Why So Few?
Women Academics
in Australian
Universities

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Foreword by Senator Susan Ryan

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Foreword

by Senator Susan Ryan

Federal Opposition Spokesperson
for Women's Affairs

The debate about obstacles to sex equality in our society has advanced quite a lot in the last ten years. Having reached a high point of enlightenment in 1975, International Women's Year, the debate has not degenerated very much since then although the economic conditions of women seeking equality certainly have. We have come a long way from the days when otherwise intelligent, cultivated and even urbane men would claim sex discrimination, like dysmenorrhoea, was a figment of the imagination of neurotic women. No longer do large numbers of otherwise sensible men claim that women are either perfectly happy being full time domestic servants or, if they have any other aspirations, have only themselves to blame if they fail to fulfil them.

But all this is not to say that we do not still need careful, thorough, informed research into the circumstances of Australian women, the disparity between various groups of women and their male peers and practical policies to overcome these disparities. Objective research always assists informed debate, and it is informed debate rather than a slanging match that those of us interested in social change have always asked for. Many areas of discrimination against women have been well documented in the last few years: jobs, promotion, wages, the law, schools and training, domestic violence — all of these have been competently dealt with.

The position of women working within academic institutions has not received so much attention. There has been an assumption that if women can get as far in our meritocratic society as teaching or research at tertiary level they have overcome all serious discrimination. But this assumption is wrong. It is certainly demonstrated to be wrong by the various contributions to *Why So Few? Women Academics in Australian Universities* by Cass, Dawson, Temple, Wills and Winkler. This is an important book because it establishes an essential part of the picture of the relationships between men and women and powerful institutions in contemporary Australian society.

Although women academics are indeed a privileged minority in comparison to their blue-collar, white-collar or housewife sisters, they are a beleaguered minority in comparison with their male colleagues. Women academics, like women in so many other areas of paid employment, carry out a supportive rather than an assertive role in the academic hierarchy. They earn less and hold lower-status positions. They have more difficulty

pursuing post-graduate studies, partly because they earn less money, partly because universities promote men faster than women and partly because they often are responsible for child-rearing as well as their academic work.

Universities like to be seen as citadels of enlightenment. Unfortunately New South Wales universities are not yet ready to adopt equal employment policies as enlightened as those of the New South Wales bureaucracy. Of course they are not forced into such enlightenment by legislation whereas the New South Wales public service is. The final chapter of this book is titled, significantly, 'In Many Ways the Wonder is not *Why So Few?* but *How So Many?*'. The evidence about the background of academic women shows that they are more atypical of women in general than male academics are of their own group. They have overcome many obstacles, but the current employment policies and dominant attitudes within universities ensure that they have many more to overcome.

This book makes some sensible recommendations to enable women to pursue a more flexible career pattern without serious handicap. Adequate child-care services are the most obvious and fundamental need, but more generally the opening up of universities to everybody with talent and motivation would ensure that women as well as a lot of currently excluded men could compete on an equal footing for academic jobs and promotion.

This book is not only useful for providing arguments and recommendations concerning the disadvantages suffered by women academics, it also provides useful insights into the role of prejudice and social stereotyping in limiting human possibilities. Its authors are to be congratulated on an unusually practical piece of academic work.

Authors' Note

Over the years of this book's generation many people have helped us at various stages and in various ways. We wish to thank our friends and colleagues for the contributions they have made and to let them know how much we have appreciated their help, interest and encouragement.

We are indebted to Dr D. Crowley, Director of Adult Education, to Mr G. Kidd, ex-Director of Careers and Appointments Service, University of Sydney, and to Professor S. Encel, School of Sociology, University of New South Wales—for their sustained interest in the project and their financial assistance which helped us survive a chronic shortage of funds. We acknowledge a grant from the Australian Research Grants Committee which allowed us to employ a research assistant for one year.

Heather Radi was an early member of the group who compiled the questionnaire. Cedric Ballard defined the data from the questionnaires for computer analysis. Paddy Dawson coded the questionnaires and assisted with programming and data processing; he also compiled the index for the book. Helen Temple transcribed the interviews from tape. Our thanks to them for their valued and essential work.

We are grateful to Anne Lusted who organized the distribution and collection of questionnaires at the New South Wales Institute of Technology.

Eileen Plumb typed the many drafts, revisions and the final version for publication competently, perceptively and with unfailing good humour and tolerance. We thank her very sincerely.

Less directly, but importantly, we owe a debt to the many writers and researchers in Australia and overseas whose work has illumined the area of our investigation and provided valuable comparative material. Particularly we thank Dr Ingrid Sommerkorn who early on sent us a copy of her thesis on English women university teachers; our appreciation is shown in the many references to her work in the text.

Above all our thanks go to our colleagues whose direct collaboration made this book possible. To the women who came to the meetings when the project was first canvassed and to those who supplied guiding autobiographies. To the 430 women and the 122 men who responded to the questionnaire which was very long and probing with many open-ended questions. To the twenty-nine women we interviewed and the further seventy who offered for interview. For their contributions of experience inside and outside the university, for their frank and open self-appraisals, for their expenditure of time and thought, we are deeply grateful.

Finally, we sincerely thank the Vice-Chancellor of Sydney University for supporting the publication of this book.

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Introduction

This book had its genesis in the new wave of consciousness about women's position in society and the women's movement of the 1970s. Its aim is to contribute to the interest in and knowledge about Australian women through a study of a group who share the common situation of women in societies based on a sexual division of roles but who work in the particular locus of a university where they are a minority in both number and status.

We wanted to understand the situation of women who are employed as academics: to collect information on their family backgrounds, their education from primary school through secondary and tertiary institutions, their experiences in employment before academic appointments, the influences on their career choice and recruitment, their place in the academic hierarchy and their attitudes to the university as a workplace. The domestic and community experiences of our respondents, the problems which they encounter combining marriage and children with professional careers, their social and political attitudes and their life styles were all related.

The project group was multi-disciplinary with collective experience in education, sociology, history, psychology, politics and biomedical science, ranging in position (when the study began) from tutor to senior lecturer, and are themselves a part of the group being investigated. As feminist researchers, we ask the basic questions about women in a profession: why are they so few, and why are they scarcer at the top where decisions are made? This research aims to alert women and men to the ways in which the sex-role division of labour operates in the university, as it does in the workforce generally in advanced industrial societies, and to make recommendations for social action to promote greater equality of opportunity between the sexes.

We used three methods of enquiry: first and primarily, a written mailed questionnaire; secondly, selective follow-up interviews; and thirdly, background statistics which have been updated to 1980.

The questionnaire, which was long and comprehensive with many open-ended questions, was distributed in 1974 to all women teachers and researchers, together with some post-graduate students, in the three universities in Sydney (Sydney, New South Wales and Macquarie) and the New South Wales Institute of Technology — a total of 735. Four hundred and thirty women completed the questionnaire, representing a response of 58.5 per cent. Tests showed that the distribution of respondents* was a

* See Appendix A for distribution of respondents by university, faculty/school, position and age.

close fit with that of the general population of women academics in terms of position, department and institution. The quantifiable responses were coded and processed by computer. Responses to the open-ended questions which could not be quantified were collected and were used selectively throughout the text. We were able to interview twenty-nine of the hundred women who offered this follow-up. These interviews deepened our insights and provided a background to the research.

It became apparent that a control group of men was needed against which to measure the women's experience. A shorter version of the questionnaire was thus designed and sent in the following year to a random sample of 284 academic men in the universities of Sydney, New South Wales and Macquarie, resulting in a response from 122 (43 per cent). The male and female samples are not matched, and the distribution of male respondents* is skewed towards the top of the academic ladder while that of the women is skewed towards the bottom, reflecting, as does their discipline variation, the distribution of the sexes in the university workforce. The disparate number and distribution of the female and male samples create problems of comparability. We are aware of this and have minimized such problems as far as possible, but where comparisons are made for which we do not claim statistical significance we present them in the belief that they have sociological significance.

Our premise has been that academic women form a particular occupational group whose characteristics should be described and analysed. This study might elucidate factors unique to academic women. Other factors might be shared with their male colleagues and others with all employed women.

The accumulated data from the questionnaire, backed by material from the interviews, form the basis of this book. Each co-author has been responsible for one or more of the following chapters, and Chapter 9 has been written jointly.

In Chapter 1 we look at the social background of our respondents: birthplace, education, occupation and social class of their parents; parental attitudes to daughter's education and career; mothers' employment status and effect on daughters; respondents' secondary schools, their religion and politics.

