ATHENA
PROJECT

Report on the 2000
Development Programme

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PREFACE

When the Athena Project was established in 1998, it was a free-standing, four year enterprise. The enormous value of the work that it has achieved since then is widely recognised, not simply within Higher Education, but also in the larger national arena. Now, however, as the project moves towards its March 2003 termination date, it can look to its work being continued through the Equality Challenge Unit. The unit was established in 2001 by the same sponsoring bodies that established Athena: Universities UK, the Standing Conference of Principals, the higher education funding councils in England, Scotland and Wales, and the Northern Ireland Department for Employment and Learning. In addition, the Athena Project has benefited from dedicated funding from the Office of Science and Technology.

The ECU is the operational arm of the Equality Challenge Framework, a formal agreement which includes not only the Unit's financial sponsors, but also - and very importantly - all of the higher education trades unions. The remit is broader than that of Athena, being concerned to improve equal opportunities for all who work or seek to work in the UK higher education sector. But within that, Athena's focus on the advancement of women in science, engineering and technology is a major strand, and it was therefore a welcome decision by the sponsoring bodies that the Athena Project should be fully incorporated into the ECU from the outset. There is strength in operating within a broader context of national and institutional policy development, and there are opportunities for the interests promoted by the Athena Project to be pursued beyond 2003 within the ECU's larger work programme. In the meantime, it seemed logical for the ECU to provide some dedicated staffing and other resources in order to support the remaining part of Athena's specified four year plan of work. This is entirely appropriate, given the quality of what is being achieved, its increasing impact, and its centrality to the over-all aims of the ECU.

The Athena Advisory Committee (formerly Steering Committee) has given the project dedicated and enthusiastic support, and the work of the members continues to be invaluable. For this I must record the warmest possible thanks on behalf of the sector as a whole.

The Report on the 2000 Development Programme, in focusing on organisational culture, raises issues that extend well beyond science, engineering and technology. I commend it to all those within higher education who have leadership roles - at whatever level - in developing institutional cultures which promote equality and diversity.

Professor Joyce Hill
Director, Equality Challenge Unit
February 2002

FOREWORD

I am pleased to introduce our report on the second year of the Athena Development Programme. The Athena Project's aim is 'the advancement of women in science, engineering and technology (SET) in higher education (HE) and a significant increase in the number of women recruited to the top posts.' To achieve its aim, Athena works with higher education institutions to develop, share, encourage and disseminate good practice.

This report brings together the work of our 2000 Development Programme. The five projects which were awarded grants focused on the organisational culture and the processes and practices of SET and HE, which present barriers to women's progress to the top:

> The University of Edinburgh - Bridging the gap
> Heriot-Watt University - DRAW-the development and retention of academic women
> The University of Luton - Inclusive committees
> The University of Oxford - Encouraging applications from women scientists
> The University of Surrey - Moving up

Athena is continuing to work with all five HEIs during 2002 as they start to implement the action agendas developed through their projects.

Athena gave smaller grants to set up five Local Academic Women's Networks (LAWNs) based in the Universities of East Anglia, Leeds, Loughborough, Plymouth and St Andrews. The LAWNs' programmes targeted women at different stages in their SET careers. They all demonstrated the power of networking in making small but important changes in the culture of HEIs and in the working lives of their members. We are delighted that all the LAWNs are continuing and developing their activities in the 2001/2002 academic year.

All the HEIs involved have contributed to an improved understanding of the under-representation of women at the higher levels of SET and HE. Within their HEIs they have improved the visibility of women and raised awareness of the barriers to women's career progression. A Good Practice Guide based on the 2000 Development Programme will be published later this year.

This report is just an introduction to what our SET colleagues and their HEIs have achieved. If you want to find out more about the projects visit the Athena website - www.athena.ic.ac.uk - for further information.

Our thanks must go to our sponsors, without whose support it would not have been possible for Athena to achieve so much in its first two years. For HEIs who want to introduce changes based on the findings and good practice from Athena's Development Programme the HEFCE human resource strategy funding (and the SHEFC equivalent) will make a significant difference.

This report is for our sponsors, Heads of HEIs, Heads of SET faculties/departments and their senior academics, women working in SET at all levels and our colleagues in personnel, equal opportunities, staff development and university administration. They are all important in making the changes still needed to achieve Athena's aims.

