

Project Report

Promoting Positive Gender Outcomes in Higher Education through Active Workload Management

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Executive Summary

Despite some recent slight improvements, women are far less likely to reach the higher levels in their careers, such as professor. Although 43.4% of the overall academic staff population in the UK is female, when looking at the proportion in a professorial role, only 18.7% were women in 2010.

The reasons for this disparity demand a better understanding and, ideally, action to improve matters in the future. This project takes a focus on the allocation of workloads and has looked for explanations in the practical realities of this seemingly mundane activity.

The first part of this report draws together the literature on women, their careers and workload management. Certain recurring issues are apparent:

- **Indirectly gendered Issues:** For example, limitations in the spread of work for staff on fractional contracts that lead to unbalanced curriculum vitae, which then hamper staff progression. As more women academics work part-time this could be potentially more problematic for women.
- **Directly Gendered Issues:** For example, informal and opaque (un-transparent) methods of managing workloads that reduces clarity about opportunities for women. This can operate as part of an organisational culture where, for example, particular work areas are given greater recognition (formally or informally) and assist advancement, but, on balance, may be less available to women.
- **Individual Choice:** For example, women being deterred from taking on certain roles because of associated high / unpredictable workloads.

Within this theoretical context, this project has focused on fieldwork with three case study universities. Each of these has, unusually, instituted university-wide academic workload systems, thus providing an opportunity to study the issues at a level of detail not normally available. A grounded approach was taken, with each staged method building up, triangulating

and broadening from the previous stages. For each of the three universities studied:

- a stratified sample of female staff was interviewed;
- a follow-up open workshop for women was held to discuss the emergent themes;
- a web based survey of all academic staff (women and men) was carried out to test views on the emergent themes including any gender differences;
- detailed workload data for all academic staff was analysed to confirm, or challenge, views from the soft data;

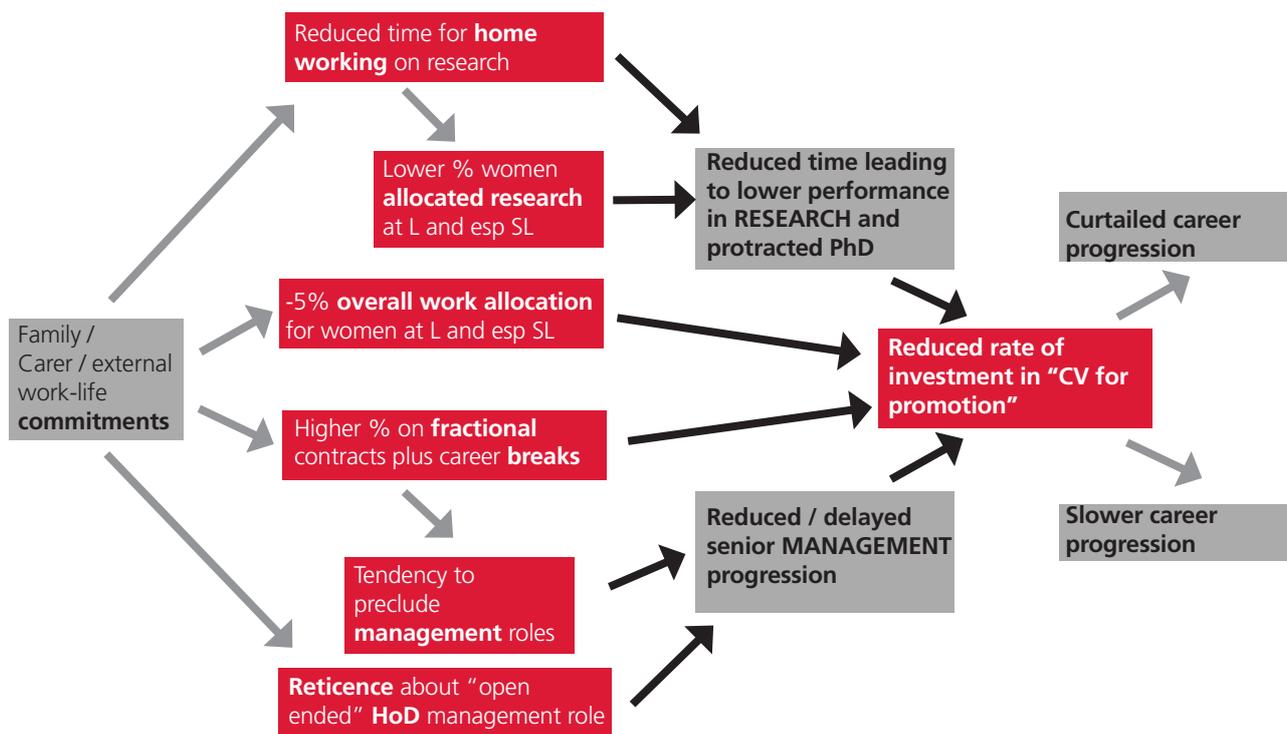
and,

- at each step cross-case comparisons were made to identify general themes, then;
- general conclusions, informed by these various studies, were drawn.

The results emerged as a web of gender differences, none of them big in themselves, but with a cumulative impact that does seem capable of explaining the headline figure about the composition of the professoriate given above. These differences are summarised in the figure below.

Advice is given to institutions as to how academic workload data can be linked to HR data about staff to support analyses of the gender issues highlighted. This dataset does not seem to be usually available, but can quite simply be created, either at an institutional level, or within a given school if institutional level workload data is not collected.

In addition practical recommendations are made, respectively, for individuals, schools / departments and universities. These identify feasible actions that could, over time, help to closing the gender gap around senior academic positions.



The figure above is taken from the body of the report and summarises the main factors that actually seem to be in play in practice, based on the interviews, workshops, surveys and data analyses within the three case study universities. These institutions are quite diverse and these factors appeared to be substantiated across all three, thus it is thought likely the findings will be broadly applicable to the UK HE sector generally. The factors shown are summaries of fairly detailed discussions and the body of the text should be seen for a full explication. Based on this network of quite subtle factors, possible career scenarios have been worked through and these do appear to lead to the sort of gender gap evident in practice. This is again shown in the body of the report.

We hope that the techniques used to examine workloads and an awareness of the cumulative effect of workload choices may be extended from the area of gender to elucidate other aspects of inequality.

It would seem that these aspects could be the root causes, relatively early on in women's careers, that result in the pronounced disparity in the percentage of women professors / senior academics. Within a dynamic picture, this study has revealed some areas that warrant monitoring, such as overall workloads. Further it has highlighted different inclinations for management roles and patterns surrounding research activity that require greater awareness by staff and managers in relation to career planning and progression. Many of these choices are quite subtle, but we argue the effects are strongly cumulative.

Acknowledgements

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We are very grateful to the three case study universities for their willingness to engage in the project. This involved working with us to facilitate access to staff and providing the detailed dataset of staff workloads for us to analyse. Without this the research would not have been possible.

The engagement of individual members of staff through interviews, workshops and surveys has been superb and typified by openness and a desire to explore solutions as well as problems. They have our thanks.

Of course any errors or omissions remain the responsibility of the authors.

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1 Introduction

Research indicates that despite some recent slight improvements, women are far less likely to reach higher levels in their career, such as professor. Although about 43.4% of the overall academic staff population is female when looking at the proportions in professorial roles only 18.7% were women compared to 81.3% of males (Equality Challenge Unit 2010; Higher Education Statistics Agency 2011).

This trend mirrors UK figures for women in management positions, with women generally in the UK facing the highest gender pay gap of the fifteen European Union countries (Wilson F 2011). However, new practices within universities do offer some scope to improve this situation, for example the sector's interest in department /school, and increasingly university-wide, systems that capture academic workload data. Yet, at present the opportunity to use this data to address equality issues lacks a practical analytical framework.

This project aims to bring together good practice in workload management systems and, by working with the universities at the leading edge of this trend, to synthesize a coherent framework for analysing the data. This will inform good practice proposals to promote fairer outcomes in terms of gender equality.

Grounded research methods will be used to gain a better understanding of the various ways that allocations are working in relation to career progression / promotion and the current approaches to workload data collection itself. Linking experiments in data analysis with interviews and workshops on career trajectories resulting from particular work allocations, it is possible to show how to make these issues more visible in university level data. This should then help inform policy and practice to actively address gender equality outcomes.

Looking back to the Dearing Report of 1997 (Dearing R 1997), Recommendation 49, states the need: to 'identify and remove barriers which inhibit recruitment and progression for particular groups' (p 223), it can be seen that this is a long running issue. Whilst this project focuses on differences between the genders it is hoped that the principles will be used to extend the investigation to other groups who may be disadvantaged in their career as a result of workload and role factors.

2 Background

2.1 Gender and Organizations

The literature on the subject of women and career progression is extensive, but some ways of organising it have been suggested by Probert (2005) who divides the material into theories about unequal treatment of women and theories about gendered choices made by them. Le Feuvre (2009) also presents a conceptual classification with: firstly theories about patriarchy that go some way to explain vertical segregation, where opportunities for progression are narrowed, secondly on femininity, that is those that advance ideas on gender differentiated roles (for example by accepting relatively uncritically a women's role as primary carer p12), a third group look at ways women accept and conform to masculine values to advance and a last group offers a radical prospect for change in the way both women and men operate in their professional and domestic lives. The picture of course is complex and Le Feuvre goes on to hypothesise that a combination of these processes are at work, overlapping and reinforcing each other.

A simpler way of categorising theories on this issue can be to look at individual choices or contextual factors. In relation to individual choices made by women this includes for example looking at the impact of their caring responsibilities (Ledwith S and Manfredi S 2000; Rafnsdottir G and Heijstra T 2013) and the effect on careers of working on fractional or fixed term contracts (Lundy K and Warme B 1990,; Harley S 2003; McDonald P, Bradley L et al. 2009). Inclinations for particular work areas, such as teaching, and service related activities have been the focus of other studies (Poole M, Bornholt L et al. 1997; Terosky A, Phifer T et al. 2008). This area of preference, however, may be compounded by other issues. For example balancing between teaching and research activity was found to present problems for women where the 'fragmentation of available time' was seen as problematic for research activity (Dever M and Morrison Z 2009). Studies on research outputs for women differ in their conclusions: with some finding outputs lower (Probert B 2005), others noting that differences in publication rate and research funding may occur as a result of diverse factors such as discipline differences (Asmar C 1999), and some finding little difference in outputs, but

noting that PhD completion times are longer (Corley E 2005). These factors may have some linkage to issues of confidence and assertiveness in relation to career progression (Asmar C 1999; Saunderson W 2002; Devos A 2004; Fletcher C, Boden R et al. 2007; Pritchard R 2010).

Hofstede's huge international study (2001) looking at behaviour and values amongst many other areas does consider gender differences in work goals. In a sample of around 22,000 staff in a variety of occupations, the work goals between the genders varied significantly. Factors that were more important for men were: advancement, earnings training and up-to-dateness. For women they were: friendly atmosphere, position security, physical conditions, and cooperation (p281). This explicit masculine awareness about advancement may be a factor in the gender pay gap, which has a median of 18.7% in HE (Equality Challenge Unit 2010). Further, as discussed above, these factors of 'individual choice' operate dynamically with indirectly gendered factors, for example the limitation of work role opportunities available to staff who decide to work on fractional contracts, compounded by contextual factors, such as the value placed on research (see below)(Parker J 2008; Tight M 2010).

Other discussion centres on the effects of contextual factors, such as the organisational culture and directly gendered issues covering for example: a lack of transparency about decision making (Hawkes S 2011), a rise in a new public management ethos that draws off masculine discourses based on hierarchy and control that may be antagonistic to gender equality practices (Barry J, Berg E et al. 2012), differential time expectations for progress for women (Toren N 1993; Toren N and Moore D 1998; Baker M 2010) and mechanisms that can operate to marginalize women in the research community (Fletcher C, Boden R et al. 2007).