Chapter 2 summarizes their university education, together with their motivations and factors that helped or hindered their pursuit of qualifications, and their sources of financial support.

In Chapter 3 we trace their varied work histories and career patterns from leaving school to current employment. First university appointments are related to positions currently held; attitudes to an academic career are shown against decision to enter, present attraction for and intent to stay in the profession.

The position of women in the academic labour market is explored in Chapter 4 to test the proposition that women fulfil the routine and demanding tasks of undergraduate teaching and research assistance, facilitating men's involvement in post-graduate teaching, research and high-level administration. Women's interest in and contribution to teach-

* See Appendix A for distribution of respondents.

ing, research and administration is compared with that of men. Women's and men's productivity (that is, publications, attendance and contributions at conferences) are compared. The nature of the academic career, its organization and its ideological underpinning are analysed in relation to dominant assumptions about the social roles of women.

Chapter 5 discusses the respondents' perceptions of past, present and anticipated discrimination against women.

'Domestic contradictions', Chapter 6, deals with personal and domestic life, exploring the range of life-styles of our respondents. The dual-career family thesis is discussed in relation to the domestic division of labour. Our aim was to understand the patterns of domestic support which academics either provide, or have provided for them, and the connections of these patterns with the 'clockwork' logic of the academic career.

The particularly male-dominated fields of science and medicine are covered in Chapter 7 and women in these academic areas shown to respond somewhat differently from their sisters in humanities.

In Chapter 8 the position of each sex on a range of social issues (for example, marriage, nuclear family, sex roles, abortion, lesbianism, discrimination, women's movement) is explored, and for the women their opinions on and involvement in feminism and feminist activities.

The final chapter attempts to answer the question 'Why so few?', to summarize the findings of the survey and include recommendations for improvements to the position of women in academic institutions.

The appendixes include the distribution of the respondents to the questionnaire, the questionnaire itself, and statistics on staff grades throughout Australian universities.

We have taken a long time to complete this study. It was undertaken with very small funding. We had welcome small grants from the Universities of Sydney and New South Wales, and a grant from the Australian Research Grants Committee which covered the salary of a research assistant for one year, but inadequacy of funds and of time were constant constraints. This research was fitted into our normal full-time teaching, research and private life. Finally, publication of this manuscript was held up for several years by the business failure of the original publisher.

The consciousness of women's position which generated this study has continued to grow in the universities and in society, leading to legislative action, as in the Anti-Discrimination laws of several States including New South Wales which has an Office of Equal Opportunity to monitor the legislation.

In the universities there have been investigations into the position of female staff; recommendations have been made, action initiated and in some cases implemented, to promote their equality. The Federation of Australian University Staff Associations conducted a limited survey on the status of women academics in Australia, and in 1977 published its report which provided useful numerical data on the distribution of women throughout the Australian academic hierarchies and served to draw the attention of staff members to some of the areas which are problems for women. The University of Melbourne Assembly, with the support of the University administration and a number of academic staff, initiated a similar survey and published its Women's Working Group Report in 1975.

The Australian National University sponsored a study of the role of women in its student and staff bodies, published in 1976.

Recent changes at Sydney University were triggered by a question asked in 1980 in the University Senate about possible discrimination against women. The Vice-Chancellor, Professor Sir Bruce Williams, initiated an investigation into women's position at all levels of the University. An Association of Women Employees of the University of Sydney was formed after an informal meeting of women from all grades of employment, and this association made recommendations. Changes which have been accepted by the University Senate include support for the concept of 'fractional full-time appointments' and periods of reduced duties for persons with family responsibilities, and for the abolition of differences in treatment of male and female contributors to the state superannuation scheme. Research is being sponsored into the academic performance, appointments and promotions of women within the university. More women are to sit on promotion committees and career development programmes for non-academic staff are to be established.

It seems that slowly the idea is being accepted that universities should play a leading role in recognition of women's right to equal opportunities of employment and advancement, and their equal right to contribute to the creation and transmission of knowledge. We hope that this book will contribute something to this changing scene.

1
Social Background

Madge Dawson

There has been little systematic collection or analysis of data on women academics. In looking at their family and social background we sought to identify factors which may have contributed to their educational survival and career commitment. How would they compare with our male respondents, with academics in other studies and with Australian women in general?

We asked respondents about their growing-up years: country of birth, education and occupation of parents; size and social class of their families; parental attitudes to education; where they themselves were born and grew up and the schools they attended; relationships with parents; religion; politics; the atmosphere of the family home; experience and effect of their mothers' employment status.

COUNTRY OF BIRTH: PARENTS AND RESPONDENTS

Just over half (57 per cent) of all parents were born in Australia, marginally more of the women's parents than of the men's, and of mothers than of fathers.

Forty-three per cent were born in other countries. For 40 per cent of the parents born overseas their birthplace was in the United Kingdom or Eire, for 28 per cent in Continental Europe. Less of the women respondents than of the men had parents of United Kingdom/Eire origin, double the percentage had parents of European birth and there were more New Zealanders among the men than the women.

Table 1.1 shows the percentage of respondents and of the Australian population having one or both parents born overseas. The Census (1971) figures are not strictly comparable in that there is no age grouping which quite fits our respondents'; we have used the 'twenty-five years or more' category as most relevant and included the younger (twenty to twenty-four years) category. Also the Census figures for Europe include only four countries (Italy, Greece, Yugoslavia, Germany), while ours are for Europe as a whole, so cannot be related. But it is probable, given the post-war migration of Europeans to Australia, that the inclusion of the rest of Europe in the Census figures would raise the percentage of the population

with European parentage above that of the academics.

Having both parents of overseas birth occurs slightly more frequently among the academics (38 per cent) than in the population (34 per cent), also among the male (40 per cent) as compared with the female (37 per cent) academics. More of the men than of the women had both parents from the United Kingdom/Eire, and the women showed their higher European parentage.

Among the respondents themselves the Australian born rises to 64 per cent, as compared with 57 per cent of the parents, but the 36 per cent born overseas is considerably higher than in the population (27 per cent). Thirty-five per cent of the women, and 41 per cent of the men, were born overseas. To know where they grew up was more relevant to our study than where they were born. Three-quarters of the women grew up in Australia, and of the quarter who came here as adults 36 per cent were from the United Kingdom/Eire, 16 per cent from Europe (only one Southern European), United States and New Zealand each 13 per cent, Asia 9 per cent, Canada 7 per cent, Southern Africa 3 per cent, the Middle East 3 per cent. More of the men (one-third) grew up overseas, over half of them (55 per cent) in United Kingdom/Eire, 20 per cent in New Zealand, 18 per cent in the United States, two men in Central Europe, one in Egypt.

Faculty distribution shows women who grew up in Australia (75 per cent) were over-represented in medicine/veterinary science (88 per cent of the faculty), while those who grew up overseas (25 per cent) were over-represented in the sciences (31 per cent). The overseas men (33 per cent) also were over-represented in the sciences (51 per cent of the faculty), and the Australians (67 per cent) in the social sciences (75 per cent).

Other studies have shown the high incidence of foreign-born in the Australian academic profession: Encel (1962), Tien (1965), and Saha (1970). The large overseas recruitment is probably due to the combination of two factors — the rapid expansion of our universities since 1945 and the preference for overseas graduates, particularly British (and in our case particularly male). An American professor of history and education (Graham, 1973, p. 266) suggests one possible explanation for the numerous examples of foreign-born women in high academic posts in the U.S.A.:

> All these women have direct experience of another culture and presumably recognize a greater variety of options for women than the stereotype of middle America currently exemplified by Mrs Nixon and Mrs Agnew.

Whether or not this thesis would hold for Australia (or even holds for U.S.A.) would be difficult to determine, but it could be one factor in the characteristic that differentiates academic from all Australian women; that is, their greater foreign origin. Men are similarly differentiated, and to a greater degree.

