Articles

Working in Australian universities: pay equity for men and women?

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This paper is based on a longer report recently published by the National Tertiary Education Union (Probert et al 1998). The report was the outcome of a large research project designed to look at what men and women working in Australian universities as both academic and general staff are paid, and to examine whether the differences involve inequity.

At the heart of this project lies the industrial relations concept of equal pay for work of equal value. Narrowly conceived, if we can prove that female and male academics and/or general staff in higher education receive different rates of pay for the same qualifications, length of service and job content, then it can be argued that a breach of the pay equity principle is involved. Defined more broadly, this leads us to the concept of 'comparable worth' – the comparison of different jobs according to their skill, complexity and level of responsibility. The idea is deceptively simple, but the research required is not so easy.

At a descriptive level we already know quite a lot about the differences in pay between men and women employed in Australian universities since pay is largely determined by their Level of appointment within the academic and general staff industrial awards. Every year the Department of Education, Training and Youth Affairs (DETYA) publishes data which tells us how many men and women on continuing or contract appointments are at what Level, and it is well known that under both awards women are disproportionately concentrated at the lower Levels. Tables 1 and 2 provide one illustration of the gendered distribution of appointments in Australian universities. In 1996 over three quarters of all female academics were at Level B or below, compared to less than half of all male academics; at the same time almost two thirds of all male general staff were at Level 5 or above, compared to only 44% of women.

While DETYA data can give us a picture of the distribution of men and women by Level, it does not provide the kind of information that would be needed to explain such a distribution, nor whether this involves any kind of inequity. For these reasons, we undertook a large random survey of both academic and general staff in eighteen public universities, covering the full range of types of university within the national unified system. The typology used here is adapted from Marginson (1997:12).

Table 1: All academic staff by current level by sex

	Women	Men
Level B and below	76%	47%
Level C and above	24%	53%
Source: DEETYA 1997		

Table 2: All general staff by current level by sex

	Women	Men
HEW Level 4 and below	56%	37%
HEW Level 5 and above	44%	63%
Source: Burton 1997.		

Table 3: Universities participating in staff survey

Sandstone Universities	New Universities	Universities of Technology	Dawkins Universities
University of Adelaide	Deakin University	Curtin University	Australian Catholic University
University of Queensland	Griffith University	Queensland University of Technology	University of Ballarat
University of Sydney	James Cook University	Royal Melbourne Institute of Technology	Edith Cowan University
University of Melbourne	Macquarie University	University of South Australia	Swinburne University
		University of Technology Sydney	University of Southern Queensland

These 18 universities each provided us with a 20% random sample of their academic and general staff (9,133 individuals), to whom surveys were sent. We received a total of 3,872 useable surveys in return (with 107 returned to sender) which gave us a response rate of 43.6%. Full details of the sample are available in the report, and it proved remarkably representative of the larger population by sex, level and discipline. The exception to this representativeness was the almost total exclusion of casual staff, about whom universities keep totally inadequate records. For this reason we looked at casual staff separately (see Probert et al 1998, Chapter 6).

The survey questions were designed after lengthy analysis of the central hypotheses to have emerged from the international literature on pay equity, particularly that which looks at higher education. The most common (and competing) theoretical explanations for the gender gap in pay centre on human capital theory and sociological theories about gender relations. Human capital theory argues that the labour market position of women derives not from discrimination or gender inequity, but from the amount of investment women make in their human capital. The theory assumes that, just like men's positions, women's positions will be a reflection of their qualifications, relevant experience, and general and job specific skills.

Human capital theory is important to the gender pay equity debate for a number of reasons. First, it has been used to argue that women's primary responsibility for children and other dependents is a matter of individual choice, and that any impact this may have on women's ability to accumulate experience and credentials is irrelevant to the pay equity debate. Second, it has been used to argue that, as women's participation in postgraduate study and the lower levels of academic employment increases, so women will find their overall position in the sector steadily improving as they build up their levels of human capital.

Human capital theory rests on the assumption that the labour market is a meritocracy: the individual receives the rewards due to them in line with their rationally calculated investment decisions. But it is this assumed meritocracy that feminist theories of gender relations have challenged. They have argued that the disadvantage endured by working women is the product of institutional arrangements designed by and for men. For example, it has been shown that the concept of 'skill' has been socially constructed in a way that privileges work traditionally done by men and devalues that performed by women – hence the argument, for example, that universities undervalue teaching in relation to research, or giving advice to students compared to managing technical equipment.