Alvesson and Billing (1997) look broadly at both injustice and the potential loss to an organisation as a result of gendered divisions of activity, and also of the difficulties in understanding the interaction between the different factors, mechanisms, and the constraints that can operate as a result of the social

construction of masculine and feminine identities (p100). They scrutinize in a holistic way how gender relations affect both women, men and organisations, and at how polarized conceptions of these identities work to constrain and limit our human potential both at home and at work (1997). Looking specifically at the challenges for women in higher education Glazer-Raymo (2008) draws together work on many of these factors, including again the challenge for women of an identity that must rise to multiple and changing expectations. Although Glazer-Raymo acknowledges the improvements, structural, cultural and attitudinal, for women in this area, she notes the problem in maintaining an equitable society in the face of an intensified 'globally competitive marketplace' (p282). Van den Brink and Benschop (2012) in their work reviewing data on nine hundred and seventy one professorial appointments in the Netherlands suggest that these practices vary with context and result in a 'leaky pipeline' where the number of women reduces at each stage of the selection process. Further they argue that policies that aim to support gender equality may work to veil other practices. For example, apparent transparency of process that hides situations where the preferred candidate is known before interview, informed by informal networks and scouts with their own criteria for excellence (p81).

These issues can also be examined through the specific lens of leadership. Bebbington's (2009) review of diversity in HE notes as a key finding that 'typical' leadership embodies stereotypical masculinity both in behavioural terms and with regard to career patterns' (p45). She notes how work on diversity has tended to focus on the individual, without structural change to attack the root causes of discrimination. However, prospects for change come from the experiments conducted at the University of Bern looking into beliefs about women and leadership (Bosak J and Sczesny S 2011). Their work found that stereotypes of incongruity between women and leadership roles are dynamic with convergence occurring between women's and leaders' traits.

However the issue of how masculine embedded values and culture may affect organisational demands and practices with detrimental effect on women (Currie J, Harris P et al. 2000; Lafferty G and Fleming J 2000; Wilson F 2011), has been argued to be compounded by new challenges from a form of 'gender denial' (Broadbridge A and Simpson R 2011). They suggest this denial works through an optimism that suggests problems have been solved and that works

to conceal 'dimensions of gendered power' (p478) (Broadbridge A and Simpson R 2011).

Another particular contextual factor relates to the issue of narrowed opportunities to access supportive networks or mentors for women (Bryson C 2004; Forret M and Dougherty T 2004; Gardiner M, Tiggemann M et al. 2007; Bagihole B and White K 2011). For example Bagihole and White's work (2011) looking at gender and power through interviewing senior managers in HE across eight countries suggests that despite initiatives for change, male dominance continues in collegial systems with male informal networks that are 'likely to exclude women from leading positions' (p194). They note the importance of social capital in the form of appropriate mentors and professional networks in achieving and succeeding in management positions. The only universal competency that they identified between the countries is that having a strong academic career and research output is part of the path followed commonly to senior management positions, something they note that women are unlikely to achieve until later in their careers (p195). The gender difference between submissions to the last Research Assessment Exercise in 2008 (now Research Excellence Framework) reveals that only 48% of women were submitted compared to 67% for men (HEFCE 2010). This needs to be regarded in a context where there is an enduring value placed on research by academics (Tight M 2010) and where its importance for promotion remains (Parker J 2008).

Looking particularly at research in the science disciplines for EU member states, the European Commission (2009) shows the participation of women in science in the HE sector to be on average 37% of all science researchers. Similar statistics are found within the UK for Science, Engineering and Technology departments where only 39% of academic staff are female (Equality Challenge Unit 2010). The European Commission (2009) itself notes some very interesting points, for example looking across most occupations in science the gender pay gap, surprisingly, is worse in the public sector than in the private sector (p72) and the pay gap widens with age. The report goes on to speculate from the statistics about a 'discriminatory snowball effect' (p93) where the lack of women at the head of universities, affects their influence on the shape of scientific policies and also limits role models for women. This then might contribute to the obstacles for access by women into PhD study and the first stages of an academic career, as they term it the 'sticky floor' problem (p66). A large study from Canada

(The Council of Canadian Academies: Expert Panel on Women in Research 2012) looking particularly at issues surrounding women and research careers concurs with many of the above factors, such as a paucity of women leader role models, and institutional practices and cultures that perpetuate 'conventional versions of success' (p142). Interestingly they also suggest that the 'pathway to becoming a researcher is laid before university' (p140), and that early stereotypes, a lack of understanding about this option and a lack of encouragement and support can prevent girls pursuing a career in research.

As many researchers, such as Le Feuvre (2009) and an earlier paper (Barrett L and Barrett P 2010), suggests there will be an interplay between these mechanisms that work to compound choices and inclinations. Our aim then was to try to provide a modest focus on this wide issue by looking through the lens of workloads and their management to see how this particular aspect of organisational life could be used to better understand the issues and, ideally, facilitate more positive career outcomes.

2.2 Workload Management

In response to the current economic climate there are pressures within the sector to use staff resources more effectively and efficiently (Universities UK 2011), but allocating work more equitably and transparently can also assist with staff welfare issues. For example, well-managed systems can contribute in meeting other university target outcomes, such as the Health and Safety Executive's recommendations (HSE 2007) in reducing the incidence of stress-related illnesses, and also in relation to equality challenges. Whilst more formalised approaches to workload management cannot resolve issues around absolute loads, it may help with the relative balance of workloads, and so help to promote equity and highlight areas where resources and demands are not in balance. Theories about equity (Watson G, Shepard J et al. 1999) include issues such as the components that can be assessed (Carrell M and Dittrich J 1978) and how treatment depends not just on personal but relational perspectives, that is, the way others are treated (Ollier-Malaterre A 2010). These can be related to issues on trust within an organisation (Mayer R and Davis J 1995) and the importance that aspects, such as communication strategies, have to an organisation in terms of effectiveness (Gillespie N and Mann L 2004) and commitment (Thornhill A, Lewis P et al. 1996). Interestingly Tight (2010) in his analysis of post war

academic workloads notes that the proportionate rise in the least-liked work area of administration reflects 'the decreasing trust in academics ... [and] threatens the quality of the teaching and research it is meant to protect' (p214).

As others have noted (Ringwood J, Devitt F et al. 2005; Vardi I 2008) research into workload planning and allocation has been limited and often relates to the development of specific models or policies. Burgess et al (2003) in their review of earlier case study work note the dangers of being 'overly technical rational'. Research has been done specifically into the management of academic workloads (Barrett PS and Barrett LC 2007 b; Barrett P and Barrett L 2007a) involving fifty-nine in depth interviews with academic staff at a range of levels of seniority, in seven diverse UK Higher Education Institutions (HEIs), in terms of size, grouping and geographical location, and covering seventeen disciplines. This uncovered great diversity of practice both within and between institutions irrespective of the subject area. This diversity crosses the contextual differences between the Pre- and Post-1992 elements of the UK sector, including the latter's national employment contract agreements in areas such as staff teaching contact hours. Further work (Barrett P and Barrett L 2009) with a group of twelve diverse UK HEIs, and surveys to discipline groups across the UK, has consolidated findings on the broad approaches used to manage work at an organisational level. They can be broadly categorised into three approaches: firstly HEIs that provide broad policy guidelines, whilst allowing considerable discretion to heads of school; another group who go a step further and adopt a framework that, whilst still allowing local discretion, provides a few common guidelines, for example on the use of units of measure. The last group of institutions have an integrated university-wide system. Despite the apparent formality, even this last approach can allow local discretion, for example on weightings of various aspects of work, but the recorded data is collected at a university level.

Alongside this diversity across institutions, as noted above, there is a great deal of differences within HEIs in the way departments and schools manage and allocate workloads. Some researchers have used the broad characteristic features of models to define them, including aspects such as their formality, units used and level of detail (Burgess TF, Lewis H A et al. 2003). Others have looked closely at points based and contact hours methods of balancing workloads (Vardi I 2008). Other research, using a grounded approach across nine

UK and Australian institutions, found that the emergent approaches used within departments and schools could be categorised as: informal, partial and comprehensive (Barrett and Barrett 2007). The first group has been typified as those that collect information, consult and then divide the work informally, balancing school needs with staff preferences and expertise. The 'partial' group combine a limited range of activities, usually solely teaching, for example using contact hours and student numbers for assessment aspects of taught work, to give an allocation in terms of points or hours. The last group include those that cover a comprehensive range of activities into a model, including administration and research elements, however the latter is often capped and funded and unfunded work distinguished.

The success of all of these methods often depends on the skill of the allocator and manner in which consultations about the methods has occurred and the involvement of staff in the development of the model (Paewai S, Meyer L et al. 2007). Some have also noted the dangers of complicated models that can alienate staff (Hull R 2006; Vardi I 2008), however at the other extreme informality in allocation makes transparency of process harder to facilitate and this can create problems demonstrating equity in both process and outcomes (Ringwood J, Devitt F et al. 2005). Further the potential danger of this type of informality in systems is recognised in European law (the European Court in Danfoss C -109/88) that anticipates, in relation to pay, that informal workplace systems will tend to favour men, and that transparency is necessary if there is to be a shift from the status quo.

Another issue is that 'partial' systems usually exclude research work from their calculations. This can encourage this work to be done after 'normal' hours in the evening or at weekends, something that many women with family / carer responsibilities may have more problem doing, and thereby causing them disadvantage in career terms (Fletcher C, Boden R et al. 2007).

Drawing together this research on women, their careers and workload management, certain recurring issues have become apparent. It would seem that the main spheres of investigation should cover:

- **Indirectly gendered Issues:** For example, limitations in the spread of work for staff on fractional contracts that lead to unbalanced curriculum vitae, which hamper staff progression. As 42% of women academics work part-time

compared to 27% of men (derived from Table A5, ECU statistical report 2009)(Equality Challenge Unit 2010) it would seem that this could be potentially more problematic for women. A parallel analysis requested from HESA revealed a similar gender gap of 8.3%, when comparing the gender split of staff on open ended/ permanent contracts with the figures for all staff (Barrett L and Barrett P 2010). Given the limitations temporary contracts can carry (e.g. non-submission to the REF) this again could be problematic for women's career progression.

- **Directly Gendered Issues:** For example, informal and opaque (un-transparent) methods of managing workloads that reduces clarity about opportunities for women that facilitate progression. This can operate as part of an organisational culture where, for example, particular work areas are given greater recognition (formally or informally) and assist advancement, but, on balance, may be less available to women.
- **Individual Choice:** For example, women being deterred from taking on certain roles because of associated high/unpredictable workloads

The aim of the methodology described below was to gain a better understanding of the relationships, influences and consequences involved in workload allocation and their differential impacts on women.

3 Methodology

3.1 Overview

The broad approach in this project was to use a variety of methods (including interviews, workshops, surveys and data analysis) to try to get a wide, triangulated view of the mechanisms operating in three, diverse, case study universities.

However in order to avoid pre-judging the results a grounded approach was taken (Glaser B and Strauss A 1967) where the actors directly involved were allowed to speak first. So in brief the process for each of the three universities studied was that:

- a stratified sample of female academic staff was interviewed;
- a follow up open workshop for female academic staff was held to discuss the emergent themes;
- a web based survey of all academic staff (women and men) was carried out to test views on the emergent themes including any gender differences;
- detailed workload data for all academic staff was analysed to confirm, or challenge, views from the soft data;

and,

- at each step cross –case comparisons were made to identify general themes, then;
- general conclusions, informed by these various studies, were drawn.

The various elements are now described in more detail.