Professor Dame Julia Higgins
Chair, Athena Advisory Committee
February 2002

This report brings together the work of Athena's 2000 Development Programme. The projects all focused on the organisational culture of SET and HE, the dynamics of unintentional discrimination and the processes and practices which present barriers to women's career progression. The initiatives which the programme supported were those seen to have the best potential for contributing to Athena's aims 'the advancement of women in science, engineering and technology (SET) in higher education (HE) and a significant increase in the number of women recruited to the top posts'.

The views expressed and the words used in the report are those of the many women (and men) in SET in HE who contributed to the success of the 2000 programme.

The first two sections of the report describe what the projects wanted to achieve, what was involved and their shared success factors: a clear institutional rationale for their work; building on previous work; the need for evidence before action; and the involvement and commitment of senior managers.

The section 'Getting In' describes the most difficult career move from research contract to first academic appointment and the point at which women start to disappear. The section contrasts researchers' career progression and expectations with those of Principal Investigators and senior academics, and compares men's and women's perceptions, experiences and approaches to the appointment process.

'Getting On' includes the networks, the support and the personal and professional development activities, which reduce isolation and improve retention. The section considers promotion procedures and the barriers to women's enjoyment of the benefits of a career in SET. It explores women's visibility, the recognition of their contributions to university and departmental life and the differential roles and responsibilities - including committee memberships - undertaken by women and men which are critical influences on making it to the top.

The report concludes that the organisational culture of SET and HE can be changed by the good practice demonstrated in the Athena Development Programme. The changes to institutional practices and processes, and the small changes to women's working lives brought about through networking, do make a difference. The report recognises that energy and commitment are needed if women's contributions to SET and to the work of higher education more generally are to be properly recognised and adequately reflected in their career progression and rewards. Athena as a national initiative can help but on its own cannot keep this important issue at the top of HEIs' agendas or sustain the action that is needed. That action has to be taken by the higher education institutions themselves.

ATHENA 2000 DEVELOPMENT PROGAMME

The projects supported by Athena were those seen to offer the best contribution towards the achievement of Athena's aim 'the advancement of women in science, engineering and technology (SET) in higher education (HE) and a significant increase in the number of women recruited to the top posts.' The projects focused on the organisational culture and the processes and practices of SET and HE, which present barriers to women's progress to the top. Work on the projects started in autumn 2000 and was completed by autumn 2001. All their HEIs have now begun the implementation of the action agendas developed by the projects.

Edinburgh wanted to improve those aspects of institutional practice that disadvantaged women and to establish a practical and positive link between the university's commitments (as described in key policy statements) and the actual experience of research staff in trying to establish their careers in SET. They examined why women were over-represented at researcher level and under-represented in the lecturer grades. They conducted research with male and female research staff, principal investigators (PIs) and heads of departments (HODs) to explore their differing approaches to careers, attitudes to applying for lecturer posts and their experiences of the process. Their research results informed a review of the practical options for improving equality of opportunity and recommendations for changes to institutional practices which disadvantaged women. The university is now working through their proposals.

Heriot-Watt wanted to find out why women left Heriot-Watt, to identify the barriers that prevented women seeking promotion, to make women more aware of promotion procedures, and to make the procedure more transparent. They sent all women academics a questionnaire designed to identify barriers to women's retention, promotion and development. Their initial analysis of the results was reported at a Principal's away weekend. This gave HODs and senior managers the opportunity to make suggestions about changing university practices and procedures. The resulting action plan includes a staff development policy, promotion and appraisal procedures. The university has agreed the timetable for the plan and work has started.

Luton wanted to ensure that women were appropriately represented on its committees and that its committees functioned in a manner which was inclusive. They analysed women's representation on university committees and developed systems which, if fully implemented, would ensure that women were appropriately represented on university committees and that the committees function in an inclusive manner. The university has introduced a training programme for committee chairs and a network for women committee members and is now addressing the underlying structural, organisational and procedural barriers identified by their project.

Oxford wanted to develop initiatives to assist research staff who wished to move into academic posts and to ensure that all who were eligible were fully and accurately informed of the opportunities available. Their initial report identified barriers to women's applications. A residential careers event (funded by the university) was held for women who might be interested in working at Oxford. The action plan, developed from this work, included recommendations for the projection of positive images of the university's work, the review of selection criteria, recruitment processes and employment practices and future positive action initiatives. The plan, approved by the personnel committee and disseminated throughout the university, is now being implemented to an agreed timetable.