The survey was designed to provide data on the actual incomes of men and women, and also data with which we could test key hypotheses about the causes of pay differences. A slightly different survey form was distributed to academic and general staff because of the need for a number of questions targeted specifically at each group, relating in particular to differences in work content and career progression. The data was used to develop a regression model which would indicate the main predictors of income for both men and women. Further, by using regression, it was intended that the independent effects of various theoretical propositions could be tested (human capital arguments, industrial relations arguments and so on). Four broad types of questions were asked.

1. The survey asked for information relating to the respondents' *current job,* as well as income. Respondents were also asked to give information on any extra payments such as market loadings, performance pay or consultancy income. The information on job content was gathered in order to establish a preliminary insight into whether there were any differences in work value between male and female general staff in the same classification. For academic staff, questions were asked about teaching, research and administrative loads in order to test for gender inequities by Level.

2. The survey also asked a series of questions about the qualifications and work experience of staff in order to test the hypothesis that Level is closely related to these aspects of human capital. The Australian Vice-Chancellors' Committee (AVCC) was critical of the earlier NTEU publication on women's disadvantage in higher education, *Limited Access*, because it was unable to investigate the 'relationship between academic qualifications, tenure and level of appointment'. Yet, as the AVCC points out, a significant number of departments are now 'signalling a Ph.D. as the desirable qualification for appointment at Level B' (AVCC 1995: 6). Similarly, it was important to gather data on the number of years respondents had worked both in higher education and in other industries providing relevant experience.

3. Alongside these questions about qualifications and experience we asked a series of questions about career progression in order to compare men's and women's experience of the promotions process (for academics) and job evaluation (for general staff). This included questions designed to measure some aspects of productivity, including research output. The questions were designed to test the hypothesis that women may be disadvantaged by either of these mechanisms for career development.

4. Respondents in both surveys were also asked a series of questions about their family circumstances, and the relationship between their work and family

commitments. This data was gathered in order to test a number of hypotheses. There are those who argue that such considerations are irrelevant to the analysis of gender pay equity since decisions about family commitments which make women less competitive in the higher education labour market compared to men (e.g. the decision to work part-time or postpone study for a Ph.D.) are simply matters of personal choice, reflecting different priorities. In order to test these arguments, respondents were asked about their career commitment, about the reasons for career breaks, and about the impact of family responsibilities on their employment history.

Pay equity for academic staff

Not surprisingly the survey confirmed that academic men earn more than academic women – about $440 dollars a fortnight more on average. In the regression model developed to identify what factors explain men's and women's income, it is Level that is by far the most important predictor. The income gap is largely a reflection of the 'Level gap' (as shown in Table 4.). In our sample 71% of women were at Level A or B, while 45.5% of men were at these levels (compared to 76% and 47%, respectively, in the total population).

Table 4: Current Level by Sex

Current Level	Women	Men
Level A	**22.5**	**11.6**
Level B	48.8	33.9
Level C	19.9	28.0
Level D	6.1	16.4
Level E	2.6	10.2
TOTAL	**39.8**	**60.2**
N	**537**	**802**

V=.28, p<.01

What is more, there is a strong gender difference in the Level at which they began their academic careers. Nearly 70% of women (68.4% of the sample) started either at Level A or as a research assistant, while the corresponding figure for men was 50.3%. There is a very important difference between the number of men who got their first job at Level B (41% compared to 26% of women).

This data on first job title presents us with our first possible indicator of inequity. Unfortunately we do not know the qualifications of our sample when they were appointed, so we are unable to test this directly. However, we can look at the qualifications of staff *currently* at Levels A and B to see if there is any difference that might explain this gendered pattern of appointment. And this produced the first surprise of the research: as Table 5 reveals, men were far more likely than women to have a Ph.D. at Level B (49% compared to 30%), and also at level A (34% compared to 25% of women).

We have no data on teaching experience at the time of appointment, but this difference in qualifications certainly provides support for human capital theory in this instance. We also found that women did not seem to be disadvantaged in the Level of their initial appointment by their negotiating skills. Just as many women as men (about a quarter) negotiated over their entry point, and almost equal proportions of men and women succeeded in negotiating a higher entry point than originally offered. In sum, there are grounds for thinking that the unequal starting points of men and women have something to do with human capital rather than discrimination.

