

SENATE INQUIRY INTO HIGHER EDUCATION

Higher Education Legislation Amendment Bill 1996

In response to questions from Senator Natasha Stott Despoja to FASTS:

- (a) Would the proposed changes have any impact on women studying science at University?
 - (b) Do you feel there would be a deleterious impact on the role of women in science or even the number of women taking on science degrees as a consequence of some the changes we are looking at today.
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Overall, the amendments proposed would significantly and severely disadvantage women.

It is not possible to consider every situation that a woman would face but consideration needs to be given to the following points if upfront fees are introduced, or HECS is increased or deregulated.

- (1) **Segregation.** The likely outcome of fees and HECS deregulation would be a segregation of students into 18 year olds whose parents could afford the fees and adults with savings. Both options work against women, especially women wanting children, for what we hope are self-evident reasons.
 - (a) **Parental support.** Where parental support is needed and cannot be given equally to each child, traditional attitudes in Australian and other cultures still tend to favour male children as having priority in education. This is in keeping with the male in the family being seen as the principal income earner.
 - (b) **Financial security.** Females tend to be less financially secure than males due to past inequities. Many would be deflected from a course of study requiring prepayment of fees, regardless of interest or aptitude.
 - (c) **Mature age study.** There is a culture in Australia where some women who chose to stay at home to care for young children for 5 – 10 years have returned to University to obtain better qualifications. Many have been attracted to socially useful science disciplines. They do not have savings. The introduction of higher fees and HECS would make this option completely prohibitive.
- (2) **Subject bias.** Financial constraints may force people to take degrees that can be completed in less time and work against scientific disciplines that require long, laboratory based learning units over a *minimum* period of four years. Already plant breeders are finding an inadequate student flow in this (important to Australia) area. A continuation of this trend may lead to paucity of specialised scientists. Many females wishing to study part time to accommodate other necessary roles (supportive partners, mothers, and carers) would find financial constraints a disincentive.
- (3) **Career prerequisites.** Most professional scientists are required to have a doctorate (PhD) as a prerequisite. By taking 7 – 9 years (4 years undergraduate, 3 – 5 years post-graduate) to complete the study, they lose 7 – 9 years earning capacity. If time is taken to have children, any debt is incurred for longer than for male counterparts. By extension, this would increase the time before any advantage can be recouped from the personal sacrifice and investment made towards completing study.
- (4) **Income threshold for HECS repayment.** Lowering the income threshold to repay debts means women might not be able to purchase a house and look after themselves, let alone young children. Young women would delay University study and accept subordinate positions instead of seeking to become professional scientists. Female graduates may well avoid undertaking a further studies or higher degrees which would limit their abilities to progress or attain promotion in science.
- (5) **Negative effects on the next generation.** We could end up with a situation where graduate females take so long to pay off their debts, nothing is left to pass on to children to give them a start in life. This would make the next generation worse off than the one before... an embarrassing first for Australia?
- (6) **Real financial status.** We present the following ledger projecting a realistic income profile for practising scientists in the first 20 years of their careers. This applies to males and females. However for females the added decision as to if and when to have children must be factored in:

Age		\$(DR)	\$(CR)
18 – 21	4 year undergraduate study (HECS)	20,000	
22 – 26	4 – 6 year doctoral studies (Scholarship max 3.5 years ~20,000 per year)		70,000
	NET Subtotal		50,000

Total over 9 years for training \$50,000	= \$5,500/year*
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27 – 29	Post doc or equivalent (3 years ~50,000 per year)	150,000
30– 37	For academic scientists, 2 more post-docs (6 – 7 years ~50,000 per year) (Many are expected to work additional time in a voluntary capacity to while completing publications etc)	<u>300,000</u>
	NET Total	500,000

Total over 20 years \$500,000	= \$25,000/year**
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*Less: expenses for cost of living while studying

**Less: (for women) time taken for maternity leave, childcare, loss of job while moving with partner.

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We welcome a comparison with other occupations such as hairdressing, butchering, teaching, plumbing, bricklaying, sales, nursing, etc. A cursory glance at the Positions Vacant column showed that many of the jobs advertised in these areas have similar salary scales to those of scientists, yet very few of these professions demand such a high personal investment for such little reward.

Due to the time taken to complete, very few scientists are aware of the limited financial and professional future they have committed to. For women this can be exacerbated by responsibilities of carer roles. That their contribution to GNP is significant should be the subject of government analysis. That many scientists love their work should not be a reason for such extortion. Many other people love their work as well but are not financially disadvantaged by that fact.

It is clear that more debate and other options are required.

With thanks to Senator Stott Despoja for her perceptive concern.