3.2 Interviews

In order to understand some broad idea of the issues at play in relation to the project focus it was determined to interview a range of female academic staff in the three HEIs. These HEIs were selected because they had had a university-wide workload model in operation for quite a few years, and thus were able to provide relatively consistent data in this area. Fortunately the universities were from different groupings and both employment contracts were represented (Post- and Pre-1992 sector). An open invitation was sent to groups of women, at different levels of seniority and in a range of

departments. Across the university case studies twenty-five interviewees covered a wide range of subject areas, namely: Arts, Business Studies, Computer Studies, Education, Engineering, English, Health, Life and Social Sciences, Languages, Tourism & Hospitality, Media, Music, Nursing and Midwifery, Science. Interviewees were given a personal code to ensure confidentiality and ethical processes were followed throughout. The semi-structured questionnaire was divided into three main sections on:

- **Workload Issues** - including biographical details and current workload, ambitions, factors helping or hindering progress, career planning, skill use, work-life balance, issues of control and competence around workloads.
- **Management and Leadership** - including their views about management roles, their abilities to undertake these roles, and mentoring and training to facilitate this work.
- **Work Context** - their discipline, the workload allocation process in operation within their department / school, consultation processes, transparency of process, promotion issues, views about fairness within dept / school. Usefulness of personal development review processes.

The interview material was then transcribed and coded using NVivo software to distil down some of the main themes emerging from women, in relation to their work loads, the allocation process and their career progression and ambitions. The emergent themes were then used to help provide parameters for discussions at follow-on workshops, (organised on an open invitation basis for women at the same institutions) and to provide a framework for survey questions and workload data analysis.

3.3 Workshops

Women staff from each case study institutions were invited to discuss the themes that had emerged from the analysis of the interview material. The themes were listed and divided in to those issues that were positive, helpful factors for women for their progression and those factors that were likely to be detrimental to

progress. Working in groups the task was to look at actions that could be undertaken to help mitigate these factors. This, with the interview information, helped inform the wider survey questionnaire and the analysis of detailed workload data.

3.4 General Questionnaire

This was sent out to all academic staff generally to help assess whether the findings from female staff were gender-specific or had broader application. Along with space for open comment, questions requested information on:

- Demographic issues - discipline, age, gender
- Years in HE
- PhD qualification or in progress.
- Contract basis - f/t or part time (current and past), permanent or fixed term, aspirations in these areas e.g. to move from p/t to full time work. Career breaks.
- Current workload - breakdown of main area teaching, research and administration.
- Home working - if engage in this and in which particular areas.
- Current level of achievement - academic and management roles.
- Expectations of achievement in their academic role and management roles.
- Head of school/department - whether an attractive role.
- Roles targeted for progression - e.g. research leadership, teaching leadership, or management/admin leadership roles.
- The number of years before first substantive promotion.
- Career planned or reactive.

3.5 Analysis of Detailed Workload Data

The information and themes that emerged from the interviews and workshops was then used to inform consultations with the technical teams that managed the universities' workload systems, looking at data from 2,600 academic staff in total. This involved two main thrusts: firstly, discussion and assessments went on to analyse whether the model data was sufficient to capture comprehensively the complex equality issues, or

whether new areas needed to be included. For example in some early analysis it was found that workload data was often separate from institutional data, for example showing gender and age, making it impossible to see any discriminatory practice in this area. Work to link these data sources was carried out and good practice ideas for across the sector were collected. Secondly, the actual data captured was analysed, for example by using spread sheet pivot tables to isolate various perspectives and to see if any trends were emerging about staff workloads and roles, for example by looking at staff on fractional contracts.

The following sections now set out the findings from each of these elements of the methodology. In each case the findings build on the data from all three HEIs studied.

4 Interview Findings

The interview material from a stratified sample of women staff from each case study was coded using NVivo software, the main emergent categories were:

- a) Workload allocations
- b) Role components
- c) Management roles
- d) Ambitions
- e) Other factors

The findings are briefly summarised and the main views or comments noted about each issue recorded within the following tables. Some tables include an extra column to cover staff views on possible improvements. Where responses on an issue were expressed by quite a large proportion of interviewees this is indicated in the cell text. In general although the responses varied significantly between individuals, overall there were a great many similarities in the responses between the case studies. The only notable differences were the degrees to which, within each case study HEI, the issues listed here were noted as problematic:

- Lack of transparency about workload allocations
- Mentoring not operating effectively
- Set expectations on individual promotions within schools
- Heavy 'pastoral care' workloads
- Completion times for PhD study

4.1 Workload Allocation

The issues covered in this area included the actual process of allocation, the resultant implications for workload and improvements that it was felt would help staff. The normal process for most of the staff involved discussions with their Subject Group Leader (SGL) with the resultant workload (often based on the previous year's input), fed into the workload model for balancing. Many staff commented on how these values were notional only and did not represent the actual

work involved. Other schools also used a standard principle, of a certain number of modules and an administration role for each staff member, as a starting point for the allocation process discussion.

Table 1: Interviews - Workload Allocation Issues

Workload allocation processes and related issues	Comments on Current Workload	Improvements
Discussion with SGL and then data entry to model. However a few were told to 'just to do it' despite being heavily overloaded.	Pastoral care type work (especially for 1st yr students) was mentioned as problematic by 6/25 but these were mainly from one case study.	Recognition of actual loads involved in certain activities. Removal of stepwise increments from student numbers for allocation
Use of a principle –e.g. certain number of modules/ admin roles as starting point of discussion > model	Three interviewees had been so overloaded that a member of the senior management team had intervened to adjust their loads. Job size incremental 'creep' issues.	Greater accuracy in data input to the model. Plus better monitoring of overload situations.
Transparency varied - of those 18 who commented on it, 4 said that theirs was open, and 14/18 felt theirs to be limited or not transparent.	Specialisms were felt to be problematic, as work often could not be shared between staff.	Greater openness with ease of transparency facilitated.
Some voiced anxieties over the complexity of the model and their dislike of asking for explanations about it	Many staff felt that in the current economic climate it was safer to have slightly high workloads as safeguard. Feeling that redundancies had led to the threat of increased loads.	Many staff felt that in the current economic climate it was safer to have slightly high workloads as safeguard. Feeling that redundancies had led to the threat of increased loads.
	Number of staff (mainly from one HEI) noted that they had little or no time for research. This accounted for 14/25 interviewees.	Clarity not just on the model but how decisions were made about roles and allocations. Discussion within dept and agreement on principles for allocations for research. See also 4.2 below

4.2 Role components

Staff acknowledged that administration work (for example: quality assurance activity such as module/course review; course and committee meetings; year tutor, subject and programme leader admin) made up quite a lot of their workload and commented on the undue complexity of much of this area. However they tended to focus their discussions on teaching, their discipline and research and the balance between them.

Although a small number of the staff were working intensively on research, the vast majority had scant time for this work, in fact as noted above fourteen out of the twenty-five interviewed had little or no

time for research at all. The lack of time for research, coupled with the development of a business case type of culture around research, had helped create a cycle where high teaching loads prohibited progress in the writing of academic papers and the bidding for funded projects, where the latter are often used as a measure to determine research time allocation. However many of the women said that research was an important mechanism to gain promotion, but the realisation of this had come when they were fairly set in their career path. However, apart from small pockets of intense activity, comment was made that there was not institution-wide support for research and that mentoring might assist the uncomfortable process of writing papers and bidding.

Table 2: Interviews – Teaching-related Issues

Teaching-related Issues	Discipline/Specialism Related Issues
For those involved in teaching input varied between 3-6 modules.	Specialism- noted by some as problematic as could be restrictive – preventing move to other HEIs
Many expressed enjoyment in the student contact.	Many expressed a love of their specialism and a desire to stay within it. Plus a desire to adapt and develop their skills within their specialism
High student numbers on popular modules causing high loads and anomalies between allocations where student numbers are not given enough weighting in model.	Specialism felt by some to be a cause of overload as no wider team with whom to share the load.
Subject Group Leader seen as pivotal role, but time consuming.	Isolation issues with specialism
Workloads from the international student market becoming big factor for some faculties.	Specialism for some were problematic, as attracted few PhD students
Peaks of activity around exam and hand in dates problematic.	
Ambitions in this area: become Sen. Teaching Fellow and to develop own modules / Masters in their specialism	
Work from admin, pastoral care of students, module review and new module development were all aspects noted as causing research, and PhD studies, to be sidelined.	
Certain roles such as programme leader and SGL were felt to give some control over individual destiny and a wider view on workloads.	

4.3 Management roles

Although many women commented that they had no inclination to get involved in management roles or university wide forums there were also quite a few

members of staff who felt that they had both the ability and the desire to take on leadership activity and would enjoy making changes and having influence on university strategy and developments. The table below lists the range of main comments.

Table 3: Interviews - Management Roles

View of Management Roles	Abilities/ desire for Management roles	What would help take on this sort role?
Head of School (HoS) seen by almost half the staff as a job with: hassle, huge role, loss of expertise and loss of contact with discipline and students. Only plus side - an increase of income	Good people and organisational skills needed. Previous experience in industry / profession helpful for this.	More training like leadership /middle management courses as these are useful
Remote from school level. Complex hierarchy	Dislike the loss of contact with discipline and students. Prefer 'hands on'.	Shadowing other staff to know what role actually involves
Insecure position - majority felt this to be the case, with teaching more secure in present challenging economic times	Lack of confidence to take this type of work on. Dislike the hassle of this sort of work - cannot 'shut off' from it. Previous experience of this often cited as 'off-putting'.	Mentoring helpful, especially if the 'match' between staff interests and disposition is good. Sometimes informal mechanisms most useful here.
High workloads for this group. Tough time now with lots of meetings	Associated admin off-putting. 100% manager not desirable	Job sharing of certain roles such as HoS
Can allow more control over own destiny. Scope to change things and influence	Can allow more control over own destiny. Scope to change things and influence	

4.4 Ambitions

This area covered the main career points for staff, what helped and hindered their progress, their plans and ambitions. The views ranged quite widely, reflecting the different stages of their careers and the routes they were taking, for example teaching or research. However there were two areas that are worth specific mention. Firstly, almost half of staff interviewed voiced quite a strong opinion that the job of head of school was something that they would try to avoid. Reasons for this revolved around the hassle and problems with dealing with other members of staff (see above). The

other common finding was that again almost half of the staff had made no career plans. The two main career routes seen were broadly: first a group of staff (predominantly from science disciplines) who, after gaining a PhD, then become a research assistant, often on fixed contract, before eventually getting permanent full or part time work. The second pattern seen was staff that moved from industry / professions by taking a degree and then moving into part-time work within HE before eventually getting a permanent post and moving to a full time contract. The other main issues in this section are listed on the next page.

Table 4: Interviews - Ambitions

Helped Progress	Hindered Progress	Broad Plans & Specific Ambitions
Good Mentors	Lack of Confidence	-
Certain administrative roles	Pastoral care roles	Frequently noted desire not to become a HoS or to become a HoS only through either job share / as a last resort
Research publication / funding	Limited time to work on areas helpful for promotion.	To finish PhD
Networks and liaising with senior staff > raise profile	Not knowing the 'right people'.	To get good mentor to help advise on how to improve networking skills
Moving HEIs	The HEI itself e.g. not research focused - so hard to move jobs	Move from their HEI to one with higher research standing / status
Setting up a new course / initiative	Pecking order / expectations of progress	Specific ambitions relate to: 1. To become a Senior Teaching Fellow, PL or SGL. 2. To become a Reader or Research Professor. 3. To finish PhD and publish
Middle management courses to help widen skill base and planning.	Unwritten / informal aspects of promotion process. Lack of career focus / plan	Frequently not any clear plan, but pragmatic use of opportunities only, so aim to refocus their activity and consolidate on areas of rapid progress
Flexibility of work within HEI helpful in relation to children	Children / family commitments problematic	Uncertainty about extent of new roles and the need to keep something in reserve for family. Plus age related issues - freer when children gone - time then to progress, but aged relatives / dependents can be issue then.
Earlier experience in industry/ professions	-	To get to senior academic role using variety of admin/ management type roles and initiatives to get necessary experience
Hard / high quality work	-	To maintain high quality work and hope it delivers results.