Table 5: Highest qualification of academics currently at levels A and B by sex

	Level A		Level B	
	Women	**Men**	**Women**	**Men**
Undergraduate Diploma	0.8	-	-	0.7
Degree	23.3	26.1	10.0	7.4
Graduate Certificate	5.8	1.1	2.7	0.7
Graduate Diploma	15.0	5.4	7.3	5.9
Masters	30.0	33.7	49.8	36.2
Ph. D.	25.0	33.7	30.3	49.1
TOTAL	**56.6**	**43.4**	**49.1**	**50.9**
N	**120**	**92**	**261**	**271**
	V=.22, p>.05		**V=.21, p<.01**	

We also asked about total income, not only that deriving from Level, including consultancies, market loadings, performance pay and higher duties. Men were slightly more likely than women to earn extra income from these sources, but there was no significant difference between the sexes in the amount of income received from market loadings, performance pay and higher duties (with relatively small numbers of either sex involved). Only consulting turned out to be significantly different between the sexes, related largely to discipline, but in this context such a difference is not an issue of gender pay equity.

After Level, the most important predictors of income in our regression model were postgraduate qualifications and the number of years spent working full-time in higher education – the key elements of human capital. Discipline was not a significant determinant of income for either sex except in the obvious areas of medicine

and engineering where men earned on average $256 more a fortnight than men in maths or science.

Table 6: Current terms of employment by sex and university type

	Sandstone		Utech		New Univ's		Dawkins Univ's	
Terms	Women	Men	Women	Men	Women	Men	Women	Men
Continuing	34.4	56.4	59.5	71.6	50.8	71.4	62.2	79.5
Contract	58.6	40.1	40.0	28.4	46.9	26.9	37.8	20.5
Casual	7.0	3.5	0.5	-	2.3	1.7	-	-
TOTAL	38.6	41.1	28.6	27.0	19.3	18.1	13.6	13.7
N	**256**	**397**	**190**	**261**	**128**	**175**	**90**	**132**
	V=.22,p<.01		V=.14,p<.01		V=.21,p<.01		V=.19,p<.01	

Explaining Level

Given that Level is by far the most important determinant of income, we proceeded to create a regression model for Level and found that easily the most important factor here, for both men and women, was number of years full-time in higher education. Part of the explanation for women's concentration in lower Levels than men is clearly the result of the fact that they have, on average, had fewer years of full-time employment in the industry. We found that men had, on average, spent almost 14 years in higher education, while women had spent almost 9. And women were also more likely to say that their current university was their first one – another indicator of more limited experience in the sector. So, how do we account for the fewer years for women, and does this involve inequity?

Level and tenure

One possibility that would involve inequity is that women might be less likely to have continuing employment than men, and therefore be unable to accumulate the same number of years of experience. In our sample, it was indeed the case that more men than women had tenure, but when we controlled for Level the differences were no longer significant. In other words, men and women at Level B or C, for example, were equally likely to have tenure. This is the same finding that emerged from the earlier NTEU study, *Limited Access* by Tanya Castleman and colleagues (1995).

Two interesting sidelights are worth mentioning here, nonetheless. We also looked at tenure by type of university and found that the proportion of academics in continuing employment varies quite significantly by type of university, with the Sandstones being startlingly out of kilter with the rest, as shown in Table 6. Less than half the academic staff (casuals not included) working in the Sandstone universities are tenured, compared to about two thirds in the Utechs and New Universities, and rising to almost three quarters in the Dawkins universities. The gap between men and women is no wider in the Sandstones than the others, but the net effect is that there are remarkably few tenured women academics at the Sandstones – a mere 34% of all women.

Furthermore, there is no evidence from our survey that women are more likely to be tenured in disciplines with high proportions of women, except for Health Sciences. In other words, there is no safety in numbers.

Level and age

If women have fewer years of experience than men, is this because they are starting out at an older age than men, or leaving this employment for longer periods? We cannot be sure about this, but in our sample the women are the same average age as the men, when we might have expected them to be younger, given their fewer years of experience. We played around with the age data, looking at men and women who had the same numbers of years employment, for example, and finding that women were significantly older. It would appear that women are either starting older or taking breaks in their employment.

Then we looked at men and women who had been in the system for the same number of years to see what progress they had made up the Levels. After 16 years there is not much difference between men's and women's Levels in the career ranges of Level C and D. However there is still significant difference at the lower levels (30% of women are still at B or below, compared to 18.8% of men); and at the top (11.6% of women are professors compared to 18.2% of men). The fact that the main gender differences are at the very bottom and the very top of the scale supports the view that it's the years that count in career development.

Years in higher education and family life

We know from our survey that family responsibilities play a role in reducing women's years of experience and thereby keeping them at lower levels than men. Of those who have left higher education at any time, a quarter of the women gave family life as the reason compared to 3% of men; women were also far more likely to be working part-time than men (17% of women compared to 6% of men), and half of the women working part time gave family reasons.