EDUCATION OF PARENTS

As would be expected, fathers of both female and male respondents were

Table 1.1 Birthplace of Respondents' Parents and Australian Population (percentages)

Birthplace of parents	Respondents			Population (1971 Census)	
	Women	Men	Total	25 years & over	20-24 years
Both born overseas					
U.K./Eire	11.7	17.5	12.9	14.6	8.0
Europe	11.9	6.1	10.7	7.5	6.6
Other	13.8	16.7	14.4	11.8	12.6
Total	37	40	38	34	27
One born overseas	10	8	10	11	8
Both born in Australia	53	52	52	55	65
	100	100	100	100	100

Table 1.2 Education of Parents (percentages)

Highest level of schooling	Parents of respondents						All parents
	Mothers			Fathers			
	Women's	Men's	Total	Women's	Men's	Total	
Primary only	10	24	13	9	21	12	13
Some/complete secondary	55	58	56	43	49	44	50
University degree/ diploma	15	9	14	29	19	27	20
Other post-secondary	20	9	17	19	11	17	17
	100	100	100	100	100	100	100
	N=414	N=117	N=531	N=418	N=119	N=537	N=1068

Note: Throughout the book, unless otherwise indicated, N in tables based on the Sydney survey represents the number of respondents who answered the question.

more highly educated than mothers: considerably more went beyond secondary level and nearly double the percentage had university qualifications (Table 1.2). Less expected, perhaps, although not when seen against their social class origins, female respondents had parents of much higher educational levels than parents of the males.

This is further confirmed in that 9 per cent of the women, as compared with 2.6 per cent of the men, came from families where both parents were university graduates, and only 5 per cent, as compared with 16 per cent, from families where both parents had not gone beyond primary school.

For the majority of respondents, particularly the males, there has been a large measure of upward educational mobility in relation to their parents. In educational attainment 71 per cent of the women and 81 per cent of the men surpassed their mothers (15 per cent and 9 per cent were graduates).

Variations in Education of Parents

There are variations from the general picture (Table 1.2) by parents' birthplace and by age of respondents.

The most highly-educated fathers of the women academics were those born in Europe (37 per cent graduates) and the 'other' countries (North America, New Zealand, Asia, Africa) taken together (42 per cent graduates). This contrasts with the Australian-born (25 per cent graduates) and those born in United Kingdom/Eire (27 per cent). Mothers born in the 'other' countries had the highest educational levels. One-quarter were university graduates, contrasted with 17 per cent of the British/Irish, 14 per cent of the Australians and only 6 per cent of the Europeans.

For the male academics we have only a comparison of the Australian with the total overseas-born. Fathers show little variation, but the Australian-born mothers were less well-educated than the overseas-born (5 per cent compared with 15 per cent university graduates).

The younger respondents had the more highly-educated parents. Fifteen per cent of the younger women, as compared with 10 per cent of the older, had mothers, and 30 per cent, as compared with 24 per cent, had fathers who were university graduates. Considerably more of the older respondents than of the younger had parents who did not go beyond primary school, particularly seen in the mothers of the women (20 per cent as compared with 8 per cent) and the fathers of the men (39 per cent as compared with 12 per cent). The decline in the percentage of parents with only primary education probably reflects a similar decline in the population. It is of interest that a quite high proportion of our older respondents, particularly the men, whose parents had only elementary schooling, survived without the 'advantage' of a background of educated parents that we have seen is typical of academics.

Graduate Parents

The degrees taken by respondents' parents covered the whole academic range and there was at least one father and one mother in each category, except engineering, dentistry and commerce (no mother), and divinity and social work (no father). But the distribution over the categories followed the familiar pattern—fathers fairly widely spread, mothers heavi-

ly in arts. Just over half (51 per cent) of the mothers had degrees in arts, 14 per cent in science, 6 per cent in medicine. Twenty-five fathers had higher degrees (five masters, twenty doctorates); they represent 14 per cent of all fathers (compare 0.4 per cent of males, 1971 Census). Ten mothers (all mothers of women respondents) had higher degrees (seven masters, three doctorates), representing 1.9 per cent of all mothers (compare 0.1 per cent of females, 1971 Census).

Female and male respondents in medicine or veterinary science and female respondents in the humanities were the most likely to have had graduate fathers; respondents in the sciences were least likely. But the father-daughter correlation was highest in the sciences. One-quarter of all women, but half of the women in the sciences, whose fathers had degrees had graduated in the same field as their fathers.

Comparison with the Population

It is not possible, given the time span covered in this table (Table 1.2), to make any precise comparison between the education of respondents' parents and the Australian population, but information from the 1971 Census is sufficient to demonstrate vast differences between the two groups. The Census showed that, of the population aged twenty years and over, 26 per cent (26 per cent of the females, 25 per cent of the males) had not gone further than primary school; 52 per cent (53 per cent of females, 50 per cent of males) had one or more years at secondary school; 18 per cent (20 per cent of males, 16 per cent of females) had completed secondary or had gone on to some post-secondary education; 2 per cent (2.9 per cent of males, 1.0 per cent of females) had a university degree.

Major differences between the respondents' parents and the population are found at the lowest and highest levels. Double the proportion of the population (26 per cent) than of the parents (13 per cent) had primary schooling only; ten times the proportion of the parents (20 per cent) than of the population (2 per cent) had degrees.

SOCIAL CLASS

A very similar picture emerges from analysis of occupations of fathers (Table 1.3), with which education may be closely associated, but in itself the most commonly accepted indicator of a family's social status. We used this measure, employing Census categories to allow comparison with the population; we also asked respondents to assess independently on their own criteria, the class of the families where they grew up (Table 1.4). We deliberately included occupations of mothers, not in this case as a class indicator, but in order to make comparisons with fathers and with women in the population. Particularly we wanted to make visible women's largely ignored contribution to the workforce and to assess the effect of the working or non-working status of their mothers on the attitudes of respondents to the role of women. (See Cass, 1976 and later in this chapter.)

Occupations of respondents' parents will obviously cover a time span from many years back to the time of the survey, while occupations of the population are for a specific year (1971). The two groups are not, therefore, strictly comparable, but the difference in occupational status between them is so great that we feel any equation with time would not so

Table 1.3 Occupation of Respondents' Parents and Australian Population (1971 Census) (percentages)

Occupational categories	Respondents' fathers			Respondents' mothers			Population aged 15 and over[a]	
	Men's	Women's	Total	Men's	Women's	Total	Males	Females
I Professional, technical	29	39	36	29	43	39	9	14
II Administrative, executive and managerial	28	26	26	1	8	6	9	3
III Clerical	8	5	6	33	21	24	9	34
IV Sales	2	4	4	11	8	9	7	13
V Farmers, fishermen, etc.	8	7	7	1	[c]	[c]	10	4
VII Transport and communication	2	3	3	1	1	1	7	2
VIII Tradesmen, production workers, labourers[b]	18	14	15	16	12	13	43	14
IX Service, sport, recreation	2	1	[c]	8	7	7	4	15
X Armed services	3	1	2	—	—	—	2	[c]
	100	100	100[d]	100	100	100[d]	100	100[d]
	N=116	N=395	N=511	N=97	N=273	N=370		

[a] Percentages adjusted to exclude those for whom no occupation was stated.
[b] Includes mining (category VI).
[c] Less than 1%.
[d] Rounded to nearest integer.

affect the conclusions drawn from the data we have as to invalidate their use. Modification of the population figures by exclusion of the fifteen to twenty age group which is not represented in the respondents' parents would have only marginal effect. Fathers of respondents differ markedly from all Australian males in their high representation in the first two categories and their low representation in category VIII. Nearly two-thirds of the fathers, as compared with less than one-fifth of the male population, were in professional/managerial occupations; 15 per cent as compared with 43 per cent, were tradesmen, production workers or labourers. Again, as with education, more of the women's than of the men's fathers were in the upper white-collar occupations — and less in the blue-collar.

The mothers differed from the female population in their much higher percentages in the professions, and again more of the women's mothers than of the men's were professional workers. In category VIII their representation was almost identical with the female population and their own fathers. However, if the tradesmen in this category were separated from process workers and labourers, it is very likely that generally the fathers would be the skilled workers, the mothers the unskilled (OECD, 1973). The pattern of the mothers' occupations is closer to that of the female workforce than it is to that of the fathers': clerical, sales, process and service workers, but not administrators/executives/managers. The female professions of nursing and teaching largely account for the higher percentage of females than males in category I in both population and respondents: 10 per cent of respondents' mothers were nurses, 20.5 per cent were teachers. The most frequently occurring professional occupations of the fathers were engineering, teaching and medicine: together they accounted for over half of the professional and one-fifth of all their occupations. Thirteen per cent of all parents were teachers (2 per cent in tertiary institutions).

We don't know what criteria respondents used when asked to rate the social class of their families—what importance they placed on father's occupation, how far other factors such as education, cultural atmosphere and standard of living were considered. Their ratings are shown in Table 1.4.