4.5 Other factors

Numerous disparate factors were also discussed by staff that they felt were pertinent to their career progression. In general comment was made that there was not any direct gender bias operating within their HEI, however there were notable differences between the disciplines in the degree to which there were female role models in senior positions. A notable feature was that fifteen of the twenty-five interviewed were either working or had worked on a part time basis. Some had started working part-time, creating a fragmented basis at work entry level before moving into full time contract. Commonly there was a later phase of return to part-time hours because of family commitments. The pattern then was an ebb and flow cycle. Another interesting point was that four fifths of the group had either completed or were studying for a PhD. However completion times for these were often lengthy due to factors such as interruptions to study. The full range of factors discussed are summarised below.

Interviews - Other Factors

■ Part time work

- Frequent P/T work at start of career, often multi-role. Revert to it again for child care responsibilities.
- Working P/T makes it hard to get management roles.
- Part time workloads not a reflection of the contracted hours, much higher and without the pay.

■ PhD studies

- Majority have or are in process of doing PhD.
- Those seen in science disciplines tendency to do PhD full time at start of career before entry to job in HE.
- Long completion times noted for those doing it P/T (up to 10 years- study interruptions).
- PhD by publication popular choice.

■ Confidence

- Confidence in roles, but less so about admin procedures.
- Often 'parachuted' into role from industry/ professions/study > shock.
- Strong belief in own competence.
- Confidence to take on management roles would be helped by opportunity to shadow another.

■ Mentors

- Useful advice encouraging / widen perspectives / confidence boost
- Issue that right match for mentor essential
- Informal mechanisms around mentoring often most helpful

■ Family Commitments

- Worry about over-commitment and the unexpected aspects of the job - meeting over-run etc.
- Explicit decision not to sacrifice family for career. Partners often noted as being supportive.
- Flexibility offered by HEIs welcomed.
- Working evening and w/e common for some, but a split between those who are strict not to do so. Social pressure to work long hours - late night checking email etc.

4.6 Interview summary & frequently noted issues

The main issues emerging from the interviews can be summarised as follows:

- a. Cycles of part- time work (at career entry point and again later to meet family responsibilities) working to narrow options on roles available and for PhD completion.
- b. Lack of career plan / pragmatic career decisions.
- c. Both the enjoyment of involvement with students and recognition that this was twinned with higher workloads often in the form of pastoral care / support.
- d. An enjoyment of their discipline but a lack of time to research in that area, and often lengthy completion times for PhD.
- e. A negative view of Head of School (HoS) role. View management roles as relatively insecure.
- f. Issue of being trapped - in their specialism and HEI.
- g. Limited transparency on workloads.

5 Workshops

From the above and the associated discussions surrounding them, a set of drivers emerged that could assist women, as well as restraining factors to their progression. These were used to frame discussion workshops with women on potential actions that they could undertake to capitalise on the drivers and attack the restraining forces (Lewin K 1947).

5.1 Workshop Discussion Framework

An open invitation was sent to female staff within each of the case study universities to discuss the themes and do group work to consolidate possible actions for facilitating women's career progression.

The Driving forces discussed

- Appropriate mentors
- Subject / specialism enthusiasm
- Good people skills
- Good organisational skills
- Ambitions / production of high quality work
- Control of destiny
- Extended career energy

The Restraining forces discussed

- Part-time work limiting work opportunities
- Family commitments
- Reactive / pragmatic career decisions
- Tendencies to teaching / T. related overload / transparency issues
- Limited research, funding / papers
- Cautious / anxious about open-ended work
- Comfort in school / discipline / specialism, but trapped
- Temerity / lack of confidence lack re new roles
- Management roles (and specifically HoS) seen as unattractive
- PhD study lengthy - p/t

5.2 Workshop Summaries: issues and actions

The issues / actions that emerged about women's progress were grouped in five areas:

a. *Fractional / fixed contracts / career breaks / family commitments*

- **Part time working** needs to be more normalised and integrated into school planning and organisation. Further there should be alternative career paths rather than just linear, upward progress. Opportunity needed for horizontal career movement - greater diversity in potential career plans. Typical comments included: 'Can't afford to put neck on block for risky roles' and 'don't want to be full time so no career opportunities'
- **Job/role sharing opportunities** - felt need for increased support and communication in this area.
- Changes to HEI **semester times** not helpful for women with children as squeeze put on the Christmas and Easter breaks because of marking and assessment. Typical comments on family commitments include issues about this balance such as: 'How much the household is willing to release you' and 'the need to get rid of conscience to progress'.

b. *Career planning:*

- Provision of **scenario planning** sessions within a year of entry to help understand possible career routes and the implications for workload choices, leading to the development of a concrete plan. Personal Development Plans needed to focus on personal rather than organisational needs, that tend to get addressed at Appraisal and Review sessions. This was felt to be especially necessary for those transferring from careers in the professions and industry who found the organisational culture very complex.
- Need for **career plan maps** that are tailored to account for women's needs, such as 'long thin' careers encompassing early periods of part-time work. However changes in **university priorities**, for example on whether research is a priority, are seen as disruptive for career planning.
- **Promotion criteria** - greater clarity required. They need to be demonstrated, with examples of how particular grades could be achieved so that the work mix necessary is understood. Again scenarios could help focus activity. Greater rewards needed for excellence in teaching.

c. *Workload issues*

- **Heavy front line roles** (pastoral etc) not formally weighted against women, but informally female staff seem to get more if they are responsive. For example there was a general agreement with one who commented that: "you get punished if you do a good job ... you don't want to be 'difficult' ... a man can say 'I am not doing it'". This behaviour was seen as 'out-of-role' for woman - and especially difficult for younger staff.
- **Transparency** of workloads and knowledge of work overload is empowering if to say 'no' to extra work. This would also help in schools where favouritism is an issue and where particular people are marked out for roles and resources earmarked for some individuals - e.g. Research time for the Research Excellence Framework exercise.

d. *Balance of work activity*

- Tendency towards teaching only / **unbalanced work portfolios**. Limited time for research was an issue.
- Provision of **research mentors** for those new to HE to help them understand processes and

opportunities / networks. This should occur through informal mechanisms relying on mutual research interests rather than more mechanistic schemes. Break down of divisive teaching / research divide - through encouraging scholarship activities that could, with help, broaden into research activity. Research expectations vary widely across faculties.

- **Home working issues** - overloads and tight office space means home working is necessary to concentrate on research, but is problematic with family commitments. "Outside of work life should be your personal time". Re-sit examinations are eating into self-managed time, so it is hard to find extended periods for research.
- ### e. *Reticence about Head of School(HoS) / open-ended management roles*
- Perception that **training** not given for the next level up. Need for greater **consistency** across faculties in the provision of training courses including 'assertiveness' training courses and greater access to middle management training
 - More **female role models** to help the view of management roles. Also important that these role models do not act like 'surrogate men'. Mechanism needed to understand the demands of these jobs - likely hours and the unsocial hours element also. Advocates for women so that particular needs are considered.
 - **HoS role changes** have made it more unattractive, as now seen mainly as administrative with diminished academic leadership role. A role that allowed for leadership within discipline would be attractive. Comments on this typically - 'Didn't come into academia to be an HR person ... want to do research'.
 - **Academic leadership role** needs reasserting: stressing vision, and the development of courses and people in your discipline. This applies to HoS, subject leader, programme leader
 - Lack of **administrative support** for managerial roles means academic time eroded massively and time spent doing inappropriate work. Less academic autonomy as systems and processes become more centralised.

5.3 Synthesis of Issues from Workshops and Interviews

From the interviews and workshops it is possible to identify a web of interrelated factors. Looking at the potential areas noted for investigation namely: directly-gendered factors, indirectly-gendered factors, organisational culture and individual choices, it would seem that the workshops and interviews provided a lot of material to suggest reasons why women were not progressing as a result of their individual choices. Also the interview / workshop material does seem to indicate that indirectly-gendered factors seem to be present as staff work in limited areas often as a result of part-time work and these workers are more commonly women.

However one cannot from the evidence see directly-gendered issues or the organisational culture as factors affecting women solely. For example whilst in some areas processes were not transparent this was affecting both genders. However the Danfoss case (Danfoss C -109/88) anticipates, in relation to pay, that informal workplace systems will tend to favour men, and that transparency is necessary if there is to be a shift from the status quo. As for the organisational culture the interviews provided insights that would require scrutiny of the workload data, for example on gendered division of work with certain areas less advantageous for advancement. These issues were taken forward via the survey and data analysis reported in the next two sections.

6 Survey

A survey was carried out in each of the case study universities, sampling across the genders to look at the emerging themes and to see if there was any gendered dimension to these issues and distinct differences between the groups.

So building on the themes from the interviews / workshops, questions were posed about:

- Independent variables – discipline, gender, time in H.E., age band.
- Employment contract basis and interruptions in employment
- Career planning
- Work type mix
- Home working- scope and type of activity
- Career ambitions
- Expectations and preferences about future career levels
- Work context preferences (based on Hofstede's findings (Hofstede G 2001) p283)
- Promotion timings
- PhD work

6.1 The survey results

From the survey across the case studies there were 559 responses, of which 214 (38%) were male and 345 (62%) female. There was a fairly even distribution across the disciplines: Science, Engineering, Health, Social Sciences, Arts, Humanities and other. Eighty-three per cent of respondents were employed on a full time basis, but 48% of them had worked on a part-time basis at some point in their career. The main emphasis in their current workload for the majority (68%) of respondents was teaching and marking work. Fifty-five per cent of the respondents were at Lecturer / SL level and in terms of their expectations of progress most (40.3%) saw Senior Lecturer / PL as their highest anticipated academic position, with 29% expecting to get to professorial level. In terms of management roles 69% expected that they would not get to head of school / department level. However this needs to be read in a context where 42% felt that role to be

'very unattractive' to them, with only 8% finding it a 'very attractive' position. To help career progression the largest vote (45%) went to research leadership as a mechanism, yet sixty-nine per cent noted that they had not actively planned their careers, but were rather more reactive to events. For forty-six per cent of the staff replying to this survey they had not as yet had any substantive promotion.

This project was aiming to focus mainly on gender specific issues so the distinct differences between the genders in their response to the survey are recorded below.

6.2 Survey : Gender-based findings

There were in fact many similarities between the case studies in general and between the genders in their responses. For example looking at the demographic variables on the age profile, with the highest percentage of respondents of both genders being in the 40-49 year group. There was also similarity between the genders over the number of years they had been in employment within HE, with the largest single response being between 0-9 years (40% of respondents). However there were a few notable differences in the responses, for example on the disciplines of the respondents, with a highest percentage of men coming from the Science discipline (33%) and the highest percentage of women from the Health discipline (32%), with Social Sciences being the next most numerous for both genders. Other emergent issues, when the gender and case study filters were applied, are listed below. Sometimes these are differences, on other occasions, surprising similarities.

a. Contract basis

The question that asked staff if they had ever worked part time revealed that 42.5% of men had at some

point in their career compared to 52% of women. Following on from this when asked about their current contract basis only 8.6% of men were working part time compared to 21.7% of women. A question about whether their contract was permanent or fixed term revealed that only 4.8% of men were on a fixed term contract compared to 11% of women. Of those that had had a career break of a year or more there was twice the percentage of women (17.2%) than men (8.5%).

b. Evening and weekend work

Questions about working at evenings and weekends showed almost equal proportions (87% of men and 88% of women) engaging in this activity. There was only a slight variation in the pattern of this after-work activity. Teaching work for both genders gave the highest score with 54% of women and 47% of men spending time on it. This small difference between the genders was balanced out by a slightly higher percentage (22%) of male respondents spending this time doing research compared to (19%) women. 31% of men engaged in a mixture of teaching and research compared to 26% of women.

c. Career Expectations and Aspirations

When questioned about expectations on the highest level that would be realistically achieved within their academic careers, 37% of male respondents thought that professor would be the highest level that would achieve whereas for women only 23% had this expectation, with 45% of women expecting that Senior or Principal Lecturer would be their highest level. When asked about their expectations on the management career level achievements 63% of male respondents thought that they would not achieve head of department level. This figure was even higher for women at 73%.