While family responsibilities have this direct effect on women's ability to accumulate 'human capital' in the form of experience, they also have more indirect effects. Looking at those respondents living with dependent children, almost all the women had partners who worked full-time, and almost 50% of women with dependent children described themselves as their main carer. Over 42% of women said that the care was shared equally with

their partner. For men, by contrast, 43% had partners who worked part-time, and only 4% said they were prime carer of their children. Almost 50% of male academics with dependent children nominated their partner as the main carer, while 44% shared equally. So about 40% of male and female academics with dependent children seem to have equal domestic loads, but for the other half, the evidence suggests that the women are carrying the double load while the men are able to concentrate on their careers (See Tables 7 and 8).

It is important to acknowledge that many advocates of human capital theory approaches to these questions would argue that family responsibilities are not an equity issue but a matter of choice (Hakim 1996), and that women often choose to balance work and family in a different way to men. Our data does not support this notion, however, and shows that male and female academics have a remarkably similar commitment to their work. Men and women were equally likely to have a career plan, independently of the existence of dependent children. And when women describe the way their family responsibilities shape their working patterns, they rarely describe it as a matter of straightforward 'choice'. On the contrary, they are far more likely to describe irregular or reduced working hours or years as a matter of necessity rather than choice. Almost 55% of women said their careers had been affected by their family responsibilities compared to 40% of men, and location of employment was the main issue for both. However, a delayed start to their career and hours worked were far more important issues for women than for men. Asked about the impact of family responsibilities on their career, many women wrote about the incompatibility of research and children, or doing a Ph.D. and children.

Table 7: Employment status of partner by sex

Employment Status	Women	Men	Total
Full Time	91.7	57.2	71.1
Part Time	8.3	42.8	28.9
TOTAL	**40.4**	**59.6**	**100.0**
N	**413**	**610**	**1023**
V=.37, p<.01			

Table 8 : Main carer of children by sex

Main Carer	Women	Men	Total
Myself	49.1	4.3	21.1
My Partner	3.1	47.4	30.5
Shared Equally	42.3	44.3	43.8
Other	5.5	4.0	4.6
TOTAL	**37.6**	**62.4**	**100.0**
N	**272**	**452**	**724**
V=.61, p<.01			

Qualifications and Level

Aside from years of experience, Level of academic employment clearly hinges on formal qualifications, and this showed up in our regression model. What we found in relation to the qualifications of our sample as a whole was that the highest qualification of women was as likely to be a Masters as a Ph.D., while men were significantly more likely to have a Ph.D. than women. Only 36% of women have a Ph.D. compared to 56% of men, while 37% of women held a Masters compared to only 27% of men.

What is even more surprising is that none of this difference is explained by discipline. It might be thought that women's lower average level of qualifications is partly the result of their concentration in disciplines in which a Ph.D. has not, until very recently, been seen as the normal highest degree, such as nursing and education. However, as Table 9 shows, the gender qualifications gap is the same in humanities, maths, health sciences, business and so on – and only disappears in performing arts and agriculture. The gender gap in qualifications is also constant between different types of universities, although obviously qualification levels do vary generally by type of university.

It is important to note that men have not just gone further but have in fact undertaken different postgraduate study than women. For men the most common third degree is a Ph.D. but for women it is a Masters degree. Women are more likely to have a graduate certificate or diploma than men, for example. Once again, these differences are fairly constant across all disciplines. This research project can tell us nothing about the reasons for this, but there are a number of possible explanations, including gendered differences in patterns of mentoring and career advice, as well as the impact of children on study. In relation to current study for a higher qualification, however, women were just as likely to say they felt supported in this as men.

Career Progression

We have looked at the issue of equity in initial appointment, but we now need to consider the process of promotion – the way in which men and women move between Levels - which some writers have seen as

Table 9: Highest qualification by sex and discipline group												
	Hum/Soc Sci		Maths/Sci		Eng/Med/Blt Env		Health Sci		Admin/Bus/Law		Performing Arts	
	Wom	Men	Wom	Men	Wom	Men	Wom	Men	Wom	Men	Wom	Men
Degree/ UG dp	23.4	12.4	23.9	13.3	43.2	23.5	30.4	20.0	30.9	20.5	41.2	45.2
Msters	39.3	33.5	21.1	11.0	27.0	22.9	50.0	45.0	51.5	48.8	41.2	38.7
Ph D	37.3	54.2	54.9	75.7	29.7	53.6	19.6	35.0	17.6	30.7	17.6	16.1
Total	50.1	49.9	31.5	68.5	19.5	80.5	73.7	26.3	34.9	65.1	35.4	64.6
N	252	251	142	309	37	153	112	40	68	127	17	31
	V=.19, p<.01		V=.21, p<.01		V=.20, p<.05		V=.17, p>.05		V=.16, p>.05		V=.04, p>.05	

inequitable. In particular it is often suggested that women are more committed to teaching than men and that this is not taken into account in the promotion process, or that they carry heavier teaching loads.

