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Women and IT Contracting Work – a Testing Process

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Abstract

Drawing on a qualitative study of women contractors in the IT sector, this paper provides an understanding of why women become IT workers and why they become contractors. It further explores the experience of this work by considering the nature of their power and influence. In particular issues of status, pay and the relationships with permanent staff and the organisational culture are considered as well as the impact of gender on the contracting experience.

Introduction

It is against the backdrop of seminal work on the changing nature of society that this empirical study of women information technology workers is set. The labelling is various (post-modern society, post industrial society, the information age, the new capitalism, flexible capitalism) but the attributes of the changing nature of society tend to be common in the literature and include key notions of flexibility, insecurity and risk. What these studies also document is the rise of non-standard work (Castells 1996), the disconnection of work from community and resulting insecurities (Sennett 1998), the recasting of social forms and organisational principles of labour forces and jobs (Beck 1992) and the individualisation of society and the increasing feminisation of the labour force (Madsen 1997). Whilst not accepting these ideas as unproblematic, they do have particular resonance in work that is at the heart of what Castell's (1996) characterises as the 'informational society' working under conditions of risk and insecurity, and are embodied in information technology contracting work. This work is by its very nature discontinuous from organisational life, it is actively about recasting social forms and organisational principles and is work which is also intrinsically individual and insecure. However, contrary to the trends of feminisation, this sector is dominated by men.

Flexibility in modes of work are becoming increasingly complex reflecting the patterns inherent in contemporary societies. It is well documented that the various forms of 'atypical work' are increasing (Labour Force Survey 1996). Of particular interest to this paper is the growth of temporary and contract work and its growth in the professional and technical area. In this context, it is worth noting that temporary employees are not evenly distributed throughout the UK workforce. The greatest proportionate increases in growth since the beginning of 1990 was in the corporate service sector employment such as Financial Services, Computing and Business Services and Research and Development in current and former public sector industries and services (Purcell and Purcell 1998:46). It is also the case that women dominate atypical work (although the proportion of men is increasing (Labour Force Survey 1996). Purcell and Purcell (1998) note that the growth of temporary agency work includes a growing number of specialist labours supply agencies for nurses, teachers, lawyers, accountants, engineers and further education lecturers (p52). To this list we would add information technology workers.

The relationship between heightened insecurity and flexible modes of working is of course relative to labour market position. At the beginning of the third millennium, it is acknowledged that the specialised skills and knowledge of skilled information technology workers are scarce. However, Freeman and Aspray (1999) question the broad claims of labour shortages in the USA as there is a lack of available segmented data although acknowledge that it would be surprising if there were not some 'spot shortages' (p10). Nevertheless, shortages are a matter of public policy concern. For example, in October 2000, both British and American governments were reported as providing immigration exceptions for highly skilled IT people and newspapers reported recruitment campaigns in less developed countries (see for example Observer, 29 October, Guardian 31 October 2000). Further, in the UK, recent Government initiatives seeking to tackle the IT skills shortage whilst also preparing unemployed people 'for good jobs and new careers' were announced (DfEE 2001).

This paper is therefore providing insight into the working experiences of an occupational group that by its work design and contractual form, reflects characteristics attributed to the information age or post-industrial society. However, it further provides insights into a particular kind of IT worker, those who work in a

sector producing software, which as Beirne, Ramsay and Panteli (1998:140) note “should be a matter of great curiosity to labour process...(in that) it is an expanding and increasingly important field of employment in an era when other jobs are vanishing”. Thus considering a field where there is an increase in permanent work, this paper explores the complex motivations of those entering information technology work on a contract basis and in particular the ‘push’ or ‘pull’ to becoming contractors in such an atypical market. The paper casts light on the importance of expert power and the interrelationship between permanent staff and contractors and is able to provide valuable insights on the gendered nature of women’s experiences of this male dominated occupational group.