When asked specifically about their desire for the Head of School / Department role the results for men and women were similar, finding HoS not at all attractive / not really attractive for 61% of women and 57% of men. However the percentage of men (11.4%) who thought HoS to be a very attractive job was twice that of women (5.7%). This could be seen in the actual levels attained presently with 7% of men answering the survey at HoS level, while only 4% of women were at that level. There was only a small difference in the percentages surrounding PhD attainment, with 44% of men having one compared to 39% of women.

When asked about roles that would be targeted for career progression the highest number of men (47%) chose research leadership first, however women were more divided in their responses with an almost equal split between teaching and research leadership choices. Women seemed slightly more inclined to actively plan their career with 34% so doing compared to 27% of men who planned theirs, but both figures are quite low.

d. Work roles

When asked about the emphasis of their workload in terms of main, secondary and third in terms of time and effort there was quite a degree of similarity between the genders with the majority placing teaching and marking as their biggest commitment (for 58% of the men and 55% of the women). Research was similar too with 15% of men and 14% of women placing as their first work priority. For management roles a slightly higher percentage of men (19%) focused on this compared to women (16%). The largest difference between the genders was on teaching administration work where 11% of women put it as their highest commitment compared to only 6% of men.

In terms of secondary emphasis the percentages between the genders showed a great deal of similarity on teaching administration (~35%), teaching (~20%), and research activity (~15%). However there were some differences in emphasis on pastoral care with 20% of women placing it as their second highest work commitment compared to 16% of men so doing. The other difference seen was in management work with more men (15%) placing this as their secondary activity compared to only 11% of women.

e. Summary

In general there were great similarities between the genders. This extended to Hofstede's (2001) cultural dimensions, where for academics the gender differences are slight, in contrast to Hofstede's findings. So, for example, both genders valued a 'friendly atmosphere' as being paramount, followed by 'cooperation' and 'position security'. The lowest value by both genders was given to 'training opportunities'. However there were some notable differences. When compared to men over twice the percentage of women in the survey were: working part-time, had had a major career break, and were on fixed term contracts. Also expectations of progress for both academic and management roles were lower for women.

Another difference was on ambition for HoS role, with the percentage of men seeing it as a very attractive job being twice that of women. In terms of work roles teaching administration as a primary emphasis was higher for women than men, and as a secondary emphasis management was higher for men than women, whereas their emphasis in their workload on pastoral care lower. For these two latter results the percentages involved were small (~10-20%). After-work activity also showed some differences, with men slightly more inclined than women to spend this time on research work.

notable difference was that in Case Study One the role of HoS was felt to be a very attractive role by only 5% of the response group compared to 9-10% in the other cases.

6.3 Survey - Cross Case Study Comparisons

Before moving to the next section a few cross case variations are noted. Looking between the case studies there were similarities between them broadly on the age and the discipline profiles presented. Also in all three case studies females were the larger group to respond to the survey although this did range between 53% and 69%. There were also similarities in the survey responses across the case studies in relation to: part time work, PhD qualification, on career planning, percentages who worked at home in the evenings or weekend (85-89% so doing), and their current contract basis (with a range of 80-86% on full time contracts). However there was a greater disparity between the cases for the question about whether the contract was fixed or permanent, this ranged from 82-96% on permanent contract between the case study responses. There was a great similarity on the percentages expecting to get to HoS level across the case studies, with this ranging only between 21 and 22%.

There were some differences however in the emphases of their home working activities with Case Study One more equally split between teaching and research and the other Cases working mainly on teaching and teaching-related work. Another notable difference between them was on expectations of progress. Case Study Two showed the highest percentage (73%) of the staff surveyed were at Lecturer level (compared to 47% and 55% in Cases One and Three) and they had the lowest expectation of progress to professorial level. Case Study Two also showed the highest percentage of staff who had not had any promotion yet, at 66% compared with 39% and 44% in the other cases and this despite similarities between the cases in the responses to the number of years in HE. The only other

7 Data Analysis of Workload Models

The interviews, workshops and surveys had enabled issues raised in the literature to be explored and widely discussed. It could be anticipated that these perspectives would be reflected in the actual workload allocations of staff within the participating case study universities.

7.1 Data Collected

So a standard spreadsheet format was created with sections along the X-axis for workload allocations, followed by HR data, such as gender, age, grade, salary point etc. On the Y-axis one line was used for each anonymised individual member of staff. In all cases co-operation was necessary between Finance (workload data) and HR (Personnel data) to populate a common spreadsheet. This data had not been brought together before, but without this step a gender-based analysis was impossible. In all detailed data for 2,600 members of academic staff was provided.

7.2 Approach to Analysis

There was some difference in the categorisation between the cases and so the TRAC (Transparency Review Activity Costing) codings were provided by each university for their workload classifications and this meant that consistent comparison between the cases could be made. This was targeted at work areas the investigation so far had highlighted as being possibly important, namely:

- Research work, percentage comparison between the genders of staff involved and their average allocations
- Teaching - (delivery and marking) percentage comparison between the genders of staff involved and their average allocations
- Teaching administration - percentage comparison between the genders of staff involved and their average allocations
- General management - percentage comparison

between the genders of staff involved and their average allocations

- Overall workloads - percentage comparison between the genders of staff and their average allocations

The line of reasoning adopted was that the low numbers of women found in general at higher grades must have its genesis at the more junior levels. Thus the analysis focused on:

- Junior Lecturer
- Lecturer*
- Senior Lecturer*

Salary grades for these three levels could be consistently identified across the cases (*for the last two grades at the Post 1992 HEI these grades were Senior and Principal Lecturer respectively). The HERA single spine point for each grade varies a little in practice between universities this is why the salary grades alone were used.

The data for full time staff was analysed using pivot tables to provide two measures across these grades for each of the above work areas by gender. The measures were, firstly, the percentage of staff allocated a given type of work and secondly, for those with an allocation, the average of that allocation. For example, in each case the percentage of staff at JL, L and SL grades allocated research time was identified by gender and so was the average research “time” allocated as a proportion of a full workload, also by gender. In addition these analyses between the genders on work roles and loads were repeated for staff on:

- **Fractional contracts** to identify any significant tendencies or differences for these staff, and;
- **Faculty analysis** for all staff at JL, L and SL grades was carried out to investigate if any disciplinary differences were evident.

The trend of women becoming less evident as one goes up the grades of seniority can be clearly seen. The sheer numbers indicate a shrinking pool of women out of which the very highest academic levels can be selected.

7.3 Results from data analysis

First, as an overview, Table 5 focuses on the numbers of full time staff at the three focal grades, by gender. This is shown diagrammatically in Figure 1. Graphs for both women and men are given to highlight the contrasting trends, albeit the figures total 100% at each grade.

Table 5: Academic Staff Gender Profile across Junior, Lecturer & Senior Lecturer Grades

Note: % of total are calculated out of total of full time staff at the three grades JL, L and SL. The gender split is given within the grade

University	Junior Lecturer	Lecturer	Senior Lecturer
1	3.4%, of total, of which: W=47% / M=53%	51%, of total, of which: W=42% / M=58%	45%, of total, of which: W= 37% / M=63%
2	11%, of total, of which: W=50% / M=50%	64%, of total, of which: W=41% / M=59%	25%, of total, of which: W=41% / M=59%
3	11%, of total, of which: W=45% / M=55%	61%, of total, of which: W=42% / M=58%	28%, of total, of which: W=38% / M=62%

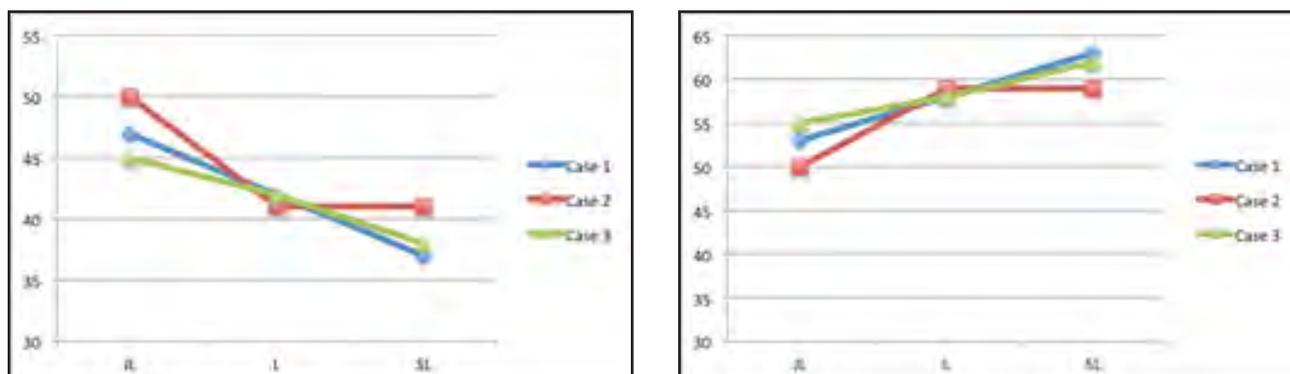


Figure 1: Percentage of staff within each of the three focal grades for women (L) and men (R).

The remaining tables look at various work areas by level and gender and compare across the three cases. Given the large numbers of dimensions being investigated statistical tests were not carried out for all of the analyses. Representative tests were however carried out for “overall workloads” and where patently large gender differences were present they were significant at the 1% level, but for the smaller differences they were not significant at the 5% level. This latter is a consequence of the quite high level of variability in the data and this stems at least to a degree from the fact that this is unmediated data representing the actual systems of the three universities involved and there was no realistic opportunity to clean it. Thus, the information presented below in Tables 6-8* is intended as an indication of general tendencies and where there appears to be some level of consistency across the three cases an observation is made in the “comments” column of the tables below.

***Note:** numbers in brackets always show women’s allocation first; research data relates to internal funded research only. For consistency’s sake; and, in order to maintain the confidentiality of the case study HEIs, any workload hours have been converted into time units, such that 100 time units represent a full workload. In practice staff normally vary a little around this level, i.e. some with a little more and others with a little less.

