6%	4%
12. Miscellaneous (i.e. national identity, liked old hairdresser)	3%	17%

Perceived Usefulness of Career Advice

During the interviews students were asked to rate six sources of career advice on a scale of 1 'not at all helpful' to 5, 'very helpful'. From Figure 10 below it is clear that parental sources of advice were not only the most frequently used but are also viewed as the most helpful of all sources. Only 16 of 120 young people said that they did NOT use parental advice (14%). 65% said that they used teachers' advice but only 15% of this sample saw their advice as helpful. Girls were proportionally more likely to say they used teachers than boys, but were no more likely than them to say that this source of advice is useful.

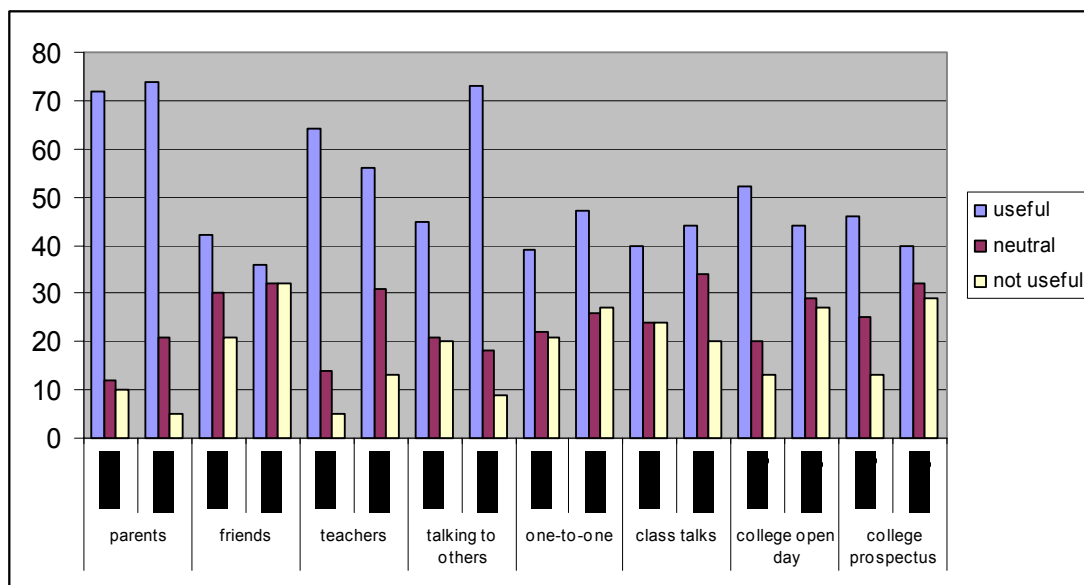
Almost half the sample said they had used the career service for advice but only a third of those who did, felt that this had been useful. Of the small proportion who had been involved in career interviews, most also reported finding them useful. However, classroom talks were not found to be especially useful to those who had used them and only about half of those who received advice from friends, also found it useful. When asked to indicate other sources of advice that had been used, students cited magazines, brothers/sisters, colleagues and/or bosses (of those currently doing part-time work, or who had had work experience), and the internet.

Figure 10. Sources of Advice mentioned in interviews and their perceived usefulness.



Survey data involving 13 to 16 year olds (survey 1, n=302; survey 2, n= 2,447) confirmed that *parental* sources of career advice were perceived *significantly more helpful* than sources of advice obtained from friends, teachers, one-to-one career interviews, classroom-based talks, college open days and course prospectuses (Figure 11). However, career advice derived from *talking to others informally* was perceived just as helpful – if not more helpful than parental sources and significantly more helpful than all the other sources. Overall, informal sources of advice seemed to prevail in their perceived power to influence decision making. Of the formal sources of advice, *college open days* were perceived as significantly more helpful than all the others.

Figure 11. Survey of the perceived usefulness of different sources of career advice.



Further tests on survey 1 (n=302) looking at gender differences in perceived usefulness showed that girls said that friends and also teachers were significantly more helpful to them than boys did. In survey 2 (n=2,447), boys were more likely than girls to say that parental advice is useful; girls on the other hand rated all other sources of advice as more useful than boys did.

Survey 2 (n=2,447) also looked specifically at the perceived usefulness of Connexions. Only 27% said that they had received careers information/advice from a Connexions advisor; 9% from the Connexion website, 1% via the Connexions telephone line and 31% from Connexions classroom talks. Only around half of those who had received advice from a Connexions person (either one to one or via a class talk) said that this contact was useful and only a quarter of these said that it had made any difference to their vocational decision.

On Connexions, it is noteworthy that college students (aged 16 to 19 years) also rated this particular career service low on perceived usefulness in making their job/course decisions (Table 20). 51% of college students across eight vocational courses said they had received information from Connexions via a representative, 10% via the telephone, 6% via the website and 25% via classroom talks. Only 33% of those who had received information from Connexions, perceived this to be helpful; 29% found it of some help and 38% did not find it helpful at all. In fact, care assistants, nursery nurses, travel agents and carpentry students rated Connexions as the *least helpful* of all sources of advice/guidance.

The distinctively strong influence of parents and also 'talking to others' on job decisions arising from findings involving 13 to 16 year olds was also borne out with the college trainees (Table 28). 80% of these 16 to 19 year olds rated 'talking to someone in the job' (80%) and parents (76%) as useful in making a course decision. Overall, the greatest proportion of *unhelpful* ratings among 16 to 19 year old college trainees was obtained for class talks (28%), followed by one-to-one career interviews (24%) and then Connexions (19%).

Table 20. College students - Perceived Helpfulness of advice in making course decisions.

Source of Advice	Nursery nurse	Care assistant	Travel agent	Construction	Plumbing	Mechanic	Carpentry	Hairdressing
Parents	75%	68%	71%	59%	75%	56%	82%	72%
Friends	59%	54%	41%	45%	50%	51%	37%	52%
Teachers	55%	68%	65%	42%	46%	55%	45%	51%
Connexions	28%	32%	38%	36%	25%	42%	33%	41%
One-to-one	37%	38%	50%	36%	46%	39%	35%	46%
Class talks	32%	42%	36%	31%	21%	37%	37%	36%

Talk to someone	72%	70%	63%	53%	71%	71%	75%	70%
College open days	45%	58%	57%	44%	58%	40%	51%	65%

Perceived Parental Reactions to Intended Job

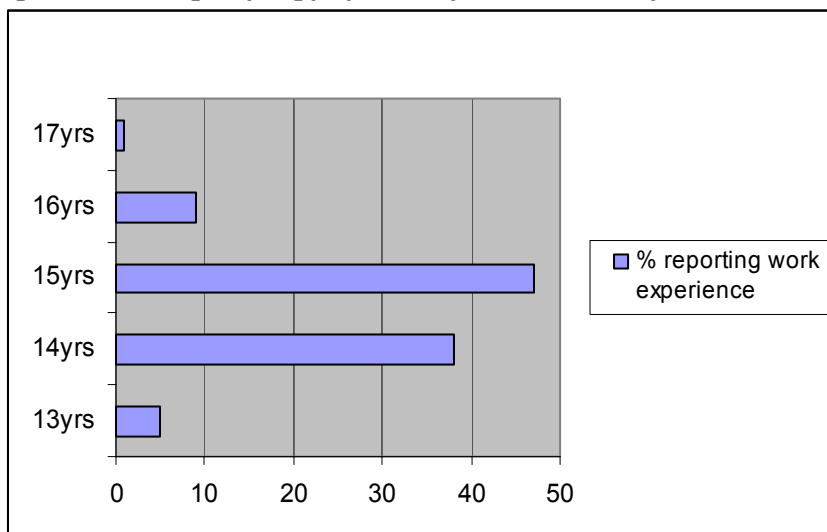
Not surprisingly, by far the majority of those interviewed talked of their parents being entirely behind them in their choice of intended job. Almost 80% of the sample said either that their parents thought that their job choice is well suited to them, that the choice was entirely up to them so long as they are happy, or that their parents actively supported and encouraged them. Only three adolescents reported negative reactions although another ten said that their parents disagreed with each other about their job choice.

These findings may suggest either that parental opinion matters so much that adolescents rarely make job decisions that they are critical about or around which there is equivocation, and/or that parents really are very open minded about what their child decides to do. Boys were more likely to report encouraging and supportive reactions than girls who are in turn more likely to say that their parents don't mind (i.e. it is entirely up to them).

Work Experience

Work experience was spontaneously mentioned as an important influence on job decisions by students we interviewed. When asked directly at the survey stage, only 20% of the overall 2,447 sample reported any work experience. However, there was a lot of variation across age groups in this (Figure 12) with 14 (38%) and 15 (47%) year olds more likely to report work experience than 13 (5.4%) and 16/17 (10%) year olds. The number of days spent on work experience ranged from 1 to 10 days. There were no significant differences between boys and girls in reports of work experience or the number of days spent.

Figure 12. Percentage of young people who report formal work experience across different age groups.



Of those who did report work experience:

- the majority (65%) said that their work experience was what they wanted: it is nonetheless noteworthy that a fair proportion (35%) said that it was not what they wanted. Proportionately more boys (48%) than girls (17%) said that the experience was NOT what they wanted. Of the 65%, 2% were 13 year olds, 21% were 14 year olds, 35% were 15 year olds, and 7% were 16/17 year olds.
- the majority (68%) also said that their work experience was useful, with the other 32% saying that it definitely was NOT useful. Proportionately more boys (38%) than girls (25%) said that their work experience was NOT useful to them. Of the 68%, 3% were 13 year olds, 23% were 14 year olds, 35% were 15 year olds and 8% were 16/17 year olds.
- 50% said that their work experience had some influence over their future occupational decision. Proportionately more boys (57%) than girls (42%) however said that the work experience did NOT have some influence over their future occupational decision. Of this 50%, 2% were 13 year olds, 16% were 14 year olds, 26% were 15 year olds, and 7% were 16/17 year olds.

Overall, 15 year olds were more likely than other age groups to report that their work experience was what they wanted, useful and has had some influence over their future occupational decision. Notably, only a small fraction of the oldest age group reported a wanted or useful work experience, or that this experience had any influence over their future occupational decision.

In response to open-ended questions about 'how' exactly their work experience was useful, students said that it was because it confirmed either that students did want to pursue it further (34%) or that they should rule it out of further consideration as not right for them (66%).

Sixty-one percent of boys and 62% of girls reported experience of working with members of their family, but only 28% and 22% respectively said that this experience was useful to them. 48% of boys and 41% of girls said that they had been involved in some form of part-time work but only 15% and 7% respectively said that this experience was useful to them.

When NVQ college students were asked to reflect on whether their own work experience had been helpful in making their course decision, 82% of nursery nurses said yes, whilst other students were less positive about this. 49% of construction students, 47% of mechanics, 47% of carpenters, 42% of plumbers and 41% of care assistants found their work experience useful. 31% of hairdressers said that their experience had been useful. Travel agents were the least positive about their work experience with only 17% finding it useful to them. Responses to open ended questions about 'how' work experiences may or may not have been useful to current training, consistently pointed to the issue of *relevance*. To be perceived as useful, the experience had to be *directly relevant* to current training.

Critical factors involved in making the ultimate job decision

Pupils who took part in the survey (n=2,447) were asked to indicate which of nine considerations – alongside parental and other sources of influence, mattered most to them in their ultimate job decision (Table 21). For boys the most cited factors are pay, parents and working hours whilst for girls they are, working hours, parents and length of training. Notably, almost twice as many boys than girls mentioned pay.

Table 21. Factors young people say influences their ultimate job decision.

Characteristics	Boys (%)	Girls (%)
Level of pay	85%	43%
Whether other people look up to and respect the job	67%	39%
Opinions of teachers	16%	21%
Opinions of friends	52%	57%
Opinions of parents	70%	70%
Length of training – do we mean how short or how long, need to know this re policy relevance	47%	59%

Done mostly by men	17%	11%
Done mostly by women	5%	15%
Working hours	81%	79%

Table 22 gives the percentage of college students rating various factors as 'reasons' for choosing the course they are currently taking. Overall the most influential factors across students are: the topics covered, the 'good opportunity' afforded by the course, the practical nature of the course and a personal interest in the skills being acquired. A large proportion of care assistants, plumbers, mechanics and hairdressers also rated college reputation as a reason for choosing their course. Less influential reasons overall, are the recommendation of friends, college geographical locality, recommendation of the school, friends taking the same course, parents, college publicity and length of training.

- Mechanic students were a lot more likely to look to recommendations from friends and whether friends are taking the same course when making their course decisions.
- Plumbers were more likely than other students to judge their parents to be important to their choice of course.
- Care assistants were more likely than other students to note the importance of college publicity to their choice of course.
- Nursery nurses, mechanics, hairdressers and carpenters were more likely than other students to note the importance of college locality to their choice of course.
- Carpenters were more likely than other students' to rate their 'school' and also 'previous practical experience' to have been influential to their course decision.

Table 22. Percentage of college students recognising particular factors as helpful in their choice of course.

Factors	Nursery nurse	Care assistant	Travel agent	Construction	Plumbing	Mechanic	Carpentry	Hairdressing
Friends	38%	37%	53%	39%	54%	60%	37%	38%
School	30%	37%	43%	39%	42%	42%	47%	42%
Local	24%	16%	12%	15%	13%	25%	28%	24%
Topics	90%	93%	85%	73%	83%	99%	98%	84%
Practical	83%	59%	66%	70%	83%	91%	88%	75%
Good opportunity	90%	95%	90%	87%	92%	93%	89%	87%
Previous practical experience	64%	35%	35%	55%	50%	59%	73%	56%
Personal interest in skills	80%	74%	69%	86%	92%	93%	89%	92%
Not too long to train	20%	19%	28%	28%	25%	34%	37%	37%
publicity	28%	53%	38%	47%	32%	46%	33%	45%
College reputation	45%	74%	62%	60%	71%	69%	58%	74%
Parents	37%	52%	48%	48%	55%	31%	53%	38%
Friends doing same course	20%	29%	24%	17%	13%	35%	14%	20%

What factors might make a young person rethink their job intentions

Almost a third of the school sample said that there would be 'nothing in particular' that would put them off their intended job (29%) (Table 23). Of the two-thirds who did mention 'off-putting' factors, two main considerations were discernible in what was described: bad pay (17%) or the job 'not being as expected or hoped' (17%). Other considerations include barriers to entry (i.e. too hard to get into), being treated badly by people, lack of opportunity for advancement and long or inconvenient hours. All of these factors – with the exception of being unable to gain entry to the job, were suggesting of 'being let down' in some way by implicit promises or expectations as a basis for changing minds.

Table 23. Factors young people describe as prompting a revision of job intentions.

Off-Putting Information	Boys (%)	Girls (%)
Long or inconvenient hours (e.g. early hours, weekends)	2%	4%
Bad Pay (not enough to live on)	12%	22%
Treated badly by employer, staff, public (e.g. "treated like a slave"; "don't get treated very well").	3%	11%
Too hard to get into (requires too many GCSE's; don't get the grades I need for it; long training).	9%	7%
Lack of expected success/advancement	5%	4%
Job not as expect or hope (e.g. "don't get on with people", "being on my feet all day", "if someone was sick and I'd have to clean it up", "invasion of privacy", "rubbish/pointless", "someone gets killed", "screaming child", "peer pressure/violence," "if it upset me").	12%	22%
Injury or disability – forced to stop	3%	0%
Other better opportunities arise (because	3%	4%

of better qualifications, better job offers)		
Nothing in particular	37%	19%
Don't know	14%	7%

Students who left non-traditional training

In this section we report on the in-depth interview study looking at the experiences of college students (aged 16 to 19) who had started a course in an area of work not traditionally done by their own sex and had subsequently decided to leave the course to pursue something else. Interviews were conducted with 17 leavers of vocational (NVQ) courses inviting them to reflect openly in particular on their reasons for leaving in the context of what in hindsight might have actually prevented them from leaving. The only structure imposed on interviews was by ensuring that it remained focused on reasons for leaving.

The interview transcripts were analysed through a process of interpretation involving the generation of underlying themes. The emphasis in interviews was on how 'leavers' made sense of their vocational training experience as a background to understanding their decision to leave. One key underlying theme was discerned on the importance of support for 'gender identity' as critical to the decision to leave.

A key concern especially for girls was the *intimidation* felt from being 'the only girl' on a male-dominated training course. The following quotation sums up this feeling:

"I don't really feel comfortable in a room full of boys with a male teacher, being the only girl, I think they see you as incapable, it can be quite scary sometimes".

These kinds of feelings created confusion and uncertainty about their status in the classroom which girls worried could also transfer to experiences of the work setting itself. Support was talked about in relation to both peers and teachers. Lack of support from peers led to a heightened sense of being 'different' which undermined confidence, in turn making atypical students feel incompetent. This experience became more pointed for students during group work.

"It's not nice being the only girl because you are often alone especially when it comes to group work, you always end up being the last one to form a group, I just usually end up tagging onto someone".

"I do feel stupid sometimes in class when I ask a question as I just felt like all the boys think like 'what's she talking about?'"

It was also clear that some students felt that they had not received adequate support from teaching staff to make them feel competent or confident in their work.

"If we are getting shown how to operate some equipment in woodwork, the teachers often make jokes about the boys having to help us girls".

"When our teacher showed us coursework examples, they had all been done by boys who made you feel a bit bad".

Some students described the use of inappropriate language by teachers within class discussions which made them feel like 'outcasts':

"the language used in graphics is very sexist and our teacher is always going 'right then gents, today we are going to....', it does get on my nerves quite a lot".

'Self - discoveries' were achieved by some students insofar as they learned about themselves, what they did and did not feel comfortable doing. Such students learned that the course they had chosen was 'just wrong for them'. The quote below illustrates this:-

"I've learnt different things about myself since I've been doing all boy's courses, the thing is I knew what I was letting myself in for but I now definitely know I don't want to work in this industry, you need girls too".

It is well established in the literature that people will – in the absence of any obvious or overt source of support for identity, actively seek contact with 'similar others' (i.e. those viewed as having something in common) (Bartel & Dutton, 2001; Haslam, 2004). This support from similar others, provides meaning and esteem in situations where this might otherwise be lacking. Thus, an individual trying to lay claim to an identity (e.g. a girl wishing to be a plumber) will need to feel that this identity is recognised and appreciated by others particularly those like peers (i.e. boy and girl peers) who can make them feel that their claim is socially acceptable (Creed & Scully, 2000).

Overall, students can be described as feeling all consumed by their 'atypical' status as either a boy on a female-dominated training course or a girl on a male-dominated training course. In general, those interviewed felt that they could neither sink into the prevailing culture of their course (i.e. masculine/feminine) – nor distance themselves from the realities of pursuing a training course atypical of their sex.

Summary and Conclusion

Job Perceptions in Skill-Shortage Areas

In interviews, school students described what people actually do in their jobs in broad and stereotypical ways (e.g. hairdressing as 'cutting hair', nursery nursing as 'caring for children', plumbing as 'fixing pipes' and mechanics as 'fixing cars'). Overall, there were more similarities than differences between boys and girls, though girls seemed to hold slightly more detailed pictures of the female-dominated jobs than boys do. Hence, girls described nursery nurses not just caring for children, but playing with them, teaching them and doing other nursery chores and hairdressing as not just about cutting hair, but styling it, colouring it and so on. Both boys and girls are just as likely to see mechanics and plumbing as involving not just pipe-work or fixing cars but call-outs, diagnosing faults', buying parts, producing tenders, installing bathrooms and kitchens, and dealing with customers. Girls then appeared to be able to picture the details of both the male and the female jobs they were invited to consider, whereas boys held more basic perceptions of traditionally feminine work.

Girls were more likely to spontaneously mention the messy and dirty nature of the *job conditions* as the most negative feature of male-dominated jobs. Boys said they were also put off by the *intrinsic nature* of the traditionally feminine job (e.g. dealing with uncontrollable children, the repetitive nature of cutting hair) than girls, who are again more put off by the *job conditions* (e.g. stressful, long hours, standing on feet all day long) implicated by these jobs.

When supplied with a list of attributes, boy's and girl's perceptions of nursery nursing, hairdressing, plumbing and car mechanics were more similar than different. Strong agreement was reached between them on the attributes most applicable to each job, on what is attractive about each job and on what is also most off-putting about each job. Both boys and girls appeared to be attracted to similar aspects of jobs *especially the practical, hands-on nature of the work, the need to develop specialised skills, the opportunity to learn and also see results, and to hold some degree of responsibility, the social nature and function of the job (i.e. meeting people, working as a team, helping others, contributing something worthwhile) flexible hours and the ability to reconcile work and family, and work and social life.*

Survey findings confirmed that school and college students knew very little about job characteristics, endorsing one or two stereotypical features in association with male-dominated (e.g. messy/dirty, responsibility), and female-dominated jobs (e.g. respected job, opportunity to help others). Boys were more likely to see the female-dominated jobs negatively than girls were to perceive male-dominated jobs negatively with girls actually perceiving male-dominated jobs in similar ways to their male counterparts. This finding links with those identified earlier demonstrating that girls found traditionally masculine jobs more attractive than boys found traditionally feminine jobs.

Differences between boy's and girl's perceptions arose when comparing the job perceptions of vocational trainees with those of school and college students in general. Overall, trainees were much more positive about their job or the job they are preparing for, than others'. Trainees in male-dominated sectors did not describe their jobs in any strongly

consistent way although rewards were more likely to be noted by them than by other students. Trainee's perceptions were also strongly influenced in their job perceptions by immediate training imperatives including hours of work.

Female trainees were much more positive about the job they aspired to than male trainees; student nursery nurses in particular. This may in part be a function of the extent to which the trainee is actually doing the job they are training for during their work experience or placement schemes. For example, nursery nurse and care training in general is more likely to be conducted in placements enabling the 'job' to be experienced in its entirety. It might also be due to an inclination of trainees in low paid caring work to be highly intrinsically motivated people.

Some of the male-dominated training courses are likely to develop the skill base required using on-site college workshops rather than on the job training. Overall, trainee job perceptions were heavily constrained by the demands imposed by college schedules (for example, perceiving inflexibility of hours and hours not conducive to having a social life). Trainees were also less inclined to note the benefit of seeing the results of what they do, especially in carpentry where results are perhaps less immediately apparent than in plumbing or building.

Perceived Sources of Job Knowledge.

Personal experience is clearly the primary source of all job knowledge derived either *directly* (through work shadowing/observation or actual work experiences) or *indirectly* (through talking to family or friends actually in the job). For example, having a haircut affords an opportunity to observe hairdressers at work, as does a domestic call-out of a plumber. Visiting a garage or nursery when – alongside a parent, taking a car for an MOT or service, or dropping off a younger child in day care also affords experiences of use to young people in making their own job decisions. Only a very small number of young people said that they had learned about the jobs in question from impersonal sources like careers talks or TV.

Pay Perceptions.

Pay estimates of target jobs as well as adolescents' intended jobs, were highly variable although the male-dominated jobs were on average perceived to pay more than the female-dominated jobs consistent with economic realities. Pay evaluations for mechanic, child-care and hairdressing suggested that adolescents see these jobs as neither, especially well or poorly paid. However plumbing was perceived to be either well paid or very well paid. Generally speaking however, adolescents appeared not to know much about pay, even for the job they themselves intended to do.

Challenging Traditional Job Preferences

An intervention was designed to investigate the impact of detailed knowledge of pay and conditions on young people's job preferences. Students were engaged in an exercise in which they had to work with information about pay or job conditions and then match this information to the life style implications of different jobs in either material or social terms respectively. The study showed that whilst traditional stereotyped preferences remain strong, the impact these have on preferences can be tempered by realistic knowledge about the personal implications of jobs in life style terms. Changes in job preferences were however also a function of whether the student had confidence in his or her ability to do the job in question. Indeed, confidence in ability may moderate the extent to which young women seriously entertain the possibility of taking-up work in male dominated areas.