Both women and men rated their families as considerably more middle-

Table 1.4 Respondents' Assessment of the Social Class of their Families of Origin (percentages)

Social class	Women	Men	All respondents
Upper middle	18	9	16
Middle	47	30	43
Lower middle	18	26	20
Upper working	8	17	10
Working/lower working	9	18	11
	100	100	100
	N=413	N=117	N=530

than working-class, but a much higher proportion of the women than of the men claimed middle-class backgrounds, and double the proportion said they came from upper-middle-class families. On the other hand, more than twice as many men rated their origins as working-class.

There is no indication that the social origins of the women have changed over time: the middle-class/working-class distribution (83 per cent/17 per cent) was identical in the age groups twenty-one to thirty, thirty-one to forty and over-forty. There was a slight variation when the twenty-nine women over fifty were taken separately: less middle-class, more working-class.

But in the youngest men there was an increase in working-class background, and again a variation with the over-fifties, five of the twelve coming from the working class.

Problems of coding parental occupations (not always clearly identified) and fitting them to Census categories, combined with the unknown criteria respondents used to assess their social class background, make it difficult to determine a relationship between Tables 1.3 and 1.4. But if we equate Census categories I-IV with white-collar and middle-class, and categories VII-IX with blue-collar and working-class (omitting the ambiguous categories of farmers/fishermen and armed services) two points of interest emerge. The women's assessment of their working-class origins (17 per cent) fits that based on their fathers' occupations (18 per cent), but they see their families as more middle-class (83 per cent) than is shown by father's occupation (74 per cent). Among the men there is a fairly close fit between father's occupation (67 per cent) and middle-class (65 per cent), but although only 22 per cent of fathers were in blue-collar occupations, 35 per cent of the men rated their families as working-class.

There are too many ambiguities to make comparisons meaningful, but whether one uses the comparatively objective test of father's occupation or respondent's subjective assessment, it is plain that both male and female respondents come disproportionately from middle-class families where the father had a high or relatively high occupational status, and that more of the women than the men had this elite class background.

The academic profession has been an avenue of mobility from non-professional background to achieved professional status for 64 per cent of our respondents (36 per cent of fathers were in the professions — see Table 1.3), but for 71 per cent of the men as compared with 61 per cent of the women. Relative to the fathers who were in the two high-status categories (professional/managerial), 38 per cent (43 per cent of the men and 35 per cent of the women) have moved from the blue-collar and lower-white-collar to upper-white-collar.

Studies by Saha (1970) of male academics at Sydney University, by Bernard (1964) of American female college teachers, and by Sommerkorn (1969) of English female university teachers, show a class background of academics very close to that of our repondents. But in their very comprehensive survey of the British academic profession, Williams, Blackstone and Metcalfe (1974) reported that 39 per cent had fathers in professional/managerial, 28 per cent in other non-manual, and 33 per cent in manual occupations. Despite some problems in equating their occupa-

tional categories with ours, British academics are clearly drawn from wider strata of society than are our Sydney respondents: fewer from the top-status groups, more from the working class.

Williams and his colleagues found little recent change in class origins of university teachers despite the growth of universities:

> There is no reason to believe that as universities grow they are recruiting staff from a wider variety of social class backgrounds . . . . In the same way that the proportion of women has remained virtually unchanged, so also has the proportion of those whose fathers were manual workers; it was a little over one-third of academics in 1963/4 and almost exactly one-third in 1969/70. Nor have the proportions with fathers in professional and other non-manual occupations changed radically as far as we can see.

They comment on the one-third who come from the working class:

> A profession which recruits on the basis of achieved characteristics, such as high academic qualifications, might be expected to take in a higher proportion of people of working-class origins than professions more reliant on ascribed characteristics. This proved to be the case.

Their proof was in comparing the social origins of university teachers with two of the most important alternative occupations (grammar school teaching and the higher civil service) to find that more of the academics (33 per cent) than of the other two groups (26 per cent and 19 per cent) came from working-class homes. They found, as we have, that a much lower proportion of the women (20 per cent) than of the men (34 per cent) had working-class backgrounds.

The British writers comment on the relatively high representation of people with working-class backgrounds in the academic profession: 'One possible explanation for this is over-achievement by working class men and women'. They refer to an American study (Blau and Duncan, 1967) of second generation white immigrants who were particularly successful individuals:

> Minority group handicaps are challenges for as well as impediments to achievement. They create obstacles to success and simultaneously provide a screening test of capacity to meet difficulties, with the result that those members of the minority group who have conquered their initial handicap and passed the screening test are a select group with high potential for continuing achievement. . . . This may also be true of the most able working class undergraduates in this country.

They might reasonably have added, or we might add, that the lower proportion of women than men from the working class might be due in part to the fact that working-class women have to conquer the handicap of sex as well as class, and that those who pass the screening test are a very select group.

Table 1.5 Secondary Schools Attended by Respondents (percentages)

School	Australia		Overseas [a]		All respondents		
	Women	Men	Women	Men	Women	Men	Total
State	55	58	69	77	59	66	60
Catholic	13	21	8	5	12	14	12
Other private	32	21	23	18	29	20	28
	100	100	100	100	100	100	100
	N = 321	N = 66	N = 101	N = 56	N = 422	N = 122	N = 544

[a] Three out of every ten received most of their secondary education in schools outside Australia — a quarter of the women, but nearly half of the men.

SECONDARY SCHOOLING

Six out of ten respondents attended state schools, four out of ten private schools. State school background was more characteristic in both sexes of the overseas-educated than of the Australian, and of men than women wherever educated (Table 1.5). Private school education characterizes the Australians as compared with the overseas; non-Catholic private school, women as compared with men.

Age of respondents affects the distribution of the women by secondary school and the distribution of the men by state/non-state school only very slightly, but it affects the relative proportions of the men in the non-state sector: 17 per cent of those under forty-one, as compared with 9 per cent of the older men, went to Catholic schools; 15 per cent, as compared with 24 per cent, went to non-Catholic private schools.

Because of the wide age range of our respondents, it is not possible to compare their school attendance with that of the Australian population, but even figures from the 1971 Census will give some indication of disparity between the two groups. In 1971, of all children over the age of twelve who were at school, 76 per cent (77 per cent of boys, 74 per cent of girls) were in government schools; 24 per cent (23 per cent of boys, 26 per cent of girls) were in non-government schools. A further break-down (Australian Bureau of Statistics, 1976) shows 77 per cent in government, 16 per cent in Catholic, 7 per cent in other private schools. When these figures are related to our respondents who were educated in Australia, the proportion of the population at government school is much higher than it was in the academics (77 per cent compared with 56 per cent), slightly higher at Catholic schools (16 per cent compared with 14 per cent), but very much lower than at other private schools (7 per cent compared with 30 per cent). The school children show the same difference between the sexes as in the academics: slightly more of the males at government, slightly more of the females at private schools.

The faculty/school distribution of our respondents varied with the schools they came from. Respondents demonstrated the association often found (for example, Williams, Blackstone and Metcalf, 1974) between academic discipline and school background: the humanities and particularly medicine and veterinary science with private school, the sciences with state school.

FAMILY SIZE AND BIRTH ORDER

Our respondents add support to the theories that the potential for high achievement is linked with family size and birth order—higher in persons from small rather than large families, and in only- or first-born children:

> A child who is one of two is more than twice as likely to reach higher education as a child from a family of four or more. (Robbins, 1963)

> Intelligence declines with family size; the fewer children in your family, the smarter you are likely to be. Intelligence also declines with birth order; the fewer older brothers or sisters you have, the brighter you are likely to be. (Zajonc, 1975)

Sommerkorn (1969) comments in her study of female academics:

> This study is in agreement with all other findings reporting a relationship between the position of the first-born (that is, eldest and only child) and later educational excellence.

Sixty-two per cent of her respondents were first-born children, nearly six in ten came from a family of one or two, and only one in ten from a family of four or more.

Over half (53 per cent) of all our respondents were first-born children: 13 per cent only child, 40 per cent eldest child (Table 1.6). Approaching half (44 per cent) came from families where the respondent was the only child (13 per cent) or had only one sister or brother (31 per cent). Thirteen per cent came from large families, that is, with more than three siblings (mainly four or five) but ten respondents had six, three had seven and three had nine.

Equal proportions of women and men were only-children but more of the men (48 per cent) than of the women (38 per cent) were the oldest of their families, so that 61 per cent of the men, as compared with 51 per cent of the women, were first-borns.

When birth order and family size are related to social class (middle and working class, using respondents' own assessment—Table 1.4), being first-born or coming from a small family is more characteristic of our respondents from the working class than of those from the middle class.