Table 6: Case study Results - Workloads, Roles and Gender for all Full Time Academic Staff

Category	Case 1	Case 2	Case 3	Comment/ themes
1 Research Full time academic staff (grades JL, L, S/ PL,)	At JL level the numbers are very small. At L grade the percentage getting university funded research is the same (c50%), and the average allocation is the same (c30 units). At SL level a higher percentage of men (51 v 60%) are allocated research time but the average per person remains the same (c30 units).	Across the grades there are higher percentages of men allocated research (e.g. at L grade 27 v 42%, and at SL 34 v 57 %). However within that the allocations given are relatively consistent, with an overall average of c12 units.	At JL grade a higher percentage of women (37 v 20 %) are allocated less time on average. At L grade the percentage allocations are about equal as is the time allocated , but at SL grade the percentage allocated has shifted towards men (33 v 47 %) and the allocation of time is weighted towards men too (12 v 22 units).	Although there is a lot of similarity at L grade in the allocations given and the % allocated research, in all three cases by SL grade there is shift towards higher % of men getting research time.
2 Teaching Full time academic staff (grades JL, L, S/ PL,)	There is a slightly higher % of men allocated teaching at both L and SL grade. Further, across all grades men have a slightly higher average, allocation for teaching (e.g. at L grade for undergrad teaching it is 43 v 49 and for SL grade 36 v 44 units).	A slightly higher % of men are allocated teaching e.g. at L grade (92 % v 96). For time allocated on average, at JL grade it is heavily weighted towards women (33 v 13 units), however at L and SL grades the reverse is true. (e.g. .L grade 34 v 42 units).	The % allocations are consistently high between the genders and across the grades, but the men are have a slightly higher allocation (e.g. at L grade 40 v 43 units).	The % having allocations are slightly weighted towards men. The trend in all three cases, at L and SL grades, is for men to also have higher time allocations.
3 Teaching administration Full time academic staff (grades JL, L, S/ PL,)	The numbers are low at JL level, however, the percentage at L grade is higher for women (82% v 76%) but at SL grade this equals out (c83%). At L and SL the units given per person are approximately equal at around 25 units.	For JL staff the numbers are low. At L grade a higher percentage of men (54 v 69%) are allocated slightly less time on average (12 v 11 units). At SL grade the same percentage (52%) of men and women are allocated time, but more time is allocated to men on average (17 v 21 units).	Broadly a slightly higher percentage of teaching admin is allocated to women across JL and L grades, and more time, on average. At the SL grade the percentage split between the genders is very similar and the average time allocated is the same.	This varies across the three cases. At L grade women have equal or higher allocations and in two of the cases a higher % of them are doing it. At SL grade the % allocations are broadly the same, and in two of the cases the time allocated is also similar.

Table 6: (continued)

Category	Case 1	Case 2	Case 3	Comment/ themes
<p>4 General Management Roles</p> <p>Full time academic staff (grades JL, L, S/PL,)</p>	<p>Allocations are low at J L. At L grade a higher percentage of men (19 v 23%) are allocated on average fewer units (15 v 10 units). Conversely at SL a higher percentage of women (46 v 31%) get a smaller allocation on average (19 v 27 units).</p>	<p>Negligible allocations here for JL grade staff. At L grade the percentage allocated this are the same across the genders at 18% but women are on average given slightly more time (6 v 4 units). At SL grade the percentage of staff getting an allocation is much higher for women (61% v 41%), although the average allocation is weighted slightly towards men (28 v 30 units).</p>	<p>Across all grades the percentage allocated is broadly similar, but at L grade average time in this area is a bit higher for men (20 v 21 units) whereas at SL the reverse is true (29 v 24 units).</p>	<p>Whilst one case study appears to spread these roles widely across all staff. In the other two cases at L grade women were getting more time allocated. However by SL grade this changes and there is a trend towards a higher % of women getting these roles but with a slightly smaller allocation on average than men.</p>
<p>5 Overall allocation</p> <p>Full time academic staff (grades JL, L, S/PL,)</p> <p>(in this section, as all staff have an allocation, the focus is on percentage differences)</p>	<p>At JL grade numbers are low, but women do have a higher overall workload by +8%. L and SL grade where the numbers are much higher, there are more men and on average their workloads are higher (+3% higher at L grade and at SL grade +14% higher). So for all three grades this averages at -9% lower allocations to women.</p>	<p>At JL grade the numbers are low, but women's overall workloads are 10% higher on average. At L and SL grade the allocated workload for men is higher at +6% and +4% respectively. Across all three grades on average the allocated workload for women is -5% lower.</p>	<p>At JL grade women were allocated very similar workloads to men and at L grade higher workloads at +3.3%. This is reversed at SL grade where the allocation for men is +4%. Overall there is a very small difference with women having allocations +1% bigger than men's.</p>	<p>At JL levels(although numbers are small) women tend to have higher loads, however this starts to reverse at L grade and by SL grade men have a higher workload in all cases: +14%, +4% and +4%.</p> <p>Averaging across all three grades varies from women having overall allocations of -9%, -5% and +1%. This is a weighted average difference across the three cases of a -4% lower overall allocation for women.</p>

Table 7 repeats the analyses for staff on fractional contracts, focusing in on the main differences highlighted for this grouping. The first element of the table provides some contextual information about the fractional staff as a group in each university

Table 7: Case study Results - Workloads, Roles and Gender for Academic Staff on Fractional Contracts

Category	Case 1	Case 2	Case 3	Comment/ themes
Background: profile of fractional staff.	Fractional 11% of all staff; of these 68% female. Average FTE: 0.64 for women and 0.76 for men; that is -19% for women.	Fractional 15% of all staff: of these 59% female. Average FTE: 0.38 for women and 0.42 for men; that is -15% for women	Fractional 25% of all staff: of these 65% female. Average FTE: 0.57 for women and 0.54 for men; that is +5% for women.	Fractional staff as a percentage of all staff varies a lot, from 11-25%, but always involve a higher proportion of women, generally approaching two thirds. The average size of the fractional contracts ranges between the genders across the cases from c0.4-0.7FTE, but tend to be quite a lot smaller for women, except in Case 3.
1 Research Academic staff Fractional Contracts	Low numbers allocation of research time is very low for both genders.	Numbers here are low, but for those given research on average they are given about the same allocation, but the percentage of women allocated research is higher for women (for example at SL grade 34% v 25%).	At JL grade numbers very small. At L grade the percentage of staff allocated research time is very similar (23 v 24 %) but the average allocation is much higher for men (10 v 17 units). At SL grade the percentage allocation is still similar (43 v 40 %) but here the average time allocated has shifted towards women (30 v 21 units).	Generally numbers here are small.
2 Teaching Academic staff Fractional Contracts	No real differences between the genders.	The % allocation is similar between the genders	The % allocations are consistently high between the genders and across the grades but the men are allocated a slightly more time (e.g. at L grade 27 v 30 units).	

Table 7: (continued)

Category	Case 1	Case 2	Case 3	Comment/ themes
3 Teaching administration Academic staff Fractional Contracts	The numbers here are low, but if anything a higher percentage of women do teaching admin and are allocated more units each compared to men.	No allocations here for staff on fractional contracts at JL grade and also low numbers at L and SL grade.	Numbers here are small at JL and SL grades. However at L grade a higher percentage of women are allocated teaching admin (90% v 60%) and they are allocated more time on average (15 v 11 units).	Numbers small but trend of higher % of women allocated and more time on average.
4 General Management Academic staff Fractional Contracts	Numbers here too small to analyse.	The time allocations are too small to analyse	Across the board everyone is getting some allocation for this with a tendency for women to have a slightly higher time allocation (15 v 13 units).	

Gender-based variations in the factors across the faculties of the universities are now considered.

Table 8: Case study Results - Workloads, Roles and Gender by Faculty

Category	Case 1	Case 2	Case 3	Comment/ themes
1 Research within Faculties Academic staff, ave. JL, L and SL grades	<p>Within faculties in terms of the percentage of staff allocated research in Health a higher percentage of men get research time (17 v 45%), whereas in Engineering this shifts in favour of women (88 v 68%). However there is not much variation in units allocated for research between men and women.</p>	<p>This tendency for a higher percentage of men to be allocated research is reflected at faculty level except in the Business school where it is more equal. Men are allocated more time on average except in the Business school where women get a bit more time on average (15 v 13 units).</p>	<p>The trend of a higher percentage of men being allocated research time is reflected in faculties except in the Engineering faculty where women a higher percentage of women are allocated (45 v 33%). However in that faculty the average allocation given to men is much higher (15 v 29 units).</p>	<p>Trend of more men being allocated research with Engineering faculties the exception with a higher % of women allocated research time.</p>
2 Teaching within Faculties Academic staff, ave. JL, L and SL grades	<p>Generally a higher % of women are allocated teaching but typically lower units than the men, this is most pronounced in Engineering (28 v 42 units).</p>	<p>Generally the men have a higher teaching allocation.</p>	<p>The above picture is reflected at faculty level where men have a consistently higher allocation.</p>	<p>Men generally have higher teaching allocations than women.</p>
3 Teaching administration within faculties Academic staff, ave. JL, L and SL grades	<p>The percentage allocated this work and average units between the genders is consistent in all the faculties except engineering where it is skewed towards the men (42% v 53%) and the units allocated are skewed as well (12 v 21 units).</p>	<p>The percentage allocated this work are skewed towards men in all faculties, as is the time allocated, except in Engineering where these shift on average towards women (17 v 13 units).</p>	<p>The percentage allocated this work are generally similar in each faculty except in Health where the percentage of women allocated is a bit higher (94 v 91%) as is their average time allocation (26 v 22 units).</p>	<p>These allocations are similar between the genders with the exception being Engineering which skews towards women in some case studies and to men in others.</p>

Table 8: (continued)

Category	Case 1	Case 2	Case 3	Comment/ themes
<p>4 General Management roles by Faculty</p> <p>Academic staff, ave. JL, L and SL grades</p>	<p>In Health the percentage of women allocated general management is higher (19 v 13%) whereas the converse is true in Engineering (12 v 22%).</p>	<p>The trend is for a higher percentage of men to be allocated more time, except in the Health Faculty where a higher percentage of women (22 v 5%) have an allocation, and in the Business school where women get a higher time allocation (20 v 16 units).</p>	<p>Health and Business Faculties show a higher percentage of women allocated this work and a higher amount of time on average. In the other faculties the percentage allocation does not vary but men are allocated on average more time.</p>	<p>Health seems to be an exception here giving a higher % of women allocated this work.</p>
<p>5 Overall allocations by faculty for full time staff only</p> <p>Academic staff, ave. JL, L and SL grades</p> <p>(in this section, as all staff have an allocation, the focus is on percentage differences)</p>	<p>Within the overall trend of women having lower overall allocations, this is accentuated in the Health Faculty and the Engineering faculty (-13% and -12% respectively).</p>	<p>At faculty the above trend is reflected except in Engineering where women's workload is on average +10.6 % higher</p>	<p>Looking across the faculties there is a strong influence from the Health faculty where women's workloads are on average +9.9% higher than men's. In contrast workloads are about equal in the Business school and weighted away from women in the other faculties (-2.8%).</p>	<p>In some Health Faculties (case 3) women's workloads are higher, whereas in another (case 1) they are lower than men. Likewise in Engineering faculties in some (case 1) men have higher allocated workloads and in others women have higher allocated workloads (case 2). Once again Health and Engineering faculties seem to be the exception and skewing workloads one way or the other.</p>

7.4 Summary

The three main areas of difference between the genders seem to focus around overall workloads, teaching allocations and research (points a, b and c below). For the other issues any difference was more subtle.

- a. Overall workload time - by SL grade men have higher overall time allocated in all three cases. However at JL grade, although the numbers are small, the women are allocated more time.
- b. In all three cases (at L grade and above) men on average, generally, have more time allocated for teaching
- c. The percentage of men allocated some university-funded research time, by SL grade, is higher in all three cases for men.
- d. For teaching administration work women at Lecturer grade tend to have, on average, slightly higher time allocations, even for those on fractional contracts, however this evens out by SL grade.
- e. General management roles at SL grade seem to be given more widely to women, but with slightly smaller allocations than men.
- f. More women were on fractional contracts and with a smaller FTE. There is some indication that these members of staff are not allocated so much in the way of general management work or university-funded research time. However, female staff on fractional contracts seem to be allocated a little more teaching administrative work than their male colleagues on fractional contracts.
- g. Health and Engineering faculties seem to weight in favour of men or women in different case studies in terms of overall workloads and research work, potentially suggesting an active effort in some places to address gender based differences.