Overall it would appear that a realistic appreciation of the 'details' of jobs and in particular what kinds of rewards they offer, can highlight job possibilities for young people they might not otherwise have considered. Girls (especially those who considered themselves less feminine) were especially likely to change their views about traditionally male jobs in response to information about job conditions in social terms (e.g. hours of work and potential flexibility) whilst boys (especially those who described themselves as less masculine) were especially likely to change their views about traditionally feminine jobs in response to information about pay.

External Influence on Decision Making about Job

All findings point to the importance of personal engagement with a job as the primary source of influence on occupational choice. Personal engagement with a job may be direct (e.g. relevant work experience) or indirect (e.g. role models, work shadowing, 'talking to others' about a job, talking to someone doing the job) and interpersonal contact with family and friends.

Young people also appeared to rely very heavily on their own 'personal instincts' as to what is right for them or not. College students in particular, put an explicit emphasis on personal factors (i.e. topics covered, practical nature of course, personal interest in skills, good opportunity afforded) over course length or location.

Overall, parental advice was the most frequently sought and most useful of sources for making job, career and course decisions relative to sources obtained from friends, teachers and formal sources like career talks and services, college open days and prospectuses. Findings also point to the relative insignificance of formal career services including and most notably, Connexions – as a *form of contact and source of career advice/guidance*. Of the formal sources of advice, *college open days* were rated as the most helpful by all the young people sampled here, especially college students making their *course* decisions.

Work experience was rated as useful by the majority of school students but a fair proportion also said it was not, largely due to its perceived irrelevance to their occupational aspirations. 15 year olds were more likely than any other age group to say that their experience was what they wanted, useful and had some influence over their future occupational decision. NVQ college students mostly reflected less favourably on their previous work experience as being of use to them in their current training.

College Influence – Importance of Support for Gender Identity

An in-depth study of students leaving non-traditional NVQ courses showed that they did not feel supported sufficiently as an 'atypical' student during their training. Students atypical for the prevailing sex of their vocational course clearly needed to feel that there was support for their own distinct identity if they were to sustain their motivation to complete the course. This means that a boy training in child-care would be recognised 'as a boy' in a predominantly girl environment and supported accordingly rather than being treated as the same. Providing access to non-stereotypical role models is especially important to students entering non-traditional areas.

The power of 'perceived organizational support' (POS) in the decision about whether to stay or leave a vocational course is consistent with the wider literature on staying or leaving an organization (e.g. Settoon, Bennett, & Liden, 1996). POS is defined as people's "global beliefs about the extent to which the organization cares about their well-being and values their contributions" (Eisenberger, Huntington, Hutchinson, & Sowa, 1986, p. 501). Findings show that perceived organizational support can buffer a whole range of negative work experiences as a predictor of job attitudes and intentions. Findings also consistently show that line manager/supervisor support is critical to employee career motivation and development (e.g. providing feedback, clarifying goals, communicating expectations, helping to establish contacts, help ensure unanticipated obstacles do not unnecessarily restrict job plans etc.) (e.g. Greenberger & Strasser, 1996; Kidd, 2002). However, other research shows that often the supporting party does not always feel sufficiently well equipped to do this (London & Mone, 1987). This could also be the same for some college tutors who may feel ill-equipped to help their students with gender issues.

Perceived organizational support theory expects that perceived support is likely to be influenced by various aspects of a students' treatment by the organization and would, in turn, influence the students' interpretation of organizational motives underlying that treatment. These interpretations may include anticipations of the organization's likely reaction to performance mistakes and so on. To the extent that the perceived support also met needs for praise and approval, the employee would incorporate course membership into self-identity. Strong course identification would increase students' efforts to meet course goals through greater attendance and performance.

4 Overview of Findings and Implications for Policy

Overview of Findings

Young people hold very strong stereotypical views about the types of jobs which are appropriate for men and women (i.e. only women can become nursery nurses and only men can become plumbers). These gender stereotypes stop young people going into non traditional work insofar as young people *use* them as the basis for actively selecting themselves into or screening themselves out of the market for certain jobs. Job adverts and college prospectuses may perpetuate gender segregation in the implicit gender messages they convey. Also despite some evidence for convergence in what boys and girls say they actually want from their work, boys were still more inclined than girls to value a high pay potential whilst girls are more oriented to job conditions (especially the opportunity to combine work with having children) as well as the more *intrinsic* aspects of jobs, such as the desire to “make a difference”. Overall boys ranked pay potential as their most important job attribute whilst for girls, pay ranked 11th in the list. For girls the opportunity to combine work with having children was at the top of the list of their priorities.

Young people know very little about the details of work in particular jobs and about the kind of pay and lifestyle that different jobs offer. Boys in particular have very basic perceptions of work that is traditionally done by women. Both boys and girls were aware that male dominated work was better paid than female dominated work, but young people's pay estimates for all kinds of work were very variable and not well related to actual rates of pay.

Personal experience is clearly the primary source of all job knowledge derived either *directly* (through work shadowing/observation or actual work experiences) or *indirectly* (through talking to family or friends actually in the job). Young people also appeared to rely very heavily on their own ‘personal instincts’ as to what is right for them or not. College students in particular, were most interested on personal instincts (e.g. personal interest in skills acquired in their course, previous practical experience) over for example, course length of training or college location.

Overall the young people in the research said parental advice is the most frequently sought and useful of sources for making job, career and course decisions then advice obtained from friends and teachers. Formal advice from career talks and services, college open days and prospectuses were judged the least sought after. Girls appear to be more open to the use and influence of sources beyond parents including teachers, friends and formal career services consistent with their more social and relationship oriented approach to life generally. The fact boys rely on parental/family sources for their choice of course or career could be due to a more “approval oriented approach” to decision making or simply because they have an anti-school tendency.

Formal sources such as the internet, leaflets, careers talks, do not feature much in young people's reports of what sources of information or advice have been of most use to them in their occupational decision making. Of the formal sources of advice, *college open days* were rated as the most helpful. Overall, findings also highlight the relative insignificance of formal career services including and most notably, Connexions, as a form of contact and source of career advice/guidance.

Only 4% of the 120 students interviewed mentioned interviews with Connexions as a useful source of career guidance/advice. When asked to check a list of sources of guidance only 27% of the 2,447 young people surveyed said that they had received careers information/advice from a Connexions advisor. In addition only half of these said that this contact was useful and only a quarter of these said that it had made any difference to their vocational decision.

Only 20% of the students surveyed had been able to take part in work experience placements and a third of these said that the placement had not been in the area of work which they had asked for.

The research also involved class-based exercises in which young people worked with concrete information about the pay and lifestyles which different jobs would provide. When given this information they are more likely to consider jobs which are not traditionally done by their own sex. Girls were especially likely to change their views about male jobs in response to information relating to work-life balance, such as hours of work and potential flexibility. Job preferences were however also influenced by whether the young person had confidence in his or her ability.

An in-depth study of students that had selected but then left non-traditional NVQ courses showed that they did so because they had not felt supported sufficiently as an 'atypical' student during their training. Girls undertaking for example, plumbing course, and men undertaking, for example, childcare courses, need to feel that there is support for them as potentially the only man or women on the course in order to be motivated to complete the course.

It is clear that being male or female is an important factor in occupational choice. Rather than ignore this, or try to eliminate the influence of gender it seems preferable to work with young people to demonstrate how non traditional jobs might actually fulfil their aspirations. In addition to this girls need to acquire greater confidence in their ability to do traditionally male work and boys' greater confidence that doing traditionally feminine work is not a threat to their masculinity or sexuality. This report has not explicitly addressed the notion of 'value' in relation to care work, but an important precondition for any real change in occupational gender segregation has to be a fundamental shift in the way in which care work is valued within our society.

Policy Implications and Recommendations

Long term change

It is clear that gender stereotypes about jobs and occupation segregation more generally will decline if more young people begin to work in areas which have not traditionally been chosen by either boys or girls.

Intermediate Change

Intermediate term changes will involve changing the way jobs are represented in the media. For example, the number of female applications for forensic science courses has increased substantially following year on year broadcasts of series such as BBC1's *Silent Witness* featuring Amanda Burton (MacLeod, 2005). TV drama is in fact recognised by the Women into Science and Engineering group as being one of the most powerful ways of changing perceptions.

Media representations will provide an implicit background for more explicit change in the way jobs/occupations are presented in job adverts and recruitment campaigns. Not only can the media help to challenge gender stereotypes, it could also help to describe jobs in ways which might make them attractive. For example, highlighting the autonomy afforded by plumbing, the social aspects of dealing with and meeting new people, and the potential for flexibility in reconciling work and family schedules would most probably make plumbing more attractive to girls. In other words, plumbing needs to be presented in a more attractive light rather than simply reinforcing the stereotype of 'fixing pipes' and 'getting wet' (British Gas TV advert featuring Ricky Tomlinson²), the latter, being especially off-putting to girls. Any representation needs to be realistic which is why job placements are so valuable for making informed choices.

² Ricky Tomlinson plays the role of 'trainer' in the British Gas Engineering Academy putting a male trainee into an intimidating position of being sprayed with water. He then threatens to put the only female in the group ('Amanda') into the same position.

Institutional Level Intervention

School-Level

Our findings point to the critical importance of systematically building job considerations into the Key Stage 3 (as part of preparation for GCSE subject choices) and especially the Key Stage 4 curriculum. The young people in our studies demonstrated little knowledge of job realities and life style possibilities beyond the gender stereotypes. Only 20% of the 2,447 young people reported any work experience and of this minority, this experience was limited to only one or a few days. A third said that their work experience was not what they wanted and only useful as a ruling out exercise. Most of those who did report positive work experiences said that it was *useful* to them. In both the interview and survey studies it was consistently clear that actual contact with those who are doing particular types of work, was seen as the most useful source of information in making vocational decisions.

The importance of this kind of personal experience or engagement with a particular job to young peoples job decisions is on a par with the impact of parents and could be more systematically harnessed as a tool in the vocational preparation process. A strategically designed and supervised work experience programme would perhaps also include experiences for boys and girls in non-traditional sectors. The supervision process would also ensure some form of reflection on work experiences in connection with current and future life plans, in terms of the pay and lifestyle these may offer.

Another issue arising from our findings relates to the current Connexions service as a source of information, advice and guidance. All our investigations (covering 13 to 19 year olds) pointed to a relatively infrequent use of formal career guidance services, particularly Connexions and in most cases the latter was rated the *least useful* form of information, advice and guidance. This would suggest the role for Connexions and/or any other formal guidance service needs to be clarified and *strategically integrated* into a work experience programme within a curriculum-based approach to vocational preparation. – We also need to raise awareness of Connexions as a source of info/advice for young people, as only 27% of the people surveyed said they had used connexion to inform their job decision.

Additional more specific interventions within a curriculum-based framework may involve the following:

- *Class based practical exercises/project work:* Our evidence showed that classroom talks were perceived as relatively unhelpful to making occupational and course decisions. This may be because they are not personally relevant or sufficiently engaging on a personal level. Classroom activities might for example be designed using the idea offered by our class intervention experiment to facilitate a more grounded view of jobs in terms of, for instance, the life style they offer (*see Appendix 4*). This kind of engagement with job information is likely to be far more useful than generic lectures about jobs or careers dissociated from the every day reality of jobs and their life style implications. Understanding more about work and the kinds of lifestyle different jobs will offer will reduce the likelihood that young people will drop-out from educational, training and apprenticeship programmes.
- *Personal Experience:* Our evidence showed one of the most helpful or useful sources of advice/guidance comes from 'talking to someone who is actually doing a job' and/or job experience per se. Schools could develop a programme in which young people could talk to job holders. This might be especially helpful in combating stereotypes. For example, inviting female plumbers to schools to talk about the realities of their job, and what attracts them to it. Talks from job-holders need to be integrated into "holistic careers guidance" including time set aside within the school timetable to facilitate a much more proactive approach to informing young people about work.
- *Matching interests and needs to jobs:* Schools need to ensure that their careers service makes a strategic effort to match interests and needs to jobs or types of work *irrespective of gender*. This has particular implications for guidance provided by *teachers* as well as *guidance* specialists.

Parental-Level

We found that parents continue to be by far the most useful/helpful source of advice/guidance to young people in making occupational and course decisions. Boys are especially influenced by their parents. This suggests a key role for parents in their children's aspirations about work. There is considerable scope to ensure that parents can act as informed advisors, by providing the mechanism for them to easily access high quality information about work and training. This could be achieved through collaboration with school and also using internet provision. One key factor is for schools to recognise the importance of parents in their children's occupational choices and for them to work in partnership with parents to ensure that young people have the widest possible choices and make decisions based on comprehensive information about job tasks, pay and lifestyles.

College-Level

Our evidence strongly suggests that colleges need to provide appropriate support to non-traditional vocational students – i.e. girls doing mechanics, plumbing or building; boys doing child-care or hairdressing. Our findings clearly indicate that most leavers in non-traditional training courses *would have stayed* if they had got the right *type and degree* of support. Support would need to be of the explicit kind that supports boys doing, for example, childcare or hairdressing and supports girls, for example, doing mechanics or plumbing. This means acknowledging gender differences and working with them rather than denying them or pretending they do not exist, whilst at the same time not making 'an issue' of gender through discriminatory practices (i.e. excluding non-traditional students from certain training experiences because of their gender).

Colleges may be so legally cautious about ensuring that non-traditional students are not discriminated against, that they gloss over gender differences, ignoring gender related social and emotional needs and concerns (e.g. the experience of being a girl on an all-male course can be very humiliating and she shouldn't have to become "one of the boys").

In term of implications for practice and policy it is important also to identify areas of *specific support* for those teachers/course tutors supporting students on non-traditional courses as well as where such support is needed in a wider classroom framework. Colleges need to also look at how they advertise their courses to ensure that there are no implicit stereotypes in the promotional material.

Individual-Level Interventions

Our evidence suggests that young people's work decisions are strongly driven by stereotypes about what is appropriate for men and women to do in the world of work. As indicated above under 'institutional level' guidance, guidance specialists and teachers need to work with individual children to help them to make more *informed* decisions. That is, decisions based on a more detailed and accurate knowledge of what certain jobs involve (at the level of tasks and responsibilities) and afford (in terms of pay and benefits) in real social and economic terms, in connection with a serious consideration of personal interests, aspirations and life options.

Helping young people to make more informed decisions might also do a number of other things:

1. Challenge gender stereotypes.
2. Result in young people staying with their first choice of training rather than quickly becoming disillusioned and leaving. There is a well-established retention problem in Modern Apprenticeships and vocational training generally (Miller, Neathey, Pollard, Hill & Ritchie, 2005).
3. *Increase aspiration*. If young people know more about what they really want to do, can do and why, they are more likely to work harder to secure the necessary qualifications and training.
4. Increase young people's appreciation of what salary is required for independent living so that they can make more informed choices knowing the lifestyle a particular job will enable. There are risks associated with a

- system of IAG based on clear and transparent knowledge of the benefits and drawbacks of careers. It will no longer be possible to sell jobs just on their intrinsic nature whilst ignoring the fact they are low paid.
5. Potentially address existing skills deficits in sectors such as construction, plumbing and care work.

Conclusion

The power of gender stereotypes and identities to dictate occupational preferences and decisions is undeniable. However what boys and girls say they want from their jobs is more similar than different and if young people have more information about the details of work, pay and lifestyles they are less concerned by gender stereotypes. It therefore seems likely that gender segregation can be reduced by their active engagement in information, advice and guidance that focuses on the realities of job tasks, pay and lifestyle.

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Appendix I Technical Report on Document Analysis

Method of Analysis

Content analysis (CA) has been defined as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding (Krippendorff, 1980; Weber, 1990). Holsti (1969) offers a broad definition of content analysis as “any technique for making inferences by objectively and systematically identifying specified characteristics of messages” (p.21).

CA enables researchers to sift through large volumes of data with relative ease in a systematic manner (Weber, 1990) although it prescribes no specific rules as to sample size. It can be a useful technique for allowing the researcher to uncover and describe the focus of individual, group, institutional, or social attention. Krippendorff (1980) argues that “much content analysis research is motivated by the search for techniques to infer from symbolic data what would be either too costly, no longer possible, or too obtrusive by the use of other techniques” (p.51).

CA is helpful for examining trends and patterns in documents (Stemler, 2001). For example, Stemler and Bebell (1998) conducted a CA of school mission statements to make inferences about what schools hold as their primary reasons for existence. One of their research questions was whether the criteria being used to measure program effectiveness (i.e. academic test results) were in agreement with the overall program objectives or reason for existence.

Furthermore, due to the fact that CA can be applied to examine any piece of writing or occurrence of recorded communication, CA is currently used in a vast array of fields, ranging from marketing and media studies, to ethnography and cultural studies, gender and age issues, and many other fields including photography and video recordings.

In this study, CA was used to make inferences as to how information available to young people might influence occupational training and/or job decisions.

Conducting Content Analysis

Using CA usually means doing a word frequency count (albeit it can also be an image frequency account in cases where data is of a visual nature). The assumption made is that the words that are mentioned the most are the words that reflect the greatest interests. However, what makes the technique particularly insightful and meaningful is its reliance on categorization and coding of the data. A category is usually understood to be a group of words with similar meaning (Weber, 1990). Categories are mutually exclusive and exhaustive. Coding units are usually words, sentences or paragraphs (Weber, 1990).

Additionally, there are two approaches to coding data that operate with slightly different rules. The first is “emerging” coding, whereby the categories are established following some preliminary examination of the data. The second is “a priori” coding, whereby the categories are established prior to the analysis based on some theory. The present study followed the former and followed the procedure outlined by Haney, Russell, Gulek and Fierros (1998).

The Study

Initial coding was carried out to establish preliminary categories on a number of job advertisements and college prospectuses found in the national press, trade magazines and online job search engines, as well as course

descriptions from a variety of college prospectuses (paper format as well as online) from across England. In the first instance, two researchers reviewed, independently, a number of job advertisements and course prospectuses to develop a set of categories. Second, the researchers compared notes, discussed possible differences and reached agreement on two sets of categories (one for job advertisements and one for college prospectuses). Third, the researchers applied the set of both categories to code job advertisements and college prospectuses. Job advertisements were randomly selected from on-line websites using general search engines (e.g. Yahoo). Job centers, recruitment agencies and trade web-sites were scanned for vacancies and job advertisements were selected in a random fashion by two researchers (10 job advertisements per occupation targeted). Trade magazines and National press publications were not utilized in the analysis as these publications were found to be wanting in the vacancies that the present investigation was targeting. College course prospectuses were randomly selected from a collection requested from 30 colleges across England. Prospectuses were screened by two researchers. Only prospectuses containing course descriptions of the occupations targeted in the investigation were included for analysis. Of those, 10 course descriptions per occupation were chosen at random. In total, 40 job advertisements and 40 course descriptions were content analysed. This sample size was randomly fixed in view of the difficulties entailed in finding vacancies for some of the targeted occupations. The methodology of CA does not specify desirability of sample size although it is assumed that the larger the sample the more representative of the population.

Four, the researchers checked the reliability of the coding (Cohen's kappa=0.7, recommended index for Cohen's kappa=0.7 (Miles and Huberman, 1994)). Coding units were sentences. Photographs and/or illustrations accompanying job advertisements and/or college prospectuses were also included in the coding. Coding units for photographs/illustrations were the pictures themselves.

Nine categories were developed from job advertisements: 1) gender specific (e.g. "man needed"); 2) type of person required (e.g. "matured and experienced"); 3) working conditions (e.g. "working in a busy garage"); 4) salary (e.g. "£1700 pa"); 5) qualifications and experience (e.g. "previous experience required"); 6) duties (e.g. "work involves working on..."); 7) career promotion and progression opportunities (e.g. "career progression on offer"); 8) training offered (e.g. "ongoing training"), and 9) perks offered (e.g. "private healthcare offered"). Ten categories emerged from course descriptions: 1) gender specific (e.g. "course especially designed for women"); 2) requirements for course (e.g. "NVQ Level 2 required"); 3) outlets after course (e.g. "you will be qualified to work in..."); 4) personal qualities (e.g. "you will require the skills to communicate..."); 5) environment of course (e.g. "vehicle body repair facilities of the highest standard"); 6) type of work involved (e.g. "hands on or reading based"); 7) skills needed (e.g. "you will need to demonstrate a level of literacy"); 8) stereotypic gender typed pictures, 9) pictures opposite to stereotype, and 10) subjects involved listed (e.g. "subjects include: install hot/cold waters systems/heating/sanitation").

The final stage, and once the reliability of the study was established, involved the coding of 10 job advertisements per occupation (40 in total) and 10 college prospectuses per occupation (40 in total) with the help of a statistical package (SPSS). Categories were exclusive, coded sentences or images fell in one category or another, and exhaustive, in that all possible coded cases were included.

Results

Job Advertisements

Below are the nine categories developed from job advertisements. Each category is listed with an explanation and descriptive example. Frequencies of coding per occupation are presented.

Gender Specific

Refers to items which made explicit reference to gender (either boy or girl) for example, 'Will work as part of 9 man team'.

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				

Yes	0	0	0	1
No	10	10	10	9

These frequencies reflect the gender-neutral character of the job advertisements analysed. Considering workplace legislation in place today almost no gender specific mentions were made (only one advert displayed an explicit reference to gender). Job advertisements may play a role at the time to make decisions about a job but the almost gender-neutral tone of the advertisements analysed seems to be an open invitation to both boys and girls.

Type of Person

This category included descriptions of the type of person required for each job. For example, 'Mature and experienced' or 'Good communication skills'

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	3	7	2	4
No	7	3	8	6

This category showed an interesting pattern emerging from the data. The occupations Plumber, Mechanic and Hairdresser all presented the same pattern of frequencies. It can be seen that the majority of adverts did not contain descriptors as per the type of person required for the particular job. In contrast to these three occupations, Nursery Nurse/Playgroup Worker job advertisements contained a high frequency of descriptors as per the type of person required to be employed as Nursery Nurse/Playgroup Worker.

Working Conditions

The working conditions category included descriptors such as 'You would work in a busy garage', relating to the particular environment to be encountered in the job.

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	6	7	4	2
No	4	3	6	8

Interestingly, this category revealed a different pattern for traditionally boy and girl occupations. Working condition descriptions for Plumber and Car Mechanic were found in very few cases. The more traditionally girl occupations of Hairdresser and Nursery Nurse/Playgroup Worker on the other hand were observed to contain a high frequency of working condition descriptors.

Salary

This category included instances of explicit references to a salary for the given job (i.e. £17000 per year).

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	4	5	9	4
No	6	5	1	6

A similar pattern for Car Mechanic, Hairdresser and Nursery Nurse/Playgroup Worker emerged here for instances where 'salary' was mentioned in the job advertisements, in that half explicitly mentioned salary, and half did not mention salary at all. In contrast, the majority of job adverts for the occupation Plumber contained explicit references to salary.

Qualifications/Experience

This category included descriptions as to the specific requirement of qualifications or experience, for example 'Five years experience is required for this role', encountered in each job advertisement.

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	5	9	9	10
No	5	1	1	0

High frequencies of descriptors were found among the occupations Nursery Nurse/Playgroup Worker, Plumber and Car Mechanic. In contrast, the occupation Hairdresser was observed to contain 50% instances with qualification requirements stated and 50% instances with no requirement mentioned at all.

Duties

This category referred to descriptions of the specific tasks or duties that would be undertaken by the individual, for example 'Duties involve working on renovation projects...'

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	3	3	10	9
No	7	7	0	1

The frequencies of these descriptors found in traditionally boy occupations were found to be completely different to those found for traditionally girl jobs. The occupations Plumber and Car Mechanic showed a high frequency of descriptions of tasks. In contrast the occupations of Hairdresser and Nursery Nurse/Playgroup Worker were found to have a low frequency of task descriptors.

Career promotion/progression opportunities

Coding for this category included references to future prospects of the job, potential promotions or possible career progression within the job advertised, for example 'Good package and career progression on offer.'

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	0	1	0	3
No	10	9	10	7

These findings illustrate the small number of references to career promotion or progression prospects included in the job advertisements. No particular patterns were found across the traditionally masculine or feminine occupations.