Fifty-nine per cent of the working class, compared with 40 per cent of the middle class, were only- or eldest-children; 10 per cent, compared with 14 per cent, came from large families. The 'select few' said earlier to have overcome the handicap of working-class minority status may also have had the advantage of favourable birth order and family size.

Table 1.6 Birth Order and Number of Brothers and Sisters (percentages)

	Women	Men	Total
Birth order			
Only child	13	13	13
Eldest child	38	48	40
Middle child	25	17	23
Youngest child	24	22	24
	100	100	100
Sisters/brothers			
None	13	13	13
One	30	35	31
Two–three	44	38	43
Four or more	13	14	13
	100	100	100
	N = 429	N = 120	N = 549

PARENTAL ATTITUDES TO RESPONDENTS' UNIVERSITY STUDIES

Most respondents (80 per cent of both men and women) said they received encouragement from their parents to continue with education, slightly more from mothers than fathers; only 4 per cent of parents were discouraging, the rest neutral. The women who had brothers thought that the males in the family received somewhat greater encouragement than the females, particularly from fathers: 77 per cent said their mothers, and 70 per cent said their fathers, encouraged both sexes equally; 13 per cent (slightly more fathers than mothers) said preference was given to sons, and less than 2 per cent said daughters were encouraged over sons.

The women were asked two questions about parental attitudes to the higher education of their daughters—what they considered its main purpose, and how they viewed the relationship of marriage and career. Not surprisingly, there was a high 'Don't Know' response: 13 per cent to the first question; to the second 12 per cent about their mothers and 21 per cent about their fathers.

Of those who replied to the first question, 57 per cent said their parents regarded preparation for career, and 38 per cent insurance against adversity, as the most important function of their education. Career was considered more important by fathers (54 per cent) than mothers (47 per cent), and more mothers (40 per cent) than fathers (36 per cent) saw education as insurance against possible adversity. A few respondents (8 per cent) said their parents, particularly mothers, saw education as preparation for marriage and family, or as avenue of social mobility. Four per cent of the fathers, but only one mother, saw no purpose in their daughter's education ('education was wasted on girls').

The relative importance placed on career and insurance against adversity is affected by the educational level of parents and by the age of respondents. The more highly educated parents and the parents of the younger women placed greater importance on career and less on insurance than the less educated and the parents of the older women (except the mothers of the women over fifty). Fathers with primary education only were more concerned than any other parents with education as insurance, preparation for marriage and social mobility, and 10 per cent (compared with 4 per cent of all fathers) considered education wasted on girls.

Of the women who answered the second question, 60 per cent said their parents (slightly more fathers than mothers) thought career and marriage could be combined, 31 per cent (slightly more mothers than fathers) considered marriage more important than career, and only 9 per cent career more important than marriage. It would be hard to know whether or how these parental attitudes affected the attitudes of their daughters, but some inference might be drawn from the fact that responses differed with respondents' marital status. Considerably less of the unmarried (22 per cent) than of the married (33 per cent)—and particularly the divorced (44 per cent)—had parents who placed the greater emphasis on marriage, and more (12 per cent as compared with 7 per cent of the married) had parents who thought career more important than marriage.

MOTHERS AS ROLE MODELS

We have earlier analysed the occupations of mothers (Table 1.3). Our further interest was to investigate in the case of the women respondents:

> the significance of the mother as a role model, as a source of gender identity in generating the daughter's conception of herself as future wife and mother, or career woman, or both. (Cass, 1976)

Mothers' Work Patterns

Nearly all mothers had worked before marriage, and half of the women came from families where the mother had at some stage after marriage combined her home responsibilities with outside employment. Considerably more of the women than the men (36 per cent) had mothers who worked after marriage, considerably more also of the younger than of the older respondents: 57 per cent of the women up to thirty, falling through 51 per cent and 38 per cent to 15 per cent of those over fifty; 40 per cent of the men up to, and 26 per cent of those over, forty. This reflects the increasing participation of all married women in the workforce over the last decades (in 1933 one in twenty married women was employed, fewer than one in ten in 1947, rising to one in five in 1961 and to one in three in 1971), but greatly accentuated in the mothers of our respondents, particularly the women. A characteristic of the female academics, more pronounced than in the males or in Australian women generally, was a background of married women working.

Not all the mothers who worked after marriage did so while they were rearing their children, but before respondents themselves entered university over one-third had some experience of life with a working mother, nearly one-fifth when they were very young: 13 per cent when they were under three, 18 per cent in the later pre-school years, 36 per cent when they were at school, 39 per cent at university.

The age-related pattern of mothers' employment persists at every stage of respondents' growing up: double the percentage of the younger women than of the older had a working mother.

Having a working mother was a more common experience of women from the working than of those from the lower-middle and particularly the middle or upper classes—again at each stage of respondents' lives, but par-

Table 1.7 Social Class by Whether and When Mother Worked After Marriage: Female Respondents (percentages)

	Social class			
Mother worked	Upper/ middle	Lower middle	Working	Total
At any time after marriage	46	54	57	49
When respondent				
Under 3 years	9	16	20	13
3–5 years	15	22	24	18
At school	31	41	48	36
At university	36	41	46	39

ticularly at the youngest age (one-fifth of the working-class mothers as compared with one-tenth of the middle-class, when their daughters were under three). In Table 1.7, respondents' own assessment of class is used.

Why Mothers Worked

Most respondents (and only four did not reply to this hindsight question) thought that the main reason for their mothers' working was economic: 46 per cent solely economic, 33 per cent combined with some other reason (career or interest or self-expression and independence, or negatively, escape from the isolation and boredom of the housewife role). The remaining 21 per cent said their mothers worked not for money, but for interest (13 per cent), pursuit of career (4 per cent) or to escape (4 per cent).

Earning money was a greater motivation to working-class mothers (90 per cent, 58 per cent economic only) than to middle-class (74 per cent and 40 per cent respectively), and to mothers with little education (96 per cent and 83 per cent) than to those with higher education (50 per cent, 24 per cent). Conversely, the positive non-economic reasons (interest, career, etc.) were more characteristic of the middle-class (18 per cent) than the working-class (5 per cent), and of the graduate mothers (33 per cent) than of those with little education (4 per cent). Ten per cent of the graduates, as compared with 4 per cent of all mothers, saw work as a release from housewifery.

We didn't ask our respondents, many of whom had young children, a direct question as to why they were working, but as is shown indirectly later in this chapter and in other sections of the book, their reasons have a different emphasis from those they ascribed to their mothers.

Effect on Respondents of Working/Not Working Mothers

There has been little interest until recently in the mother's occupational status as a factor in the socialization of girls. Even Sommerkorn (1969) did not seek this information on her female academics— 'unfortunately', she says, 'as it does seem probable that the mother's employment status would be a significant variable in the socialization process'. Ginzberg (1966) was one of the first to explore this process in his study of women who had completed graduate studies at Columbia University, 30 per cent of whom had a working mother: 'We asked our respondents about the influence of their mothers' work experience on their own career decisions on the assumption that many of these mothers gave some indication of their feelings about working'. He found that two out of three of these women reported some effect on their own career plans, almost all positive ('They looked forward to emulating their mothers and combining home and work'), rarely negative ('I wanted to be home with my young children'). He found on the other hand the women whose mothers did not work 'had relatively little to say about whether this influenced their own career plans, although a few sought to combine homemaking and a career because they wanted to avoid being like their mothers'.

We tested Ginzberg's findings with our respondents. Three out of five of those whose mothers worked said they were affected by this

experience—for all but three in a positive direction, stimulating their own career ambitions. Only three out of ten of those whose mothers did not work reported any effect of this, or any they were aware of, on their own plans, but fifty-one of these fifty-nine women said that reaction against their mother's situation was a factor in their decision to pursue a career.

The stimulus of a working mother was experienced by female respondents in various ways. Some had well-educated professional mothers whose motivations were interest in their work and self-fulfilment rather than economics:

- Lecturer, Humanities, of her doctor mother: 'She worked for intellectual interest and enjoyment. She showed it was possible to combine home and work, that one gets more out of life by using and expanding one's talents.'
- A Senior Tutor, Science; mother a graduate teacher working for interest and family support: 'She made "domestic" aspects less important as means of fulfilment, as her work gave her tremendous satisfaction, and made me look forward to working, not settling down as a housewife.'

The daughters of these mothers had ready-made role models for their own careers.