In our sample, men and women were equally likely to have applied for promotion at some time. However, men were more likely to have applied more times than women with similar years of experience (See Table 10). When it comes to success rates there is no evidence that women are less successful in the aggregate than men, although the patterns are a little uneven (Table 11).

Our survey confirmed that women did tend to weight teaching higher than men, but there is no evidence that they were less successful as a result. On average, women gave teaching a weighting of 41% compared to 35% for men, while men gave research a weighting of 41% compared to 33% for women.

Job content

Job content is another key element of any pay equity analysis (as we shall see with general staff). For academics the central concern has been that women carry heavier teaching loads than men. We approached this question by asking a series of direct questions about teaching loads, and also by asking staff to tell us how they thought they distributed their time between teaching, research and administration. In terms of teaching workload, we found no significant gender difference in the number of subjects for which staff were responsible, and the number of students whose work they marked. Men were slightly more likely to have responsibility for coordinating courses, but there was no other gender difference in coordination work. The distribution of lectures and seminars was fairly even, although women gave more of the latter and men more of the former. This is likely to reflect the gender imbalance in Levels within our sample, since lecturing is not part of the Level A job description. No significant difference was found in the numbers of workshops or tutorials given by men and women. We also asked staff to try to allocate their working time between teaching, administration and research (an unreliable measure, but one that might have picked up gendered perceptions of time allocation) and found no significant differences here either.

Table 10: Number of times promotion sought by sex and years in full time higher education								
	1-5 years		6-10 years		11-15 years		16+ years	
	Women	Men	Women	Men	Women	Men	Women	Men
Once	82.2	75.0	70.9	57.8	39.0	35.6	28.9	17.1
Twice	13.3	20.5	17.4	23.3	36.6	37.8	35.6	30.6
Three times	4.4	2.3	7.0	15.6	9.8	15.6	21.1	21.4
4+ times	-	2.3	4.7	3.3	14.6	11.1	14.4	30.9
TOTAL	50.6	49.4	48.9	51.1	31.3	68.7	20.5	79.5
N	45	44	86	90	41	90	90	350
	V=.16, p>.05		V=.17, p>.05		V=.09, p>.05		V=.17, p<.01	

Table 11: Number of successful promotion applications by sex and years in full time higher education								
	1-5 years		6-10 years		11-15 years		16+ years	
	Women	Men	Women	Men	Women	Men	Women	Men
Never	34.1	34.1	17.9	31.3	19.5	19.3	8.8	9.8
Once	53.7	58.5	73.8	54.2	56.1	42.0	44.0	43.9
2+ times	12.2	7.3	8.3	14.5	24.4	38.6	47.3	46.2
TOTAL	50.0	50.0	50.3	49.7	31.8	68.2	20.8	79.2
N	41	41	84	83	41	88	91	346
	V=.08, p>.05		V=.20, p<.05		V=.15, p>.05		V=.01, p>.05	

Research productivity

Since research is an important element of aca-

demic productivity that is routinely measured, we asked staff to give us their last 5 years' publications according to the categories used by DETYA in the annual research measurement exercise. Here again we found no significant differences in output once we held discipline constant. Women were slightly less likely than men to say they had material support for research, but slightly more likely than men to say they had psychological support or both. The large majority of both men and women, however, see material obstacles in the way of research, while relatively few see psychological obstacles.

Academic staff and gender equity

This research project found relatively little evidence of the kind of inequities that have often been described subjectively. If women are able to accumulate the same amount of human capital as men in terms of qualifications and years of experience, the differences in income are not very significant. The main reason for this is likely to lie in the nature of the academic industrial reward that provides a uniquely long career path in which the major hurdles involve peer review rather than managerial prerogative. The inability of women to accumulate the same amounts of human capital as men appears to relate to their particular responsibilities for the care of children, and women do not seem to accept this as a matter of free choice. This research points to the importance of further research on why women are less likely to complete a Ph.D. than men, and to longitudinal data that explains their fewer years of experience. In particular, there is little reason to feel confident that just because there are now very large proportions of female students and of women at the start of the career ladder, that these proportions will make their way through to higher Levels in the foreseeable future. On the contrary, it would seem likely that funding cuts and increasing work loads are likely to make it more difficult for women to manage the double burden.