The definition of what constitutes an IT worker is problematic. It is difficult to compare statistics that examine salaries, employment opportunities and labour supply by IT occupation as the distinction between the IT industry as a whole and the various occupations within is not often made (see Freeman and Aspray 1999). Panteli et al’s UK work (2001) provides some support for this view in noting that ‘software-related jobs, in particular, have grown in diversity of title and content, and embrace several major and distinct subdivisions with quite different characteristics’ (p.3). The definition of an IT worker is complicated beyond disparities of skill and reward as evidenced by the type of occupation we address in this paper, where there is an overlap between a poorly defined sector and blurring of the distinction between contractor and consultant. We will see a similarity to consultants in many respects. A wide range of occupations may be considered IT work but we are specifically concerned with the industry itself whose primary business is to make and sell IT devices, software, services and systems. In particular we are concerned with a sub group of workers who are involved in the testing of IT software and the project management of this testing process.

Women who are highly skilled contract workers in the information technology field, in a specialism, dominated by men, are the focus of this paper. It is further the case that information technology work is segregated with women tending to work in low skilled, lowly paid IT work and men dominating highly skilled and highly paid work (Panteli et al., 2001, Zauchner et al 2000). To explore the work experiences of women contractors in this sector provides important insights into an occupational group that

may paradoxically be characterised as insecure yet in a strong labour market position and which reflects an increasingly important aspect of labour market trends. Potentially, the contracting IT worker is constrained primarily by the relationship with his/her agent and does not operate under the umbrella of a parent consultancy organisation, nor is subject to the normative controls that this customarily entails.

Method

The qualitative research which forms the basis of this paper draws on a series of in-depth interviews with fifteen IT contracting professional workers all women, and all working at project manager or team leader level in the testing of IT software. Beirne, Ramsay and Panteli (1998: 142) have identified an elite of IT workers that manage but rarely do coding or testing. This particular sample provides a rich source of data in that they are involved in both the testing process itself as well as the management of the testing process, commanding rates at an average of £700 per day. This elite status can be partly traced to the fact that the work experience has been on a very large scale projects for application in sectors that are relatively new and rapidly developing (such as telecommunications). It is important to make explicit that this sample makes visible the complexity and ambiguity of IT occupations, in this case exemplified by testers' placing in the hierarchy of IT, which has frequently been identified as problematic but rarely deconstructed. This point is stressed in view of the invisibility of this category of work from conventional IT occupational listings (see Panteli et al 2001:9) and the low status attached to the title in other work (e.g. Barrett 2001:29).

The sample itself was "selected " through targeting two particular individuals and subsequently utilising their networking as a sampling process (see, for example, Hornby and Simon 1994). In addition, this process also provided clear insights into the strategies for professional closure adopted by this particular group. Interviews were of two-hour duration and were followed up with debriefing sessions conducted on an individual basis. The interviews were semi-structured firstly identifying a number of key areas of questioning: career path, contract structure, gender issues, power and influence and organisational commitment. Scope was then given for issues identified by the contractors to be explored, which were followed up in debriefing.

The work reported here is based on the first phase of a long-term study which commenced in 1999 involving a series of interviews and focus groups. The second stage will extend the sample to male contractors but retains the boundary of software testing specialists and project/team management as the occupational group.

‘Choosing’ information technology work

The literature on career is increasingly taking account of the complexity of people’s working careers. Sikes, Measor, & Woods (1985), for example, argued that the adult career is the outcome of the dialectical relationship between self and circumstance. Arnold (1997) talks about unfolding nature of careers and Dex (1985) argues that the term ‘career’ is itself a gendered construct, preferring the term ‘work profile’. Quite how temporary or contract work fit with conventional notions of hierarchical careers remains problematic, but the work of Sikes et al. (1985), Arnold (1997) and Dex (1985) allows the complexity of careers that start and stop, are both vertical and horizontal and allow forms of discontinuity. The question of career ‘choice’ is intrinsic to career discussions but not always problematised. In women’s careers writers have suggested that women choose to be either ‘self made women’ or ‘grateful slaves’ (Hakim, 1991), that is from an early age they decide to have conventional careers or not. The critical appraisal of this thesis (see Devine 1994, Ginn 1996 and Healy 1999) challenges the notion of unfettered career choices. The extent to which people have genuine ‘choice’ in the type of work they do is further mediated by the ‘choice’ they have in their mode of work.