Training offered

The 'training offered' category included examples such as 'With full brand ongoing training to consultant level', illustrating training to be offered when undertaking the job advertised.

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	1	3	0	2
No	9	7	10	8

The above results demonstrate the small number of adverts discussing potential training opportunities in the particular occupation. Once again no differences were found in the inclusion of information across the traditionally masculine and feminine job advertisements studied.

Perks offered

This category referred to the inclusion of information regarding the 'perks' or benefits which would be received in the advertised job, for example 'Stakeholder pension and private healthcare.'

	Hairdresser	Nursery Nurse/Playgroup Worker	Plumber	Car Mechanic
Frequencies				
Yes	1	0	0	5
No	9	10	10	5

The majority of job advertisements for the occupations Hairdresser, Nursery Nurse/Playgroup Worker and Plumber did not include information as to the perks of the position. In contrast, 50% of adverts for the occupation Car Mechanic discussed the perks which would be enjoyed in the advertised job.

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Appendix 2: The Jobs Adolescents Say they would like to do

Table A2.1 gives all the jobs cited by adolescents sampled verbatim.

Table A2.1 Intended Jobs of Sampled Adolescents.

Jobs	Frequency	Valid Percent
Undecided	7	5.9
Engineer	2	1.7
Computer related work	3	2.5
Surgical nurse	2	1.7
Psychiatric nurse	1	.8
Lawyer	1	.8
Social worker	2	1.7
Health visitor/Nurse	2	1.7
Policeman	3	2.5
Animator	1	.8
Actor	1	.8
Musician	3	2.5
Music producer	1	.8
Interior/Games/Fashion designer	8	6.8
TV presenter	1	.8
sportsman	7	5.9
Fitness instructor	3	2.5
Golf- recreational teacher	1	.8
Pilot	2	1.7
Marine engineer	2	1.7
Executive	2	1.7
Bank worker	1	.8
Secretary/Personal Assistant	2	1.7
Mechanic (motor & garage)	4	3.4
Electrician	6	5.1
Bricklayer	2	1.7
Plumber	8	6.8
Carpenter/Joiner	8	6.8
Builder	2	1.7
Painter	1	.8
Caterer	1	.8
Music technician	1	.8
Senior nursery nurse/nursery nurse	3	2.5
Child carer	2	1.7
Stableman/woman	2	1.7
Travel agent	6	5.1
Air hostess	1	.8
Hairdresser	9	7.6
Beauty therapist	5	4.2
Total	119	100.0

Table A2.2 breaks down adolescents' intended jobs by socio-economic status. Cross-tabulations demonstrate a highly significant difference between boys and girls in intended job as a function of this socio-economic scheme ($\chi = 55.05$, $df = 6$, $p < .000$). There is no difference between boys and girls in whether the intended job sits within a professional, quasi-professional or administrative category. There is however a big difference between boys and girls across skilled trade and personal services categories: boys' intended jobs are substantially more likely to be classifiable as *skilled trade occupations* (which are also boy-dominated) whilst girls' intended jobs are substantially more likely to be classifiable as *personal service occupations* (which are also girl-dominated).

Table A2.2. Socio-economic status of Adolescents Intended Jobs.

Category of Job	Frequency (%)	Boys (%)	Girls (%)
Professional occupations	11 (9.3%)	5 (7.7%)	6 (11.3%)
Associate professional and technical occupations	37 (31.4%)	22 (33.8%)	15 (28.3%)
Administrative and secretarial occupations	3 (2.5%)	0 (0%)	3 (2.5%)
Skilled trades occupations	33 (28%)	33 (50.8%)	0 (0%)
Personal services occupations	28 (23.7%)	3 (4.6%)	25 (47.2%)
Unknown	2 (1.7%)	1 (1.5%)	1 (5.7%)
Undecided	4 (3.4%)	1 (1.5%)	3 (5.7%)

A similar socio-economic and gender-stereotypical pattern can be observed in parental occupations (Table A2.3). 40% of father's jobs could be classified as skilled trade occupations compared with 3.4% of mother's jobs. Conversely, the mother's jobs were significantly more likely than the father's jobs to be classified as either personal service occupations (mother's = 18.5%; father's = 0.9%) or administrative/secretarial (mother's = 9.2%; father's = 2.6%). Father's jobs were also more likely than mother's jobs to be classifiable as 'managerial' (10.3% versus 4.2%); on the other hand, mother's jobs were slightly more likely than father's jobs to be classifiable as 'professional' (10.1% versus 6%).

Table A2.3. Socio-economic Status of Mother and Father's Occupation.

Occupations	Father Frequency (%)	Boy Adolescent (%)	Mother Frequency (%)	Girl Adolescent (%)
Managers and senior officials	12 (10.3%)	0 (0%)	5 (4.2%)	0 (0%)
Professional occupations	7 (6%)	5 (7.7%)	12 (10.1%)	6 (11.3%)
Associate professional and technical occupations	14 (12.1%)	22 (33.8%)	12 (10.1%)	15 (28.3%)
Administrative and secretarial occupations	3 (2.6%)	0 (0%)	11 (9.2%)	3 (2.5%)
Skilled trades occupations	46 (39.7%)	33 (50.8%)	4 (3.4%)	0 (0%)
Personal services occupations	1 (.9%)	3 (4.6%)	22 (18.5%)	25 (47.2%)
Sales and customer service occupations	6 (5.2%)	0	10 (8.4%)	0
Process, plant and machine operatives	9 (7.8%)	0	2 (1.7%)	0
Elementary occupations	3 (2.6%)	0	12 (10.1%)	0
Unknown	14 (11.8%)	1 (1.5%)	4 (3.4%)	1 (5.7%)
Retired	2 (1.7%)	0	2 (1.7%)	0
Passed away	1 (0.9%)	0	0	0
Housewife	0	0	18 (15.1%)	0
Self-employed	1 (0.9%)	0	0	0
Student	0	0	1 (0.8%)	0
Unemployed	0	0	4 (3.4%)	0

Appendix 3 Intervention Exercises

Job	Weekly take-home pay
Nursery Nurse.....	£ 208.49
Plumber.....	£ 581.85
Car Mechanic.....	£ 264.74
Hairdresser.....	£ 232.22
Bricklayer.....	£ 470.90
Care Assistant.....	£ 196.49
Travel Agent.....	£ 177.74
Carpenter.....	£ 445.94
Primary School Headteacher.....	£ 669.08
Hospital Porter.....	£ 170.21

Lifestyle A

You rent a 1 bedroom flat in Winchester and you are buying a Nissan Micra with payments spread over 3 years:

1 bedroom flat weekly rent.....	£150
Nissan Micra weekly payment.....	£54.13
Total Cost of Lifestyle A.....	£204.13

Lifestyle B

You rent a 2 bedroom apartment in Winchester and you are buying a Volkswagon Golf with payments spread over 3 years:

2 bedroom apartment weekly rent.....	£212.50
Volkswagon Golf weekly payment.....	£83.30
Total Cost of Lifestyle B.....	£295.80

Lifestyle C

You rent a 4 bedroom house in Winchester and you are buying a BMW 320 with payments spread over 3 years:

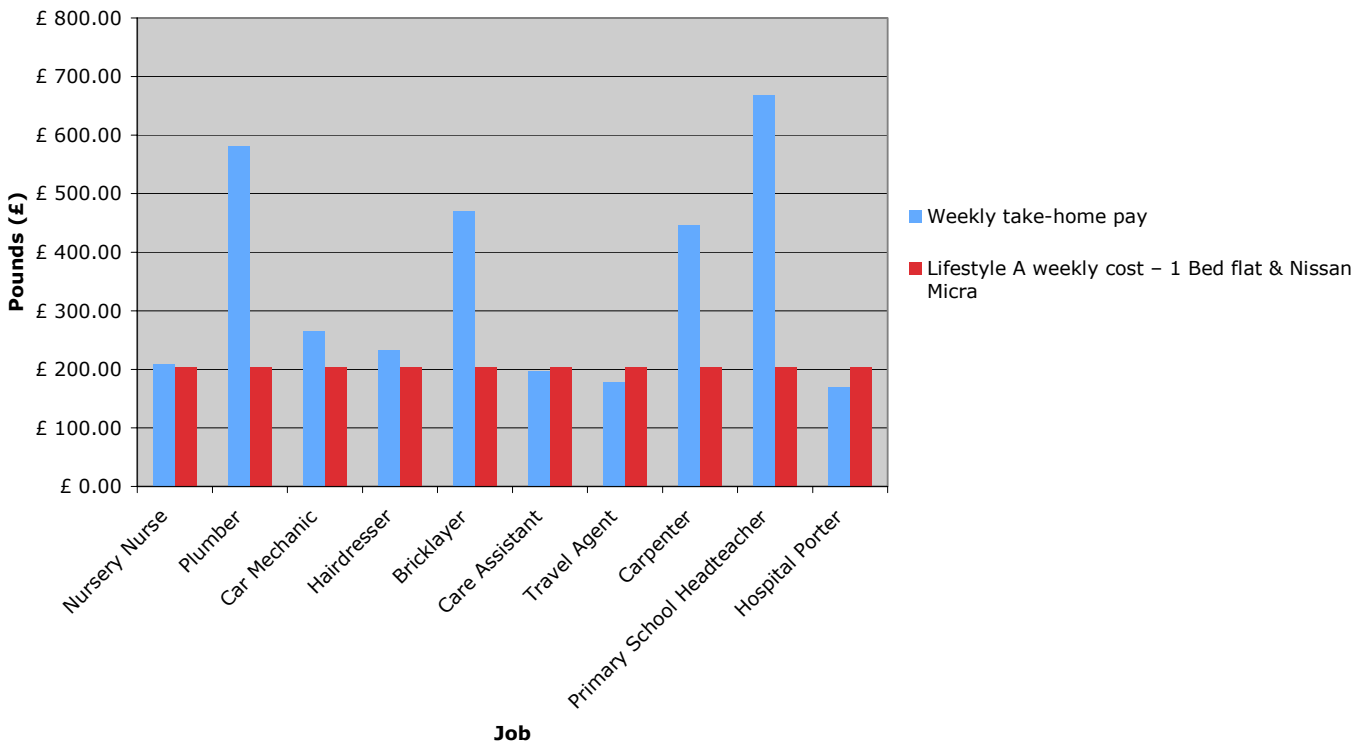
4 bedroom house weekly rent.....	£375
BMW 320 weekly payment.....	£146.46
Total Cost of Lifestyle C.....	£521.46

Looking at the graph below and using the figures above, put a \checkmark in the box next to each Jobs if they could afford to live Lifestyle A and a \times if they could not.

Example: If you were a Hairdresser you could be earning £232.33 each week while Lifestyle A would cost you £204.13. This would leave you with £28.20 to cover all other costs such as groceries, clothing, petrol, household bills and entertainment each week.

- Nursery Nurse.....
- Plumber.....
- Car Mechanic.....
- Hairdresser
- Bricklayer
- Care Assistant.....
- Travel Agent.....
- Carpenter
- Primary School Headteacher
- Hospital Porter.....

A Comparison of weekly take-home pay with the weekly cost of Lifestyle A

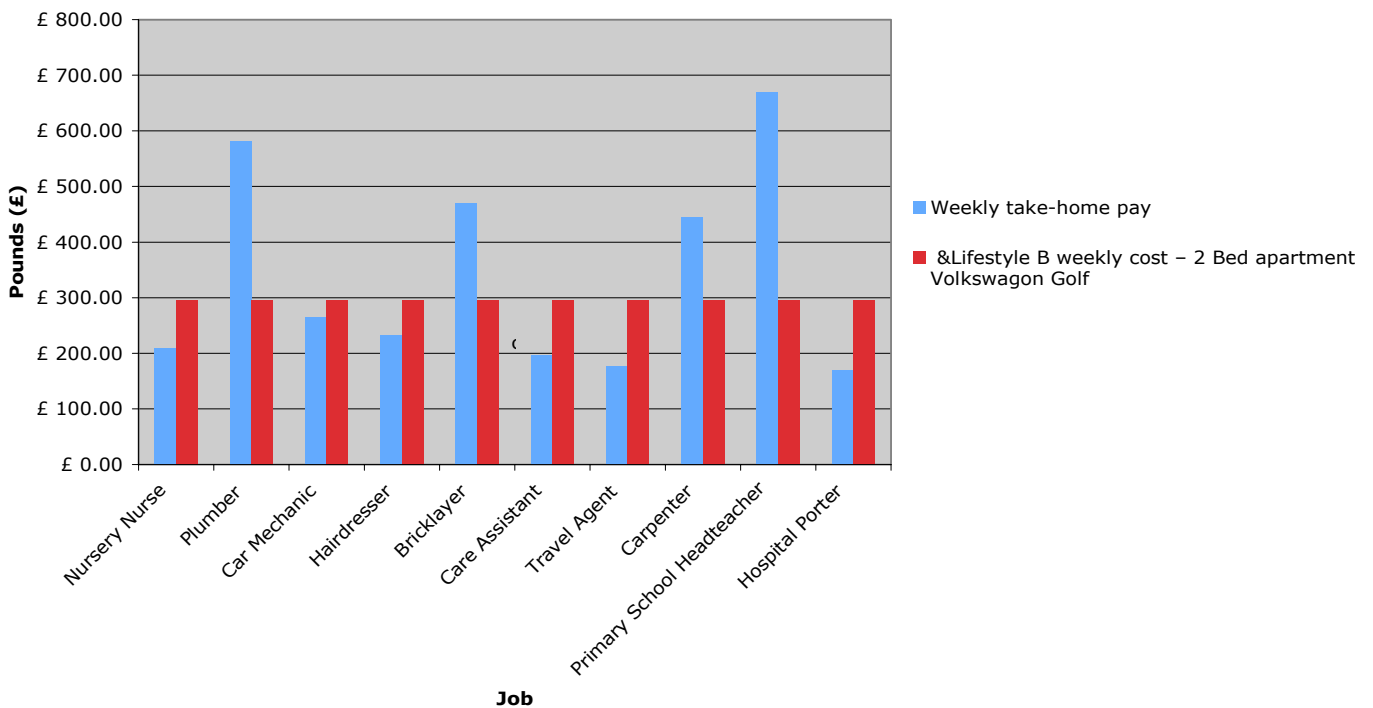


Now do the same for Lifestyle B

Example: If you were a bricklayer you could be earning £470.90 each week while Lifestyle B would cost you £295.80. This would leave you with £175.10 to cover all other costs such as groceries, clothing, petrol, household bills and entertainment each week.

- Nursery Nurse.....
- Plumber.....
- Car Mechanic.....
- Hairdresser.....
- Bricklayer.....
- Care Assistant.....
- Travel Agent.....
- Carpenter.....
- Primary School Headteacher.....
- Hospital Porter.....

A comparison of weekly take-home pay with the weekly cost of Lifestyle B



Now do the same for Lifestyle C

Example: If you were a primary school headteacher you could be earning £669.08 each week while Lifestyle B would cost you £521.46. This would leave you with £147.62 to cover all other costs such as groceries, clothing, petrol, household bills and entertainment each week.

- Nursery Nurse.....
- Plumber.....
- Car Mechanic.....
- Hairdresser
- Bricklayer.....
- Care Assistant.....
- Travel Agent.....
- Carpenter
- Primary School Headteacher
- Hospital Porter.....

Appendix 4 Technical Details of Intervention Experiment

Method

Sample

The sample comprised 284 students, drawn from two comprehensive, state sector secondary schools in the South-East of England. Participants were recruited from years 9, 10 and 11. The students in years 10 and 11 were studying for GCSE exams, while those in year 9 had recently or were in the process of choosing subjects for future GCSE study. 16.7% of participants were aged 13, 43% aged 14, 35.7% aged 15 and 4.7% aged 16. 112 participants were girl while 172 were boy. Though the sample could be described as a purposive, quota sample, the precise composition of the sample was ultimately at the discretion of the Head-teacher in the participating schools and dependent upon the availability of students. Efforts were nonetheless made to ensure an equal representation of boy and girl respondents via requests to the participating schools. To ensure that students were of mixed ability, ability-grouped classes were avoided. Instead, questionnaires were completed by students within their PSHCE lessons or other ungrouped subjects. Although relatively few year 11 students were available as a result of exam commitments, the sample is thought to be representative of the population. To maintain consistency in the sample, in order to compare job evaluations between the two repeated phases, the same classes took part at both stages. As both schools were state sector comprehensives and could be considered comparable, participants were assigned to the information condition by school, with 170 participants (98 boy, 72 girl) at one school partaking in the pay manipulation, while the other 114 (74 boy, 40 girl) partook in the job conditions manipulation.

Design

A quasi-experimental mixed three-factor study was conducted using questionnaires, with repeated measures on one factor – time (pre- or post-intervention) – and independent measures on the other two – gender and intervention ('pay' or 'job conditions'). The independent variables (IVs) identified for the research were the gender of the respondents and the information (salary information/job conditions information) manipulations. The dependent variables were participants' vocational evaluations (ratings/rankings) and self-efficacy ratings. Self-efficacy (both academic and vocational) and gender identification were also examined as mediating variables.

Measures and Procedure

At Wave 1, the survey comprised four sections. Section A contained an extensive demographic section including: number and subject of GCSEs; employment status of family members; involvement in after-school activities; post-GCSE plans and work experience (through school or part-time employment). In Section B, participants were invited to evaluate a selection of eight jobs, selected from NVQ skill shortage domains with high gender-segregation: Carpenter, plumber, car mechanic and builder/bricklayer (male-dominated), hairdresser, elderly care assistant, nursery nurse/playgroup worker and travel agent (female-dominated). In addition, Primary School Headteacher was included as a high-status, female-dominated domain and Hospital Porter was included as a low-status, male-dominated domain though these were not included in the analysis. The order the jobs were presented in was varied.

Participants were invited to evaluate these jobs in two ways. First this was done on each job independently on a 3-point scale according to whether each one was a job that they 'would like to do', 'would like to do a bit' or 'would not like to do'. Following this, participants were asked to compare the jobs in two forced-choice ranking tasks. The first ranking task required participants to number the jobs from 1-10 according to how attractive they considered the job (1 = most attractive, 10 = least attractive). The second ranking task requested that participants number the jobs from 1-10 according to how likely they felt it was that they would do that job (1 = most likely, 10 = least likely). The two different question formats were included to provide a more complete set of responses and thereby afford a more detailed insight.

Also included at Wave 1, in Section C, was the Middle-School Self-Efficacy Scale, as developed by Fouad, Smith & Enochs (1997). The questionnaire involves responses on a 5-point Likert scale indicating the degree to which the individual agrees (strongly agree; agree; uncertain; disagree; strongly disagree) that they could do each of 22 statements (e.g. "Choose a career in which most workers are the opposite sex") and an additional, open-ended statement of intended

future self. Fouad et al. report an adjusted goodness-of-fit value (AGFI) of .91 and a root mean-square residual (RMR) value of .046, indicative of an acceptable fit in accordance with the validity parameters described by Byrne (1989).

Section D of the Wave 1 questionnaire included gender identification scales. Participants were invited to describe the degree of their affinity, first to the term 'masculine' and then the term 'feminine', using one of four response categories ('highly'; 'moderately'; 'slightly'; 'not at all').

The survey was completed by a series of scales to measure the perceived importance of a range of different influence sources, questions concerning perceived importance of pay and job conditions to the participants, and also ratings of the usefulness of various sources of received careers advice, however they were not utilised in this study.

At Wave 2, between 2-6 weeks after Wave 1, participants were invited to engage with one of two difference classroom-based information manipulations. These manipulations consisted of comparable 10 minute information processing exercises concerned with either pay or job conditions. The pay manipulation required assessment of what could be afforded by each job (in terms of living accommodation, car, other living expenses) against realistic, localised pay information. Three lifestyle scenarios were described with both accommodation rental, and monthly car-purchase instalments, increasing in expense in relation to an increase in accommodation/car size (1-bedroom flat; 2-bed apartment; 4-bed house/Nissan Micra; Volkswagon Golf; BMW 320). Participants were asked to indicate which of the 10 jobs in question could afford to live each of the three, incrementally more costly, lifestyle scenarios.

The job conditions manipulation again involved the evaluation of jobs, this time according to whether or not the job would be conducive to 5 different life styles (single working parent; keen to socialise; sole provider for young family; first job after college; working couple with no children). These judgements were made in relation to information presented concerning the relative flexibility in working hours available, and the variety of skills used with each job. Once given the requirements of each life style, participants were asked to indicate which of the 10 jobs in question would allow an individual to maintain such a way of life. In addition, this manipulation also requested that participants indicate which of the life style scenarios most closely represents their anticipated life style in five, and ten, years time. Finally, participants were invited to consider which of the jobs in question most fits with the way they picture themselves in both five and ten years, and why this is so.

Immediately following the completion of one of these manipulation tasks, participants again completed a survey. Changes from the Wave 1 questionnaire comprised the exclusion of Sections C and D (self-efficacy, gender identification scales, manipulation checks) and the inclusion of more detailed qualitative questions regarding previous work experience. These additional questions were not included in the analysis for this study. The job evaluations (both ratings and rankings) remained unchanged in order to compare pre- and post-manipulation responses.

The survey at both Waves, and both information manipulations, were piloted with 14-16 year olds from local schools to check for duration and clarity of understanding.

Results

Pre- and post-intervention means are provided for all four girl-dominated jobs in Table 1, below, as a function of gender. Multivariate repeated measures analysis was applied to each set of job specific data. Time was the Within-Subject factor (pre- and post-intervention), whilst Gender (boy/girl) and Intervention type (pay/conditions) were the two Between Subject Factors.

Nursery Nursing

For nursery nursing, there is a significant main effect for Time ($F=29.76$ $df = 1,280$ $p<.00$) and for the interaction between Time and Intervention ($F = 20.59$ $df=1,280$ $p<.00$), but no significant effects for the interaction between Time and Gender ($F=.244$ $p<.622$) or between Time, Gender and Intervention ($F=.263$ $p<.609$). The main effects for Gender ($F=242.89$ $df=1,280$ $p<.000$) and Intervention ($F=8.459$ $df=1,280$ $p<.00$) and the interaction between Gender and Intervention ($F=3.27$ $df=1,280$ $p<.05$) were also significant. Looking at the breakdown of means in Table 1, girls are overall significantly more favorably inclined towards nursery nursing than boys but both appear to have responded positively to the 'job conditions' rather than the 'pay' intervention. Thus, the significant change towards more favorable

ratings over time emerging as a function of the intervention, these changes are mainly accounted for by the 'job conditions' intervention rather than the 'pay' intervention - across both boy and girl cases.

Care Assistant

For the care assistant job, there is a significant main effect for Time ($F=7.131$ $df=1,285$ $p<.008$) but not for the interaction between Time and Intervention ($F=2.980$ $df=1,285$ $p<.085$), for the interaction between Gender and Time ($F=.249$ $df=1,285$ $p<.618$) or between Gender, Time and Intervention ($F=.411$ $df=1,285$ $p<.522$). There is a significant main effect for Gender ($F=39.68$ $df=1,285$ $p<.000$) but not for Intervention ($F=2.085$ $df=1,285$ $p<.156$), and no significant interaction between Gender and Intervention ($F=1.27$ $df=1,285$ $p<.260$). As for nursery nursing, girls are significantly more favorably inclined towards the care assistant job than boys. There is also a significant change in ratings over time, becoming more positive overall as a function of both interventions. Table I shows that both boys and girls responded positively to both interventions, although boys responded more favorably than girls did to the pay intervention.