Pay equity for general staff?

The methodology used in the analysis of general staff was very similar to that used for academic staff. We again had a very good survey sample in terms of sex, Level and terms of employment, and by type of organisational unit. However, it is important to acknowledge the difficulties that arise from studying a group of staff as heterogeneous as general staff in higher education, covering everything from librarians to secretaries and lift maintenance staff.

As with the academic staff, the survey confirmed that male general staff earned more than female general staff, with men earning on average $265 dollars per fortnight more than women. Most of this difference could be explained again by Level and by whether staff work full time or part-time. However, when we looked at other factors influencing income, we found that they have a different impact on men and women. For example, for women general staff years of experience in higher education has a significant impact, but the same is not true for men.

As with academic staff the first question that we had to address was to explain why men and women are distributed unequally between Levels in the Higher Education Worker (HEW) award.

Level of initial appointment

Unlike the case with academic staff, there was no significant gender difference in the Levels at which the general staff were initially appointed, with approximately two thirds of men and women starting at HEW 3 or below (Table 12).

In order to know whether these initial appointments are equitable we would need to know something about their qualifications and work experience at entry. While we have no data on their qualifications at the time of appointment, we can compare their prior occupations as an indicator of their human capital. Here an interesting pattern emerges, with very gendered outcomes from similar occupational origins. Table 13 shows us what

Table 12: First position by sex and employment status

	Permanent		Temporary	
	Women	Men	Women	Men
HEW 1	21.1	26.5	18.3	16.5
HEW 2	12.7	18.8	13.5	16.5
HEW 3	30.8	15.5	33.7	20.1
HEW 4	16.4	13.3	16.3	20.1
HEW 5	10.2	11.3	11.3	14.0
HEW 6	5.0	5.2	4.6	4.9
HEW 7	1.7	4.9	1.4	2.4
HEW 8	1.5	3.2	1.0	4.3
HEW 9	0.7	1.3	-	1.2
HEW 10	-	-	-	-
TOTAL	**56.6**	**43.4**	**71.7**	**28.3**
N	**403**	**309**	**416**	**164**
	V =-.02, P>.05		**V =.10, P<.05**	

Table 13: Current Level by sex and prior occupation

	Managers/ Administrator		Professionals		Para-Professionals		Tradespeople		Clerks		Sales/Service		Plant/Machin Operator		Labourers		Other	
HEW Level	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**	**Wom**	**Men**
1&2	0.4	5.4	1.4	2.0	3.9	5.1	-	4.0	6.0	10.0	6.5	2.9	6.7	13.3	28.0	12.5	3.6	7.7
3&4	7.5	11.6	14.7	8.2	35.1	13.1	44.4	30.7	72.4	30.0	53.7	38.2	46.7	50.0	44.0	40.0	39.3	23.1
5,6,7	78.4	41.1	57.1	49.7	53.2	71.7	50.0	57.3	20.2	45.0	33.3	50.0	40.0	36.7	24.0	45.0	53.6	30.8
8,9& 10	12.8	37.5	26.7	38.1	7.8	10.1	5.6	6.7	1.4	15.0	6.5	8.8	6.7	-	4.0	2.5	3.6	30.8
Above 11	0.9	4.5	-	2.0	-	-	-	1.3	-	-	-	-	-	-	-	-	-	7.7
Total	**67.0**	**33.0**	**59.6**	**40.4**	**43.8**	**56.3**	**19.4**	**80.6**	**85.4**	**14.6**	**76.1**	**23.9**	**33.3**	**66.7**	**38.5**	**61.5**	**68.3**	**31.7**
N	**227**	**112**	**217**	**147**	**77**	**99**	**18**	**75**	**351**	**60**	**108**	**34**	**15**	**30**	**25**	**40**	**28**	**13**
V & p	**V=.18, p<.01**		**V=.16, p<.01**		**V=.19, p<.01**		**V=.09, p>.05**		**V=.35, p<.01**		**V=.20, p<.05**		**V=-.15, p>.01**		**V=.24, p<.05**		**V=.30, p>.05**	

Table 14: Highest qualification and sex

	Women	Men	Total
Completed secondary only	26.1	13.6	21.5
Certificate	5.7	12.6	8.3
Diploma	14.1	18.5	15.7
Degree	31.4	32.2	31.7
Graduate diploma	15.1	11.9	13.9
Masters/Ph D	7.6	11.2	8.9
TOTAL	**63.0**	**37.0**	**100.0**
N	**1313**	**771**	**2084**
V=.20, p<.01			

Qualifications and years of experience

It is a rather more complex issue to look at the impact of another key element of human capital – qualifications - across such a heterogeneous workforce. Nonetheless, the formal qualifications of general staff seem to provide a rather gendered return on this particular kind of investment.