Some mothers, lacking education and training, and often poor, worked mainly for economic reasons in the only occupations open to them. The model they presented was of a mother not confined to domesticity, but through her work establishing an independent role and contributing to the family's economic well-being. But these daughters, aware of the limitations and often the frustrations of their mothers' situations, were determined to escape their economic and occupational trap:

- Tutor, Humanities, whose mother worked as a domestic servant for economic reasons: 'The money she earned provided extra consumer

goods and helped defray costs of economically dependent child—me. The sort of job she could get with her limited educational and other qualifications was an incentive to me to seek a career.'

- Tutor, Humanities: 'The fact that she had wanted to be a journalist, but was forced by economic hardship to work in a shirt factory strengthened considerably my resolve to write, as well as pursue some kind of career.'
- Lecturer, Humanities; mother a sales assistant, family very poor: 'I wished not to be poor, so sought a well paid career.'

Loneliness and isolation, frustration, dependence, wastage of talents, were terms used by many respondents to describe the situation of their mothers who did not work outside the home and against which the daughters reacted:

- Senior Tutor, Social Science; mother had been a factory worker: 'I believed she suffered boredom and isolation through not working after marriage. I resolved that I should work, regardless of whether I married or not.'
- Tutor, Humanities, middle-class: 'My mother equated "being just a mother" with "being a failure". I was determined not to be just a housewife ... I wanted to be *SOMEONE*.'
- Tutor, Science, working-class: 'She was very dependent on my father, a situation which I did not like.'
- Senior Tutor, Social Science; mother had a degree in medicine: 'Profound wastage of her talents; I was determined not to do likewise.'
- Lecturer, Social Science: 'She was from a liberal, intellectual, upper-middle-class family; married "beneath her" and was tied down to domesticity, which she hated and resented; she didn't want me "trapped".'

The few women whose mothers' employment status seemed to have not really a negative effect, as they were all career women, but a less positive effect on their own decisions, were either those who made a decision not to commit themselves fully to careers while they were rearing children, or those who early on had accepted the conventional role of a woman and had come late to a career:

- Tutor, Science: 'I don't wish to make teaching a career in as much as I plan to get married and give it up during the children's first ten or so years—attitude strongly influenced by mother's example, I suspect.'
- Tutor, Social Science: 'I was slow to realize that I should have a career as mother had not worked so I did not start planning to work until quite late. Mother's passive role in family decisions made marriage seem to me to have little advantage for women.'

EFFECT OF HOME BACKGROUND ON LIFE PLANS

'In what ways, if any, did the attitudes of your parents and/or the atmosphere of your parental home, affect your own attitudes and decisions

about education, career, marriage, etc?'

This very open-ended question elicited a wealth of material on the family and social background of women academics, some of which is illustrated in these stories:

- Lecturer, Medical Science; mother taught English in secondary and tertiary institutions: 'She considered she was putting to good use, not only her training, but also her abilities and enjoyment in working with young people. Undoubtedly set an example re high level of education and as working mother... At age eight I announced to my school friends that I would "work"... and I was extremely proud that *my* mother was a high school teacher, rather than "just a housewife". Marriage was regarded as a partnership with mutual respect, shared responsibilities and equal freedom, but not essential for a person's "fulfilment". I have therefore had no hangups in becoming a reasonably educated woman, having a career or in becoming a working mother.... If my husband had not been in full agreement with my continuing my career I would not have married him.'
- Lecturer, Social Science; mother worked as loom hand and cleaner to support herself and her children (father gambled and drank): 'We were a migrant family with very limited resources and a strong kinship group which dominated the parenting role. Little was said about "careers" but plenty about trades for boys and a living wage for girls. Aspirations were seldom made overt. Beginning work as soon as legally possible was a family norm regardless of whether the mother worked or not. My later decision to take the adult matric. and then social studies/arts seems not affected more than by many other factors. But my single state is not the family norm.'
- Tutor, Social Science: 'I considered marriage more important than career until I had babies and then I gradually realized how stunted my mother's life was through lack of any involvement outside the family. Once I had two daughters I had to think through the whole question of women's and my own role so I could rear them. I spent the years from age six to twenty-one with nuns who thought there were three vocations in life (religious, married, single, the last a lonely tragedy). I'm a revolutionary considering my background.'
- Lecturer, Science; reared in India, upper-class, father an engineer and mother never worked: 'There were very few toys in the house, but where there were they were of equal quality, that is, never dolls for girls, etc. We found our own games involving both sexes equally. Complete freedom in the choice of career. There were many high career women around, so not to be inhibited.'
- Senior Tutor, Social Science; mother enjoyed work as infant mistress: 'It appeared normal and quite feasible for a woman to work and have a happy home. A non-working woman appeared to be a parasite (a dull one). It never occurred to me that my position was any different from a male's— I was treated as an individual person.'
- Tutor, Humanities; mother domestic servant: 'My parents' attitude when I was a child was always supportive and encouraging with regard to

education. Their attitude towards career was that it was a means of gaining economic security—by which I might "better" myself in relation to them. My parents were totally uninformed about higher education and would have been quite happy if I had left home at seventeen and worked in what they saw as a "safe" occupation, for example, in a bank. Their aspirations for me until I won a scholarship were low, but later they supported me both emotionally and materially (at some economic hardship). If anything their neutrality or lack of ambition for me spurred me to achievement—don't rush into it, but mother also wanted to see me safely married since for her an unmarried woman is pitiable.'

- Tutor, Humanities; mother worked in a factory before marriage: 'I always assumed that for many years of my life I would not work outside the home. Perhaps this has made me less ambitious than I might have been.... Because I was the first member of my family to be successful at school I had to make all the significant decisions about my education with very little guidance (I don't think I knew the university existed until I was fifteen); as a consequence I tended to set my sights too low.'
- Senior Lecturer, Humanities; mother worked as machinist from economic necessity; no effect 'except that it made me feel guilty about wanting university education. I wanted to get away from home. Academic work was all I could do well (cuckoo in the family nest). Parents proud of my achievement but doubtful of the ultimate value of allowing a girl to get out of her social environment. Unhappy parental marriage, so marriage did not appeal.'

RELIGION

Nearly all respondents (92 per cent) had some religious upbringing; now only one-third adhere to any religion. There are differences between the men and women respondents, and considerable differences between the academics and the Australian population, in the current distribution of religious affiliation (Table 1.8).

The women differed from the men in the slightly higher percentage who were reared with no religion (9 per cent compared with 5 per cent) and in the very much higher percentage who now have none, or are agnostic or atheist (69 per cent compared with 53 per cent).

Departure from religious affiliation was most pronounced among respondents reared in the Protestant faiths, particularly the Non-Conformist: 76 per cent of the women and 65 per cent of the men now had no religion. It was least pronounced in those who were reared as Catholics (48 per cent of the women and 27 per cent of the men, no religion) or in the Jewish faith (48 per cent of the women and two of the five men, no religion).

Age showed no consistent relationship with religion, but academic discipline showed a clear difference between the sciences on the one hand and the social sciences and the humanities on the other.

Adherence to religion was highest in respondents in medicine/veterinary science (39 per cent of the women and seven out of the eleven men), lowest in the humanities (21 per cent and 35 per cent respectively). No religion ranged in the women from 61 per cent of medicine/veterinary science, through 62 per cent of science and 70 per

Table 1.8 Religious Affiliation of Respondents and Australian Population (percentages)

	Females			Males		
	Academics		Population	Academics		Population
Religion	Upbringing	Now	1971 Census	Upbringing	Now	1971 Census
Anglican	36	10	32	31	12	30
Non-Conformist	29	7	28	34	12	26
Catholic	14	7	27	18	12	27
Jewish	5	2	[c]	4	2	[c]
Other/multiple	6	4	2	6	7	2
None[a]	9	69	5	6	53	8
No reply[b]	[c]	[c]	6	1	2	7
	100	100	100	100	100	100
	N = 427	N = 426		N = 120	N = 119	

[a]Includes for the academics, agnostic and atheist: both men and women almost equally divided between no religion and agnostic/atheist (present situation).

[b]Included in this table in order to show comparison with the population; omitted in cross-tabulations.

[c]Less than 1%.

cent of social science to 79 per cent of humanities; in the men from 36 per cent of medicine/veterinary science through 54 per cent of social science and 58 per cent of science to 65 per cent of humanities.

There was some slight evidence among the women (men's figures were too small for analysis) of the association of a particular faith with an academic discipline: Anglicanism with medicine/veterinary science (10 per cent of all women but 18 per cent of the discipline were Anglican); Non-Conformity with science (7 per cent and 11 per cent respectively were Non-Conformist); Catholicism with social science (8 per cent and 11 per cent respectively were Catholics); six out of the ten Jewish women were social scientists.