Table A5.1 Girl-Dominated Jobs: Means and Standard Deviations for Job Preferences by Gender, Type of Intervention and Time

Nursery Nursing			Mean SD	Mean SD
Type of intervention	Gender		Pre-Intervention	Post-intervention
PAY	Boy		1.16 .06	1.19 .06
	Girl		2.06 .07	2.09 .07
CONDITIONS	Boy		1.10 .07	1.40 .07
	Girl		2.20 .08	2.56 .09
Care Assistant			Mean SD	Mean SD
Type of intervention	Gender		Pre-Intervention	Post-intervention
PAY	Boy		1.08 .040	2.0 .046
	Girl		1.45 .049	1.46 .055
CONDITIONS	Boy		1.04 .049	1.10 .056
	Girl		1.28 .058	1.38 .065
Hairdressing			Mean SD	Mean SD
Type of intervention	Gender		Pre-Intervention	Post-intervention
PAY	Boy		1.16 .06	1.53 .07
	Girl		1.97 .07	2.20 .09
CONDITIONS	Boy		1.08 .07	1.51 .09
	Girl		2.02 .08	2.23 .10
Travel Agent			Mean SD	Mean SD
Type of intervention	Gender		Pre-Intervention	Post-intervention
PAY	Boy		1.35 .062	1.60 .067
	Girl		1.58 .077	1.76 .083
CONDITIONS	Boy		1.47 .047	1.66 .080
	Girl		1.68	1.81

		.086	.094
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Hairdressing

For hairdressing there is a significant main effect for Time ($F=66.14$ $df=1,292$ $p<.000$) and a significant interaction between Time and Gender ($F=5.64$ $df=1,292$, $p<.000$) but no significant interaction between Time and Intervention ($F=.042$ $df=1,292$ $p<.838$) or the interaction between Time, Gender and Intervention ($F=.220$ $df=1,292$ $p<.639$). There is a main effect for Gender ($F=128.22$ $df=1,292$ $p<.000$) but no main effect for Intervention ($F=.003$ $df=1,292$ $p<.954$), and no interaction between Intervention and Gender ($F=.368$ $df=1,292$ $p<.544$). Thus, girls are significantly more favourably inclined towards hairdressing than boys are. There was a significant shift in ratings overall as a function of both interventions towards more positive perceptions. This shift was attributable to both boys and girls in response to both interventions (pay and conditions).

Travel Agency

For travel agency, there is a significant main effect for Time ($F=25.85$ $df=1,292$ $p<.000$) and Gender ($F=7.562$ $df=1,292$ $p<.00$). There is no significant interaction however between Time and Intervention ($F=.525$ $p<.469$), Time and Gender ($F=.802$ $p<.371$) or between Time, Gender and Intervention ($F=.008$ $p<.927$) or between Gender and Intervention ($F=.008$ $p<.929$). Overall, job ratings become significantly more positive over time but this is not attributable either to gender or the particular nature of each intervention. Girls rate travel agency significantly more favourably than boys do overall.

Theoretical Analysis of Girl-Dominated Jobs

To minimise the likelihood of chance effects, ratings for all four girl jobs were entered into one repeated analysis. This analysis confirmed the overall effect of Gender ($F=206.539$ $df=1,280$ $p<.00$) and Time ($F=54.979$ $df=1,280$ $p<.00$); there was also a significant interaction overall for Time and Intervention ($F=5.747$ $df=1,280$ $p<.00$) and for Time and Gender ($F=22.812$ $df=1,280$ $p<.00$). There was no significant overall three way interaction ($F=1.312$ n.s). The interaction between Time and Intervention is explained by the significantly greater increase in ratings generated by the 'pay' condition (mean shift = +0.53) than the 'job conditions' intervention (mean shift = +0.47). The interaction between Time and Gender is explained by the significantly greater increase in ratings accounted for by boy (mean shift = +0.55) ratings than girl ratings (mean shift = +0.31).

Thus with respect to the female-dominated jobs, boys shifted more than girls towards more positive likelihood ratings and also the 'pay' intervention generated a greater shift in ratings overall than the 'job conditions' intervention. To assess the extent to which the 'gender' effect can be explained by variation in gender identification, the latter was entered as a covariate into the same repeated measures design. This analysis confirmed the main effect for Time ($F=2.221$ $p<.033$), the significant interaction between Time and Intervention ($F=6.255$ $p<.000$), between Time and Gender ($F=17.09$ $p<.006$) but no significant three way interaction between Time, Gender and Intervention ($F=1.020$ $p<.419$). There was no significant effect for the covariate on changes over time ($F=.884$ $p<.520$) – i.e. variations in gender identification did not covary with these changes over time. Thus, gender identification did not make any difference to the findings.

Consistently across all four girl-dominated jobs, girl ratings were significantly more positive than boy ratings. Nonetheless, both the 'pay' and the 'job conditions' intervention appear to have significantly inclined our 14-16 year olds to rate these jobs more positively, as something they might contemplate doing. Both boys and girls appear to have responded positively to both interventions, although boys reacted more favourably to the pay intervention than girls did in their ratings of the care assistant job. Both boys and girls reacted more favourably to nursery nursing in response to the 'job conditions' intervention than the 'pay' intervention. Overall both interventions had a positive and comparable impact on both boy and girl job preferences.

Theoretical analysis in which all jobs were evaluated together in one repeated measures design revealed that - with respect to the *female-dominated jobs*

- Overall boys shifted more than girls towards more positive likelihood ratings after the intervention and,
- the 'pay' intervention generated a greater shift in ratings than the 'job conditions' intervention.

These findings are not accounted for by systematic variations in gender identification.

Pre- and post-intervention means are provided for all four *boy-dominated jobs* in Table A5.2, below, as a function of gender. Multivariate repeated measures analysis was applied to each set of job specific data. Time was the Within-Subject factor (pre- and post-intervention), whilst Gender (boy/girl) and Intervention type (pay/conditions) were the two Between Subject Factors.

Carpentry

There is a significant main effect for Time ($F=101.03$ $df=1,294$ $p<.00$) and for Gender ($F=21.98$ $df=1,294$ $p<.00$). There are no significant interactions between Time and Intervention ($F=.198$ $p<.657$), between Time and Gender ($F=3.49$ $p<.063$), between Intervention and Gender ($F=.255$ $p<.614$) or between Time, Gender and Intervention ($F=.721$ $p<.397$). The Time effect is attributable to significantly more positive job ratings from pre- to post-intervention. The Gender effect is accounted for by the significantly more favorable ratings of carpentry by boys relative to girls. There is a trend ($p<.063$) towards a greater shift towards more positive ratings by girls than boys over time as a function of both interventions.

Building

There is a significant main effect for Time ($F=109.84$ $df=1,295$ $p<.000$) but no interaction between Time and Intervention ($F=.568$ $p<.452$). However there is a significant interaction between Time and Gender ($F=6.73$ $df=1,295$ $p<.010$). Time, Gender and Intervention do not significantly interact ($F=.002$ $df=1,295$ $p<.962$). There is a significant main effect for Gender ($F=24.12$ $df=1,295$ $p<.000$) and for Intervention ($F=3.62$ $df=1,295$ $p<.050$). There is a significant positive shift between pre- and post-intervention job ratings. Boys also rate building significantly more positively than girls do overall, but girls shift their ratings over time significantly more than boys – across both interventions.

Table A5.2 Boy-Dominated Jobs: Means and Standard Deviations for Job Preferences by Gender, Type of Intervention and Time

Carpentry		Mean SD	Mean SD
Type of intervention	Gender	Pre-Intervention	Post-intervention
PAY	Boy	1.77 .76	2.05 .80
	Girl	1.26 .59	1.74 .78
CONDITIONS	Boy	1.50 .71	1.81 .79
	Girl	1.13 .40	1.64 .81
Building		Mean SD	Mean SD
Type of intervention	Gender	Pre-Intervention	Post-intervention
PAY	Boy	1.63 .70	1.94 .79
	Girl	1.20 .50	1.70 .75
CONDITIONS	Boy	1.55 .70	1.80 .81
	Girl	1.06 .24	1.50 .73
Car Mechanic		Mean SD	Mean SD
Type of intervention	Gender	Pre-Intervention	Post-intervention
PAY	Boy	1.84 .77	1.83 .83
	Girl	1.30 .58	1.32 .58
CONDITIONS	Boy	1.90 .76	2.00 .74
	Girl	1.22 .55	1.55 .65

Plumbing	Type of intervention	Gender	Mean	Mean
			SD	SD
			Pre-Intervention	Post-intervention
PAY		Boy	1.54	1.99
		Girl	.68	.86
CONDITIONS		Boy	1.22	1.77
		Girl	.51	.81
		Boy	1.62	2.00
		Girl	.75	.84
			1.13	1.75
			.44	.68

Car Mechanic

There is a significant main effect for Time ($F=20.61$ $df=1,287$ $p<.00$) and a main effect for Gender ($F=42.55$ $df=1,287$ $p<.00$), and significant interactions between Time and Intervention ($F=21.58$ $df=1,287$ $p<.00$), between Time and Gender ($F=7.86$ $df=1,287$ $p<.00$) and between Time, Gender and Intervention ($F=4.30$ $df=1,287$ $p<.039$). There is a significant positive shift in job ratings between pre- and post-intervention but this is almost exclusively accounted for by the 'Job Conditions' intervention and principally for girl respondents. Boys overall rate the car mechanic job significantly more positively than girls do.

Plumbing

There is a significant main effect for Time ($F=155.84$ $df=1,293$ $p<.00$) and Gender ($F=16.80$ $df=1,293$ $p<.00$) and a significant interaction between Time and Gender ($F=4.859$ $df=1,293$ $p<.028$). There is no significant interaction between Time and Intervention ($F=.004$ $p<.947$) or between Time, Gender and Intervention ($F=.939$ $p<.333$)

Theoretical Analysis of Boy-Dominated Jobs

To minimise the likelihood of chance effects, ratings for all four boy jobs were entered into one repeated analysis. This analysis confirmed the overall effect of Gender ($F=43.9$ $df=1,285$ $p<.00$) and Time ($F=35.73$ $df=1,285$ $p<.00$); there was however also an overall interaction between Time and Intervention ($F=4.55$ $df=1,285$ $p<.00$) and also Time and Gender ($F=2.82$ $p<.00$). The interaction between Time and Intervention is explained by the significantly greater shift witnessed in the 'job conditions' intervention (mean shift = +0.73) over the 'pay' intervention (mean shift = +0.64). The interaction between Time and Gender is accounted for by the significantly greater shift of girl ratings over time (mean shift = +0.87) relative to boy ratings (mean shift = +.51). Thus with respect to the *male-dominated jobs*, girls shifted more than boys towards more positive likelihood ratings and also the 'job conditions' intervention generated a greater shift in ratings overall than the 'pay' intervention.

To assess the extent to which the 'gender' effect can be explained by variation in gender identification, the latter was entered as a covariate into the same repeated measures design. This analysis afforded a main effect for Time ($F=3.897$ $p<.000$), a significant interaction between Time and Intervention ($F=4.856$ $p<.000$), between Time and Gender ($F=2.930$ $p<.006$) and a significant three way interaction between Time, Gender and Intervention ($F=2.731$ $p<.009$). There was no significant effect for the covariate on changes over time ($F=1.303$ $p<.249$) - i.e. variations in gender identification did not covary with these changes over time. However, it is clear that by controlling for variations in gender identification - i.e. the extent of feeling 'boy' or 'girl' - in the within subject design, the three way interaction between Time, Gender and Intervention reaches significance. This finding suggests that removing variation in strength of feeling about being boy/girl increases the impact of 'objective' sex differences on changes over time. In short, girls (irrespective of their strength of 'girl' identification) shifted more over time in their personal likelihood ratings of boy-dominated jobs than boys (also irrespective of their strength of 'boy' identification) as a function of the 'job conditions' intervention.

Overall, boys are significantly more inclined than girls are to rate the boy- dominated jobs positively as something they would contemplate doing. For all jobs except car mechanic there was a significant increase for both boy and girl respondents for both 'pay' and 'job conditions' interventions in likelihood ratings. For car mechanics there is a shift in likelihood ratings only in the 'job conditions' intervention and principally for girls. For carpentry, girls shift their likelihood ratings more than boys do as a function of both interventions.

Theoretical analysis, in which all jobs were evaluated together in one repeated measures design revealed that, with respect to the *male-dominated jobs*:-

- Overall girls shifted more than boys towards more positive likelihood ratings after the intervention and,
- the 'job conditions' intervention generated a greater shift in ratings than the 'pay' intervention.

This finding is statistically accentuated when variations in extent of subjective boy/girl identification are controlled out of the analysis.

Covariate Analysis

Repeated measures analysis was performed across all female-dominated and male-dominated jobs respectively with efficacy as a potential covariate. There was no significant covariate effect for efficacy in relation to changes over time in association with the girl-dominated jobs (F covariate Time x Efficacy = .011 $p < .917$) or in association with the between subject factors: intervention or gender (F covariate Between Subject = 1.8 $p < .178$). However, there was a significant covariate effect for efficacy in relation to changes over time in association with boy-dominated jobs (F covariate Time x Efficacy = 3.8 $p < .05$) though not for the Between Subject factors (F=1.1 $p < .291$). Thus, self-perceived efficacy appears to account for some of the change over time in ratings of male-dominated jobs but not the female-dominated jobs.

Appendix 5: Technical Details of College Interviews

The leaver study aimed to look at what prompts boys and girls to leave non-traditional vocational training. In this study an approach to investigation and analysis of the transition process is adopted called Grounded Theory to develop an understanding of why, in depth, students choose to leave courses within non-traditional vocational areas. The interest here is explicitly in the *complexity* of the experience and of the *processes involved in making sense of this experience* (Willig, 2000). 'Making sense' of the notion of leaving a course is likely to be highly self-referential (i.e. pertaining to what the situation implies for self definition and self-worth) (George & Jones, 2001).

Method

Sample

Purposive sampling was used where by participants were selected according to the criteria of relevance to the research question (Willig, 2000). In this case a sample of 17 leavers aged between 17 and 21 years was secured for one-to-one interview from various schools and colleges. All those who volunteered were interviewed even though for a Grounded Theory investigation, a much smaller sample would have sufficed (Smith, 1996). This means that the participants were homogenous to the extent that they share the same experiences of leaving a boy or female-dominated skill domain. Exactly ten girls and seven boys were recruited and interviewed accordingly in participation with the Leavers Study from the college in question.

Procedure

To help elicit in-depth data semi-structure interviews were developed for this study.

To gain the most out of one-to-one interviews, questions were formulated pertaining most to, and which would elicit 'experiences' or 'reasons' for students leaving gender-incongruent vocational training courses (Appendix I). First, one interview schedule was developed from initial interviews conducted on a students in a nearby college. The interviews lasted approximately half an hour in time each depending on the participant. In general they ranged from around 20 minutes up to 45 minutes in length and were audio-taped subject to consent.

After gaining consent from the participants these were briefed on ethical considerations and asked permission to record the interview, and told about the destruction of the tapes after analysis. All interviews were conducted in a small private room within the school building. At the end of each interview participants were debriefed appropriately, invited to ask any questions, offered a copy of the findings and thanked for their participation and given a token fee.

An in-depth semi-structured interview was conducted with each participant, allowing the interview to be guided rather than dictated by the interview schedule. As Smith (1995) put it, there is a natural fit between semi-structured interviewing and qualitative research, especially Grounded Theory. The schedule was designed to enable the interviewer to retain some control over the conversation process, containing it to the topic under investigation. At the same time, the participant was given every opportunity to talk about anything they felt appropriate or significant at the time. This also helps to generate rapport and hence also, a more genuine, open and elaborated response to questions (Smith, 1996). All interviews were conducted by the same researcher to ensure consistency across interviews. The researcher was free to ask these questions in any order or style to minimise interruption. The questions were based on a thorough literature review and initial interviews were conducted to check the schedule for clarity of language. Furthermore, the initial interviews formed the basis of the interview schedule used during the study.

Questions were chosen partly based on previous research topics asked but obviously a distance between the current study and previous literature was needed due to the use of Grounded Theory for the categorical analysis. A common-sense approach was adopted when devising questions to use language which would be understood by our participants in the form of a semi-structured interview. An in-depth 'read around' the topic and literature search was conducted and from this a set of topics was derived to include in the interview schedule which pertained most to motivations to leave courses. The topics used are as follows with brief descriptions and a rationale for why they were included in the interview schedule.

- **Course Description**
Aimed to elicit the type of course undertaken to gauge the context in which to place the student
- **Leaving the Course**
Reasons as to why the student left the course, the advantages and disadvantages of such a course
- **View of Boy/female-dominated skill areas**
To look into possible reasoning for changes in attitude and perspective on the opposite sex domain
- **What would have made them NOT leave the course**
- **Job interests/preferences**
To elicit current job interest/preferences and to see if they actually had these
- **Career Path**
To see if young adults actually view themselves as following a career path which could give some indication as to why they choose/leave courses and how they make such decisions

Designing the interview schedule

Grounded theory is compatible with a wide range of data collection tools (Strauss and Corbin 1990). Semi-structured interviewing, participant observation, focus groups and even diaries can generate data for grounded theory. The full implementation of the method involves the researcher moving back and forth between data collection and analyses, and an abbreviated version that involves coding of data only (Chick et al, 1996).

Grounded Theory's theoretical background is in Sociology. It states that reality and meanings are made sense of in social interaction. Willig (2000) reports that many believe Ground Theory to subscribe to a positivist epistemology and a realist ontology. Social Constructionists have encouraged more reflexivity, as they believe Grounded Theory does not capture social reality but is a social construction of reality. Grounded Theory should be used when the researcher wants to explore complex issues or processes and create a theory.

The design of the interview schedule was performed via a common-sense analysis of previous research around similar topic areas to gauge what issues were needed to be covered to enable us as researchers to gain the most from our data collection. Single interviews were performed with participants using a semi-structured interview which consists of both a directive and non-directive approach to data collection. Purposive sampling was used where by participants were selected according to the criteria of relevance to the research question, therefore in this case 17-21 year old students who had left courses at various schools and colleges were chosen for the study. This means that the participants were homogenous to the extent that they share the same experience of the leaving a course which they were asked to describe. Thus it then made sense for us to look across all cases in the data to obtain a more generalised understanding of the phenomenon. Semi-structured interviewing is compatible with the Grounded Theory method of analysis used in our research design. The design of the semi-structure interview schedule required careful planning and preparation. It had to be decided who best to interview in line with the research question, how to recruit these participants, how to record and transcribe the interviews, what style of interviewing to use, and what to specifically ask participants.

The semi-structured interview in our study was designed to enable participants to reflect upon and talk about their experiences and perceptions of leaving a certain course. Questions were designed to encourage participants to talk. We designed the questions so as to permit some control of the original topic under interview but also to allow the interviewee the space to redefine the topic under investigation and to generate novel insights for the researcher.

The researchers' own identity as a 'student' was also considered at this point in order to enable the interviewee to speak freely about the topic. A lot of this however would depend upon the rapport established between the interviewer and interviewee and how comfortable students' felt about talking about their decisions to leave a vocational course. However we had to consider the relationship and its sudden dissolution in the case of the interviewer becoming salient, thus leading us to ask very 'chatty' open ended questions with plenty of room for modification to the interviewees linguistic skills as one progressed through the interview. This allowed the incorporation of interviewees own terms and concepts into the questions, to make the interview more appropriate or relevant to them.

Some lessons learnt however from piloting such an interview was that one tended to be more directive than was necessary at times. When designing the schedule itself, descriptive questions, contrast questions and evaluative questions were incorporated to ensure a level of meaningfulness to the participants.

Data Analysis

Qualitative researchers often encounter a difficult problem when trying to decide what to write about their findings (Willig, 2000). The source of the problem is the fairly complex body of data generated through the entire research process. The big questions, then, are the following. What of all this analysis should be included? How can one compress all of these findings into a couple of chapters or research project and how much depth must one go into? The answer is that the researcher must decide what the main analytical message must be based on the evolution of the research question through the data analysis process (Corbin and Strauss, 1990).

In analysing the data from the interviews conducted for the research project, the process performed collected the data and transcribed the interview, thoroughly read through the transcripts, explored it through initial open coding, established cautious links between categories and then explored all categories together as a group to widen the scope of understanding and to convey a clear analytical message. The data collection was informed by the emerging theory. We were able to look at manifestations of categories and negatives or opposites within the five interviews conducted in our group. The category development I produced was detailed, dense and differentiated and aimed to reach theoretical saturation. Using the interview transcript initial coding was performed line-by-line down the left side of the page followed by the more detailed identification of categories and links in the data on the right hand side of the page. It was then possible to sit down with all the transcripts and establish core categories which formulated the basis for discussion of the results. Theoretical formulations would then have arisen from the data rather than being imposed upon it.

By performing the Grounded Theory Analysis process in full would have been directed to manifestations of process and or change within the data. This was done through asking certain questions of the data. This can include detailed knowledge of context of the questioning from which categories emerge and the interaction of these strategies. This is referred to as axial coding (Strauss and Corbin, 1990). Relevant categories and sub-categories have been defined and data (quotes) will be used to illustrate analytical points made. A section in the report will also detail relationships between categories as performed within our group by combining categories from transcripts, to discuss emerging theoretical formulations.

Grounded Theory in itself is rewarding to use in analysis if somewhat laborious, it does allow the researcher to actively engage in close and detailed analysis of research materials. So long as self-confidence is recognised when analysing the literature this can potentially be an exciting method to explore qualitative data through. However with so much complex material arising from Grounded Theory analysis it can be difficult to decide which categories are peripheral and which are central to analysis. When used in a real life situation the writer must think of how to present relevant facets of the conceptual scheme whilst still retaining flow and continuity. It has also been argued that Grounded Theory subscribes to a positivist epistemology and discounts reflexivity. It is also preoccupied with uncovering social processes, which can limit its applicability to phenomenological research questions.

When looking to combine categories from all transcripts to identify core categories on which to present the research findings I found three main categories which arose from the interviews relating to motivations, perceptions, experiences and reasons for leaving a course. Below, each is presented with their sub-categories and quotes (data).

Results

The three core categories to arise for the in-depth analysis of the transcripts were, Self and Others, Reflecting on College Experience and External Experiences. Each core category has been identified along with its various sub-categories and is presented below.

Self and Others

The importance of this category was apparent throughout all interviewee's responses. The social environment counted where the participants found themselves was mentioned as of vital importance as a reason for leaving the courses the

participants were/have been undertaking. This manifested itself in terms of the levels of *Support* received by the students and *Influences* they felt were in place at the time, making these the clear sub-categories of Social Environment.

Support within the Social Environment particularly affected the choice of students to leave courses and was distinctive across all transcripts. Support was discussed in relation to the level received from teachers for example

'When our teacher showed us coursework examples, they had all been done by boys which made you feel a bit bad'

This was a clear indicator that some students felt that they were not receiving a correct level of support from the teaching staff to make them feel competent and confident in their work throughout the course another student commented

'If we are getting shown how to operate some equipment in woodwork, the teachers often make jokes about the boys having to help us girls'

Some students felt as if their opinions or ideas were being dismissed which inhibited them from growing as individuals within their chosen subject and did not allow expansion for ideas and achievement at a subject, this often came from peers in the class thus indicating both peer and teacher support to be an important factor in the successful completion of a course

'I do feel stupid sometimes in class when I ask a question as I just fell like all the boys think like 'what is she talking about'

Some students described the use of inappropriate language by teachers within the class discussions which made them feel uncomfortable and perhaps outcasts'; showing the level of support given by some teachers tends to be less universal in nature in terms of giving support to encompass the whole class.