The obvious question raised is why workers with strong labour market skills may have a preference (through choice or circumstance) to work on a contract basis. The career paths of the sample were explored and demonstrated a complex picture of design, accident and muddling through influenced by opportunities, personal contacts and the home-work interface, reflecting Sikes et al’s (1985) perception of the adult careers. The women in the sample did not share a common educational background, and many tended not to be formally educated (as opposed to trained) in information technology. This contrasts markedly with an American study where those carrying out ‘conceptualising’ roles (see section 5) were recipients of masters or doctoral degrees (Freeman and Aspray 1999).

The routes to becoming an IT worker reflected the complex motivations amongst the sample reflecting forms of instrumental and occupational commitment (Healy 1999). For example interviewee one, an English graduate, entered IT due to an inter-relationship between material need and of child rearing responsibilities. Her view was clear but reflected her structural constraint and the critical influence of material factors

'When I was 23 I got pregnant and I had a daughter who I ended up having to support on my own. When she was about three, I decided that I would get a trade somewhere, do something that made money rather than made no money at all. So I went and trained as a programmer with the intention that I would work part-time eventually, and that I would earn enough money to support my daughter'. (interviewee 1)

The material drive reflected a critical appraisal of the situation where money provides greater freedom to control hours. Awareness of gender differences in pay drove others into computing.

The differences in pay did influence the fact that I went into computing because computing was the only industry where women, particularly in London got the same as men . . . It was a guiding factor for me to go into computing because I was not intending to work at a cheaper rate than a man and that's basically why I went to work with a stock brokers in London in the city and I went there as a computer programmer to begin with in 1969' (interviewee 3).

These views contrast sharply with Interviewee 4, who originally set out to train as a teacher. She had no experience of information technology but during a schoolwork experience placement and

'they just happened to put me in the IT department . . . I thought this was for me, I absolutely loved it. Love at first sight it was'. (interviewee 4)

The nature of the work was the key attraction in this case. In the ‘choice’ of the occupation, the respondents reflect multiple reasons more related to material concerns but also related to genuine commitment the nature of the work itself. Panteli et al (2001) show that men in IT may be more instrumentally motivated than women. Our qualitative study demonstrates the importance of structural factors as a mediating force on ‘attitudes’ in prioritising career path decisions.

In order to become an IT worker our respondents had to acquire appropriate IT skills and the acquisition of these skills are key to ensuring their labour market advantage. Our respondents gained these skills by a number of modes. These can be classified as:

- a) unrelated degree plus IT training
- b) related degree plus IT training
- c) IT based education
- d) Workplace apprenticeships/training

The multiple forms of entry to information technology careers in the UK. do not reflect the closure associated with many ‘professions’ where the route is carefully prescribed and monitored. This might suggest that conventional forms of closure are not available to this occupational group. However, closure takes a different form associated with notions of mystique and socialisation – factors that will be returned to in section 5.

The shift to contracting work

Writers examining the changing nature of society see macro trends to flexibility and by implication, the individual may appear helpless in the face of vast drifts to flexible patterns. Others may focus their analysis at the micro level and attribute individuals with a part in the grand schema of things. This paper focuses on contracting which is both part of the broad sweep of employment trends but at the same time is the outcome of the relationship of the individual with trends and patterns in flexible work. Thus the route to contracting is of particular relevance to our understanding of the interrelationship between macro and micro patterns.