Surrey wanted to improve the recruitment, retention and career progression of women in SET and to support them in playing a more significant role in shaping the university's direction and culture. They established a women's forum which will provide support and deliver some women-only staff development activities. Their survey of male and female academic staff explored career histories and their links with different areas of responsibility. The results informed the action plan presented to the university. The plan includes improvements to their management development programme, changes to promotion procedures, the introduction of departmental arrangements for rotating administrative appointments, the allocation of individuals to research groups, and the allocation and monitoring of teaching loads.

The prerequisites to the success of all the projects were a clear institutional rationale for what they did, and an understanding that universities need evidence before action. The project teams built on firm foundations from previous work, secured the early involvement and commitment of senior managers. They were clear on their objectives and how they would use their findings in achieving their aims.

Institutional rationale

Edinburgh's monitoring showed slightly more women researchers (30% by comparison with the UK's 29%) but markedly fewer women in lecturer grades (12% Edinburgh and 20% UK). However, where women applied for lecturer posts, they were slightly more likely to be shortlisted and eventually appointed. Despite Edinburgh's substantial and diverse approach to the development and support of research staff, it was clear that wider institutional policies and practices needed to be addressed to sustain the momentum of their work.

Heriot-Watt's female academic staff representation ranged from 31% in economics and social science, to 0.1% in engineering and 0.06% in science. At professorial level the range was from 12% in economics and social science to 0.05% in engineering and 0% in science. There were no women in the university's senior management group. The university was concerned at the number of women who had left in recent years, particularly research staff, and recognised the need to improve their development, promotion and retention.

Luton had a diverse student population, just over half of whom were women. Its academic staff were over 40% female, but only just over 30% in SET (in its faculty of science, technology and design). The university recognised that committee participation was an intrinsic part of academic life. However, despite its commitment to equal opportunities, the issue of gender representation and imbalance in university structures had not really been considered; hence women represented 70% of the membership of 'administrative' committees, but only 13% of the research committee.

Oxford had overall some 46% of staff and 20% of academics who were women. However, in SET only 13% of academics were women, although 40% of research staff were women. The university's recruitment monitoring showed that in 1998/99 women were 26% of applicants, 30% of those shortlisted and 25% of appointees. In 1997/8 women were 26% of applicants, 28% of those shortlisted and 30% of appointees. The proportion of women applying was lower in SET and higher grade posts. Although the proportion of women applying was higher than in the existing workforce, Oxford was concerned that there would only be a slow improvement. What they wanted was a shift to ensure that the full range of suitably qualified women applied.

Surrey was above average for the proportion of women senior staff. Over the previous ten years there had been a significant increase in the number of women academics in SET. In 1989 there were 5 women academics in engineering at lecturer level. By 2000 there were 14, including 1 professor and 7 readers/senior lecturers. However, women were under-represented on most university committees, the university had difficulties in retaining the women it attracted and there was a general perception that progression was more difficult for women.

Building on previous work

Heriot-Watt earlier in the year had launched a new equal opportunities policy, which required HODs to develop action plans for their departments. The policy included a review of procedures to ensure that their language and operation avoided inappropriate discrimination.

Edinburgh had a number of SET initiatives on mentoring and career development. Their project gained from its synergies with these initiatives and working in parallel with them provided valuable information and improved the potential for linking their findings to sustainable policies.

Oxford had recently expanded a self-organised network of women tutors to form the Oxford Women's Network (OWN) with over 700 members including research, short-term teaching and support staff. OWN, with its email network and occasional meetings, helped to disseminate information on and from their project.

Luton the previous year had set up a women's forum in its science and technology faculty. The forum had identified the membership/conduct of committees as a significant barrier to women's full participation in the university. The university had already responded with the introduction of a transparent process for internal secondments and an audit of committee representation which had indicated gender inequalities. As a result, new guidelines on the composition and conduct of committees had been introduced for the academic year 2000/2001.

Surrey had established effective equal opportunities and a good record for fair appraisals, staff development and management training.

Evidence before action

All the projects started with research on their staff profile and career progression. They analysed national data and compared it with their own. They explored the motivation and perceptions of research staff, which they compared and contrasted with the views and reactions of senior staff. This research underpinned their work. It helped them to assess/improve their understanding of the underlying causes of trends, inform their identification/review of options for change and to recommend changes to institutional practices/processes.

Edinburgh used qualitative results from focus groups and in-depth interviews to formulate a questionnaire sent to 1,000 male and female research staff with a 27% response rate (51% men and 49% women).

Heriot-Watt surveyed their women academics to identify their main concerns and interviewed HODs to draw out their perceptions of existing attitudes, behaviour, barriers and systems.