'the language used in my course is very sexist and our teacher is always going 'right then gents, today we are going to....', it does get on my nerves quite a lot'

Students often described their experiences negatively in terms of the support they received from teachers and often felt forgotten in a sense and it was suggested that perhaps teachers have their 'favourites' at times

'I don't think I would say I get much help from the teacher, whenever I have asked before he always seems to forget me, its like I am a novelty in the classroom, but nothing when it comes to coursework'

On the flip side of this statement other students said a higher level of support left them feeling complacent and demotivated as they knew that they could get away with anything so tended to have less will power when it came to class behaviour and completion of work

'The teachers love me, I always end up getting extra help with stuff, its like they just want to mother us boys or something, but in the end I give up trying so much because I know I can get away with so much, I need a bit of a challenge really'

Influence of the social environment on the participants was also mentioned. This refers to decisions made and the impacts on student's decisions to leave courses. Influence came in terms of peer influence mainly, and secondly parental influences and the pressure put onto the young adults in terms of decision making whether or not it was appreciated or respected it still seemed to influence the decision to leave a course

'My mum and dad pressure me to do well all the time, you know what sometimes I just don't care, I just want to make my own decisions and do the courses I want to do'

'My mum tries to give me good advice all the time but at the end of the day its my decision what I do really, I do appreciate but I feel like she wants to make my mind up for me'

Some students also mentioned that they are influenced perhaps even to the degree that they will do things just to keep other people in their lives happy so may persist or leave a course that is not necessarily a decision solely made by them but under the influence of others decisions

'My mum tries to make me go uni all the time but I'd rather not to be honest, if she didn't go on at me all the time then maybe I'd want to go, but then I'll probably go just to keep them happy'

Opinions of peers seemed to concern the majority of students in terms of the course choices they had made and perhaps their decisions to leave the courses they were currently undertaking along with social factors such as missing out of time with their peers due to timetable differences.

'My mates often play football in their free periods and I don't get too, I might drop it so I can see them more and don't have them take the piss out of me'

Peer opinion also seemed to influence students in their decision making and was viewed as a much more positive influence that parental pressure and comments were often light-hearted and warm concerning peers as opposed to the feeling of being pressurised by parents see above comments

'Me and my best mate have decided we both want to do the same course so we are applying to the same uni for September, it gonna be the best!'

Confidence issues in both a negative and positive light were also mentioned within this category and it was evident that boys felt confident in front of girls. The girls lacked confidence and the strength to speak up in front of a room full of boys.

'I'm never afraid to say what I think in discussions with the girls, they have to listen to you after all'

'Its not really nice being the only girl because you are often alone especially when it comes to group work, you always end up being the last one to form a group, I just usually end up tagging onto someone'

Reflecting on College Experience

The second major category to emerge from the transcripts concerned the self and manifested itself in terms of *Motivations* and *Emergent Feelings*. Motivations appear to be a large part of the self describing how decisions are reached to leave a course. It appears the less motivation for the course, the more inclined students are to leave it.

'I have really lost interest in the course now, I just don't think it is for me anymore'

Students describe their lack of interest for a course and subsequently their lack of motivation to try anymore or succeed within the course framework. Support as fore-mentioned comes into motivation thus showing an inter-play here between core categories

'I tend to not try as hard in my coursework anymore because whenever I ask for help with it I always feel like I am being a pain.'

This is interesting as it is clear that students would perhaps be more motivated and have a higher want to succeed if they were more motivated from the level of support they were receiving. This is also reflected by the amount of career guidance they are gaining as to potentially what relevance they see the course they are undertaking has to their future and potential work-based situations. Often students didn't even take the course due to future vocational decisions, but those that did said they needed help in showing them what they could do with the course

'You know it would really help if someone gave us some help deciding where to go with what we are learning, I mean I just don't know how to apply it, if someone suggested things to me I might be a bit more enthusiastic'

Emergent Feelings was another prevalent sub-category within the Self Category. An interesting emergence within the data was that the girls often found they felt more intimidated by boys on their courses where as boys did not feel intimidated by the girls on their courses. Perhaps for those girls the decision to leave had consequences from feeling intimidated or uncomfortable, this, however was certainly not the case for the majority of boys

'Its not the fact that its intimidating being in a group of girls or anything, it really doesn't bother me at all, its quite a good laugh really and then when we are out socially you have some many more girls to talk to and your mates get jealous!'

More intimidation was felt towards boys on a course across the interviews and seemed to make girls feel shy and nervous as well as uncomfortable in a situation dominated by the opposite gender

'I don't really feel comfortable in a room full of boys with a boy teacher being the only girl I think they see you as incapable and it can be quite scary sometimes'

Also emerging from the data was self-discovery by many students from their decisions to leave such courses which indicates potentially situations such as this can be positive and hold great learning experiences about the self

'I've learnt different things about myself since I've been doing all boys courses, the thing is I knew what I was letting myself in for but I now definitely know I don't want to work in this industry, you need girls too'

Coping with others as previously mentioned could fall into either category of Social Environment or the Self. In terms of the Self, coping with others as a sub-category reflected opinions of others in relation to the self and also beliefs and confidence issues in terms of the social environment category

'I think that there are a lot of people in my class with really strong religious beliefs, but I haven't got any and I don't think the world can work on religious beliefs so I tell everyone in my class that. I don't really care if they believe or not'.

Opinions again were made of others within the class and in relation self-beliefs attitudes appeared in terms of making points in particular

'I often find myself just disagreeing with girls for the sake of it, it gets them wound up and it's hilarious'

'You will tend to find that all the girls are pretty fickle to be honest with you, one minute they agree with boys and the next they don't, depends on whether they like you or not, I reckon its gonna be more like this when we go to work'

External Experiences

The third and final sub-category to arise from the data and contributed to the experiences of those leaving courses was that of *External Experiences*. This final core category included the sub-categories of *Career Path*, *Change* and *Everyday Experience of the course*. External experiences were described by participants as having an effect on decisions to leave the course itself. Firstly career path shows us whether or not choices to leave a course are based upon future decisions about a career and whether these courses are seen in that light by students. One student commented

'I am following a career path, this course doesn't lead me onto degree level engineering so I wouldn't be able to make a career out of it, that's why I ended up dropping it'

From this example quote we can see that some students do have a structured career path in front of them and aim their efforts in their studies towards future career directions, however on the other hand the majority of students interviewed were undecided on their career path or even if they were in fact following one, so didn't take the decision to leave a course that seriously.

'Nope I'm not really following a career path at the moment, I guess I don't really take anything seriously to do with the future'

Change is an important sub-category and relates strongly to the notion of *Career Paths* followed as to whether students decide to leave their courses. Change from leaving the course has been put in both a positive and negative light by students as can be seen from the following quotes. Undertaking an inappropriate course for some has led to self-development changes where as for others it has just been a waste of time

'I think I have realised I cannot muck around anymore and I'm at that age where I really need to make a few decisions about where I am really going..'

The final sub-category which has contributed to student leaving courses has been down to *Everyday Experiences of the Course*. The everyday experiences to contribute to students leaving the courses have been described in terms of intimidation and loneliness. Others have described very positive experiences of the course but literally left because it just 'wasn't right for me' or 'I had to drop a subject and this was the one I chose'.

Intimidation seemed to be a key factor in leaving a course and has been mentioned previously in *Emergent Feelings* also

'I often really believe something and then I just let it go in a discussion cos I feel like all the boys will gang up on me'

Loneliness too has also been mentioned and links well with *Emergent Feelings* and has often been a factor in leaving courses.

'sometimes when I'm sitting there I kind of wish my other mates were about because I haven't got anyone to chat to'

On the flip side of negative experiences when choosing to leave a course come those who experience positive day-to-day workings of a course but leave mainly because it is wrong for them.

'I do have a right laugh on the course to be honest it can be scary sometimes but if you are with the blokes you tend to have a giggle more as opposed to any nasty bitching. I just left because this course didn't relate to my degree'

Appendix 6: Technical Details on Gender Study

Method

A pilot study was carried out with 10 participants to review the proposed method. Several alterations were made on the strength of this study, including a change from between-subjects to a mixed design, to take full advantage of the limited sample size.

Sample

74 senior students (38 boy and 36 girl) from 6 different Irish secondary schools, participated in Phase Two. The mean age was approximately 16.1 years. Schools were co-ed(2), boy only(2) and girl only(2). Potential participants were briefed on the research area in a classroom setting and consent forms distributed to any volunteers. Parental consent slips were given to students under 16 years of age.

Measures and Procedures

The procedure consisted of written tests/checklists, and card sort tasks.

Written Tests

Interests: Interest orientation was measured using the Career Pathfinder (SHL, 2004). This inventory was chosen as firstly it was the most contemporary career inventory available at the time of conducting the study, and secondly it is based on Holland's RIASEC model (Holland, 1985), which also characterises Gottfredson's perspective of career interests (1981; 1996; 2005). The Career Pathfinder has six Holland style references scales, with distribution and reliability as follows:-

Scale Name	Mean	SD	Coefficient Alpha
PEOPLE (SOCIAL)*	13.42	3.38	.70
ENTERPRISING	12.68	3.45	.70
DATA (CONVENTIONAL)	11.93	3.51	.71
RESOURCES (REALISTIC)	9.25	3.07	.78
IDEAS (INVESTIGATIVE)	11.67	3.37	.65
ARTISTIC	11.39	4.14	.78

Adapted from Career Pathfinder Manual (SHL 2004).

*Titles in parentheses are the equivalent Holland titles

SexType and Prestige: A written questionnaire measured sextype and prestige. Sex-type orientation of the participant's self concept was measured using an established adjective checklist (see Table I below). Prestige was operationalised as the participants' rating of how important prestige is to them in a job, as used by Hesketh et al (1989). The score was combined from several scales including pay, education, status and power, reflecting the participants 'preferred zone/social space'. Both measures employed 5-point Likert scales.

Typical Girl (F-Type) and Typical Boy (M-Type)
Stereotype scales

F-Type Scale	Item-Total Correlation	M-Type Scale	Item-Total Correlation
Talkative	.4962	Muscular	.6595
Affectionate	.7405	Masculine	.3914
Understanding	.5884	Feminine*	.5203
Thankful	.3943	Strong	.3486
Soft-hearted	.6146	Emotional*	.6643
Emotional	.7275	Athletic	.4707
Creative	.4046	Unemotional	.3368
Uses intuition	.4260	Courageous	.6838
Gentle	.6435	Daring	.4605
Feminine	.7015	Aggressive	.5350
Warm	.5947	Energetic	.7863
Organised	.5917	Easy-going	.7847
Sophisticated	.5889	Boastful	.5484
Thoughtful	.6169	Loud□	.7220

Sympathetic Masculine*	.6719			
	.6948			
N of Cases	232		N of Cases	231
N of Items	16		N of Items	14
Alpha	.9102		Alpha	.8899

* Item was recoded

Girl participants were found to score significantly higher on F-Type ($t(71) = 5.217, p < 0.001$) and boy participants scored significantly higher on M-Type ($t(71) = 5.672, p < 0.001$). This indicated that girls identified significantly more with the girl stereotype than did boys, and that boys identified with the boy stereotype significantly more than did their girl counterparts.

Additional information relating to preferred occupations, whether they considered themselves to be a typical boy/girl (depending on own sex), and demographics (age & parents occupations) was also collected.

Card Sort Tasks:

Participants were presented with a selection of 54 occupations based on an occupation matrix (3x3x6) which reflected occupations characterising each combination of Gottfredson's self concept dimensions (Appendix 4). The occupations represented combinations of Sextype (boy, girl, neutral), Prestige (high, mid, low) and Interest type (data, people, enterprising, resources, ideas, artistic). Interest categories were as prescribed by the Career Pathfinder (SHL, 2004). Sextype at this stage was defined as occupations which were boy, girl or neutrally dominated according to Irish occupational spread statistics (CSD, 2002). Prestige level of jobs was determined using comprehensive occupational status scales developed by the IPUMS International Project (McMillan & Jones, 2000).

The occupations were printed on 6x4cm laminated cards and participants were asked to sort the cards according to three categories:

- Occupations they would find acceptable to do
- Occupations they would be uncertain about
- Occupations they would find unacceptable to do

They were also asked:

"If you could have any occupation there is, what would it be?"

This step facilitated a stage of 'circumscription' of occupations, in accordance with Gottfredson's theory (1996), as by selecting occupations they find acceptable/not-acceptable the participants create a visible 'Zone of Acceptable Alternatives'.

Participants then chose the occupation they would be most likely to do from each of the three categories, creating 3 conditions of compromise. Condition 1 was a 'No Compromise' condition as participants were unrestricted in their choice of occupation and as such were free to select from their 'Zone of Acceptable Alternatives'. In condition 2, participants were required to select from the range of occupations which they had classified as acceptable, but did not contain their personal favourite occupation, representing a condition of 'Low Compromise'. Condition 3, the 'High Compromise' condition, consisted of occupations which the participant has previously classified as 'Unacceptable', thus falling outside the 'Zone of Acceptable Alternatives'. This method of operationalizing circumscription and compromise was adapted from Blanchard & Lichtenberg (2003), as it was a viable method of creating a realistic choice dilemma scenario, tailored to each individual participant.

Participants were then given the 50 boy, girl and filler characteristic stereotype items as used in their self-rating checklist printed on laminated cards. For the chosen occupation in all 3 conditions they were asked:

“Please sort the bundle of cards according to which characteristics apply to the kind of person who would do this particular job”

The cards were sorted into three categories:

1. Person would be like this
2. Not applicable
3. Person would not be like this

Participants were asked to rate each occupation according to the level of prestige they perceived it to have, according to the 4-item scale, consisting of education, pay, status and power (Hesketh et al, 1989). Finally, participants estimated the sex-ratio of incumbents in each of their chosen occupations (i.e. equal mix/more men/more women). Responses were recorded by the interviewer in written form.

Results

Identification with Stereotypes and Occupational Preferences

The higher the participant scores on F-Type, the higher they should rate the incumbent of their chosen profession on F-Type, and likewise for M-Type (Table A6.1).

Table A6.1 Correlations between Self F-Type/M-Type ratings and F-Type/M-Type ratings of Job Incumbents

	NO COMPROMISE	LOW COMPROMISE	HIGH COMPROMISE
	Incumbent F-Type	Incumbent F-Type	Incumbent F-Type
<i>Self F-Type</i>	.389 (p=.001)	.435 (p=.000)	.173 (p=.143)
<i>Self M-Type</i>	Incumbent M-Type .417 (p=.000)	Incumbent M-Type .246 (p=.036)	M-Type .055 (p=.647)

A stereotype identification variable was created in order to allow meaningful tests of difference. The mean interquartile range was calculated for F-Type and M-Type, and scores were thus coded into Identifiers (scores above 3.6, which was the 75th percentile) and Non-Identifiers (scores below 3.6). An independent samples t-test showed that those who identify with the girl stereotype rate their chosen occupations as significantly higher on F-Type than those who do not identify, in both the No Compromise ($t_{(69)}=3.593$, $p<0.001$) and Low Compromise conditions ($t_{(71)}=3.358$, $p<0.001$). Similarly those who identified with the boy stereotype were found to rate their chosen occupations as significantly higher on M-Type than those who did not identify, but only in the No Compromise condition ($t_{(69)}=2.967$, $p<0.004$). The above results clearly display a relationship between the level of identification with a boy or girl stereotype and the extent to which the individual perceives the same stereotypic traits in incumbents of their preferred professions.

It was additionally found that those who identify with the girl stereotype rate jobs that are actually girl-dominated as significantly more acceptable ($t_{(71)}=2.516$, $p<0.05$) and boy-dominated jobs as significantly less acceptable ($t_{(71)}=2.186$, $p<0.05$) than those who do not identify. Those who identify with the boy stereotype rated male-dominated jobs as significantly more acceptable ($t_{(71)}=2.192$, $p<0.05$) than those who do not identify. However no difference was found between boy stereotype identifiers and non-identifiers on their preference for girl-dominated jobs.

Comparing Sex-type and Biological Sex

The second hypothesis was that sex-type (as defined by identification with boy and girl stereotypes) would play a more important role in occupational choice than the perceived sex ratio of the occupation. A better match would be expected between the individual's M-Type or F-Type and the M-Type/F-Type attributed to the incumbent of a chosen profession, than between the individual's actual sex and the perceived sex ratio of the chosen occupation. A preliminary step was to calculate self-to-prototype match scores for F-Type, M-Type and Biological Sex in each of the three conditions. This was done by calculating the absolute difference between the individual's self-rating on each factor and their rating of the

incumbents of each chosen profession. The optimum score was therefore a zero, indicating a perfect match. These absolute values were then transformed into z-scores, to allow comparison across the three scales.

The difference between the resulting match scores was tested across the three conditions (No, Low, High Compromise) using repeated measures ANOVA. It was found that there was a significant difference in match scores for Low Compromise ($F_{(2,114)}=9.719, p<0.001$) and High Compromise conditions ($F_{(2,116)}=9.916, p<0.001$), but not for the No Compromise condition. Pairwise comparisons were examined for each condition, employing a Bonferroni adjustment for multiple comparisons. The results are displayed in Table A6.2 below.

Table A6.2 Pairwise Comparisons between F-Type Match, M-Type match and Biological Sex Match

CONDITION		Mean Difference	Std. Error	P-Value
No Compromise	F-Type Match – Sex Match	-.048	.030	.352
	M-Type Match – Sex Match	-.041	.028	.444
Low Compromise	F-Type Match – Sex Match	-.110	.031	.002
	M-Type Match – Sex Match	-.080	.026	.009
High Compromise	F-Type Match – Sex Match	-.110	.029	.001
	M-Type Match – Sex Match	-.091	.032	.018

Where a slight compromise was required, the mean difference was -0.110 ($p<0.005$) and where the compromise was more severe the mean difference was -0.110 ($p<0.001$). A similar difference was found for M-Type match and Sex match, with a mean difference of -0.080 ($p<0.05$) in the Low Compromise condition and -0.091 ($p<0.05$) in the High Compromise condition. However where participants were not required to compromise on their chosen occupation, there was not a significantly better match between F-Type/M-Type of participant and perceived F-Type/M-Type of incumbent, than between biological sex of participant and perceived sex of incumbent. This indicates that when choice of occupation is unrestricted, there is no difference in the degree to which the incumbent seeks a match for their sextype or biological sex. However when restrictions are imposed, occupations consistent with sextype are chosen over occupations consistent with biological sex.

Statistical analysis has so far shown that sextype plays a significant role in occupational choice. The more an individual identifies with current boy or girl stereotypes, the more likely they are to choose occupations they perceive to embody those stereotypes. When compared with concern for sex ratio of an occupation, it appears that maintaining consistency in sextype is more important than maintaining consistency with the perceived 'dominating' sex of the occupation, but only when restrictions are imposed on the choice situation.

Comparing Sextype, Prestige & Interests

It was hypothesised that stereotypes would play a more important role in occupational choice than either interests or prestige. It was expected that the match between an individuals F-Type/M-Type and the F-Type/M-Type of the chosen occupation would be better than the match between prestige levels or interest type. In a similar manner to calculating the F-Type and M-Type Match scores, absolute difference scores were calculated between the participants' desired prestige level, as reported in the written questionnaire, and the perceived prestige level of the three chosen occupations, as reported in the interview setting. Prestige was measured using 4-item scale adapted from Hesketh et al (1989) consisting of education, pay, status and power. The scale had an internal consistency reliability of 0.62. The resulting Prestige Match scores were transformed into z-scores, to allow comparison with the other variables.

The Interest scores were more complex to calculate. The Career Pathfinder gives a score on 6 interest types (Enterprising, Resources, Ideas, People, Artistic & Data). As some of the interest types were rated higher/lower overall by the sample, all scores were first transformed into z-scores to allow more accurate comparison across types. An individual interest profile was created for each participant based on these z-scores, with their highest-rated interest given a rank of 6, the next highest given a rank of 5 and so forth, down to the lowest-rated interest given a rank of 1. The occupations chosen by the participants in each of the three conditions (No, Low, High Compromise) were then

coded from 0 to 5, by hand using these individual rankings³. If the chosen occupation fell into the interest type rated most highly by the participant, it was considered a perfect match and so given a score of zero (i.e. the absolute difference would be a zero). If it fell into the interest type rated 2nd highest by the participant it was given a score of 1, and so forth with a score of 5 being the worst match. Finally these new Interest Match scores were transformed to z-scores to allow comparison with the F-Type Match, M-Type Match and Prestige Match variables.

A series of repeated measures ANOVA's were carried out to explore the differences between M-Type Match, F-Type Match, Prestige Match and Interest Match, within and across all three conditions. In the No Compromise condition, a significant main effect was found ($F_{(3,210)}=11.497, p<0.001$). Pairwise comparisons were conducted to explore the relationship between the variables.

It can be seen from Table A6.3 that while no significant difference was found between F-Type and M-Type match, both F-Type and M-Type were significantly better matched than Interests. Prestige Match was also better than Interest Match. It is interesting to note however that although no significant difference was found between F/M-Type Match and Prestige Match, the trend of the mean difference is in favour of Prestige Match. It can be concluded that when no restriction is imposed on the choice of occupation the individual's M-Type, F-Type and Prestige tend to be more closely matched than their actual Interests.

**Table A6.3 NO COMPROMISE CONDITION -
Pairwise Comparisons between F-Type Match, M-Type Match, Prestige Match and Interest Match**

Variable X	Variable Y	Mean Difference (X-Y)	Std. Error	P-Value
F-Type Match	M-Type Match	-.013	.019	1.000
	Prestige Match	.023	.021	1.000
	Interest Match	-.114*	.029	.001
M-Type Match	Prestige Match	.036	.019	.354
	Interest Match	-.100*	.028	.004
Prestige Match	Interest Match	-.137*	.032	.000

* The mean difference is significant, with a negative score indicating a better match

In the Low Compromise condition, a significant main effect was found ($F_{(3,213)}=21.733, p<0.001$). Pairwise comparisons were conducted to explore the relationship between the variables.

**Table A6.4 LOW COMPROMISE CONDITION -
Pairwise Comparisons between F-Type Match, M-Type Match, Prestige Match and Interest Match**

Variable X	Variable Y	Mean Difference (X-Y)	Std. Error	P-Value
F-Type Match	M-Type Match	-.040	.017	.119
	Prestige Match	-.061*	.018	.007
	Interest Match	-.182*	.028	.000
M-Type Match	Prestige Match	-.021	.019	1.000
	Interest Match	-.142*	.026	.000
Prestige Match	Interest Match	-.121*	.031	.001

* The mean difference is significant, with a negative score indicating a better match

It can be seen from Table A6.4 that while no significant difference was found between F-Type and M-Type match, both F-Type and M-Type were significantly better matched than Interests. In this condition F-Type Match was significantly less (i.e. better) than Prestige, but the same was not found for M-Type Match although the trend was in favour of M-Type this time. Prestige Match was again better than Interest Match. It can be concluded that when a slight restriction is imposed on the choice of occupation the individual's F-Type is the most closely matched aspect, followed by M-Type, followed by Prestige and then Interests. Finally in the High Compromise condition, a significant main effect was found ($F_{(3,216)}=44.610, p<0.000$). Pairwise comparisons were conducted to explore the relationship between the variables.

³ As the choice of occupation in the *No Compromise* condition was completely unrestricted, not all participant choices were covered by the Career Pathfinder Manual. In this instance the O*NET scale was used to determine what interest type the occupation represented. The O*NET scale is based on Holland's RIASEC levels which also form the basis of the Career Pathfinder, and so was considered an accurate tool in coding this variable.

**Table A6.5 HIGH COMPROMISE CONDITION –
Pairwise Comparisons between F-Type Match, M-Type Match, Prestige Match and Interest Match**

Variable X	Variable Y	Mean Difference (X-Y)	Std. Error	P-Value
F-Type Match	M-Type Match	-.032	.018	.497
	Prestige Match	-.161*	.021	.000
	Interest Match	-.233*	.023	.000
M-Type Match	Prestige Match	-.129*	.022	.000
	Interest Match	-.201*	.026	.000
Prestige Match	Interest Match	-.072	.028	.074

* The mean difference is significant, with a negative score indicating a better match

Table A6.5 shows that while no significant difference was found between F-Type and M-Type match, both F-Type and M-Type were significantly better matched than Interests and Prestige. However in this condition, there was no significant difference between Prestige Match and Interest Match. It can be concluded that when a slight restriction is imposed on the choice of occupation the individual's F-Type and M-Type are the most closely matched aspects (with little difference in degree of match), followed by Prestige and then Interests.