In terms of the qualifications of general staff, the main gender differences are at the lower Levels where men are more likely to have a diploma while women have a certificate or high school qualifications. At this Level the differences are likely to relate largely to different occupations, with many men requiring trade qualifications. However, at the degree and higher level, there is very little difference between the sexes, with men very slightly more likely to have a Masters or Ph.D. while women are more likely to have a graduate diploma. By far the most common qualification, a degree, is held by equal proportions of men and women (Table 14).

Table 15: Current Level by sex and highest qualification

	Secondary		Certificate		Diploma		Degree		Grad. Diploma		Masters/PhD	
	Women	**Men**	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**
HEW 1,2	6.1	13.4	6.8	5.4	3.9	3.7	2.8	4.7	2.1	3.4	4.7	1.2
HEW 3,4	66.4	50.5	60.8	36.6	56.9	16.9	25.1	11.2	11.5	10.2	9.3	2.4
HEW 5,6,7	26.4	27.8	32.4	55.9	36.5	63.2	58.5	60.9	67.0	50.0	59.3	41.7
HEW 8,9,10	1.2	8.2	-	2.2	2.2	16.2	13.3	20.6	19.4	35.2	24.4	50.0
Above 10	-	22.7	-	-	0.6	-	0.3	2.6	-	1.1	2.3	4.8
TOTAL	**77.3**	**22.7**	**44.3**	**55.7**	**57.1**	**42.9**	**62.6**	**37.4**	**68.5**	**31.5**	**50.6**	**49.4**
N	**330**	**97**	**74**	**93**	**181**	**136**	**390**	**233**	**191**	**88**	**86**	**84**
V & p	**V=.22, p<.01**		**V=.27, p<.01**		**V=.44, p<.01**		**V=.21, p<.01**		**V=.20, p<.05**		**V=.31, p<.01**	

Level men and women with similar prior occupations have reached in higher education.

For men and women who came from managerial backgrounds about 38% of men are now at HEW 8, 9 or 10. For women with the same occupational background, it is only 13% who have reached this level. At the other end of the occupational spectrum, a clerical background seems to take men further than women, with 60% now having reached Level 5 or above, compared to only 22% of women with similar backgrounds. Relying on prior occupation is a rather crude measure of human capital, open to all sorts of questions, but it is nonetheless a striking finding.

Given these findings we might expect men and women to be spread fairly equally through the Levels (except at Level 3 which requires a trade certificate). But in fact, as Table 15 shows, there are significant and extreme differences with regard to the Levels reached by men and women with the same qualifications.

Men held significantly higher positions than women regardless of equivalent qualifications. Thus, of the men

with certificates (mostly trade qualifications), 55.9% had reached Level 5, 6 or 7, whereas of the women with certificate-level qualifications (mostly in business or secretarial studies), 60.4% were found at Levels 3 and 4 and only 32.4% had reached Level 5, 6, or 7. Similarly, 25.1% of degree-qualified women were at Levels 3 and 4, compared to 11.2% of degree-qualified men, when the credentials aligned with the HEW classification structure would nominally classify degree holders at Level 5. Similarly, 59.3% of women with post-graduate qualifications were at levels 5, 6 or 7 (compared to 41.7% of similarly qualified men), when the HEW classification structures aligns postgraduate qualifications with Level 8.

Table 16: Sex by current Level and number of years full time (column percent)

	0-5 years		6-10 years		11-15 years		16+ years	
HEW level	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**
1&2	4.8	7.7	2.6	2.9	0.9	3.8	2.5	0.6
3&4	45.9	27.6	35.0	18.2	33.0	16.7	25.5	9.5
5,6&7	42.7	49.0	54.8	57.1	42.5	60.3	51.6	51.2
8,9&10	6.4	13.3	7.6	21.2	22.6	17.9	19.3	37.5
Above 10	0.2	2.4	-	0.6	0.9	1.3	1.2	1.2
TOTAL	**66.4**	**33.6**	**64.1**	**35.9**	**57.6**	**42.4**	**48.9**	**51.1**
N	**564**	**286**	**303**	**170**	**106**	**78**	**161**	**168**
V & p	**V=.22, p<.01**		**V=.25, p<.01**		**V=.23, p<.05**		**V=.27, p<.01**	

Men, whatever their type of qualifications, are found to be at consistently higher levels than women with the same qualifications, a result which confirms similar findings reached by Wienecke (1992) in her earlier work on the 'general staff' labour market. There is thus some evidence that women are systematically 'under-classified' according to their qualifications. It is not however, possible to be definitive on this question, as the qualifications held may not be germane to the work performed. The apocryphal Ph.D. graduate in archaeology driving a taxi for a living shows how formal qualifications may not necessarily bear on the work actually performed. Nevertheless, this data does point to the potential scope for an evaluation of the classification of women HEW employees.