Luton evaluated its current committee membership and operational practices, they talked to their women's forum and surveyed their female staff. They used the results in focus groups and audited the representation of female staff on their committees.

Oxford commissioned independent research with women in its recruitment pool (research staff and some already in academic posts at Oxford and other research institutions, and women in industry) to identify the barriers, real or perceived, to applications for SET posts at Oxford.

Surrey was clear that things would not change unless they could provide their senior management with hard evidence of the largely indirect and subconscious cultural discrimination, which cumulatively disadvantaged women. Their survey of male and female academic staff explored career paths and links with different areas of 'hard' and 'soft' responsibilities.

Senior management commitment and involvement

Targeting an area which the university had already identified as important was valuable in gaining senior management support. Luton was already committed to increasing the representation of women at senior management and HOD levels and had introduced guidelines for its main academic committees on composition and conduct at the time their project started.

Two chairs of project committees were Pro Vice-Chancellors. This senior level involvement confirmed the importance of the project within their universities and led to the expectation that action should and would be taken on the project findings. Oxford's Vice-Chancellor took an interest throughout and contributed a key-note speech to the women in science conference. Luton's Pro Vice-Chancellor took early action. She ensured that the university questioned the representation of women on all its committees and asked the Academic Board to review the membership of its committees.

For Heriot-Watt, the personnel director's membership of the project committee was essential to putting together their action plan as much of it needed to be centrally driven with significant personnel input. She also enabled the project to 'piggy-back' on other personnel initiatives.

All the projects shared their findings with senior mangers, deans and HODs, some at an early stage. This gave them the opportunity to contribute suggestions for managing change and to 'own' the action agendas that resulted.

Two of the five projects, Edinburgh and Oxford, focused on the gap between research contract and first academic appointment - the gap where women disappear (Oxford's female representation fell from 40% researchers to 20% at lecturer level, Edinburgh's from 30% to 12%). Both universities' recruitment monitoring showed this was not caused by overt discrimination but related to university processes and practices and to women's perceptions of them.

This section looks at their findings. The section compares researchers' career progression and expectations with those of PIs and senior academics, and men's and women's perceptions, experiences and approaches to the appointment process.

Career progression

Edinburgh's survey illuminated the gulf between researchers and their senior colleagues. Many researchers foresaw a long-term career in academia. They agreed a career strategy was an essential first step towards a successful career, but most had no career plans and had received little or no support in career planning. They just progressed to a PhD then into post-doctoral research. They saw the move from a post-doctoral appointment as the hardest to achieve and the time when serious career choices had to be made. Those thinking of a move to industry saw it as 'an environment with career progression, development and security'. Their perception was that 'universities are quite badly managed. There is no management structure It is difficult to progress up a random structure' 'people are funneling out because there is nothing to funnel into, if you do win through you are winning totally against the odds'.

Researchers believed the extent to which individuals were encouraged to be involved in departmental activity influenced their career progression potential, for example contributing to publications, writing research proposals and attending conferences. They were concerned about their exclusion from informal networks and the poor level of support they received from managers for attending staff development events. They saw the need for:
- input from trained careers advisors
- HODs to be aware of the danger of overlooking women in their teams
- women researchers to be seen as a potential source of recruitment for academic posts
- HE generally to adopt a more structured approach to researchers' career development

There were also concerns about the absence of positive female role models, the inability to progress within salary grades without a PhD, and the constant need to pursue funding/renegotiate contracts which increased individuals' vulnerability to work-place abuse, including forfeiting pension contributions and harassment or bullying.

However, while HODs were clear that only the most gifted and talented would progress into academic appointments and recognised the need for research staff to explore other realistic career options, this awareness did not appear to filter down to the people who needed it.

Institutional impact and response

Oxford's action plan includes the provision of coherent guidance for managers, careers support and staff development opportunities for researchers and mentoring to support researchers and encourage them to consider academic careers. Edinburgh is considering recommendations for adequate resourcing of mentoring and other initiatives to meet researchers' needs, committing additional resources to provide careers advice for researchers, maintaining pension contributions during gaps where funding is assured and ensuring HODs and PIs are trained to become more effective managers of researchers.

The appointment process

When the Edinburgh and Oxford projects explored the appointment process, they found that both men and women researchers talked of women's low levels of self-confidence. They agreed that women were less likely to apply and more likely to feel that failure to be appointed would have a negative impact on subsequent applications. Men and women's confidence at interview was perceived as different 'when men are asked questions to which they did not know the answer they ad-lib, women in general say: "Oh, I don't really know, I would have to look it up". Which is probably the honest answer. But I don't think committees recognise that general sex difference'.
Research staff frequently referred to the importance for internal candidates of a signal that their application would be welcomed. They often assumed that appointments were based on 'who you know- an old boys network', rather than strictly on merit.