The results of the above ANOVA's show that the relative importance of F-Type, M-Type, Prestige and Interests shifts somewhat depending on the level of compromise imposed on the individuals career decision-making process. In order to facilitate a more thorough understanding of the shifting trends, some further ANOVA's were conducted looking at how (a)F-Type Match, (b)M-Type Match, (c)Prestige Match and (d)Interest Match vary across the three conditions. No significant differences were found for either sextype variables, indicating that the degree of match between an individual's F-Type/M-Type and the perceived F-Type/M-Type of the job incumbent is not significantly affected by the level of compromise imposed. A significant main effect was found for Prestige Match ($F_{(2,142)}=35.867, p<0.001$). Pairwise comparisons then showed that Prestige Match was significantly better in the No Compromise condition, followed by Low Compromise followed by High Compromise. That is, the match between an individual's desired level of prestige and the prestige of the chosen occupation decreases as restrictions on choice increases.

A significant main effect was also found for Interest Match ($F_{(2,140)}=8.007, p<0.001$). The pairwise comparisons showed that Interest Match in the No Compromise condition is significantly better than in the other two conditions. There is no difference between the Low and High Compromise conditions. That is, interests are better matched when no restriction is imposed on career decision-making compared to when slight or severe restrictions are imposed.

Conclusion

Support has been found, either fully or partially, for all of the proposed hypotheses. A relationship was found between an individual's level of identification with both boy and girl sex stereotypes and the degree to which they identified characteristics of those stereotypes in incumbents of their chosen professions. When compared with biological sex match, a better match was found between an individual's boy/girl stereotype self-ratings and the boy/girl characteristics of selected job incumbents. Finally it was found that the relative strength of matches between boy sextype, girl sextype, prestige and interests, varies according to the level of compromise imposed on the decision-maker. Overall, gender was the dominant influence on occupational choice over and above prestige and interests.

Appendix 7: Attribute Ratings

Table 7. Attributes of ideal job.

Item	Yes (ticked) Ranked	Male (%)	Female (%)	Total (%)
The job involves working in a messy/dirty environment	28	27 (42.2%)	3(5.7%)	30(25.6%)
The job offers good chances of advancements and promotion	13	55 (85.9%)	50(94.3%)	87(74.4%)
The job offers the chance to earn a lot of money	5.5	61(95.3%)	44(83%)	102(87.2%)
It is a job people look up to and respect	7	55(85.9%)	45(84.9%)	100(85.5%)
The job has a lot of variety	10	51(79.7%)	45(84.9%)	96(82.1%)
The jobs needs specialised skills or abilities	16	48 (75%)	35 (66%)	83 (70.9%)
In this job you can see the results of what you do	3.5	56 (87.1%)	47 (88.7%)	103 (88%)
In this job you can learn new skills	1	60 (93.8%)	49 (92.5%)	109 (93.2%)
The job offers the chance to be creative	14.5	42 (65.6%)	43 (81.1%)	85 (72.6%)
The job is worthwhile to society	11	48 (75%)	45 (84.9%)	93 (79.5%)
The job allows you to meet and be with other people	18	38 (59.4%)	31 (58.4%)	69 (59%)
The job is good for being able to combine work and kids	5.5	50 (78.1%)	52 (98.1%)	102 (87.2%)
The job has flexible working hours	19.5	30 (46.9%)	38 (77.7%)	68 (58.1%)
The job offers job security	8.5	49 (76.6%)	48 (90.6%)	97 (82.9%)
The jobs allows you to work independently	14.5	48 (75%)	37 (69.8%)	85 (72.6%)
Working hours allow for a social life	19.5	39 (60.9%)	29 (54.7%)	68 (58.1%)
There is a lot of travel involved in the job	3.5	56 (87.5%)	47(88.7%)	103 (88%)
The job is practical and hands-on	22	31 (48.4%)	18 (34%)	49 (41.9%)
The job involves a lot of organisation and planning	8.5	59 (92.2%)	38 (71.2%)	97 (82.9%)
In this job you have responsibility for other people	23	27 (42.2%)	19 (35.8%)	46 (39.3%)
The job involves working in noisy surroundings	21	31 (48.4%)	25 (47.2%)	56 (47.9%)
The job involves working as part of a team	25	24 (37.5%)	19 (35.8%)	43 (36.8%)
The job is fun	12	47 (73.4%)	41 (77.4%)	88 (75.2%)
The job is trendy	2	57 (89.1%)	50 (94.3%)	107 (91.5%)
The job is nerdy	32	3 (4.7%)	-	3 (2.6%)
The job is sexy	29	16 (25%)	11 (20.8%)	27 (23.1%)
The job is macho	31	14 (21.9%)	1 (1.9%)	15 (12.8%)
The job is girly	30	3 (4.7%)	23 (45.4%)	28 (22.2%)
The job is glamorous	27	9 (14.1%)	27 (50.9%)	36 (30.8%)
The job involves working under pressure	26	27 (42.2%)	13 (24.5%)	40(34.2%)
In this job you have responsibility for yourself for getting things done	17	50 (78.1%)	31 (38.1%)	81 (69.2%)
In this job you have to do several things at once	24	28 (43.8%)	16 (30.2%)	44 (37.6%)

Table A7.1. Perceived Attributes of Nursery Nursing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	21.5	19.5	16 (48.5%)	13 (48.1%)	29 (48.3%)	20.5
The job offers good chances of advancement and promotion	18	25	18 (54.5%)	6 (22.2%)	24 (40%)	23
The job offers the chance to earn a lot of money	27.5	27	12 (36.4%)	4 (14.8%)	16 (26.7%)	27
It is a job that people look up to and respect	21.5	15.5	16 (48.5%)	16 (59.3%)	32 (53.3%)	19
The job has a lot of variety	23.5	8	15 (45.5%)	19 (70.4%)	34 (56.7%)	16
The job needs specialized skills or abilities	6.5	14	24 (72.7%)	17 (63%)	41 (68.3%)	8.5
In this job you can see the results of what you do	12	8	22 (66.7%)	19 (70.4%)	41 (68.3%)	8.5
In this job you can learn lots of new things and skills	15	15.5	20 (60.6%)	16 (59.3%)	36 (60%)	17
The job offers the chance to be creative	16	11.5	19 (57.6%)	18 (66.7%)	37 (61.7%)	14
The job gives you the opportunity to help other people	6.5	3	25 (75.8)	22 (81.5%)	47 (78.3)	4
What is done in the job is worthwhile to society	2	4.5	27 (81.8%)	21 (77.8%)	48 (80%)	3
The job allows you to meet and be with other people	6.5	17.5	25 (75.8%)	15 (55.6%)	40 (66.7%)	11
The job is good for being able to combine work and having kids	4.5	1.5	26 (78.8%)	23 (85.2%)	49 (81.7%)	2
The job has flexible working hours	4.5	8	26 (78.8%)	19 (70.4%)	45 (75%)	6
The job offers job security	25	17.5	14 (42.4%)	15 (55.6%)	29 (48.3%)	20.5
The job allows you to work independently	27.5	26	12 (36.4%)	5 (18.5%)	17 (28.3%)	26
The job has working hours which let you have a good social life	23.5	23	15 (45.5%)	7 (25.9%)	22 (36.7%)	25
There is a lot of travel involved in the job	12	11.5	22 (66.7%)	18 (66.7%)	40 (66.7%)	11
The job is practical and hands on	30	29.5	5 (15.2%)	2 (7.4%)	7 (11.7%)	30
The job involves lots of organization and planning	12	11.5	22 (66.7%)	18 (66.7%)	40 (66.7%)	11
In this job you have responsibility for other people	12	19.5	22 (66.7%)	13 (48.1%)	35 (58.3%)	16
The job involves working in noisy surroundings	2	1.5	27 (81.8%)	23 (85.2%)	50 (83.3%)	1
The job involves working as part of a team	6.5	4.5	24 (72.7%)	21 (77.8%)	45 (75%)	6

The job is fun	2	11.5	27 (81.8%)	18 (66.7%)	45 (75%)	6
The job is trendy	18	6	18 (54.5%)	20 (74.1%)	38 (63.3%)	12
The job is nerdy	30	28	5 (15.2%)	3 (11.1%)	8 (13.3%)	29
The job is sexy	29	29.5	7 (21.2%)	2 (7.4%)	9 (15%)	28
The job is macho	31.5	33	4 (12.1%)	0	4 (6.7%)	32.5
The job is girly	33	31.5	3 (9.1%)	1 (3.7%)	4 (6.7%)	32.5
The job is glamorous	26	21.5	13 (39.4%)	11 (40.7%)	24 (40%)	24
The job involves working under pressure	30	31.5	5 (15.2%)	1 (3.7%)	6 (10%)	31
In this job, you have responsibility yourself for getting things done	18	23	18 (54.5%)	9 (33.3%)	27 (45%)	22
In this job, you have do several things at once	12	21.5	22 (66.7%)	11 (40.7%)	33 (55%)	18

Table A7.2. Perceived Attractiveness of Nursery Nursing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	33	32	-	2 (7.4%)	2 (3.3%)	33
The job offers good chances of advancement and promotion	11	17.5	19 (57.6%)	12 (44.4%)	31 (51.7%)	14.5
The job offers the chance to earn a lot of money	16	17.5	17 (51.5%)	12 (44.4%)	29 (48.3%)	17.5
It is a job that people look up to and respect	20.5	14.5	14 (42.4%)	15 (55.6%)	29 (48.3%)	15.5
The job has a lot of variety	20.5	10	14 (42.4%)	17 (63%)	31 (51.7%)	14.5
The job needs specialized skills or abilities	17.5	24.5	15 (45.5%)	7 (25.9%)	22 (36.7%)	22
In this job you can see the results of what you do	9	10	21 (63.6%)	17 (63%)	38 (63.3%)	9
In this job you can learn lots of new things and skills	5	13	24 (72.7%)	15 (57.7%)	39 (66.1%)	8
The job offers the chance to be creative	14	8	18 (54.5%)	18 (66.7%)	36 (60%)	10.5
The job gives you the opportunity to help other people	1	6	27 (81.8%)	21 (77.8%)	48 (80%)	2
What is done in the job is worthwhile to society	2.5	4	25 (75.8%)	22 (81.5%)	47 (78.3%)	3
The job allows you to meet and be with other people	11	10	19 (57.6%)	17 (63%)	36 (60%)	10.5
The job is good for being able to combine work and having kids	2.5	1	25 (75.8%)	25 (95.6%)	50 (83.3%)	1

The job has flexible working hours	11	4	19 (57.6%)	22 (81.5%)	41 (68.3%)	7
The job offers job security	16	12	16 (48.5%)	16 (59.3%)	32 (53.3%)	13
The job allows you to work independently	17.5	20.5	15 (45.5%)	11 (40.7%)	26 (43.3%)	19
The job has working hours which let you have a good social life	20.5	22.5	14 (42.4%)	10 (37%)	24 (40%)	20.5
There is a lot of travel involved in the job	7	2	23 (69.7%)	23 (85.2%)	46 (76.7%)	4.5
The job is practical and hands on	29.5	29	5 (15.2%)	4 (14.8%)	9 (15%)	29.5
The job involves lots of organization and planning	9	14.5	20 (60.6%)	15 (55.6%)	35 (58.3%)	12
In this job you have responsibility for other people	28	26.5	6 (18.2%)	6 (22.2%)	12 (12%)	31
The job involves working in noisy surroundings	23	17.5	13 (39.4%)	12 (44.4%)	25 (41.7%)	18
The job involves working as part of a team	31.5	24.5	4 (12.1%)	7 (25.9%)	11 (18.3%)	27.5
The job is fun	5	7	24 (72.7%)	19 (70.4%)	43 (71.7%)	6
The job is trendy	5	4	24 (72.7%)	22 (81.5%)	46 (76.7%)	4.5
The job is nerdy	25	20.5	9 (27.3%)	11 (40.7%)	20 (33.3%)	23
The job is sexy	31.5	32	4 (12.1%)	1 (3.7%)	5 (8.3%)	32
The job is macho	24	30	10 (30.3%)	3 (11.1%)	13 (21.7%)	25.5
The job is girly	26	32	8 (24.2%)	1 (3.7%)	9 (15%)	28.5
The job is glamorous	29.5	17.5	5 (15.2%)	12 (44.4%)	17 (28.3%)	24
The job involves working under pressure	27	26.5	7 (21.2%)	6 (22.2%)	13 (21.7%)	25.5
In this job, you have responsibility yourself for getting things done	28	28	6 (18.2%)	5 (18.5%)	11 (18.3%)	27.5
In this job, you have do several things at once	20.5	22.5	14 (42.4%)	10 (37%)	24 (40%)	20.5

Table A7.3. Off-Putting Aspects of Nursery Nursing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	2	3	23 (69.7%)	15 (55.6%)	38 (63.3%)	3
The job offers good chances of advancement and promotion	23.5	24	2 (6.1%)	-	2 (3.3%)	27
The job offers the chance to earn a lot of money	31.5	19	-	2 (7.4%)	2 (3.3%)	27
It is a job that people look up to and respect	18.5	24	3 (9.1%)	-	3 (5%)	22.5
The job has a lot of variety	14.5	22.5	4 (12.1%)	1 (3.7%)	5 (8.3%)	19
The job needs specialized skills or abilities	12	13.5	7 (21.2%)	5 (18.5%)	12 (20%)	14
In this job you can see the results of what you do	28	19	1 (3%)	2 (7.4%)	3 (5%)	22.5
In this job you can learn lots of new things and skills	23.5	24	2 (6.1%)	-	2 (3.3%)	27
The job offers the chance to be creative	1.5	1.5	33 (100%)	27 (100%)	60 (100%)	1.5
The job gives you the opportunity to help other people	28	24	1 (3%)	-	1 (1.7%)	31.5
What is done in the job is worthwhile to society	28	22.5	1 (3%)	1 (3.7%)	2 (3.3%)	27
The job allows you to meet and be with other people	28	24	1 (3%)	-	1 (1.7%)	31.5
The job is good for being able to combine work and having kids	18.5	24	3 (9.1%)	-	3 (5%)	22.5
The job has flexible working hours	18.5	24	3 (9.1%)	-	3 (5%)	22.5
The job offers job security	28	24	1 (3%)	-	1 (1.7%)	31.5
The job allows you to work independently	18.5	13.5	3 (9.1%)	5 (18.5%)	8 (13.3%)	17
The job has working hours which let you have a good social life	23.5	24	2 (6.1%)	-	2 (3.3%)	27
There is a lot of travel involved in the job	11	13.5	9 (27.3%)	5 (18.5%)	14 (23.3%)	11
The job is practical and hands on	13	19	5 (15.2%)	2 (7.4%)	7 (11.7%)	18
The job involves lots of organization and planning	7.5	7	13 (39.4%)	10 (37%)	23 (38.3%)	7
In this job you have responsibility for other people	7.5	10	13 (39.4%)	7 (25.9%)	20 (33.3%)	9
The job involves working in noisy surroundings	4	4	19 (57.3%)	13 (48.1%)	32 (53.3%)	4
The job involves working as part of a team	1.5	1.5	33 (100%)	27 (100%)	60 (100%)	1.5

The job is fun	31.5	22.5	-	1 (3.7%)	1 (1.7%)	31.5
The job is trendy	18.5	22.5	3 (9.1%)	1 (3.7%)	4 (6.7%)	20
The job is nerdy	9	8	12	9	21	9
			(36.4%)	(33.3%)	(35%)	
The job is sexy	23.5	11	2 (6.1%)	6	8	17
				(22.2%)	(13.3%)	
The job is macho	18.5	9	3 (9.1%)	8	11	15
				(29.6%)	(18.3%)	
The job is girly	6	16	14	4	18	10
			(42.4%)	(14.8%)	(30%)	
The job is glamorous	14.5	13.5	4	5	9 (15%)	16
			(12.1%)	(18.5%)		
The job involves working under pressure	5	5.5	15	11	26	6
			(45.5%)	(40.7%)	(43.3%)	
In this job, you have responsibility yourself for getting things done	10	17	10	3	13	13
			(30.3%)	(11.1%)	(21.7%)	
In this job, you have do several things at once	3	24	20	-	31	5
			(60.6%)		(51.7%)	

Table A7.7. Perceived Attributes of Plumbing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	2.5	8	29 (87.9%)	19 (70.4%)	48 (80%)	5
The job offers good chances of advancement and promotion	13	14	20 (60.6%)	14 (51.9%)	34 (56.7%)	14
The job offers the chance to earn a lot of money	5	12	27 (81.8%)	15 (55.6%)	42 (70%)	10
It is a job that people look up to and respect	22.5	23	12 (36.4%)	9 (33.3%)	21 (35%)	25
The job has a lot of variety	15	16	19 (57.6%)	13 (48.1%)	32 (53.3%)	16.5
The job needs specialized skills or abilities	7	2	26 (78.8%)	23 (85.2%)	49 (81.7%)	4
In this job you can see the results of what you do	9	7	25 (75.8%)	19 (73.1%)	44 (74.6%)	7.5
In this job you can learn lots of new things and skills	7	9	26 (78.8%)	18 (69.2%)	44 (74.6%)	7.5
The job offers the chance to be creative	22.5	26	12 (36.4%)	5 (18.5%)	17 (28.3%)	27
The job gives you the opportunity to help other people	2.5	4	29 (87.9%)	22 (81.5%)	51 (85%)	2.5
What is done in the job is worthwhile to society	13	12	20 (60.6%)	15 (55.6%)	35 (58.3%)	12
The job allows you to meet and be with other people	15	12	19 (57.6%)	15 (55.6%)	34 (56.4%)	15
The job is good for being able to combine work and having kids	26	27	6 (18.2%)	3 (11.1%)	9 (15%)	29
The job has flexible working hours	20	16	14 (42.2%)	13 (48.1%)	27 (45%)	21
The job offers job security	21	21	13 (39.4%)	10 (37%)	23 (38.3%)	23
The job allows you to work independently	4	2	28 (84.8%)	23 (85.2%)	51 (85%)	2.5
The job has working hours which let you have a good social life	13	21	20 (60.6%)	10 (37%)	30 (50%)	18.5
There is a lot of travel involved in the job	10	6	24 (72.7%)	20 (74.1%)	44 (73.3%)	9
The job is practical and hands on	1	2	30 (90.9%)	23 (85.2%)	53 (88.3%)	1
The job involves lots of organization and planning	13	21	20 (60.6%)	10 (37%)	30 (50%)	18.5
In this job you have responsibility for other people	17	24.5	18 (54.4%)	7 (25.9%)	25 (41.7%)	22
The job involves working in noisy surroundings	18	18	17 (51.5%)	12 (44.4%)	29 (48.3%)	20
The job involves working as part of a team	19	24.5	15 (45.5%)	7 (25.9%)	22 (36.7%)	24

The job is fun	24	28.5	9 (27.3%)	2 (7.4%)	11 (18.3%)	28
The job is trendy	19	31.5	5 (45.5%)	-	5 (8.3%)	30
The job is nerdy	31	26.5	-	2 (7.4%)	2 (3.3%)	31
The job is sexy	29	31.5	1 (3%)	-	1 (1.7%)	32.5
The job is macho	25	19	8 (24.2%)	11 (40.7%)	19 (31.7%)	26
The job is girly	29	31.5	1 (3%)	-	1 (1.7%)	32.5
The job is glamorous	25	31.5	1 (24.2%)	-	1 (1.7%)	32.5
The job involves working under pressure	13	10	20 (60.6%)	17 (63%)	37 (61.7%)	11
In this job, you have responsibility yourself for getting things done	7	5	26 (78.8%)	21 (77.8%)	47 (78.3%)	6
In this job, you have do several things at once	15	16	19 (57.6%)	13 (48.1%)	32 (53.3%)	16.5

Table A7.8. Attractive Attributes of Plumbing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	25.5	33	10 (30.3%)	-	10 (16.7%)	30.5
The job offers good chances of advancement and promotion	7	11	23 (69.7%)	12 (44.4%)	35 (58.3%)	8
The job offers the chance to earn a lot of money	1.5	2	28 (84.8%)	19 (70.4%)	47 (78.3%)	2
It is a job that people look up to and respect	13.5	18	16 (48.5%)	9 (33.3%)	25 (41.7%)	17
The job has a lot of variety	13.5	16	16 (48.5%)	10 (37%)	26 (43.3%)	15.5
The job needs specialized skills or abilities	9	21	22 (66.7%)	7 (25.9%)	29 (48.3%)	12
In this job you can see the results of what you do	7	3	23 (69.7%)	18 (66.7%)	41 (68.3%)	4
In this job you can learn lots of new things and skills	4	4	25 (75.8%)	17 (63%)	42 (70%)	3
The job offers the chance to be creative	23	13	11 (33.3%)	11 (40.7%)	22 (36.7%)	19
The job gives you the opportunity to help other people	1.5	1	28 (84.8%)	21 (77.8%)	49 (81.7%)	1
What is done in the job is worthwhile to society	11.5	13	19 (57.6%)	11 (40.7%)	30 (50%)	10.5
The job allows you to meet and be with other people	5	6	24 (72.7%)	15 (55.6%)	39 (65%)	5
The job is good for being able to combine work and having kids	27.5	16	9 (27.3%)	10 (37%)	19 (31.7%)	21
The job has flexible working hours	17	5	14 (42.4%)	16 (59.3%)	30 (50%)	10.5
The job offers job security	17	9	14 (42.4%)	13 (48.1%)	27 (45%)	13.5
The job allows you to work independently	10	9	20 (60.6%)	13 (48.1%)	33 (55%)	9
The job has working hours which let you have a good social life	7	7	23 (69.7%)	14 (51.9%)	37 (61.7%)	6
There is a lot of travel involved in the job	23	19	11 (33.3%)	8 (29.6%)	19 (31.7%)	21
The job is practical and hands on	3	16	26 (78.8%)	10 (37%)	36 (60%)	7
The job involves lots of organization and planning	23	31	11 (33.3%)	1 (3.7%)	12 (20%)	27
In this job you have responsibility for other people	17	25.5	14 (42.4%)	5 (18.5%)	19 (31.7%)	21
The job involves working in noisy surroundings	27.5	31	9 (27.3%)	1 (3.7%)	10 (16.7%)	30.5
The job involves working as part of a team	17	9	14 (42.4%)	13 (48.1%)	27 (45%)	13.5

The job is fun	20.5	13	12 (36.4%)	11 (40.7%)	23 (38.3%)	18
The job is trendy	29	21	8 (24.2%)	7 (25.7%)	15 (25%)	24
The job is nerdy	32	28.5	2 (6.1%)	2 (7.4%)	4 (6.7%)	33
The job is sexy	30	25.5	6 (18.2%)	5 (18.5%)	11 (18.3%)	28.5
The job is macho	20.5	31	12 (36.4%)	1 (3.7%)	13 (21.7%)	26
The job is girly	33	23.5	1 (3%)	6 (22.2%)	7 (11.7%)	32
The job is glamorous	31	23.5	5 (15.2%)	6 (22.2%)	11 (18.3%)	32
The job involves working under pressure	17	28.5	14 (42.4%)	2 (7.4%)	16 (26.7%)	23
In this job, you have responsibility yourself for getting things done	11.5	21	19 (57.6%)	7 (25.9%)	26 (43.3%)	15.5
In this job, you have do several things at once	25.5	27	10 (30.3%)	4 (14.8%)	14 (23.3%)	25