8 Discussion / synthesis

From the interviews and workshops it was found that aspects of work that seem to be problematic for women were the frequently noted combinations of the **open-ended, uncontrollable and the unknown**. Further these characteristics were often associated by them as almost defining features of the Head of School role.

8.1 Interviews and workshops with female academics

The HoS role, despite associations with an 'administrative wasteland' (Jones D 2011)(p279) is an important route to higher positions within HE. Although the majority of staff from both genders in the survey thought that HoS was an unattractive role, the minority that did see it as 'very attractive' was twice the proportion for men as women.

One could conjecture that these expressed disinclinations work in dynamic interplay with natural work interruptions brought through maternity leave and family responsibilities to make career progression through a management role challenging. However although there may, arguably, be some degree of choice around part-time working patterns for women, the fixed term contracts survey finding shows more than twice as many women as men working on this basis, further over 91% of both genders want to be working on a permanent basis. It would seem then from interviews, workshops and survey that more female academic staff have a more fragmented career and this probably is connected with their lower expectations and aspirations in both management and academic roles (see survey results above). This resonates with research in this area in academia by Toren and Moore (1998) who note how social expectations of progress differ between the genders, with women staying longer at each grade.

This web of factors was used to create the overall landscape given in Figure 2 below. But before getting to this the next section introduces what has been learnt about the distinctiveness of these views in the context of the views and workloads of male academics too.

8.2 Perspectives from surveys and workload data analysis for female and male academics

The survey allowed direct comparison between the genders. In terms of the emphasis of workloads there were great similarities in the bulk of their time and effort, however around the margins there were some interesting, albeit small, differences. These were a series of roughly five percentage point differences, for example, with men around this amount higher on: finding HoS a 'very' attractive role; placing management as a primary role; having a PhD; and on their overall average work allocations. Again for women this degree of difference was noted with them higher on: placing teaching administration as their primary work, placing pastoral care of students as their secondary role, and for those employed on fixed term contracts.

It may well be that these small differences in work emphasis, taken together with fractional / fixed contract work, increased incidence of career breaks and muted expectations on progress, may have a cumulative effect on work roles and opportunities and have profound implications for women's career progression.

Hofstede's (2001) huge survey across many occupations and countries that included looking at work goals and found significant differences between the genders: with men placing more importance on advancement and earnings, whilst women emphasised the importance of a friendly atmosphere and security. This resonates with the workshop discussions where it seemed that there was unwillingness by women to promote themselves and challenge their entry level on employment. However our survey did not find such a

divide on values between the genders as, for both, a friendly atmosphere was paramount.

From the data analyses small differences were found between the genders in the more junior grades in specific areas, for example, average time allocations for teaching being a little higher for men and teaching administration a slightly higher for women. Again it may be at the margins these small differences are important. However when looking at SL grade early patterns seem to consolidate, for example, with more men in all three case studies getting more university-funded research time. Also a trend developing at L grade for men to have slightly higher overall workloads seems to consolidate by SL grade in all three case studies. This may be a controversial finding and some of the women at the workshop argued that certain elements of the work they were undertaking, such as pastoral care roles, did not get sufficient recognition within their workload models. Awareness of these overall figures could facilitate review of tariffs within universities to check that relative weightings for work are sound.

Looking at general management roles, although a higher percentage of women take on these roles than men, those that do are involved in work with slightly smaller allocations. This confirms results from interviews, workshops and the survey with women expressing concerns about larger management roles, such as head of school.

8.3 Synthesis

The overall view emerging from all of the elements of the study is summarised in Table 9. This is then reflected in Figure 2, where the landscape from the interviews, workshops and workload data has been used to illustrate the factors felt to be distinctively at work in terms of women's progression in HE.

Table 9: Summary from interviews, workshops, surveys, and workload data analyses.

Interviews / Workshops	Surveys	Workload Data Analyses
Part time work interruptions	More than twice the % of women on fixed term contracts. Of those having a career break twice the proportion were female.	Fractional contract staff not usually allocated general management roles
Little career planning	Women more inclined to career plan than men (34% v 27%). Men's choice for promotion more focused on research leadership (47%), whereas women more mixed response.	Subtle differences between the genders in their work profiles.
Workloads high	Primary work commitments similar between genders, but at the margins differences with men placing more emphasis on management roles (19%) compared to women (16%), and the opposite tendency for teaching admin, women (11%) v 6% . As a secondary activity pastoral care emphasis was higher for women (20%) compared to men (16%).	Whilst at JL grade women on average have slightly higher allocated workloads than men this pattern alters through L grade and by SL grade men's overall allocated workloads are higher, with them allocated more time for both teaching and research. However women have slightly larger allocated workloads for teaching administration work.
Insufficient time for research. Plus some issues with specialism limiting work options.	39% of women have PhD compared to 44% of men. Evening / weekend work - although both genders focus on teaching, a higher % of men do research at these times.	Similarities in the % of staff allocated research at lecturer grade, but by SL grade generally % of men allocated research is higher.
Negative view of HoS role	Only 5.7 % of women said HoS role very attractive compared to 11.4% of men. Men's expectations higher – with 37% expecting to get to Prof, and 73% to HoS, compared to 23 % and 63% of women respectively.	A higher % of women take on general management roles, but these tend to be tasks with slightly lower time allocations than men's.

Figure 2 takes forward, and connects together, the issues that have emerged across the three aspects of the research done. It shows, in the column of black boxes towards the left-hand side, the six workload factors that appear to be practically influential in influencing women's relatively muted career progression in HE. From the interviews and the literature it is evident that, in the background, there are general societal demands outside of work that create downwards pressure on women's capacity to focus on investing time on advancing their careers (Rafnsdottir G and Heijstra T 2013). This is shown to the left of the diagram as a major contextual factor¹, but the focus of this research is on the identification and consequences of the (six) practical workload factors. These factors are shown to impact on one of two major "routes" to progression: the research route or the managerial route. Of course these are not mutually exclusive, but they do each link to distinctive workload issues. In addition there are some general factors (overall workloads, fractional contracts and career breaks)

that impact generally on the rate of investment by an individual in their "CV for promotion". This last is shown as the place where all the impacts collect with consequences either for slower career progression, or possibly curtailed career progression, if some earlier decisions cut off options later (e.g. not maintaining a research profile).

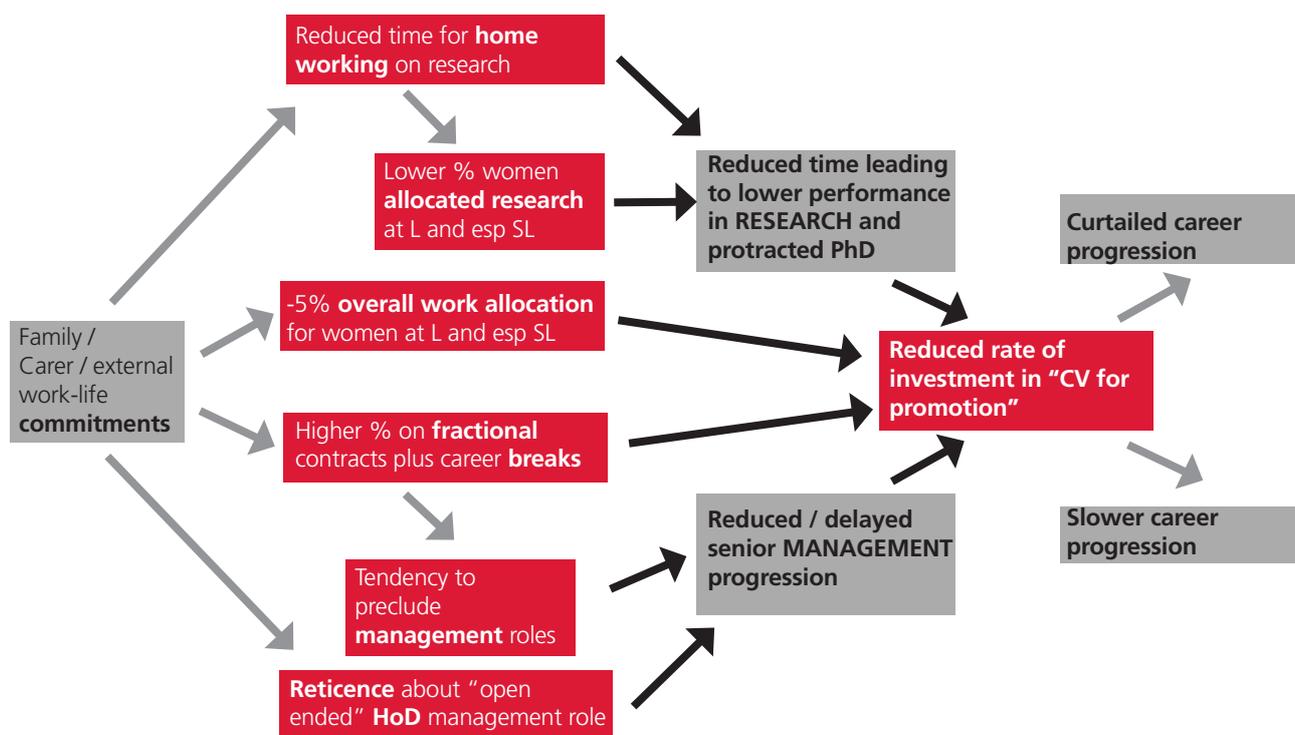


Figure 2: Women in H.E. Contexts, Influences and Consequences

¹ Note: However, this does seem to be substantiated as a factor by the workload data, which shows changes in loads and roles coming after junior lecturer level at a time when women probably start to accumulate extra responsibilities outside work

8.4 Data Analysis Framework

Building on our practical experience of collecting and analysing the workload data from the three case study universities we know that it is feasible to access interesting insights provided the right data elements are brought together. Generally this requires data from workload systems (at institution level or, if not available, at department level) to be linked to data from the HR system. Where an institutional approach is taken it seems this will typically revolve around Finance, who often have a role in using workload data for TRAC responses. At present it is unusual for the various elements to be brought together, undermining the practicability of a gender-based analysis.

Table 10 suggests some general data elements that we have seen being used to support an institutional analysis of gender issues around academic workload allocations. Quite detailed examples of the possible component elements are given in the second column, but the analysis would probably be at the “main elements” level (first column), at least in the first instance. Possible additional aspects are given in the third column, for example something specific such as pastoral roles may deserve a focus and other equality issues such as ethnicity could be factored in. The elements from the workload data are categorised within expanded TRAC categories and these sum to the total workload for each individual.

This information is commonly brought together by importing the data from various sources into a common spreadsheet. The format is simple: the various elements (such as those given in Table 10) populate the x-axis and down the spreadsheet, on the y-axis, a listing of all academic staff is created showing each person’s workload profile per line.

This can use hours or units depending on what system the university / department runs. For a department this could be achieved by taking any workload system information and adding the gender and salary grade of the individual staff.

For an institutional analysis a more comprehensive approach is needed to be able to first collect and then decompose the analysis to operational areas. Once created investigative analyses can be performed and so too can monitoring activities for aspects identified as important.