There was a general concern about the equity and transparency of the appointment process:
- the need for a more overt personnel input to lecturer appointments
- ensuring all shortlisted applicants were given fair and equitable treatment
- appointments being 'secured' before the interview 'I've been interviewed four times for permanent positions and the latest one was last year….But that was completely stitched up.'
- the aggressive nature of interviews – a perception that it wasn't a case of appointing the most able academic, rather the person most able to withstand the 'taunts and jibes of the panel'
- men having an unfair advantage through their involvement in 'informal networks'

Institutional impact and response

Edinburgh's senior academics were concerned with the low numbers of women applying for lecturer posts and the need for action on:
- departments promoting positive images
- the recruitment strategies adopted by departments to overcome inequalities
- raising awareness of application activity and outcomes
- continuing and developing initiatives to support women in SET through institutional and national projects
- the self-esteem of potential applicants

Oxford's plan (which covers all disciplines) includes timetabled action on advertising and selection. Their advertising will use women's/scientific networks. They will add a welcoming positive action statement to advertisements, will review the materials used in consultation with colleges, involve women and men in drawing up selection criteria and check for inadvertent adverse impact. The university will review its selection criteria, recruitment processes and provide candidates with reassuring, up- to-date information on the process and guidance for all those involved. They will provide training for panel chairs and others.

All the projects explored the barriers to women's enjoyment of the benefits of a career in SET, getting to the top and into positions of influence. They all saw tackling the processes and practices as easier than a direct move on the male-dominated culture of HE. Women's views were clear: 'evident in higher management and research hierarchy - always male managers, social friends given interesting task - upper management group completely male and perceived like a club'.

This section looks at promotion, the roles and responsibilities - including committee membership - which are critical influences on women making it to the top, and the visibility and recognition of women and their contributions to their departments and the university. It also explores the networks, personal and professional development, and support mechanisms which reduce isolation and, by encouraging women to progress their careers, improve retention.

Personal and professional development

Surrey was clear that the subliminal 'cultural' aspects of university organisation, which tended to disadvantage certain groups, were not addressed by their current training provision. Their survey confirmed a general feeling that the importance of personal development was undervalued, with supervisory staff paying lip service to appraisal. Heriot-Watt's HODs did not see barriers in their own departments and took a positive view of attendance at developmental courses. This, however, conflicted with information from the questionnaires returned by women.

Surrey's research showed that individuals promoted on the basis of their research skills were then expected to fulfill management roles for which they had neither aptitude or training. It demonstrated the need for management training for staff on both sides of appointment, probation and promotion procedures and 'to give women the experience they might not get in their departments because of typical gender- influenced task allocations.'

Institutional impact and response

Heriot-Watt will survey a representative selection of women for their reasons for wanting to leave. Exit interview forms will be screened to identify issues for women who have already left. The university is introducing a staff development policy to strengthen support for its longstanding programme, a policy which will be communicated widely. The university is also investigating a mentoring scheme and will invite senior women scientists to talk about their careers.

Luton's equal opportunities action plan includes a specific focus on women. The university aims to increase the number of women in senior management roles by 30% in five years through training and support programmes for women. These will include mentoring and coaching, as well as secondments and project based opportunities.

Oxford is designing a university career development fellowship scheme with an emphasis on positive action for women, and will hold a positive action event every two years, possibly extended to the social sciences and humanities.

Surrey's project team is discussing with the university action to improve the university's management development programme in order more effectively to equip HODS and heads of research teams with management skills.

Promotion

Edinburgh found that differences in promotion procedures between faculties made it difficult to compare application rates. Although Principal Investigators saw no obvious signs of discrimination in the process, their experience suggested that women often needed more active support and encouragement from senior colleagues before they felt confident about putting themselves forward. This was also recognised by Surrey who saw women waiting 'until they were certain they had all the attributes required, unlike men who made earlier riskier applications.'

At Surrey promotion was perceived to be based entirely on research/publications; although in theory weight was given to administration and teaching, this was not seen to be the case; promotion was also seen as 'unstructured and flawed, being hugely dependent on the HOD - personal applications not supported by the HOD may get disapproved of and their promotion prospects put back.'