Reilly (1998:17) indicates that there are a number of circumstances where employees themselves seek flexible work arrangements for the benefits brought by:

- Acquiring skills through functional flexibility
- Meeting life style preferences through doing temporary work
- Maximising earnings through moving from one fixed contract to the next
- Working for a specialist supplier through an outsourcing deal rather than in a peripheral activity
- organising the balance between home and work through variable working hours or part-time contract
- cutting commuting times or costs through homework.

In this study we find some common ground with Reilly, perhaps particularly the first five factors. However, there is a cognizance of the impact of external forces on individual 'decision-making' and it is argued here that the reasons for moving into contracting reflect both 'push' and 'pull' factors.

A range of factors emerged in the study reflecting both push factors (e.g. redundancy, long hours culture) and pull factors (e.g. parental responsibilities, work-life balance). This is not to suggest that such forces are always dichotomous either/or factors; indeed in some instances there is a complex interrelationship between the two. These reasons are explored below.

In some cases there was a direct link between the experience of redundancy (either their own or their colleagues) and the move to contracting. Interviewee 8 became a contractor because of redundancy, but not her own:

'I was taken on as a trainee programmer . . . and did two and a half years with that company and then got taken over by another travel firm and half the jobs disappeared. Unfortunately, it wasn't voluntary, you were either told you were going or not going and if you weren't one of the ones going, you couldn't also go and do a swap with one of the ones that was going either and get redundancy and move off you see which I was a bit peeved

about, because I was ready to go and do something different. . so I thought, well you know, . 'I thought I'll try this contracting lark and I've never looked back' (interviewee 8)

In the case of Interviewee one, it was her own redundancy that led to her taking up contract work. Her first contract demonstrated the semi-permanent nature of some IT contract work in that it lasted three years.

For Interviewee 8, her response was unequivocal as to why she became a contractor, 'Money I suppose if you're going to be absolutely blunt about it, at that time certainly'. Whilst she acknowledged that

'there are a number of reasons, why I'm, I sort contracted I mean the money's nice uh I earn probably twice as much as I would if I was salaried but then again I don't get paid holidays or things like that. I've probably taken six this year so all in all you're actually not paid that much more, it's just you can make more use of it, there's far more flexibility in what you do'. (Interviewee 8)

Flexibility is a key theme on contract work in relation to both supply and demand. This interviewee's experience is illustrative of the flexibility in (vacation) time granted by high income contractors that would not be available to high income permanent staff.

Child rearing is a catalyst for contractual change. Interviewee 3 intended to return to her permanent post after the birth of her first child, although she recalled that 'the directors went berserk' at this suggestion. In fact after the birth she decided that she wanted to look after the baby and not work full time and so I told them that I was not going back after all' After which she went to work for an agency, Women in Information Technology (WIT) (a pseudonym) well known for a sympathetic and gendered flexible approach. Interviewee 7 worked for WIT

'on and off for a number of years when my children were young. Then in 1992 they offered me a salaried position so I'd gone from part-time hourly to full-time contract' (interviewee 7)

The philosophy of the agency was clearly important in providing the flexibility she needed at a particular time in her life. Work-life balance was not confined to women with children. Interviewee 4 moved from work in the time-greedy 24-hour stock exchange to contract work. She explained that

'her husband was a partner and I had to do some social things for him . . . also I'd moved from a flat to a house like this and I'd there was just so much I wanted to be at home more and he didn't want me to work night and day in the stock exchange'. (interviewee 4)

Thus the combination of push away from work that demanded 24 hour commitment including supervision of teams on night work to the pull of a better work-life balance led to contracting work'. Interestingly, Interviewee 4 also worked for the WIT agency.

Whilst Reilly's list is useful in focusing on aspects that reflect employee interest in flexibility, it fails to relate this to the context of the work itself, nor does it question the degree of 'choice' employees may have in shifting to flexible patterns, and in this case to contracting.