Table 10: Example Elements for a Framework for Analysing Workload Data

Main Elements	Examples of Possible Component Elements	Possible Additional Aspects
From Workload Data:		
Teaching delivery	Undergraduate, Postgraduate	Contact, Assessment, Preparation; Publicly funded / Non-publicly funded
Teaching Support Teaching Development	Module Leadership, Placement Visits, Scholarship, Non-module Admin Module / Programme Development, Teaching Admin /Management, Student Recruitment, Staff Development (Teaching)	Overseas Delivery, Pastoral care roles Commercial Teaching
Research	University Funded Research, PGR Supervision, Funded Research, KTP Research, Other research and scholarly activity.	
Research Support	Research Admin / Management, Staff Development (Research)	
Other	Commercial Consultancy, External Profess Activities	
Other Support	Other Admin /Management, Staff Development (Other)	
General	General School / University Management, University & Faculty Committee Work, Staff Development (General)	
Total Workload (Hrs or Units)		
From HR / Finance:		
Organisational	Faculty, Dept / School, Salary Grade, % FTE	Employee Group, Grade Point, Salary Cost
Individual	Gender	Dob / Age, Ethnicity, Disability, Orientation

9 Conclusions and Recommendations

Whilst many of the drivers noted by women are obviously shared by men, such as subject enthusiasm and a desire to maintain high quality work we did find some differences between the genders in the workload data.

9.1 Conclusions

The university wide workload data available to this project has allowed investigation into issues raised in the interviews and workshops. Although these issues may be easier to detect in HEIs with university-wide models, the review of data may still be done by those with data at only school or faculty level.

The findings revealed some indirectly gendered issues, for example in the more limited work areas pursued by those on fractional contracts, who again from the data can be seen to tend to be female. Further it needs to be remembered that this is a static point and does not reflect the issue that at some time in their career women are more likely to work part-time, and so be limited in the opportunities available to them during that period. This may relate to management experience or to research activity, where loss of contact and focus during part-time work may be exacerbated by women focusing relatively less on research when working in the evening or at weekends. This may limit the choice of activity to teaching work solely, which will be problematic when promotion criteria usually require excellence in at least two spheres.

The data on full-time staff also revealed a series of small, but consistently found, quantitative and qualitative differences between the genders on their workload. This may be down to individual choice and work preferences or might potentially be a directly-gendered issue/organisational culture, with a lack of clarity about the consequences of certain work options. For example, a lack of transparency about the possibly

more limited progression opportunities available through taking on many smaller management roles or teaching administration work. However, one could conjecture that this series of 'marginal losses', although seemingly unimportant may, when aggregated, be having a profound effect.

This is explored in the Figure 3 below. Here two scenarios are built with their own sets of assumptions, but rooted in the findings of this research, to test the cumulative impacts of the different marginal rates of career enhancement. The scenarios both take a view of promotion as being driven by additions to an individual's Curriculum Vitae (see Fig 2). It is assumed that a basic rate of progress would lead to the first promotion after five years, roughly reflecting the survey of staff reported above and Toren and Moore's (1998) findings. Thus to move from a level of "0", representing the JL level to "1" representing the L (lecturer) level takes a 20% annual addition to the CV. For the "20% pa" line on the graph this is assumed to then continue, leading to second and third promotions at years 10 and 15 respectively. This could be thought of as a simple model of men's career progression, on average.

Soon after the initial promotion the other scenario ("15% plus breaks") diverges as the assumptions vary. These are, that at Years 7 and 10 a year's break is taken from work, and that from Year 8 onwards the annual contribution to the CV drops to 15%. This broadly reflects the findings of the various aspects of this study that women appear to work and progress like men initially, but that later career breaks arise asymmetrically.

For example, twice as high a percentage of women than men in our survey had had major breaks. Additionally we have built in a 5% lower contribution to the CV to reflect a combination of the tendency for the overall allocated work to women to be say 4% lower and an estimated -1% impact on CV-building of the gender differential on part time work.

It is assumed that any reduced time committed to work hits the margin that contributes to enhancing the CV. This could be seen to be a simple model of women’s career progression on average. It leads to a second promotion at Year 13.5 and only slight progress towards a third promotion by Year 15.

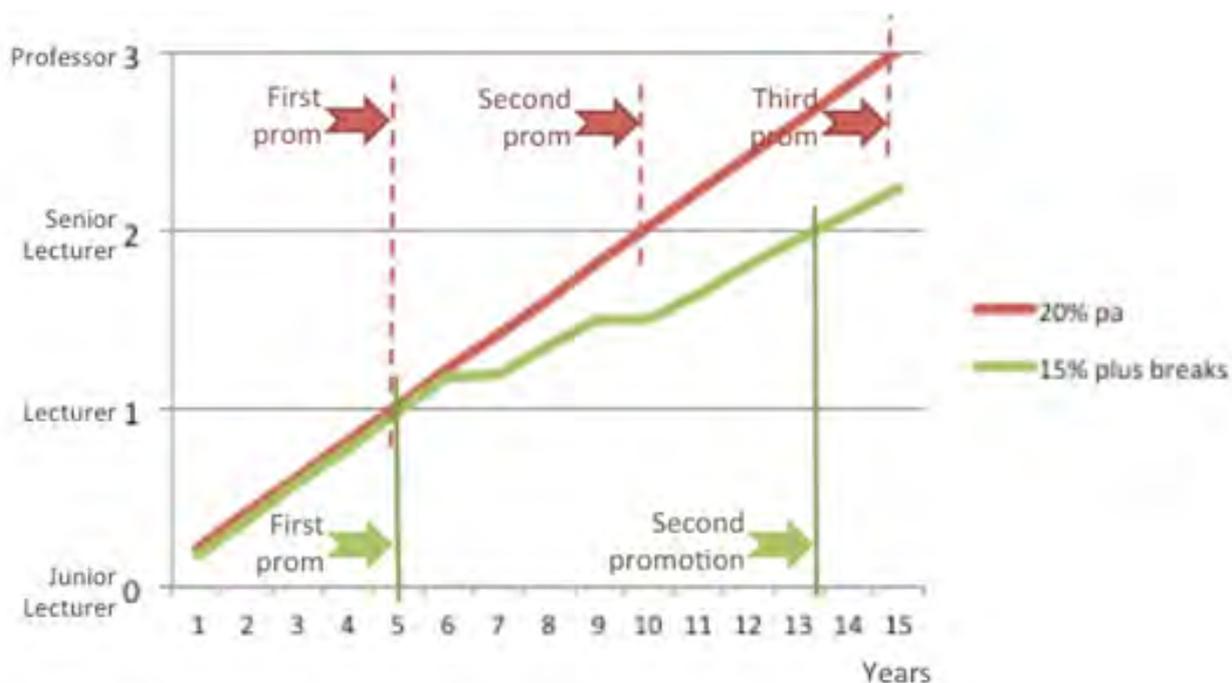


Figure 3: Career Scenario Map

This is not being presented as a model of how things are for individuals or how it should be, but is rather an attempt to represent the evidence in relatively simple scenarios and to see if this fits the outcomes observed. It has to be said that the impact of the relatively small differences made is striking. Women are steadily lagging behind in terms of promotions, but this is then reinforced by the ever-reducing pool from which promotions to the next level are made (see Table 5 and Figure 1).

9.2 Recommendations

The persistent issues that have been identified are listed below in Table 11 and suggested actions given, respectively for individuals and at school/faculty and university levels.

Table 11: Summary Recommendations to Enhance Women's Career Progression

Issue found to impact	Individual action	School / faculty action	University action
Fractional/fixed contracts/ career breaks	Be aware of impacts on the progressive development of C.V. and opportunities for management roles. Tactical choices of activities with high value for career development.	Monitor and review workload data for gender differences. Facilitate staff in their opportunities for managerial development. Where possible broaden spread of work roles to staff working P/t or on fixed contract. Integrate P/t work into school planning and organisation. Review job sharing opportunities.	Monitor and review for gender split on fixed term contract basis. Align workload and HR data for ease of review.
Carer commitments	Be aware of the impact of reduced after-work capacity and focus and optimise any activity that is carried out.	Be aware of the impact of reduced after-work capacity and focus and optimise any activity that is carried out.	Potential for child care support and family friendly policies, e.g. meetings after normal office hours.

Table 11: (continued)

Issue found to impact	Individual action	School / faculty action	University action
Reticence about HoS role	<p>Appreciate the importance of this role as a gateway to managerial progression. Work with mentors to understand implications and alternative models of practice.</p>	<p>Discussion / encouragement at Personal Development Review about management roles and familiarisation activity.</p>	<p>Monitoring and review of gender split in workload data. Provision and delivery of: middle management courses, Women advocates / role models. Review promotion criteria and scope for alternative career pathways – allowing horizontal movement that prevent stasis and provides scope for staff development. e.g. Teaching Fellowship schemes. Consider new academic leadership roles as alternative to HoS route. Review nature of HoS work and balance of activity – and consider alternative modes. Invest in more admin support for HoS.</p>
Breaks in research focus	<p>If research a priority interest, attempt balance of activity during after-work hours and when working on a fractional contract.</p> <p>Maintain contacts with research group and own specialist focus.</p> <p>Consider broadening specialist interest to avoid isolation issues.</p>	<p>Monitor workload data to ensure fairness in spread of work roles not just in overall loads.</p> <p>Review workloads to ensure that necessity and expectations of after-work activity is not creating disadvantage to particular groups.</p> <p>Ensure transparency of opportunities. Provision of research mentors (with mutual R interests) and help facilitate contacts with 'bidding groups'.</p>	<p>Monitor and review of gender split on staff PhD completion.</p> <p>Encourage targeted action within faculties and provision of workshops.</p> <p>Provide clarity on the need for transparency of workload data.</p>

Table 11: (continued)

Issue found to impact	Individual action	School / faculty action	University action
<p>Overall Workloads*</p> <p><i>*Some women interviewed felt their individual overall workloads were high. Whilst this is likely to be so, from the workload data men had, on average, higher overall allocations.</i></p>	<p>Ensure workload data provided reflects the range and volume of work engaged in.</p> <p>Review work practices to ensure the balance of time spent reflects the tariff awarded to particular work areas.</p>	<p>Consultation & review of tariffs for work roles to ensure that relative weightings between activities are appropriate.</p> <p>Ensure staff understand workload model operation and feel able to challenge accuracy of data.</p> <p>Ensure transparency of workload, roles and opportunities for staff.</p> <p>Review and monitor workload data for significant differences between the genders.</p>	<p>Align workload and HR data for ease of review.</p> <p>Review and monitor workload data for significant differences between the genders.</p> <p>Ensure the workload model is not over-complex.</p> <p>Provide web-based tutorials for staff on the use of the model.</p>
<p>Career planning*</p> <p><i>*Whilst the women surveyed were planning their careers a little more than men neither group were engaging much in this activity. It may be that the nature of women's careers, with breaks etc requires them to be far more active in this area.</i></p>	<p>Be aware of impacts of workload choices on progressive development of C.V.</p> <p>Tactical choices of activities with high value for career development.</p>	<p>Awareness of needs of those transferring from industry or other professions - for example providing familiarisation to HE career structures and opportunities.</p>	<p>Develop career scenario maps to aid all, and especially those coming from industry.</p> <p>Develop alternative career maps with 'long and thin' patterns for those who may have most productive years later in their careers.</p> <p>Ensure clarity on promotion criteria.</p>

9.3 Finally

The issue of different career trajectories between the genders is complex, even when looking at what could be expected to be the focused area of academic workloads. That said a number of relatively small gender differences have been identified and the cumulative impact these could have has been illustrated. It would seem that these aspects could be the root causes, relatively early on in women's careers, that result in the pronounced disparity in the percentage of women professors / senior academics. Within a dynamic picture, this study has revealed some areas that warrant monitoring, such as overall

workloads. Further it has highlighted different inclinations for management roles and patterns surrounding research activity that require greater awareness by staff and managers in relation to career planning and progression. Many of these choices are quite subtle, but we argue the effects are cumulative.

We hope that the techniques used to examine workloads and an awareness of the cumulative effect of workload choices may be extended from the area of gender to elucidate other areas of inequality.

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