Comparison with the Population

The academics, particularly the females, differed from the Australian population, in their much higher proportions with no religion: 53 per cent of the male academics, as compared with 8 per cent of all Australian males; 69 per cent of female academics, as compared with 5 per cent of all females. Women are generally assumed, or are shown in Census figures, to have greater affiliation than men with religion, but this is not so of our women respondents.

Each of the Christian faiths is under-represented in the academics relative to the population, and to almost the same extent; only the Jewish faith is over-represented. It is those who have no religion who are highly over-represented: in the women a difference of 64 per cent, in the men of 45 per cent. Saha (1970) commented on his Sydney University male academics: 'What seemed surprising is the fact that "no religion" is the most over-represented category'. Forty-three per cent of his respondents (as compared with 53 per cent of our males) had no religion — a difference of 33 per cent from the population at that time.

Sommerkorn (1969) said of her British female academics: 'Religion does not seem to be an important issue for most of the respondents today... nearly half of these professional women do not adhere to any denomination'. This is much lower than the over two-thirds of our women who said they had no religious adherence.

The women graduates of Sydney University in Dawson's (1965) study showed a much greater adherence to religion than our women academics (85 per cent compared with 30 per cent). Less than 3 per cent of the graduates (compared with 9 per cent of the academics) had no religious upbringing, rising to 14 per cent at the time of the survey—which seemed, and was, high compared with the population, but now is 'surprisingly' low when compared with the 69 per cent of the women academics. We don't know of any other study of the religious affiliation of Australian students, or graduates, with which to compare that of our academics. However, Dawson found that 'no religion' rose with the level of academic qualification—from 13 per cent of the women with pass, through 21 per cent of those with honours, to 34 per cent of those with higher degrees. We found that it rose with rank: from 66 per cent of the women in junior ranks, through 74 per cent of lecturers to 84 per cent of senior ranks.

'It has been said by social scientists (Berelson and Steiner, 1964) that

the most highly educated people participate least in organized religious activities' (Saha, 1970). Our findings support this hypothesis, as did the other studies quoted. But the question as to why less women than men had any religious adherence remains unanswered.

POLITICS

Because we sought a general political orientation rather than a specific party vote, we cannot make precise comparisons with the voting patterns of the Australian population. But very clearly the academics differed from the population in their support for the two major parties. In the elections for the House of Representatives at the time of this survey (1972 and 1974), 41.5 per cent and 45.7 per cent respectively of first preference votes went to Liberal/Country Parties, 49.6 per cent and 49.3 per cent to the Labor Party. In contrast we can assume that 10 per cent of our respondents voted for the Liberal/Country Parties and 42 per cent for the Labor Party (Table 1.9). The non-Labor allegiance rises to 20 per cent with the addition of the Australia Party, but is still less than half that of Labor.

We don't have information about the high proportion (nearly one-quarter) of our respondents who said they were uncommitted in their political allegiance to be able to place them according to any of the definitions political scientists use for the swinging voter. How often has their vote swung between the parties, and in what direction? What party did they vote for in the elections before, and in, 1972 and 1974? Kemp (1973), defining a swinging voter as one 'who claims to have altered his or her party preference since the previous federal election', found from his survey that 17 per cent of the electorate were swinging voters in 1972, ris-

Table 1.9 Political Allegiance ('In party political terms do you think of yourself as...')

	Women		Men		All respondents	
	N	%	N	%	N	%
Labor Party	174	42	54	45	228	42
Liberal/Country Party	43	10	10	8	53	10
Australia Party	50	12	6	5	56	10
Swinging	86	20	36	30	122	23
Other[a]	32	8	12	10	44	8
Apolitical	34	8	3	2	37	7
	419	100	121	100	540	100

[a] *Other* includes those whose allegiance was to smaller parties or factions, those who rejected party structures or found existing parties unacceptable and those whose allegiances were formed earlier to parties in their countries of origin and not easily translated into Australian terms. Of the thirty-two women in this category, seven said they had no allegiance to any party or faction but their politics were left of Labor, four found no party that suited them, three did not accept party structures or party politics, four were Maoists, one was Trotskyist, one Democratic Labor Party, and seven based their allegiances on the parties of another country. Somewhat imprecisely, but for convenience, we refer to respondents in this category as the 'disaffiliated' or the 'disaffected'.

ing from 10.8 per cent in 1961. We do not have comparable data, but it would seem that the swinging vote is higher among academics than it is in the population. Kemp found a slight tendency for the swing to increase with occupational status and education.

British academics also have been shown to be more left-wing than the electorate in general (Williams, Blackstone and Metcalf, 1974). To the question 'Which political party most nearly reflects your political views?' responses were: Conservative 23 per cent, Liberal 20 per cent, Labour 40 per cent, Other 3 per cent, None 14 per cent. The less than one-quarter who were Conservative is contrasted with the nearly one-half (46 per cent) shown in a 1970 National Opinion Poll to have this allegiance. Comparison cannot easily be made with our respondents because the questions asked were different (theirs for a specific party, ours allowing a swinging vote), and because we have no established party equivalent to the English Liberal Party (perhaps the Australia Party, but it was new). Our respondents, however, appear more left-wing than their British counterparts in terms of Labor and non-Labor allegiance. As the figures stand, and omitting our problematical swinging voters, Labor support was slightly higher among our respondents (42 per cent) than the British (40 per cent), and non-Labor much lower: Liberal/Country plus Australia (20 per cent), compared with Conservative plus Liberal (43 per cent).

According to Halsey and Trow (1971):

> University teachers look very much more like the working class in their political affiliations than like the upper middle class to which they belong in respect to their incomes, status, education, style of life and other objective indicators of social status.

In support of Halsey and Trow, and of their own hypothesis that university teachers are more left-wing than other members of the middle classes, the British researchers found that the academics were considerably to the left of the professional/managerial class, as shown in the National Opinion Poll, and closer to the skilled manual workers.

Our respondents show a similar divergence from the politics associated with the professional class. In the analysis by Solomon (1973) of Public Opinion Polls 1968–72, 54 per cent of professional workers were found to support the Liberal/Country Party, 28 per cent the Labor Party. Our sample of academics may or may not be representative of the political persuasions of the profession as a whole, but their 10 per cent support of the Liberal/Country Party and their 42 per cent support of Labor diverges so far from the above figures that there is no doubt academics are well to the left of their social class. Also, like the British, they are closer to the skilled manual class (shown in the polls as 35 per cent Liberal/Country, 50 per cent Labor).

There was no clear relationship between age and political views, except in support for the Liberal/Country Party which rose with age but was not accompanied by any consistent decline in left politics.

There was in the women a clear relationship between university position and politics. The higher the rank the greater the support for Labor and

the lower the swinging vote. Of the women holding senior lectureships or above, 53 per cent (as compared with 42 per cent of all women) supported Labor, and 11 per cent (as compared with 23 per cent) were swinging voters. Rising rank increased slightly the Liberal and the apolitical percentages.

In so far as the smaller numbers of the men allow comparable analysis, it shows that support of Labor was highest in the junior ranks (56 per cent) and in the associate and full professors (50 per cent), of Liberal in the lecturers and senior lecturers (12 per cent).

The most obvious relationship between social class background and politics is upper-middle-class with the Liberal Party (Table 1.10). Labor allegiance was highest in those who rated their families as lower-middle-class and above average in those who came from the working class. The analysis also showed an association of upper-middle-class with Australia Party (18 per cent compared with 10 per cent of all respondents) and with political disinterest (11 per cent compared with 7 per cent), middle-class with swinging vote (28 per cent compared with 23 per cent), working-class with political disaffection (14 per cent compared with 8 per cent).

Those who went to state high schools are clearly differentiated from those who attended non-Catholic private schools in their Labor/Liberal allegiance, but from the Catholic schools came the highest Labor and the midway position in Liberal support.

Religious affiliation or its absence affected only slightly the overall Labor/Liberal allegiance. The only major departure was in the Anglicans: low Labor, high Liberal, and equally divided between these two parties. The association of Liberal politics with religious adherence, particularly Anglicanism, could also be shown: less than one-third (31 per cent) of all respondents professed a faith, but over half (54 per cent) of Liberal supporters (half of these were Anglican) as compared with 28 per cent of Labor supporters. Religious affiliation was high in the swinging voters (40 per cent, closer to the Liberals in this respect), low (about 20 per cent) in the disaffected, the apolitical and supporters of the Australia Party.