Power and influence in contracting work

Kessler et al (2000) warn against an unambiguously positive or negative employee perception of outsourcing and relate perceptions to previous and current work experience. It is the case that the experience of contract work will influence current attitudes and the extent to which it will be a temporary or more permanent phase. The particular nature of this work will shape the context. Women IT contractors have at least superficial parallels with the notion of portfolio worker, but their career strategies and work context form a distinctive grouping. Status is in many cases on a par with external consultants. For example

It's seen as a better status and it's seen as, you come in here and you know doing more or less the same job as us, and yet you get paid I don't know twice the amount then us (Interview 8)

Rubery et al (2000) argue that multi-employer disruption is likely to emerge where there is a disparity of pay between contracted workers and permanent workers pointing out that employers use contracted work to cut labour costs. In the case of this sample the contractors' rates (rather than the more commonly found permanent workers' rates) shape the potential disturbance and disruption¹.

. . . but first my friends came over at the same time and they all latched on to these highly paid contract jobs, they seemed to have no problem in actually finding them and I thought I must be crazy in this permanent job which was not that exciting and getting paid a quarter of what everyone else was, so I thought 'well I'll give this a try too'. (Interview 2)

Interestingly, the lack of constraint by the client organisational culture/norms and the maverick status of the technical employee is maintained by the contractor to maintain expert power and both work method and work procedural autonomy (Breugh 1985).

...You're bought in and there's a very definite set of objectives you have to meetwhich means you can always get away with murder...you don't necessarily have to conform, you can be ..a bit of a maverick (Interviewee 1)

the implication being that the rigidity of the terms of reference agreed for the specific task allow considerable scope in their broader work context to mediate against any perceived inconsistencies in the client organisation. Indeed in many of the cases here the influence of the IT contractor was comparable to that of a consultant:

I don't know if it's IT culture, I don't know if it's the fact that you're seen as a consultant when you go in as a contractor....I think they kind of push you like a permanent person but at the end of the day you'll still be in a

position and I think as a contractor they know that whatever you are saying you've thought about . and your opinions are valued a lot more (interviewee 6)

Equally there is also the view amongst the project manager sub-group in the sample that the contractor may not have a long-term agenda. This leads to a noteworthy dynamic between permanent and temporary workers:

“ I suppose (as a manager) ..my job...should be more lonely On the other hand...I don't find it lonely at all and I don't think that I have to work on my own more or pit myself against other people... I think..they find me less threatening, because I'm a contractor, than they would if I were permanent....Because if I were permanent .. they would have to wonder about what my agenda was ...or whatever” (Interview 1)

Nonetheless the importance of sensitivity to the existing cultural norms of the client organisation was viewed as a fundamental part of effective influence. For example

“..if you have to be an effective influence... there's absolutely no point in going head to head with somebody's culture or way of working, what you do is understand it, you may not work that way exactly but you understand what makes them tick and what are their hooks....and that gives you the opportunity to um influence decisions where you want, you wanted certain outcomes” (Interview 8)

In particular, this was viewed as key in the early stages of a contract with a new client, with the “acclimatisation” period being one of urgency in influencing the nature of the psychological contract and the subsequent duration of the “actual” contract.

“Yeah you have, when you first arrive, you, you have about three weeks to establish yourself as a knowledge base, and if you do manage to do that successfully, which I, which I did do with John and all the key players um then that's fine and you have the opportunity to influence

because of what you know, people will come to you because they see you as, as whatever it is, as a knowledge base in service level or whatever, and therefore you can use that to influence “(11)

Although a relatively young occupational group, given the rapid rise of the IT sector in the past forty years, the strategies for the legitimisation of their profession and the evolution of the particular, subtle, brand of expert power evidenced by this group is striking.