Table A7.9. Off-Putting Attributes of Plumbing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	1	1	18 (54.5%)	24 (88.9%)	42 (70%)	1
The job offers good chances of advancement and promotion	29	25.5	1 (3%)	1 (3.7%)	2 (3.3%)	27
The job offers the chance to earn a lot of money	29	32	1 (3%)	-	1 (1.7%)	31.5
It is a job that people look up to and respect	23	25.5	2 (6.1%)	1 (3.7%)	3 (5%)	23.5
The job has a lot of variety	18	15.5	3 (9.1%)	4 (14.8%)	7 (11.7%)	16.5
The job needs specialized skills or abilities	10.5	4.5	7 (21.2%)	11 (40.7%)	18 (30%)	8
In this job you can see the results of what you do	18	25.5	3 (9.1%)	1 (3.7%)	4 (6.7%)	20.5
In this job you can learn lots of new things and skills	29	25.5	1 (3%)	1 (3.7%)	2 (3.3%)	27
The job offers the chance to be creative	18	25.5	3 (9.1%)	1 (3.7%)	4 (6.7%)	20.5
The job gives you the opportunity to help other people	29	32	1 (3%)	-	1 (1.7%)	31.5
What is done in the job is worthwhile to society	32	25.5	-	1 (3.7%)	1 (1.7%)	31.5
The job allows you to meet and be with other people	29	19	1 (3%)	2 (7.4%)	3 (5%)	23.5
The job is good for being able to combine work and having kids	29	25.5	1 (3%)	1 (3.7%)	2 (3.3%)	27
The job has flexible working hours	18	25.5	3 (9.1%)	1 (3.7%)	4 (6.7%)	20.5
The job offers job security	29	32	1 (3%)	-	1 (1.7%)	31.5
The job allows you to work independently	8	19	9 (27.3%)	1 (7.4%)	11 (18.3%)	13
The job has working hours which let you have a good social life	31	25.5	1 (3%)	1 (3.7%)	2 (3.3%)	27
There is a lot of travel involved in the job	2	7.5	17 (51.5%)	10 (37%)	27 (45%)	3.5
The job is practical and hands on	14	11	4 (12.1%)	6 (22.2%)	10 (16.7%)	14
The job involves lots of organization and planning	4	7.5	13 (39.4%)	10 (37%)	23 (38.3%)	5.5
In this job you have responsibility for other people	10.5	13	7 (21.2%)	5 (18.5%)	12 (20%)	11.5
The job involves working in noisy surroundings	5.5	4.5	12 (36.4%)	11 (40.7%)	23 (38.3%)	5.5
The job involves working as part of a team	31	25.5	1 (3%)	1 (3.7%)	2 (3.3%)	27

The job is fun	23	19	2 (6.1%)	2 (7.4%)	4 (6.7%)	20.5
The job is trendy	23	17	2 (6.1%)	3 (11.1%)	5 (8.3%)	18
The job is nerdy	10.5	10	7 (21.2%)	7 (25.9%)	14 (23.3%)	9.5
The job is sexy	23	13	2 (6.1%)	5 (18.5%)	7 (11.7%)	16.5
The job is macho	10.5	7.5	7 (21.2%)	10 (37%)	14 (23.3%)	9.5
The job is girly	14	13	4 (12.1%)	5 (18.5%)	12 (20%)	11.5
The job is glamorous	14	15.5	4 (12.1%)	4 (14.8%)	8 (13.3%)	15
The job involves working under pressure	7	2	11 (33.3%)	16 (59.3%)	27 (45%)	3.5
In this job, you have responsibility yourself for getting things done	5.5	7.5	12 (36.4%)	10 (37%)	22 (36.7%)	7
In this job, you have do several things at once	3	3	15 (45.5%)	13 (48.1%)	28 (46.7%)	2

Table A7.4 Attributes "Applied" to Hairdressing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	18.5	27.5	15 (46.9%)	8 (29.6%)	23 (39%)	25.5
The job offers good chances of advancement and promotion	14	12.5	18 (56.3%)	19 (70.4%)	37 (62.7%)	13.5
The job offers the chance to earn a lot of money	18.5	23.5	15 (46.9%)	11 (40.7%)	26 (44.1%)	20.5
It is a job that people look up to and respect	23	23.5	13 (40.6%)	11 (40.7%)	24 (40.7%)	22.5
The job has a lot of variety	7.5	14.5	21 (65.5%)	17 (63%)	38 (64.4%)	12
The job needs specialized skills or abilities	3.5	6.5	25 (78.8%)	22 (81.5%)	47 (79.7%)	5
In this job you can see the results of what you do	5	3	24 (75%)	25 (92.5%)	49 (83.1%)	4
In this job you can learn lots of new things and skills	11	4.5	20 (62.5%)	24 (88.9%)	44 (74.5%)	6
The job offers the chance to be creative	6	9	22 (68.8%)	21 (77.8%)	43 (72.9%)	7.5
The job gives you the opportunity to help other people	11	14.5	20 (62.5%)	17 (63%)	37 (62.7%)	13.5
What is done in the job is worthwhile to society	18.5	27.5	15 (46.9%)	8 (29.6%)	23 (39%)	25.5
The job allows you to meet and be with other people	3.5	1.5	25 (78.1%)	26 (96.5%)	51 (86.4%)	2
The job is good for being able to combine work and having kids	24	21.5	11 (34.4%)	12 (44.4%)	23 (39%)	25.5
The job has flexible working hours	15	26	17 (53.1%)	9 (33.3%)	26 (44.1%)	20.5
The job offers job security	26	23.5	10 (31.3%)	10 (37%)	20 (33.9%)	29
The job allows you to work independently	7.5	6.5	21 (65.6%)	22 (81.5%)	43 (72.9%)	7.5
The job has working hours which let you have a good social life	11	12.5	20 (62.5%)	19 (70.4%)	39 (66.1%)	11
There is a lot of travel involved in the job	30	31	8 (25%)	3 (11.1%)	11 (18.6%)	31
The job is practical and hands on	1	1.5	27 (84.4%)	26 (96.5%)	53 (89.8%)	1
The job involves lots of organization and planning	26	29.5	10 (31.3%)	6 (22.2%)	16 (27.1%)	30
In this job you have responsibility for other people	2	4.5	26 (81.3%)	24 (88.9%)	50 (84.7%)	3
The job involves working in noisy surroundings	28.5	17	9 (28.1%)	15 (55.6%)	24 (40.7%)	22.5
The job involves working as part of a team	21.5	17	14 (43.8%)	15 (55.6%)	29 (49.2%)	17.5

The job is fun	26	11	10	20	30	16
			(31.3%)	(74.1%)	(50.8%)	
The job is trendy	16	17	16	15	31	15
			(50%)	(55.6%)	(52.5%)	
The job is nerdy	31.5	33	5	1	6	32.5
			(15.6%)	(3.7%)	(10.2%)	
The job is sexy	31.5	29.5	5	6	11	31
			(15.6%)	(22.2%)	(18.6%)	
The job is macho	33	32	4	2	6	32.5
			(12.5%)	(7.4%)	(10.2%)	
The job is girly	11	9	20	21	41	9.5
			(62.5%)	(77.8%)	(69.5%)	
The job is glamorous	18.5	19.5	15	14	29	17.5
			(46.9%)	(51.9%)	(49.2%)	
The job involves working under pressure	21.5	19.5	14	14	28	19
			(43.5%)	(51.9%)	(47.5%)	
In this job, you have responsibility yourself for getting things done	11	9	20	21	41	9.5
			(62.5%)	(77.8%)	(69.5%)	
In this job, you have do several things at once	28.5	21.5	9	12	21	28
			(28.1%)	(44.4%)	(35.6%)	

Table A7.5. Attractive Attributes of Hairdressing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	32	31	3 (9.4%)	3 (11.1%)	6 (10.2%)	32
The job offers good chances of advancement and promotion	8	4.5	19 (59.4%)	21 (77.8%)	40 (67.8%)	7
The job offers the chance to earn a lot of money	11	13	17 (53.1%)	15 (55.6%)	32 (54.2%)	9.5
It is a job that people look up to and respect	13	19	15 (46.5%)	11 (40.7%)	26 (44.1%)	16
The job has a lot of variety	15	14.5	13 (40.6%)	14 (51.9%)	27 (45.8%)	15
The job needs specialized skills or abilities	21.5	21.5	8 (25%)	10 (37%)	18 (30.5%)	22
In this job you can see the results of what you do	1	7.5	27 (84.4%)	20 (74.1%)	47 (79.7%)	2.5
In this job you can learn lots of new things and skills	6.5	4.5	21 (65.6%)	21 (77.8%)	42 (71.2%)	5
The job offers the chance to be creative	6.5	4.5	21 (65.6%)	21 (77.8%)	42 (71.2%)	5
The job gives you the opportunity to help other people	15	12	13 (40.6%)	16 (59.5%)	29 (49.2%)	14
What is done in the job is worthwhile to society	21.5	26	8 (25%)	6 (22.2%)	14 (23.7)	24.5
The job allows you to meet and be with other people	4.5	1	24 (75%)	23 (85.5%)	47 (79.5%)	2.5
The job is good for being able to combine work and having kids	25	21.5	7 (21.9%)	10 (37%)	17 (28.8%)	23
The job has flexible working hours	9	17	18 (56.3%)	12 (44.4%)	30 (50.8%)	12
The job offers job security	17	23	12 (37.5%)	9 (33.3%)	21 (35.6%)	20
The job allows you to work independently	11	16	17 (53.1%)	13 (48.1%)	30 (50.8%)	12
The job has working hours which let you have a good social life	4.5	9.5	24 (75%)	18 (66.7%)	42 (71.2%)	5
There is a lot of travel involved in the job	25	29.5	7 (21.9%)	4 (14.8%)	11 (18.6%)	28
The job is practical and hands on	2	2	26 (81.3%)	22 (81.5%)	48 (81.4%)	1
The job involves lots of organization and planning	21.5	26	8 (25%)	6 (22.2%)	14 (23.7%)	24.5
In this job you have responsibility for other people	18	19	11 (34.4%)	11 (40.7%)	22 (37.3%)	18
The job involves working in noisy surroundings	29.5	24	5 (15.6%)	8 (29.6%)	13 (22%)	26.5
The job involves working as part of a team	13	11	13 (40.6%)	17 (63%)	30 (50.8%)	12

The job is fun	11	4.5	17 (53.1%)	21 (77.8%)	38 (64.4%)	8
The job is trendy	17	7.5	12 (37.5%)	20 (74.1%)	32 (54.2%)	9.5
The job is nerdy	33	32.5	2 (6.3%)	2 (7.4%)	4 (6.8%)	33
The job is sexy	25	26	7 (21.9%)	6 (22.2%)	13 (22%)	30.5
The job is macho	27.5	32.5	6 (18.8%)	2 (7.4%)	8 (13.6%)	31
The job is girly	29.5	9.5	4 (12.5%)	18 (66.7%)	22 (37.3%)	18
The job is glamorous	21.5	14.5	8 (25%)	14 (51.9%)	22 (37.5%)	18
The job involves working under pressure	29.5	28	5 (15.6%)	5 (18.5%)	10 (16.9%)	29.3
In this job, you have responsibility yourself for getting things done	19	19	9 (28.1%)	11 (40.7%)	20 (33.9%)	21
In this job, you have do several things at once	27.5	29.5	6 (18.8%)	4 (14.8%)	10 (16.9%)	29.5

Table A7.6. Off-Putting Aspects of Hairdressing.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	1	1	18 (56.3%)	14 (51.9%)	32 (54.2%)	1
The job offers good chances of advancement and promotion	26.5	32.5	3 (9.4%)	-	3 (5.1%)	30
The job offers the chance to earn a lot of money	26.5	18	3 (9.4%)	3 (11.1%)	6 (10.2%)	23.5
It is a job that people look up to and respect	30.5	18	2 (6.3%)	3 (11.1%)	5 (8.5%)	27.5
The job has a lot of variety	22	22.5	4 (12.5%)	2 (7.4%)	6 (10.2%)	23.5
The job needs specialized skills or abilities	4	9	14 (43.8%)	6 (22.5%)	6 (10.2%)	23.5
In this job you can see the results of what you do	26.5	18	3 (9.4%)	3 (11.1%)	7 (11.9%)	19
In this job you can learn lots of new things and skills	18.5	28	5 (15.6%)	1 (3.7%)	7 (11.9%)	19
The job offers the chance to be creative	16.5	28	6 (18.8%)	1 (3.7%)	11 (18.6%)	14.5
The job gives you the opportunity to help other people	16.5	28	6 (18.8%)	1 (3.7%)	2 (3.4%)	32.5
What is done in the job is worthwhile to society	14.5	13.5	7 (21.9%)	4 (14.8%)	11 (18.6%)	14.5
The job allows you to meet and be with other people	30.5	32.5	2 (6.3%)	-	2 (3.4%)	32.5
The job is good for being able to combine work and having kids	13	18	8 (25%)	3 (11.1%)	11 (18.6%)	14.5
The job has flexible working hours	22	13.5	4 (12.5%)	4 (14.8%)	8 (13.6%)	17
The job offers job security	30.5	28	2 (6.3%)	1 (3.7%)	3 (5.1%)	30
The job allows you to work independently	26.5	13.5	3 (9.4%)	4 (14.8%)	7 (11.9%)	19
The job has working hours which let you have a good social life	33	22.5	1 (3.1%)	2 (7.4%)	3 (5.1%)	30
There is a lot of travel involved in the job	10.5	3.5	11 (34.4%)	10 (37%)	21 (35.6%)	5.5
The job is practical and hands on	22	22.5	4 (12.5%)	2 (7.4%)	6 (10.2%)	23.5
The job involves lots of organization and planning	12	13.5	9 (28.1%)	4 (14.8%)	13 (22%)	13
In this job you have responsibility for other people	4	5	14 (43.8%)	9 (33.3%)	23 (39%)	3.5
The job involves working in noisy surroundings	6.5	7	13 (40.6%)	8 (29.6%)	21 (35.6%)	5.5
The job involves working	22	22.5	4	2	6	23.5

as part of a team			(12.5%)	(7.4%)	(10.2%)	
The job is fun	30.5	28	2	1	3	30
			(6.3%)	(3.7%)	(5.1%)	
The job is trendy	22	28	4	1	5	27.5
			(12.5%)	(3.7%)	(8.5%)	
The job is nerdy	8.5	7	12	8	20	7.5
			(37.5%)	(29.6%)	(33.9%)	
The job is sexy	22	10.5	5	5	10	16
			(15.6%)	(18.5%)	(16.9%)	
The job is macho	14.5	7	7	8	15	11
			(21.9%)	(29.6%)	(25.4%)	
The job is girly	2	28	16	1	17	9.5
			(50%)	(3.7%)	(28.8%)	
The job is glamorous	10.5	18	11	3	14	12
			(34.4%)	(11.1%)	(23.7%)	
The job involves working under pressure	4	2	14	11	25	2
			(43.5%)	(40.7%)	(42.2%)	
In this job, you have responsibility yourself for getting things done	8.5	10.5	12	5	17	9.5
			(37.1%)	(18.5%)	(28.8%)	
In this job, you have do several things at once	6.5	3.5	13	10	23	3.5
			(40.6%)	(37%)	(39%)	

Table A7.10. Attributes that apply to Car Mechanic.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	2	1	27 (84.4%)	25 (92.6%)	52 (88.1%)	1
The job offers good chances of advancement and promotion	16	15	18 (56.3%)	15 (55.6%)	33 (55.9%)	17
The job offers the chance to earn a lot of money	8	18	22 (68.8%)	13 (48.1%)	35 (59.3%)	15.5
It is a job that people look up to and respect	23	26	13 (40.6%)	9 (33.3%)	22 (37.3%)	24
The job has a lot of variety	10	13.5	21 (65.6%)	16 (59.3%)	37 (62.7%)	13
The job needs specialized skills or abilities	2	3	27 (84.4%)	24 (88.9%)	51 (86.7%)	2.5
In this job you can see the results of what you do	6.5	3	23 (71.9%)	24 (88.9%)	47 (79.7%)	4.5
In this job you can learn lots of new things and skills	4.5	5.5	25 (78.1%)	22 (81.5%)	47 (79.7%)	4.5
The job offers the chance to be creative	24	27	12 (37.5%)	7 (25.9%)	19 (32.2%)	27
The job gives you the opportunity to help other people	6.5	5.5	23 (71.9%)	22 (81.5%)	47 (79.7%)	4.5
What is done in the job is worthwhile to society	18.5	19.5	17 (53.1%)	12 (44.4%)	29 (49.2%)	20
The job allows you to meet and be with other people	14	13.5	19 (59.4%)	16 (59.3%)	35 (59.3%)	15.5
The job is good for being able to combine work and having kids	27.5	22.5	7 (21.9%)	11 (40.7%)	18 (30.5%)	28
The job has flexible working hours	20.5	19.5	16 (50%)	12 (44.4%)	28 (47.5%)	22
The job offers job security	25	22.5	11 (34.4%)	11 (40.7%)	22 (37.3%)	24
The job allows you to work independently	12.5	9.5	20 (62.5%)	19 (70.4%)	39 (66.1%)	10.5
The job has working hours which let you have a good social life	16	16.5	18 (56.3%)	14 (51.9%)	32 (54.2%)	18
There is a lot of travel involved in the job	30	28	3 (9.4%)	5 (18.5%)	8 (13.6%)	29
The job is practical and hands on	2	3	27 (84.4%)	24 (88.9%)	51 (86.4%)	2.5
The job involves lots of organization and planning	26	22.5	10 (31.3%)	11 (40.7%)	21 (35.6%)	25.5
In this job you have responsibility for other people	16	22.5	18 (56.3%)	11 (40.7%)	29 (49.2%)	20
The job involves working in noisy surroundings	4.5	7	25 (78.1%)	21 (77.8%)	46 (78%)	6
The job involves working as part of a team	12.5	9.5	20 (62.5%)	19 (70.4%)	39 (66.1%)	10.5

The job is fun	18.5	25	17 (53.1%)	10 (37%)	27 (45.8%)	23
The job is trendy	27.5	29	7 (21.9%)	3 (11.1%)	10 (16.9%)	29
The job is nerdy	32	32.5	1 (3.1%)	1 (3.7%)	2 (3.4%)	32
The job is sexy	30	30.5	3 (9.4%)	2 (7.4%)	5 (8.5%)	31.5
The job is macho	20.5	8	16 (50%)	20 (74.1%)	36 (61%)	14
The job is girly	33	32.5	-	1 (3.7%)	1 (1.7%)	33
The job is glamorous	30	30.5	3 (9.4%)	2 (7.4%)	5 (8.5%)	31.5
The job involves working under pressure	10	11.5	21 (65.6%)	18 (66.7%)	39 (66.1%)	10.5
In this job, you have responsibility yourself for getting things done	10	11.5	21 (65.6%)	18 (66.7%)	39 (66.1%)	10.5
In this job, you have do several things at once	22	16.5	15 (46.9%)	14 (51.9%)	29 (49.2%)	20

Table A7.II. Attractive Attributes of being a Car Mechanic.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	16	28.5	16 (50%)	2 (7.4%)	18 (30.5%)	22
The job offers good chances of advancement and promotion	11.5	17	20 (62.5%)	12 (44.4%)	32 (54.2%)	11
The job offers the chance to earn a lot of money	7.5	12.5	22 (68.8%)	11 (40.7%)	33 (55.9%)	9.5
It is a job that people look up to and respect	18.5	12.5	15 (46.9%)	11 (40.7%)	26 (44.1%)	15
The job has a lot of variety	11.5	9.5	20 (62.5%)	13 (48.1%)	33 (55.9%)	9.5
The job needs specialized skills or abilities	3.5	7.5	24 (75%)	14 (51.9%)	38 (44.4%)	15
In this job you can see the results of what you do	5.5	1	23 (71.9%)	21 (77.8%)	44 (44.4%)	15
In this job you can learn lots of new things and skills	1	5	28 (87.5%)	17 (63%)	45 (76.3%)	1
The job offers the chance to be creative	23.5	14.5	11 (34.4%)	10 (37%)	21 (35.6%)	18.5
The job gives you the opportunity to help other people	3.5	3	24 (75%)	18 (66.7%)	42 (71.2%)	4
What is done in the job is worthwhile to society	16	17	16 (50%)	9 (33.3%)	25 (42.2%)	16.5
The job allows you to meet and be with other people	13.5	9.5	18 (56.5%)	13 (48.8%)	31 (52.2%)	12.5
The job is good for being able to combine work and having kids	26	17	10 (31.3%)	9 (33.3%)	19 (32.2%)	21
The job has flexible working hours	7.5	7.5	22 (68.8%)	14 (51.9%)	36 (61%)	7.5
The job offers job security	18.5	14.5	15 (46.5%)	10 (37%)	25 (42.2%)	16.5
The job allows you to work independently	13.5	17	18 (56.3%)	9 (33.3%)	27 (45.8%)	14
The job has working hours which let you have a good social life	9.5	6	21 (65.6%)	15 (55.6%)	36 (61%)	7.5
There is a lot of travel involved in the job	28.5	24	9 (28.1%)	4 (14.8%)	13 (22%)	28.5
The job is practical and hands on	2	3	26 (81.3%)	18 (66.7%)	44 (74.6%)	2.5
The job involves lots of organization and planning	28.5	22	9 (28.1%)	6 (22.2%)	20 (33.9%)	18.5
In this job you have responsibility for other people	20.5	22	14 (43.8%)	6 (22.2%)	15 (25.4%)	26.5
The job involves working in noisy surroundings	22	24	12 (37.5%)	4 (14.8%)	16 (27.1%)	25
The job involves working as part of a team	9.5	3	21 (65.6%)	18 (66.7%)	39 (66.1%)	5

The job is fun	5.5	19	23	8	31	12.5
			(71.9%)	(29.6%)	(52.5%)	
The job is trendy	26	24	10	5	15	26.5
			(31.3%)	(18.5%)	(25.4%)	
The job is nerdy	33	31.5	2	1	3	33
			(6.3%)	(3.7%)	(5%)	
The job is sexy	30	28.5	6	2	8	30
			(18.8%)	(7.8%)	(13.6%)	
The job is macho	16	31.5	16	1	17	22.5
			(50%)	(3.7%)	(28.8%)	
The job is girly	32	31.5	3	1	4	32
			(9.4%)	(3.7%)	(6.8%)	
The job is glamorous	31	31.5	5	1	6	31
			(15.6%)	(3.7%)	(10.2%)	
The job involves working under pressure	23.5	22	11	6	17	23.5
			(34.4%)	(22.2%)	(28.8%)	
In this job, you have responsibility yourself for getting things done	20.5	20	14	7	21	18.5
			(43.8%)	(25.9%)	(35.6%)	
In this job, you have do several things at once	26	27	10	3	13	23.5
			(31.3%)	(11.1%)	(22%)	

Table A7.12. Most off-putting aspects of being a Car Mechanic.