Heriot-Watt found women's knowledge of promotion; the procedures, membership of panels and criteria was sketchy. Women's comments were illuminating:
- 'procedures do not entirely determine promotion – they are fair on paper'
- 'male staff tend to delegate more admin and its difficult to say no in case it affects job prospects'
- 'the procedures have been poorly followed with little or no feedback which is discouraging to all.'

Luton identified a number of concerns which applied to men and women alike:
- inconsistencies in application - 'the procedures are there, but the execution of them is inconsistent across the university. They need to be made more explicit and transparent'
- the need for transparency 'publish clear guidelines about routes to promotion and stick to them! without changing the goal posts all the time'
- staff need to be more aware of them 'as I do not know what they are I cannot comment objectively, however the requirements on flexibility of working for more senior appointments… can make things very difficult for women who are also expected to look after children'
- temporary promotions without advertising/competition 'there are no procedures and published criteria are not widely distributed. It's all cloak and dagger stuff. There is no openness'; 'there have been incidences of promotion into positions without fair competition and advertising, both at senior level and further down the line.'

Institutional impact and response

Heriot-Watt has agreed to disseminate information on promotion procedures widely, accompanied with departmental briefings. The university is committed to reviewing its procedures to ensure consistency and transparency of criteria, the acknowledgment of career breaks and better feedback.

Surrey is discussing action to change the promotion procedure to be more transparent and equitable. Surrey's forum is planning a pairing scheme for junior academics, for example those getting ready for promotion, with a more experienced colleague who will advise on CVs and preparing a case for promotion.

Departmental organisation

Departmental exclusion was often subtle and embedded in the organisational structure. As such, it was difficult to counter: 'the timing of seminars and inaugural lectures is exclusive and start at a time when you cannot go if you have children. So what I wanted was to have the seminar at 4.00 o'clock. It changed for three months and then it changed back. I am almost the only parent with children – I mean mother – the men don't have this responsibility because they all have wives. And if you don't go to the seminars you are frowned upon and you miss out. There are very interesting and eminent speakers. And afterwards they go out and have a drink and talk. And you can make some good connections.'

Surrey's survey revealed a general perception of lack of structure in departments and a need for management training to develop academics' abilities to take decisions and to delegate. A distinction was drawn between the good/successful academic and the academic as a manager: 'when the scholar -intelligent, enthusiastic, dedicated, with an ability to write and think in depth and breadth - is appointed to be HOD all hell breaks loose.' Junior staff saw the allocation of teaching as ad hoc and unfair. Appointments tended to be made on the basis of research. This also made it difficult to raise teaching standards: 'only a small number of people who can be trusted with key teaching'. Nevertheless, teaching was seen as undervalued in terms of promotion.

The organisation of research and the membership of research groups was seen as ad hoc and lacking consultation. The traditional model of applying for grants was contrasted with the growing trend of direct approaches to departments to do or to tender for research work. This trend requires academics to be known, to network and to have a reputation and it puts more responsibility on HODs to ensure that research teams support their young researchers.

Surrey investigated the differences in the roles occupied by men and women and their impact on career progress. There was little evidence of a system for appointing individuals to administrative roles. Such roles were not seen as valued in terms of promotion. They might help to meet powerful people but the workload, for example of student admissions, was out of proportion and could get in the way of research: 'there is an inverse correlation between workload and the public profile' and:

- 'girly bits of jobs eg dealing with troubled students were jobs for someone with plenty of tissues in their bag'
- there were those who ' were never there when students want to know their exam results and are always doing something valuable like going to a conference'
- the system allows dodging administration ' the more incompetent you are the less jobs you get'
- 'women in my department were unfairly loaded with teaching and administration (menial) while more high profile work was given to male colleagues'
- present-ism 'the people who move up the tree in my department are those who are still in the office at 7 or later. The balancing factor is that the people who were around most tended to get given the time consuming jobs'

Institutional impact and response

Surrey is reviewing improvements to its management development provision to equip HODS and heads of research teams with management skills. It is considering departmental arrangements for: appointing academics to administrative roles and rotating responsibilities; allocating individuals to research groups; and allocating and monitoring teaching loads. It is exploring a work shadowing scheme to allow women to see what is involved in senior positions and to develop self-confidence.

Committee membership and operation

Luton and Surrey looked at committees - an intrinsic part of academic life and as such important for career progression. Surrey found women were under-represented on high level/high profile strategic policy committees, but over-represented on working committees such as staff/student welfare. Luton accepted that good management required the equitable representation of women and that women brought different and valuable perspectives, skills and experience to their committees; but they recognised that committee representation was not wholly within their gift, and was largely determined by democratic or quasi-democratic processes.