The 1960s saw the emergence of the IT technical worker in an environment which could be characterised as a craft one with the working area isolated from the corporate centre. As Barnatt (1996) has noted, for example, this was epitomised by “ the stereotypical ...awkwardly antisocial techy-geek...who worked better if left to his own mysterious devices” . This stereotype had much basis in actuality and given the shortage of skill in this area was not only accepted by management but also effectively allowed considerable management latitude, forming the technical basis for expert power. Our sample has extended this considerably, building on the basis of technical mystique to a combination of “consultant” and “technical” status and consequent instrumental adoption of behaviour that could be construed as compliant with organisational norms. This instrumental behaviour is a fundamental part of the motivation to choose contracting not just over permanent work, but also in preference to consultancy work, which could be superficially interpreted as a superior form of work. This is succinctly illustrated by the observations of interviewee 2, who had previously worked for a number of consultancy firms who indicated that working for an agency allowed her to exercise her own agency to a greater degree.:

When I had worked for some consultancies someone else finds the work and you go there, you know it is not up for debate really, you know your kind of assignment finishes or is about to finish, they find you another role, you fit that role, you go to wherever it is and I didn't really like that because one of the things particularly was I have had to stay away from home a few times and I don't really want to be told that I have to do that . . . if I choose to do that, this is different, you know if I think, oh that's a job 100 miles from home so I can't get home every night, but I really like the sound of it, then I

would consider staying in a hotel for four nights a week but not because someone else had said, you know, 'for the benefit of the company we need you to go' so it's the choice . . . (interviewee 2).

Freeman and Asprey (1999) have identified four categories of IT occupation: conceptualisation, developers, modifiers/extenders and supporters/tenders. Our sample does not allow itself to fall neatly into any of these categories, although in terms of a mechanistic view of their job descriptions *vis à vis* testing they would fall into the latter two categories. However the project managers would claim ownership of elements of all four. These women are all IT trained but none had training in business or management which formed a key part, in practice, in the level of influence attained in the client organisation and was viewed as a fundamental part of their own agency in finding strategies for uncertainty reduction. At the moment they find themselves at the more fortunate end of the effects of trends towards post-bureaucracy in that whether IT development of the particular product which is being tested has been outsourced or not is relatively immaterial to their work context. Indeed it is arguable, and paradoxical, that the degree of uncertainty experienced by these contractors may be no greater than those in “permanent” occupations. As one interviewee observes

Most contracts renew, most of them do I mean yeah there are specific short term tasks sometimes, but generally speaking uh I mean I would say at least three quarters of our contracts will renew, which is terrific business (3)

This context allowed some of our sample to note that their level of commitment may be perceived as higher than that of permanent workers, a phenomenon similar to that found by Pierce (1993) quoted in Benson (1998) who found that the commitment of contract workers was higher than permanent employees where the former avoided social ostracism by adopting the behaviour of good team members. However, Benson (1998) found evidence of dual commitment in his sample of manufacturing contract maintenance workers, with commitment to the host enterprise being significantly higher than commitment to the employer. Our sample have clear strategies for how to contend with potential conflict of loyalties, but their form of dual commitment

clearly comprises commitment to self and to client without the constraint of a parent organisation.

Does sex matter?

The impact of gender on the findings are explored through questions asking respondents to reflect on the influence of their sex on their influence and treatment at work. It is well documented that women IT workers earn less than their male peers in the developed world. Studies abound exploring the relationship between gender and IT, many veering closely to essentialist arguments of explanation for differences. More satisfying explanations for differences are found in studies, which stress the differences in contextual factors, for example of job design and participation such as Zauchner et al (2000). Gendered explanations on IT work are fraught with problems given the wide range of occupational difference within the IT sector which as noted above is highly stratified. This study is limited to IT workers who are project managers or have specialist testing skills, a group who are arguably an elite within the IT software business. Thus this is a relatively privileged group who are likely to be protected from some of the worst effects of sex discrimination, unlike those in the film sector, whose work is also of a contract nature but where the “velvet ghetto” (Grey 1999) still persists. The literature also suggests that that occupational groups with a high degree of human capital are minimising the effects of motherhood on their employment patterns (Glover & Arber, 1995:177).