In the regression model what we found that there was such a strong link between men's qualifications and the Level reached that we could not include qualifications in the model. However, the same cannot be said for women, for whom there is a relatively weak link between credentials and current Level.

We then looked at work experience, the other key element of human capital that might explain the Level reached by men and women. We found, again, that work experience has a different impact on the Levels reached by men and women.

Men with the same amount of work experience as women reach higher Levels of the HEW structure. For example, of the women who have been employed for over 16 years, a quarter are still at levels 3 and 4, while less than 10% of men are – for the men 37.5% have reached levels 8, 9 or 10, compared to only 19.3% of women. The same is already true after between 1 and 5 years, with almost half of all men reaching levels 5, 6 and 7 while over half of the women are still at level 4 or below (Table 16).

Work value: job content and location

Given the lack of a general staff career structure, we cannot easily establish whether men are getting promoted more quickly and more easily than women, although this is certainly what the data so far suggests. For general staff there is no promotion process through which staff may move from the bottom of the award to the top. Staff can only move up by having their jobs re-classified at a higher Level or by applying for a position at a higher Level. Our survey questions in relation to staff experience of job reclassification produced such mixed responses that we could only conclude that the process of job reclassification is not well understood, and we are therefore unable to say whether men are more successful in having their jobs re-classified than women.

In explaining why some women appear to be over qualified for their classification, it is also possible to argue that there is no inequity involved, and that many women are simply overqualified for the work they are actually doing, so that their qualifications are in some sense irrelevant to their work. In terms of equity we can look at whether men and women who are at the same Level are in fact doing the same kind of work. In particular it has been suggested that the work that women do is undervalued, and that the skills they need and use are not recognised. This point has been made especially in relation to the work done at HEW levels 3, 4 and 5 which is where women general staff are concentrated. But there has been little evidence in previous research on job evaluation or work value.

In an attempt to gather data on the work being done by general staff, in our survey we asked them about their supervisory responsibilities, budget management and payment authorisations, and student contact. It is extremely difficult to measure what was reported against what might be expected of HEW staff at particular Levels because the descriptors accompanying the classification structure are very vague. Similarly, a survey is not the way in which the reality of much of the work done by general staff is best captured. In response to questions

about supervision, we simply do not know enough about what supervision actually entails to draw firm conclusions. With budgetary responsibilities we found consistent patterns of women employed at HEW Levels 3 and 4 having responsibilities that their male counterparts at these Levels do not have – although again the descriptors in the award are completely inadequate. In relation to student contact, this is work that sometimes does not even appear in the HEW descriptors - particularly giving personal and academic advice to students, which constitutes such a major part of the real work at the department level. In our regression model, giving advice to students had a *negative* impact on income, while being responsible for money had a *positive* impact, suggesting gender bias in skill definition.

General staff and gender equity

For general staff, the key predictors of income in our regression model operated in gendered ways. Men do better out of their work experience than women, men also do better out of their qualifications – their investment in human capital. But it might be argued that these qualifications are not germane to the work they have to do, so that we need to look at job content. Here it seems there is a group of women who are at lower levels of the HEW structure than the responsibilities they exercise might warrant. We also found that the HEW classification structure does not adequately reflect the nature of work performed by general staff.

At the same time our research shows that we need to do more work to make these findings carry weight industrially. There needs to be a thorough re-evaluation of the HEW classification structure, based on an analysis of what general staff actually do - including an analysis of the way job evaluation has been applied. More ambitiously, general staff need an award with a career structure that would reward experience, skill and qualifications.

The current financial environment, with continuous reductions in levels of government funding for universities, creates an inauspicious climate for these kinds of changes which might increase the classification and pay of some general staff. However, the devolution of budgetary responsibility to departmental level, for example, has created the possibility of local re-evaluations of general staff jobs and the creation of new higher level positions reflecting the increased skills required by administrative staff. This may have the effect of exacerbating what are clearly wide variations between states and institutions in the way that jobs are classified and reviewed. What is needed is a mechanism to ensure that there is also a thorough re-evaluation of the HEW classification structure generally.

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* While this paper was written by Belinda Probert, it relies totally on joint work done with Peter Ewer and Kim Whiting.