Luton's women's forum identified the membership and conduct of committees as significant barriers to women's full participation in university life. It saw poorly defined institutional practice leading to use of the 'old boy' network for selecting committee chairs. It was concerned at the lack of scrutiny of committee appointments and saw the cumulative result as a reduction of women's opportunities for full participation and difficulty in building a good CV.

Luton's research, its experience and observations all demonstrated that decision-making was dominated by men. Interestingly, they identified little evidence of good practice elsewhere in HE/public sector organisations. They recognised that the first step was for a woman to get herself onto a committee. This itself required profile/ positioning/confidence/ the right experience/CV. However, women who managed to secure representation on committees might find unreasonable burdens and expectations placed upon them.

Institutional impact and response

Luton recognised the importance of persuading committee chairs of their key roles. The training programme it has developed for them incorporates the factors identified by their project as inhibiting the effectiveness of women's contributions:

- 'weak chairs cannot prevent senior management from dominating'
- 'often the loudest voice is heard'
- 'males overall are allowed to speak for longer –are not interrupted'
- 'often a male chair will disregard what a female member says because of the way it was expressed which is taken as "over-emotional" or "taken personally". This demonstrates a clear lack of understanding of the way women communicate. It is very hurtful and often means that the female doesn't contribute further'
- 'those of us who are part of or privy to the male network know the issues/politics around the discussion. The rest of us are excluded'

Luton's action plan includes:

- making members' selection procedures open and accountable and clear on whether representatives are appointed or elected
- making committee appointments fixed term with 'rolling' replacements to allow more staff to participate
- secret ballots with numbers of votes undisclosed to encourage participation in the election
- all committee meetings to continue to be held in normal working hours, an aspect of the university's committee organisation welcomed by women
- setting targets and monitoring committee representation
- piloting proportional representation in some faculties
- introducing opportunities for committee observation for men and women
- establishing a network for women members of committees
- asking HODs to use career reviews to explore women's interest in gaining committee experience

Visibility and recognition of women and their contributions

Oxford's research showed the double jeopardy for women of high visibility and invisibility – on the one hand the 'gossipy' academic environment, where women's personal lives and relationships were talked about, which was detrimental, and on the other the invisibility of women's work, which was not given the same high profile as men's work.

Luton recognised that women were burdened by their visibility and invisibility. It was harder for them to get recognition for work:

- 'I think female academics perceive they are less likely to achieve, therefore they do'
- 'there is a lot of undermining of women by both men and women'
- 'my impression is that men are generally over-estimated and over-praised, even when they are good (they are not necessarily that good) and women are very rarely referred to as good, while shortcomings are blown out of proportion'

Luton identified a range of concerns related to the enjoyment of the benefits of science:

- 'indirect discrimination is an issue in the university. This relates to salaries, delegation of high profile work, inconsistencies in the implementation of policy and procedures'
- 'the informal male network and male dominant culture pervade'
- 'women need to work twice as hard to achieve recognition and an equitable footing with men'
- 'women are frequently overlooked for high profile work, activities, and events'

Surrey's survey was illuminating on the perceptions of the number of women in SET academic posts and at professorial level. All the respondents, men and women alike, over-estimated the numbers of women in academia; however, male academics significantly over-estimated the percentage of female professors.

Institutional impact and response

Oxford's action plan recognised the need to give greater publicity to women's work in SET, both current and past, to counteract the university's continuing image of a white, male institution. It will make available publicity material which uses inclusive language and images and will expect departments to consider incorporating positive images throughout their work programmes for example inviting women from other HEIs to discuss their work at lectures and other events.

Networks

Edinburgh and Luton found that the powerful informal networks were male-orientated and did not extend to women. However women's forums played an important part in the Luton and Surrey projects.

Luton's forum was set up to provide mutual support and improve the access, participation and promotion of women. The results of their discussions went to the university's directorate. Their focus on the use of internal secondments and the membership and conduct of committees as important barriers to women's participation in the university were the precursor to Luton's project.

Surrey established its SET women's forum to review grant proposals, provide information, encouragement and support on the promotion process and offer strategy and good practice workshops to more junior colleagues. The forum came to be recognised not only as a valuable sounding board and networking tool but as an effective means for delivering the learning activities needed to equip women to play a full and satisfying role in departmental and university life.

