



Positive Action & \neq Equality

Enriching Science and Engineering: Exploring the Business Case for Gender Diversity



Association for
Women
in
Science and
Engineering

'Where positive attitudes towards
gender diversity prevail, women
can and do succeed'.

WiSETI: Women in Science, Engineering and Technology

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**UNIVERSITY OF
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JOAN MASON

The distinguished chemist Joan Mason, who has died aged 80, was responsible, in the mid-1990s, for setting up the Association for Women in Science and Engineering (AWiSE), which she chaired until her death. She had studied science at a time when it was not considered an appropriate occupation for a woman, but went on to do research, and later taught at University College London, the University of East Anglia and the Open University.

Rejecting her father's preference for her to join him in the family accountancy business, Joan won a clothworkers' scholarship to Newnham College, Cambridge, where she read for a degree in natural sciences, awarded in 1946. During her doctoral studies she discovered the blue gas, trifluoronitrosomethane. Following a year as a Fulbright scholar at the University of Southern California in Los Angeles, Joan returned to an assistant lectureship at UCL, where she met her future husband, Stephen Mason.

After an eight-year break to have a family, Joan resumed her academic career at the new UEA, pursuing her research interest in novel areas of NMR spectroscopy. She was appointed to a lectureship in chemistry at the OU in 1970, becoming a senior lecturer in 1978, and reader in 1983. She retired in 1988.

An energetic and committed person, Joan was as active in her retirement as she had been before it, devoting her time to the promotion of women in science. She wrote extensively on the subject, both from contemporary and historical perspective. From 1993 to 1994, she served on the committee that produced *The Rising Tide: A Report On Women In Science, Engineering And Technology*, which recommended that a networking association of women scientists and engineers be set up. The foundation of AWiSE followed.

Last year, she was awarded the MBE for services to women in science. Her husband and sons survive her.

Edited version of the obituary by Anne McLaren printed in the Guardian Newspaper, May 8 2004.

Cambridge AWiSE/WiSETI Meeting: “Enriching Science and Engineering: Exploring the Business Case for Gender Diversity”

The University Case

Cambridge AWiSE¹ in conjunction with WiSETI² organised a meeting³ to address the Business Case for Gender Diversity. The aim of this report is to summarise the discussion at that meeting and support the argument for greater diversity in Universities.

The meeting was held in memory of Dr Joan Mason, a distinguished chemist and founding member and Chair of AWiSE and the speakers included Dr Gill Samuels from Pfizer and Dr Jenny Holmes from AstraZeneca as well as Prof Alan Windle from Cambridge University. Joan Mason had actively campaigned over many years for greater participation by women in SET careers, especially when juggling family commitments. The most recent outcome of this campaigning was Cambridge AWiSE’s questionnaire on women’s experiences of part-time and flexible working in both academia and industry which was also presented at this meeting.

Women in SET generally find less support for continuing their research careers in universities than in some sections of industry because working part-time for a substantial period of time while on a research contract means being significantly disadvantaged in appointment to a permanent position. From an industry viewpoint, both Gill Samuels and Jenny Holmes spoke about the business case for embracing diversity in the workplace and the need for inclusiveness by implementing policies on flexible working. The attrition of women from science especially in Universities is of great concern when a high percentage of women in science careers start to drop out by the age of 40. Women need to be retained to protect the return on investment in training and development. This is just as true in academia as it is in industry.

There has been a significant change in attitude and culture as evidenced from AstraZeneca and Pfizer which are significant research organisations. Diversity at both Pfizer and AstraZeneca has demonstrated improved recruitment and retention, greater creativity and innovation, improved teamwork and flexibility. Both companies have recognised that a culture of diversity and inclusiveness is as important as technology in achieving the business strategy and greater research productivity. Significantly, Gill Samuels stated “ At Pfizer, we believe that diversity awareness and training is at least as important as childcare and flexible working arrangements.” The Cambridge AWiSE questionnaire found evidence that women can generally continue their SET careers more readily in industry than in academia because of the culture of greater support for flexible working.

It is of importance that universities and the Research Councils enhance productivity within research teams by considering the benefits that these companies have gained by promoting gender diversity. In addition it is also important that female undergraduates in SET are taught by a significant number of women lecturers during the course of their degree. Generally current policies for promoting diversity in the HE workplace are to be valued but there needs to be a much greater effort to implement these policies in SET Departments.

¹ Cambridge AWiSE is the Cambridge branch of the Association for Women in Science and Engineering. Further information about AWiSE can be found at www.awise.org

² WiSETI is the Women into Science, Engineering and Technology Initiative of the University of Cambridge, further information available at www.admin.cam.ac.uk/univ/wiseti/

³ 11 November 2004 at King’s College Cambridge

Statistics of women in SET careers have shown that 40% of women on research contracts do not translate into significant numbers in tenured positions. In the Biological Sciences, for example, the number of women in tenured positions is low (10% or less in some departments) despite large numbers at earlier career stages. Appointments to tenured positions are focused on selective factors such as publication lists and grant income which may not reflect the different career paths of those women who have worked part-time. Furthermore universities need to consider gender diversity for its impact on students in the longer term, in particular the importance of diverse teaching styles and of positive action in providing senior female role models, mentoring and networking programs.

There is strong evidence from the EOC that promoting gender diversity cannot be solved just by improving childcare and flexible working as women generally do not progress as well as men, even when effective policies in these areas are in place. The issues broadly recognised that need to be addressed to increase diversity include not only a lack of role models and mentors but also risk-averse promotion of women, cultural barriers as well as stereotyping and preconceptions.

The key question that this report raises is: How do you retain women in SET with the current career structure in academia? There is a valid business case for establishing a more secure career structure in academic research and for fund providers to develop ways of retaining these experienced contract researchers.

Research Councils need to think about a different structure for research career pathways which would impact less on women. Careers built on short-term research contracts can be particularly difficult for women. There is a greater need for career support at early research stages to keep these women in SET careers. The Academic Fellowship scheme arising out of the Roberts Report is a welcome initiative but consideration should also be given to ensuring the availability of part time and non-group leader positions for senior scientists.

Further recommendations from the meeting suggested that

- The Research Assessment Exercise and HEFCE should use a variety of metrics and have a gender dimension in terms of publication numbers and career stage.
- Promotion criteria need to embrace the part-time CV.
- Ageism should not be a factor in recruitment or in research salaries.
- High level discussions between the universities and Research Councils should be held to discuss the careers of Contract Researchers.

However, a recent policy initiative, the Research Careers Committee, may now act as a catalyst for more rapid reform. The funding councils have begun to link improvement in management of people to receipt of funding. It also means that efforts to improve research careers are rightly set in the wider context of institutional staff policy.

A key message that emerged from the meeting was that “Where positive attitudes towards gender diversity prevail, women can and do succeed. Greater emphasis on changing the culture and attitudes towards gender diversity in universities would allow greater participation by women in science careers.”

This Report was written by Jenny Brookman, Jenny Koenig, Esther Haines, Felicity Hunt, and Nancy Lane.

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