Some of the older women in the sample reflected on their experiences when they entered the IT sector. Her sex seemed to be to the fore in the experience of one respondent (no. 3) who said ‘for the whole of that period I was always asked when I was planning to start a family’. Her response was to adopt an aggressive stance with the aim of deterring further questioning. She also ‘saw guys around me, who weren’t nearly as experienced as I was, being promoted and that annoys me intensely’.

The ambivalence of women towards their own sex was illustrated by Interviewee 3 who blamed women as

'being their own worst enemy women have a lower level of self-esteem and men are more political. In XX organisation, there's a lot of chit chat, in the men's loo and you know lunch time and there's a lot of sort of camaraderie for political purposes if you like, where I couldn't really be bothered with that, I was there to do a job'.

The recurrence of women's belief that doing the job involves working hard and does not include politicking is widespread in the literature. Nonetheless, the importance of the political manoeuvring in the workplace to ensure work progression is today acknowledged and formalised in the various networks, such as Women in IT. Indeed, a search on the net for 'women and IT' brings up a range of women's IT networks operating on a national and local basis. Again drawing on interview 3,

'I find generally speaking that women are, they don't project themselves as much as they should . . . they don't tend to capitalise on their capabilities and women have a better than men like communication and persuasion.'
(interviewee 3)

Such comments are reflected in the literature on women at work generally, but specific to this work, are reflected in an American study of IT workers (Melymuka 2000). Although it is the case that the gendered attributes model where women's management styles are perceived as different to those of men is effectively challenged by Wacjman (1996).

A critical medium of work control for IT contractors is the agency through which they get contract work. Agencies are important media for potential discrimination but it might be thought in such a high skill, labour shortage occupational group such as our respondents that there would be little evidence of discrimination. Yet this was not the case. Interviewee 6 was clear in her experience of pay inequality:

'when I was originally taken on I was taken on as, on a lower rate per hour than a man. . I did fight and got the rate back to the same as. . the man in the department but they (the agency) do try to give women the lower rate initially'. (interviewee 6)

She then engaged with the legality of the process of rate fixing. Because it was a highly individualistic and personal process between the agency and the contractor it was assumed that it was not illegal, although it was acknowledged that contractors would be charged out at the same rate and that the lower the rate, the more profit the agency would get. The renewal of the contract is clearly a critical time in the relationship between agency and contractors; in this case, it was at the renewal time that the contractor exercised her power derived from her market position to get to the rate of the other contractors who 'happened to be men'. The controlling process of the agency is evident in their request to contractors 'not to discuss rates'. The process itself reflects the secrecy and individualisation seen as indicative of contemporary society.

'Bringing women in at the lower rate' was not confined to the agencies, Interviewee 6 also acknowledge that this had also happened in her permanent employment.

The nature of high level IT work was seen to be inherently unfriendly to those with family responsibilities:

. . . for instance the lady that I work with now she's got a young child and she's saying, well ...I'm doing it now because there are no other positions but I wouldn't like to do it on a long term basis because of the fact that when I'm testing, I might have to be there until eight or nine o'clock at night and if you've got children or you want a career as well as children, etc. it's very demanding on your time . . . it's not just time factor, it's a very demanding job being in IT, it's high pressure, I mean things have to be done at a certain time. (interviewee 6)

This example is important. It points to the contradictions between the increasingly greedy temporal practices of many organisations with the public policy rhetoric of family friendly policies or work-life balance. These policy and organisational initiatives are important but in the context of the organisation of particular kinds of work, such as IT, seem doomed to failure in the context of the dominant customer culture.

High material rewards allow traditional role reversal. One respondent's husband wanted a month off and she was happy with this since she could afford it.