LAWNs

Following the success of the networks in Athena's 1999 Development Programme, funding was provided to continue their work at UEA and in the East Midlands and to support three new networks based in Leeds, Plymouth and St Andrews. These Local Academic Women's Networks (LAWNs) were all based on self-identified groups of women in SET and allied disciplines who were committed to Athena's aims. Their programmes targeted women at different stages of their careers. The LAWNs had the support and commitment of their universities' senior management. The programmes they developed included seminars to showcase women academics' work, to identify and generate cross-disciplinary research opportunities, and workshops and conferences for women in the early years of their academic careers.

Institutional impact and response

All the women's networks demonstrated the power of networking in making small but important changes in the culture of HEIs and in the working lives of their members. They are all continuing their programmes, supported by their institutions and the energy of the women who are taking the lead. Surrey's forum is continuing and Oxford is canvassing senior women to find the level of support for a senior women's network in addition to the existing Oxford women's network.

It is clear from the work described here that the organisational culture of SET and HE can be changed by the good practice demonstrated in the Athena Development Programme. The changes to institutional practices and processes and the small changes to women's working lives brought about through networking do make a difference.

However, energy and commitment are needed if women's contributions to SET and to the work of higher education more generally are to be properly recognised and adequately reflected in their career progression and rewards. Athena as a national initiative can help to raise the profile of women's career progression and their contributions but on its own cannot keep it at the top of HEIs' agendas or sustain the action that is needed.

The action has to be taken by HEIs, who will need vigilance to prevent any regression and to ensure that women's representation at senior levels in SET and in university governance is to be kept at the top of their management agendas.

All the projects used the findings from their research, the information gathered and analysed, to raise organisational awareness and understanding and to support their recommendations for change. However, they recognised the limitations to what could be changed by the short term projects. Solutions to the larger issues of changing organisational culture were harder to identify, but they saw that changing systems and practices would feed through into this larger cultural change.

Overt discrimination is not the problem. It is the established systems and women's perceptions of them which are the barriers. These barriers are unintentional but deeply rooted in the structure and organisation of SET and HE and they are invisible to those on the inside track. As the Dean of Science at the reception to mark the first of the series of Athena lectures at St Andrews commented 'The male-dominated academic system in which we operate was largely designed by men for the benefit of men. It is one in which characteristics more typical of men such as competitiveness and aggressiveness, are rewarded, while those associated more often with women, such as co-operativeness and collegiality are much less likely to lead to success'.

That said, it has to be asked whether the academic system to which the Dean referred is one which also discriminates against men, who do not have partners or who want to play an active part in bringing up their children. The barriers are not just for women. What is needed to lower/remove the barriers is straightforward good human resource practice.

During 2002 Athena will be working alongside the HEIs as they refine and implement their action plans based on their projects' findings. A further report, to be published in March 2003, will include the results of this work. In the meantime Athena commends HEI managers, heads of SET departments and women in SET to consider the findings and the action agendas from the 2000 Development Programme.

Athena Advisory Committee

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The Athena Project was established in 1998 by the Commission on University Career Opportunity (CUCO) and is now part of the Higher Education Equality Challenge Unit

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Higher Education Funding Council for Wales/ELWa

Northern Ireland Department for Employment and Learning

Promoting SET for Women Unit, Office of Science and Technology, Department of Trade and Industry

1999 Development Programme Reports

1   Bolton Institute – Mentoring women in SET

2   University of East Anglia – ResNet2000

3   Imperial College – Might mentoring help?

4   Nottingham and Loughborough Universities – Skill acquisition and mentoring during early career stages

5   The Open University – Beating barriers and constraints in HE careers

6   Sheffield Hallam University – Progress-Developing a mentoring training programme

7   Report on the 1999 Development Programme

8   The Athena Project Good Practice Guide 1999

2000 Development Programme Reports

9   The University of Edinburgh – Bridging the gap

10   Heriot-Watt University – DRAW: The development and retention of academic women

11   The University of Luton - Inclusive committees

12   The University of Oxford – Encouraging applications from women scientists

13   The University of Surrey – Moving up

14   Local Academic Women's Networks (LAWNs)

15   Report on the 2000 Development Programme

16   The Athena Project Good Practice Guide 2000

Occasional Papers

1   Women scientists in higher education: a literature review

2.   Gender Equity in Academia: Lessons from the MIT experience-
      Professor Lotte Bailyn the first Imperial College Athena lecture

Copies of the above publications and information on the Athena Project can be obtained from:
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