Item	Boy Rank	Girl Rank	Boy	Girl	Total	Total Rank
The job involves working in a messy or dirty environment	2	1	12 (37.5%)	25 (92.5%)	37 (62.7%)	1
The job offers good chances of advancement and promotion	29	28	1 (3.1%)	2 (7.4%)	3 (5.1%)	31.5
The job offers the chance to earn a lot of money	22.5	31.5	2 (6.3%)	1 (3.7%)	3 (5.1%)	31.5
It is a job that people look up to and respect	17.4	18.5	3 (9.4%)	4 (14.8%)	7 (11.9%)	18
The job has a lot of variety	29	18.5	1 (3.1%)	4 (14.8%)	5 (8.5%)	26
The job needs specialized skills or abilities	13.5	10	5 (15.6%)	8 (29.6%)	13 (22%)	12
In this job you can see the results of what you do	17.5	31.5	3 (9.4%)	1 (3.7%)	4 (6.8%)	28.5
In this job you can learn lots of new things and skills	17.5	28	3 (9.4%)	2 (7.4%)	5 (8.5%)	23
The job offers the chance to be creative	10.5	28	6 (18.8%)	2 (7.4%)	8 (13.6%)	16
The job gives you the opportunity to help other people	29	33	1 (3.1%)	-	1 (1.7%)	33
What is done in the job is worthwhile to society	22.5	18.5	2 (6.3%)	4 (14.8%)	6 (10.2%)	20
The job allows you to meet and be with other people	22.5	23.5	2 (6.3%)	3 (11.1%)	5 (8.5%)	23
The job is good for being able to combine work and having kids	22.5	23.5	2 (6.3%)	3 (11.1%)	5 (8.5%)	23
The job has flexible working hours	33	28	-	2 (7.4%)	2 (3.4%)	32
The job offers job security	29	28	2 (6.3%)	2 (7.4%)	4 (6.8%)	24
The job allows you to work independently	10.5	18.5	6 (18.8%)	4 (14.8%)	10 (16.9%)	14
The job has working hours which let you have a good social life	22.5	23.5	2 (6.3%)	3 (11.1%)	5 (8.5%)	23
There is a lot of travel involved in the job	7.5	10	7 (21.9%)	8 (29.6%)	15 (25.4%)	9
The job is practical and hands on	15	14.5	4 (12.5%)	5 (18.5%)	9 (15.3%)	15
The job involves lots of organization and planning	10.5	10	6 (18.8%)	8 (29.6%)	14 (23.7%)	11
In this job you have responsibility for other people	10.5	7.5	6 (18.8%)	9 (33.3%)	15 (25.4%)	9
The job involves working in noisy surroundings	1	2	15 (46.5%)	19 (70.4%)	34 (57.6%)	2
The job involves working as part of a team	29	28	1 (3.1%)	2 (7.4%)	3 (5.1%)	31.5

The job is fun	29	23.5	1 (3.1%)	3 (11.1%)	4 (6.8%)	24
The job is trendy	17.5	18.5	3 (9.4%)	4 (14.8%)	7 (11.9%)	18
The job is nerdy	7.5	7.5	7 (21.9%)	9 (33.3%)	16 (27.1%)	6.5
The job is sexy	22.5	14.5	2 (6.3%)	5 (18.5%)	7 (11.9%)	18
The job is macho	29	3	1 (3.1%)	15 (55.6%)	16 (27.1%)	6.5
The job is girly	6	12	8 (25%)	7 (25.9%)	15 (25.4%)	9
The job is glamorous	13.5	13	5 (15.6%)	6 (22.2%)	11 (18.6%)	13
The job involves working under pressure	4	5	10 (31.5%)	12 (44.4%)	22 (37.3%)	4
In this job, you have responsibility yourself for getting things done	4	6	10 (31.5%)	11 (40.7%)	21 (35.6%)	5
In this job, you have do several things at once	4	4	10 (31.5%)	13 (48.1%)	23 (39%)	3

Appendix 8: Insider and Outsider Perspectives

Table 8.1. Male-dominated - Plumber.

Item	14-16 year olds	Plumber	Other college students
Messy/dirty	71.5%	53.1%	60.5%
	Boy 67.3%		
	Girl 80.3%		
Chance of Promotion	12.1%	25%	14.2%
	Boy 14.1%		
	Girl 10.8%		
Good salary	40.1%	43.7%	47.5%
	Boy 44.5%		
	Girl 37.9%		
Respected job	17.4%	34.3%	19.4%
	Boy 17.6%		
	Girl 18.3%		
Varied Job	32.9%	43.7%	34%
	Boy 33.8%		
	Girl 33.9%		
See results	42.1%	40.6%	44.1%
	Boy 38.5%		
	Girl 48.5%		
Opportunity to learn	44.7%	40.6%	36%
	Boy 43.4%		
	Girl 48.9%		
Creative	15.1%	28.1%	12.8%
	Boy 19.2%		
	Girl 11.7%		
Opportunity to help others	49.1%	56.2%	42.3%
	Boy 48.8%		
	Girl 52.4%		
Worthwhile to society	44.7%	34.3%	49%
	Boy 44.9%		
	Girl 50.3%		
Opportunity to meet others	26.9%	15.6%	24.6%
	Boy 25.1%		
	Girl 30.4%		
Can combine work and family life	31.5%	21.8%	26.6%
	Boy 37.9%		
	Girl 27.3%		
Flexible working hours	40.7%	28.1%	39.6%
	Boy 42.3%		
	Girl 41.5%		
Provides job security	24.9%	31.2%	25.7%
	Boy 26.9%		
	Girl 24.3%		
Opportunity for social life	31.6%	21.8%	23.2
	Boy 36.4%		
	Girl 28.9%		
Practical	52.3%	46.8%	56.3%
	Boy 45.9%		
	Girl 62.4%		
Team	19.7%	43.7%	20.9%
	Boy 22.9%		
	Girl 17.3%		
Fun	14.4%	12.5%	12.6%

Responsibility	Boy 20.7%	28.1	61%
	Girl 8.5%		
Cool	57.3%	9.3%	2.8%
	Boy 50.8%		
Parental approval	Girl 67.8%	25%	32.6%
	4.0%		
Use brains	Boy 5.3%	28.1%	33.6%
	Girl 2.8%		
Teacher approval	34.7%	12.5%	14.7%
	Boy 42.5%		
Same sex	Girl 28.4%	25%	34.2%
	29.8%		
Status	Boy 20.3%	50%	28.6%
	Girl 33.6%		
Friends approval	20.5%	25%	29.1%
	Boy 19.8%		
Long hours	Girl 22.5%	31.2%	40%
	30.8%		
	Boy 30.6%		
	Girl 31.0%		
	23.5%		
	Boy 27.7%		
	Girl 20.6%		
	28.7%		
	Boy 33.5%		
	Girl 25.3%		
	31.1%		
	Boy 26.3%		
	Girl 38.1%		

Table 8.2. Male-dominated – Car Mechanic.

Item	14-16 year olds	Car Mechanics	Other college students
Messy/dirty	72.7%	70.1%	69.2%
	Boy 69.7%		
Chance of Promotion	Girl 80.3%	29.8%	15.8%
	17.7%		
Good salary	Boy 20.3%	35%	21.2%
	Girl 16.0%		
Respected job	24.6%	29.8%	16.1%
	Boy 27.3%		
Varied Job	Girl 23.3%	43.8%	30.4%
	18.3%		
See results	Boy 19.0%	38.5%	43%
	Girl 18.6%		
Opportunity to learn	33.6%	47.3%	37.2%
	Boy 33.9%		
Creative	Girl 35.4%	29.8%	7.3%
	45.4%		
	Boy 43.4%		
	Girl 50.3%		
	47.0%		
	Boy 46.6%		
	Girl 50.2%		
	12.6%		
	Boy 16.4%		
	Girl 9.4%		

Opportunity to help others	51.8%	49.1%	45.3%
	Boy 51.2%		
	Girl 55.7%		
Worthwhile to society	41.5	50.8%	46.4%
	Boy 39.0%		
	Girl 46.7%		
Opportunity to meet others	27.6%	38.5%	23.2%
	Boy 26.6%		
	Girl 28.2%		
Can combine work and family life	27.5%	15.7%	19.5%
	Boy 23.4%		
	Girl 33.5%		
Flexible working hours	24.4%	35%	23.2%
	Boy 25.3%		
	Girl 25.0%		
Provides job security	30.2%	29.8%	22%
	Boy 29.9%		
	Girl 31.4%		
Opportunity for social life	31.3%	24.5%	25.8%
	Boy 28.6%		
	Girl 36.0%		
Practical	52.3%	52.6%	55.5%
	Boy 47.3%		
	Girl 61.0%		
Team	31.4%	42.10%	33.2%
	Boy 31.4%		
	Girl 33.3%		
Fun	17.5%	33.3%	13.3%
	Boy 26.3%		
	Girl 9.2%		
Responsibility	52.6	33.3%	53.3%
	Boy 45.3%		
	Girl 63.6%		
Cool	5.5%	12.2	4.4%
	Boy 7.2%		
	Girl 4.0%		
Parental approval	30.2%	38.5%	24.6%
	Boy 37.5%		
	Girl 24.2%		
Use brains	35.7	38.5%	33.6%
	Boy 34.1%		
	Girl 39.6%		
Teacher approval	22.0%	33.3%	14%
	Boy 22.4%		
	Girl 22.2%		
Same sex	27.5	26.3%	30%
	Boy 28.9%		
	Girl 27.8%		
Status	20.3%	33.3%	20.9%
	Boy 23.2%		
	Girl 18.5%		
Friends approval	31.8%	36.8%	29.8%
	Boy 38.9%		
	Girl 26.1%		
Long hours	30.5%	36.8%	35%
	Boy 27.0%		
	Girl 36.1%		

Table 8.3. Male-dominated - Carpenter.

Item	14-16 year olds	Carpenter	Other college students
Messy/dirty	47.4% Boy 43.7% Girl 54.4%	24.28	41.2%
Chance of Promotion	17.1% Boy 19.0% Girl 16.2%	25.7%	16.7%
Good salary	31.4% Boy 34.6% Girl 29.9%	44.2%	35.6%
Respected job	18.6% Boy 21.3% Girl 16.8%	27.1%	19.7%
Varied Job	28.6% Boy 29.9% Girl 28.8%	27.1%	29.3%
See results	43.3% Boy 41.1% Girl 48.3%	34.2%	44.4%
Opportunity to learn	39.6% Boy 39.3% Girl 42.3%	25.7%	36.1%
Creative	34.2% Boy 32.6% Girl 38.0%	27.1%	28.8%
Opportunity to help others	34.9% Boy 36.8% Girl 35.2%	25.7%	34.8%
Worthwhile to society	32.8% Boy 32.2% Girl 33.4%	27.1%	40.9%
Opportunity to meet others	21.3% Boy 21.8% Girl 22.0%	20%	21.1%
Can combine work and family life	28.6% Boy 24.9% Girl 34.4%	11.4%	19.1%
Flexible working hours	23.9% Boy 24.4% Girl 23.3%	20%	24.1%
Provides job security	32.8% Boy 32.2% Girl 33.4%	20%	19.7%
Opportunity for social life	30.3% Boy 27.8% Girl 34.8%	14.2%	22.4%
Practical	47.6% Boy 42.7% Girl 55.7%	32.8%	52.1%
Team	19.1% Boy 20.0% Girl 19.3%	32.8%	20.5%
Fun	18% Boy 24.8% Girl 11.8%	15.7%	12.7%
Responsibility	50.5%	24.2%	54.1%

Cool	Boy 43.4%	4.2%	2.9%
	Girl 61.2%		
Parental approval	4.7%	20%	25.9%
	Boy 6.6%		
Use brains	Girl 2.9%	24.2%	30.2%
	28.2%		
Teacher approval	Boy 34.3%	15.7%	16.1%
	Girl 23.4%		
Same sex	31.2%	17.1%	26%
	Boy 31.2%		
Status	Girl 31.2%	27.1%	20.4%
	Boy 22.2%		
Friends approval	Girl 21.3%	24.2%	29.8%
	21.8%		
Long hours	Boy 22.6%	10%	32.1%
	Girl 23.4%		
	16.6%		
	Boy 20.5%		
	Girl 13.3%		
	31%		
	Boy 30.1%		
	Girl 27.4%		
	26.0%		
	Boy 22.2%		
	Girl 31.7%		

Table 8.4 Male-dominated – Builder.

Item	14-16 year olds	Builder	Other college students
Messy/dirty	68.5% Boy 63.6%	45%	62.5%
Chance of Promotion	Girl 78.0%	27.5%	11.3%
	17.1% Boy 19.2%		
Good salary	Girl 15.9%	30%	30.1%
	30.1%		
Respected job	Boy 34.2%	16.2%	13.8%
	Girl 29.2%		
Varied Job	16.2% Boy 17.8%	25%	27.5%
	Girl 15.5%		
See results	31.6%	53.7%	48.1%
	Boy 31.5%		
Opportunity to learn	Girl 33.7%	23.7%	32.5%
	46.7% Boy 45.8%		
Creative	Girl 52.2%	31.2%	25%
	40.8% Boy 39.5%		
Opportunity to help others	Girl 44.7%	17.5%	32.3%
	28.8% Boy 29.6%		
Worthwhile to society	Girl 29.6%	61.2%	45.6%
	38.3% Boy 39.6%		
Opportunity to meet others	Girl 37.8%	20%	23.6%
	25.1% Boy 23.7%		
Can combine work and family life	Girl 28.1%	18.7%	19.1%
	27.9%		
	Boy 24.7%		
	Girl 33.1%		

Flexible working hours	23.1% Boy 22.9% Girl	15%	26.1%
Provides job security	32.3% Boy 31.2% Girl	27.5%	19.2%
Opportunity for social life	30.0% Boy 27.8% Girl	18.7%	25.6%
Practical	39.6% Boy 44.6% Girl	50%	51.3%
Team	38.5% Boy 36.4% Girl	26.2%	33.8%
Fun	17.3% Boy 23.7% Girl	22.5%	11.3%
Responsibility	47.5% Boy 42.4% Girl	40%	50.2%
Cool	5.4% Boy 7.1% Girl	7.5%	2.7%
Parental approval	29.1% Boy 34.7% Girl	27.5%	23.2%
Use brains	26.8% Boy 26.2% Girl	28.7%	28.7%
Teacher approval	21.3% Boy 21.6% Girl	20%	13.3%
Same sex	28.0% Boy 28.3% Girl	26.2%	29.3%
Status	18.5% Boy 22.2% Girl	23.75%	18.8%
Friends approval	30.9% Boy 36.9% Girl	45%	26.4%
Long hours	29.0% Boy 35.5% Girl	27.5%	35%

Table 8.5. Female-dominated – Nursery Nurse/Child-carer.

Item	14-16 year olds	NN/CC	Other college students
Messy/dirty	27.4% Boy 23.8% Girl	50%	20.5%
Chance of Promotion	32.8% Boy 26.5% Girl	50%	25.8%
Good salary	22.9% Boy 32.1% Girl	11.2%	16.9%
Respected job	18.1% Boy 15.1% Girl	70%	35.5%
Varied Job	42.5% Boy 35.9% Girl	47.5%	28.5%
	52.3% Boy 36.5% Girl		
	32.8% Boy 42.8% Girl		

See results	29.4%	66.2%	30.5%
	Boy 27.4%		
	Girl 33.4%		
Opportunity to learn	34.3	62.5%	30.3%
	Boy 27.8%		
	Girl 43.3%		
Creative	27.5%	66.2%	22.8%
	Boy 20.7%		
	Girl 36.5%		
Opportunity to help others	52.6%	66.2%	45.1%
	Boy 48.5%		
	Girl 60.2%		
Worthwhile to society	39.9%	70%	36%
	Boy 35.6%		
	Girl 46.9%		
Opportunity to meet others	39.3%	58.7%	29.5%
	Boy 33.7%		
	Girl 47.6%		
Can combine work and family life	38.4%	70%	30.9%
	Boy 32%		
	Girl 47.6%		
Flexible working hours	28.9%	32.5%	25%
	Boy 25.3%		
	Girl 34.6%		
Provides job security	26.1%	42.5%	27.4%
	Boy 25.5%		
	Girl 28.4%		
Opportunity for social life	39.2%	47.5%	32.9%
	Boy 34.7%		
	Girl 46.5%		
Practical	29.1%	76.2%	30.5%
	Boy 21.2%		
	Girl 39.5%		
Team	44.3%	73.7%	41.2%
	Boy 38.7%		
	Girl 52.9%		
Fun	38.0%	76.2%	36.2%
	Boy 28.2%		
	Girl 50.9%		
Responsibility	32.2%	56.2%	27.8%
	Boy 27.9%		
	Girl 38.8%		
Cool	6%	6.25	5.9%
	Boy 5.9%		
	Girl 6.4%		
Parental approval	38%	67.5%	32.3%
	Boy 27.2%		
	Girl 52.0%		
Use brains	23.6%	56.2%	24.4%
	Boy 20.2%		
	Girl 26.9%		
Teacher approval	32.3%	48.7%	25%
	Boy 27.3%		
	Girl 37.3%		
Same sex	15.6%	41.2%	18.7%
	Boy 20.2%		
	Girl 10.9%		
Status	22.3%	45%	26.2%
	Boy 25.3%		
	Girl 19.2%		

Friends approval	38.4%	65%	34.9%
	Boy 25.5%		
	Girl 51.3%		
Long hours	20.1%	35%	20.1%
	Boy 19.5%		
	Girl 21.6%		

Table 8.6. Female-dominated – Hairdresser.

Item	14-16 year olds	Hairdresser	Other college students
Messy/dirty	19.8%	14.2%	12.7%
	Boy 23.0%		
	Girl 17.6%		
Chance of Promotion	34.9%	52.3%	39.5%
	Boy 28.1%		
	Girl 46.4%		
Good salary	20.3%	19%	13.4%
	Boy 18.3%		
	Girl 22.6%		
Respected job	23.5%	27.7%	19.7%
	Boy 21.6%		
	Girl 25.5%		
Varied Job	24.8%	19.8%	19.4%
	Boy 21.8%		
	Girl 29.4%		
See results	45.6%	53.1%	43.5%
	Boy 40.8%		
	Girl 55.8%		
Opportunity to learn	39.8%	36.5%	32.1%
	Boy 34.6%		
	Girl 47.8%		
Creative	50.2%	61.1%	48.3%
	Boy 43.6%		
	Girl 60.4%		
Opportunity to help others	34.3%	38.8%	28.3%
	Boy 33.6%		
	Girl 36.9%		
Worthwhile to society	27%	30.9%	25.8%
	Boy 28.7%		
	Girl 29.2%		
Opportunity to meet others	52.8%	59.5%	50%
	Boy 45.1%		
	Girl 64.3%		
Can combine work and family life	36%	36.5%	29%
	Boy 28.2%		
	Girl 46.5%		
Flexible working hours	35.5%	29.3%	32.5%
	Boy 30.5%		
	Girl 42.9%		
Provides job security	22.4%	23%	16.1%
	Boy 22.7%		
	Girl 26.0%		
Opportunity for social life	43.5%	38%	37.6%
	Boy 37.2%		
	Girl 52.9%		

Practical	43.6%	66.6%	43.7%
	Boy 38.9%		
	Girl 51.3%		
Team	24.5%	44.4%	28.9
	Boy 21.8%		
	Girl 28.9%		
Fun	35.2%	42.8%	29.7%
	Boy 27.8%		
	Girl 47.5%		
Responsibility	33%	29.3%	25.9%
	Boy 31.9%		
	Girl 36.1%		
Cool	37.9%	53.9%	36.6%
	Boy 25.7%		
	Girl 53.3%		
Parental approval	29.5%	40.4%	24.7%
	Boy 22.2%		
	Girl 39.0%		
Use brains	19%	26.9%	19.1%
	Boy 22.3%		
	Girl 19.1%		
Teacher approval	19.4%	13.4%	13.9%
	Boy 18.1%		
	Girl 22.0%		
Same sex	28.8%	45.2%	33.7%
	Boy 20.0%		
	Girl 40.0%		
Status	15.2%	20.6%	14.4%
	Boy 14.2%		
	Girl 17.2%		
Friends approval	43.5	57.9%	43%
	Boy 32.9%		
	Girl 59.9%		
Long hours	15.5%	34.1%	21.8%
	Boy 16.4%		
	Girl 15.5%		

Table 8.7 Female-dominated – Care Assistant.

Item	14-16 year olds	Care Assistant	Other college students
Messy/dirty	23.3%	40.4%	23.4%
	Boy 23.4%		
	Girl 24.7%		
Chance of Promotion	14.8%	27.9%	13.8%
	Boy 13.6%		
	Girl 17.0%		
Good salary	11.0%	16.1%	12.6%
	Boy 10.5%		
	Girl 12.1%		
Respected job	47.9%	44.1%	43.2%
	Boy 43.6%		
	Girl 55.5%		
Varied Job	36.7%	35.2%	33.8%
	Boy 34.3%		
	Girl 41.5%		
See results	33.6%	41.9%	33.4%
	Boy 30.9%		
	Girl 38.5%		

Opportunity to learn	24.7%	37.5%	21%
	Boy 20.9%		
	Girl 30.2%		
Creative	7.1%	9.5%	5.4%
	Boy 9.1%		
	Girl 5.3%		
Opportunity to help others	55.8%	66.9%	52.3%
	Boy 50.5%		
	Girl 64.9%		
Worthwhile to society	40.9%	44.1%	38.7%
	Boy 35.8%		
	Girl 48.8%		
Opportunity to meet others	39.7%	38.2%	28.3%
	Boy 35.6%		
	Girl 46.6%		
Can combine work and family life	25.1%	27.2%	19.2%
	Boy 21.4%		
	Girl 30.5%		
Flexible working hours	27.1%	38.9%	27.6%
	Boy 25.4%		
	Girl 30.6%		
Provides job security	26.0%	30.8%	23.9%
	Boy 25.5%		
	Girl 28.2%		
Opportunity for social life	29.3%	16.1%	22%
	Boy 27.3%		
	Girl 33.3%		
Practical	30.3%	47%	31.3%
	Boy 23.4%		
	Girl 39.5%		
Team	37.2%	60.2%	34.8%
	Boy 32.0%		
	Girl 45.0%		
Fun	10.1%	13.9%	10.1%
	Boy 12.6%		
	Girl 7.9%		
Responsibility	43.4%	44.8%	42.5%
	Boy 38.4%		
	Girl 51.3%		
Cool	5.1%	4.4%	2.1%
	Boy 7.3%		
	Girl 3.0%		
Parental approval	31.6%	41.1%	29.9%
	Boy 25.5%		
	Girl 40.2%		
Use brains	18.4%	31.6%	20.3%
	Boy 19.1%		
	Girl 18.8%		
Teacher approval	27.1%	29.4%	19.7%
	Boy 25.5%		
	Girl 30.5%		
Same sex	14.1%	23.5%	12.4%
	Boy 12.0%		
	Girl 17.2%		
Status	17.0%	25.7%	17.6%
	Boy 16.2%		
	Girl 18.8%		
Friends approval	27.2%	35.2%	25.3%
	Boy 23.8%		
	Girl 32.5%		

Long hours	31.8% Boy 28.9% Girl 36.9%	40.4%	35.7%
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Table 8.8. Female-dominated – Travel Agent.

Item	14-16 year olds	Travel agent	Other college students
Messy/dirty	3.6% Boy 5.5 Girl 1.7	0%	2.6%
Chance of Promotion	47.6% Boy 43.4 Girl 55.0	60.5%	44.6%
Good salary	34.3% Boy 31.2 Girl 39.2	19.7%	28%
Respected job	22.8% Boy 20.6 Girl 26.6	30.2%	21.7%
Varied Job	32.0% Boy 29.7 Girl 36.3	27.6%	35.1%
See results	20.8% Boy 20.9 Girl 22.0	28.9%	17.9%
Opportunity to learn	23.5% Boy 20.7 Girl 28.0	43.4%	24.8%
Creative	7.5% Boy 9.7 Girl 5.7	17.1%	6.3%
Opportunity to help others	39.8% Boy 38.6 Girl 43.4	39.4%	37.5%
Worthwhile to society	25.7% Boy 25.6 Girl 27.3	26.3%	24.5%
Opportunity to meet others	40.3% Boy 35.8 Girl 47.6	43.4%	37.8%
Can combine work and family life	29.8% Boy 25.1 Girl 36.6	28.9%	19.9%
Flexible working hours	28.1% Boy 26.9 Girl 31.5	11.8%	27%
Provides job security	29.1% Boy 26.6 Girl 33.6	27.6%	26.4%
Opportunity for social life	38.8% Boy 33.8 Girl 46.5	44.7%	40%
Practical	8.7% Boy 8.6 Girl 9.2	14.4%	9.6%
Team	34.7% Boy 32.6 Girl 38.9	55.2%	40.4%
Fun	16.6% Boy 16.8 Girl 17.3	23.6%	18.5%
Responsibility	35.4% Boy 30.8 Girl 42.5	28.9%	29.1%
Cool	10.5% Boy 9.0 Girl 12.6	14.4%	12.8%
Parental approval	32.0% Boy 27.4 Girl 38.8	43.2%	28.8%
Use brains	26.8% Boy 26.3 Girl 29.1	40.7%	28.2%
Teacher approval	24.7% Boy 22.5 Girl 28.5	23.6%	19.9%
Same sex	12.3% Boy 11.9	14.4%	13.4%

Status	19.6% Girl 13.5 19.9% Boy	38.1%	19.4%
Friends approval	20.4% Girl 33.5% Boy	40.7%	36.4%
Long hours	21.4% Girl 40.4 21.9% Boy 22.1% Girl	25%	22.1%