. . . and he's never gone back. Um so we actually do have a complete reverse family and uh it's him who does the cleaning, it's him who cooks . . ., it's him who goes and picks A. up from school. . . and yeah it works very well and he's had trouble coming to terms with it. . . my mum's sort of had a go sort of saying oh shouldn't he be getting back to work, well you we've got to, we've got to be honest here, N. probably would bring home £800, I mean so he was on about 12K and he'd actually bring home eight hundred pounds. You know I earn that in two days, now having him home, you know, it's just wonderful . . . I don't have to pay for a cleaner, I still pay for an ironing lady . . . there's no worry if A. is off ill . . . (interviewee 8)

This is a *post hoc* rationalisation of the Becker (1985) thesis on human capital in reverse, but unlike Becker's thesis, this was not the original choice or preference. This example provides important evidence of the significance of material resources rather than sex being the determining factor of importance.

Respondents also acknowledged that there was a problem in getting women into the sector acknowledging a form of technical phobia and 'geek phobia'.

I think girls at school they perhaps still have this image of um sort of the anoraks, you know, with um white socks and horrible jackets, sort of sitting in their bedrooms all night writing computer programmes . . . and there probably aren't enough of us going out there into schools and saying no it's not like that, you know there's a good career out there for you. (7)

Here lies a recognition that the image of work is such that it deters women from entering the occupation and therefore questions the degree of organisational cultural change that can be expected in the future.

Conclusions

This paper has discussed a subset of the results of a broader investigation into the work of an under-researched elite group of IT workers. In particular, it has explored motivations behind the choice of IT contracting as a career, the variable routes into IT contracting, the contractors' perceptions of their power and influence within the client organisation and the significance of gender in this work context.

It is evident that there is wide variation amongst our sample in terms of the motivations behind their choice of information technology as a career. Findings largely reflect Sikes et al's (1985) complex picture of adult careers with evidence of both instrumental and occupational commitment (Healy 1999) and with illustration of gendered resilience mediated by material rewards. The more conventional forms of professional closure were not apparent within this sample. Neither was there a tendency to reduce uncertainty in work context through working repeatedly with the same groups, which was rare, despite belonging to a specialist occupational group, although this was mediated by the length of time many contractors spent with one organisation and the client/contractor relationship. Alternative strategies for closure were apparent in the form of distinctive expert power articulated by the contractors, expertise being based on the technical aspects of testing as well as expertise paralleled with the role of consultant in their project management capacities.

The decision to pursue a career in IT on a contractor basis was influenced by push and pull factors, with flexibility being the key factor in terms of both supply and demand. What is striking about this occupational group are the insights they provide into the relationship between job security, or more particularly continuity, and flexible modes of working in the context of strong labour market skills. In particular, the use of contracting work is normally customer driven. However, in this case what we see is the contractor controlling their political and technical environment with a latitude that belies their contracting status. The gender dynamics allow on the one hand temporal flexibility, but on the other, there is evidence that discriminatory practice still permeates the work context. It was also apparent that the role of the agent was key and our sample were clear about their own personal input in mediating discrimination

in terms of rates of pay. It is very clear that this sample were self-selecting and were fully cognizant of the dynamics of this male dominated sector.

This study has provided a striking contrast to many studies on the effects of insecure work. The women IT contractors in the study were of high status, were highly skilled and took advantage of their particular labour market position, which allowed them to mediate against the worst effects of conventional contracting work. Nevertheless, this position of strength cannot be relied on and is vulnerable to changing labour market and organisation contexts. The study has also challenged simplistic accounts of IT hierarchy and has provided a rich picture of power and control enacted within an ostensibly temporary work context. At the same time, the influence of gender permeated many of the career path decisions and despite being relatively protected from the worst effects of gender discrimination, the effects of a structured gender order on this elite group were still profound.

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Footnote

¹ Contractors 'real' rates in the IT industry are currently the subject of much debate following the unsuccessful claim against the Inland Revenue on IR35 – rules considered unfavourable to IT contractors (<http://www.pcgroupp.org.uk/>) and which interestingly led to some collectivisation in the formation of the Professional Contractors Group.

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