There was a very clear division between the humanities and social sciences on the one hand, and medicine and the sciences on the other, in allegiance to the two main political parties (Table 1.11). One-half, as compared with less than one-third, held Labor views; 4 per cent, as compared with 17 per cent (and with one-quarter of medicine alone) were Liberal supporters. The two groups differed also in the higher uncommitted allegiance in medicine/science, and in the greater rejection of existing systems by humanities/social science.

Whether female and male responses are combined as in this table, or analysed separately, respondents in the humanities and social sciences, relative to their colleagues in medicine and science, were left-wing, firmer in party allegiance, more critical of existing rigidities; their colleagues were right-wing, more variable in their allegiance, more accepting of the political system.

Seeking answers as to why university teachers were more left-wing than the middle class in general, Williams, Blackstone and Metcalf (1974) used, along with age and social background, a further hypothesis—the cri-

Table 1.10 Social Origins by Allegiance to Major Political Parties (percentages)

Political allegiance	Social class (respondents' assessments)				
	Upper middle	Middle	Lower middle	Working	Total
Labor	32	40	52	44	42
Liberal/Country	18	8	10	6	10
Other/none	50	52	38	50	48
	100	100	100	100	100
	N = 84	N = 222	N = 101	N = 112	N = 519
All respondents	16	43	19	22	100

	Secondary school			
	State	Catholic	Other private	Total
Labor	42	49	35	41
Liberal/Country	7	12	17	10
Other/none	51	39	48	49
	100	100	100	100
	N = 320	N = 67	N = 145	N = 532
All respondents	60	13	27	100

Table 1.11 Faculty/School by Political Allegiance (percentages)

Political allegiance	Faculty/School				
	Humanities	Social sciences	Medicine/Veterinary science	Sciences	All respondents
Labor	50	50	29	31	42
Liberal/Country	3	5	25	14	10
Australia	6	14	10	10	10
Swinging	20	19	25	29	23
Disaffiliated	13	8	—	7	8
Apolitical	8	4	10	9	7
	100	100	100[a]	100	100
	N = 120	N = 193	N = 59	N = 163	N = 535
All respondents	22	36	11	30	99

[a] Rounded to nearest integer.

Table 1.12 Politics by Discrimination Against Women in Universities: Female Respondents (percentages)

Discrimination exists	Political allegiance						
	Labor	Liberal/ Country	Australia	Swinging	Disaffiliated	Apolitical	Total
Yes	78	46	72	73	82	45	70
No	22	54	28	27	18	55	30
	100	100	100	100	100	100	100
	N = 151	N = 41	N = 43	N = 77	N = 28	N = 31	N = 371
All respondents	41	11	12	21	8	8	100[a]

[a] Rounded to nearest integer.

tical approach supposedly fostered by universities. As this could not be tested directly, they measured the left orientation of teachers in fields where 'intellectual criticism is most clearly associated with social criticism, that is the social sciences'. On this test their hypothesis was validated. Labour support was highest in the social sciences, above average also in the humanities, below average in the sciences and particularly medicine. Conversely, support for the Conservative Party was by far the highest in medicine, just above average in science, below in the humanities and lowest in the social sciences.

Membership of Political Parties, Political Activities, Interest in Public Affairs

Fifty-three women and seventeen men (13 per cent of all respondents and a marginally higher proportion of men than women) belonged to a party: thirty-five to the Labor Party, seven to the Liberal, fifteen to the Australia, thirteen to parties which could not be identified (seven to minor parties or factions, five swinging voters, one apolitical).

Nine women and five men held party office: 2.2 per cent of women, 4.1 per cent of men, 2.6 per cent of all respondents.

Just over one-quarter of all respondents took some part in the political activities of electioneering, canvassing/lobbying, writing to the press on political matters— in each case a slightly higher proportion of men than women, and in each activity participation was occasional rather than frequent.

Interest in local, state, federal and international affairs rose from 85 per cent in local (18 per cent very interested) through 91 per cent (21 per cent very) in state, to 98 per cent (57 per cent very) in federal and international.

In membership, activity and interest participation was highest in the social scientists, lowest in the medical scientists.

Politics and Feminism

Forty per cent of all female respondents considered themselves feminists. Well above this were those who identified with the Labor Party (53 per cent) and the disaffiliated (50 per cent); well below were the Liberal supporters (20 per cent) and the swinging voters (25 per cent); Australia Party supporters were 42 per cent.

Sixty women (14 per cent) belonged to Women's Electoral Lobby. Three-quarters were Labor (58 per cent) and Australia (17 per cent) Party supporters—well above the overall representation (52 per cent) of these parties in the sample. The rest included ten swinging voters, four who were disaffiliated or apolitical, one Liberal. Fourteen women (3 per cent) were active in the women's movement: seven Labor, three swinging, one Australia, one Liberal, one apolitical, one disaffiliated.

Forty-four women (11 per cent) said they belonged to the Women's Liberation Movement. They were predominantly Labor (70 per cent) and the disaffiliated (12 per cent): 82 per cent of the membership, as compared with 50 per cent of all respondents with these political identifications. Five were swinging voters, one was a Liberal, one Australia Party, one apoliti-

cal. Sixteen women (4 per cent) were actively involved: eight Labor, five disaffiliated, two swinging and one Liberal.

Denial of discrimination against women in universities was strongly linked with the Liberals and the apolitical (Table 1.12). Women detached from existing parties, Labor supporters and to a lesser extent Australia Party and swinging voters, affirmed the existence of discrimination—open, latent or both. Thirty-one women (8 per cent) said discrimination is open; nineteen of those were Labor supporters.

Less men than women thought universities discriminated against women: 61 per cent as compared with 70 per cent. Numbers were too small for comparable analysis in all categories except Labor and swinging voters, but these represented extreme opinions on the existence of discrimination: affirmed by 71 per cent and 36 per cent, denied by 29 per cent and 64 per cent respectively. Out of the total of twenty men who were Australia Party supporters, disaffiliated or apolitical, sixteen (80 per cent) said there is discrimination, making with Labor, 74 per cent who held that opinion. This contrasts with 37 per cent of Liberal (three out of seven) and swinging voters taken together. Four men (4 per cent) thought discrimination was blatant: three Labor, one swinging voter.

Politics and Attitudes to some Social Questions

Six propositions from those discussed in Chapter 8 were related to politics of the female respondents. They show a very clear division between Labor and Liberal: Labor radical, Liberal conservative on each proposition. The politically disaffected shared the radical position, in most cases more radical than Labor. The swinging voters were more conservative than the sample average on five of the six propositions but were not as conservative as the Liberals. The extent of agreement by the two major parties to each proposition is shown below.

1 Equal responsibility by men and women for child-rearing and child care: all respondents 82 per cent; Labor 90 per cent, Liberal 62 per cent.
2 Abortion on request: all respondents 82 per cent; Labor 86 per cent, Liberal 67 per cent.
3 It is possible for a woman to combine career and family without detriment to either: all respondents 76 per cent; Labor 82 per cent, Liberal 67 per cent.
4 Lesbianism is an acceptable form of relationship: all respondents 53 per cent; Labor 66 per cent, Liberal 21 per cent.
5 Motherhood is not essential to a woman's full development: all respondents 80 per cent; Labor 84 per cent, Liberal 63 per cent.
6 It is not essential for the well-being of the community that the nuclear family be preserved: all respondents 74 per cent; Labor 85 per cent, Liberal 31 per cent.

Again a similar analysis of male responses is precluded by their small numbers except in the Labor and swinging voter categories. On five of the six propositions Labor held the more radical, swingers the more conservative view, but not as conservative as the ten Liberals.

Williams, Blackstone and Metcalf (1974) summarized their findings on

the politics of academics and the relationship of politics to such questions as pay and attitudes to students:

> Whilst it is possible to agree with Halsey and Trow that university teachers are still to the left of other members of the middle class, and that their politics does affect their attitude towards change, it is also generally true that they remain a somewhat cautious group, many of whom are not prepared to advocate radical departures in the way universities are run, even when aligned to the party of the left.

Our respondents have shown that their politics do affect their attitudes towards change in the position of women and the relationship of the sexes. From the evidence in this book readers can judge whether they appear 'a somewhat cautious group'. They can estimate the extent to which respondents with attitudes oriented to change are prepared to move, or have moved, by advocacy and/or action to promote the greater equality of women with men in their universities.

SUMMARY

Over half of their parents and two-thirds of respondents themselves were born in Australia, the rest mainly in the United Kingdom and Northern Europe. Three-quarters of respondents grew up here; one-quarter were recruited to Australian universities from overseas, particularly the United Kingdom.

Relative to the general population the academics came from socially advantaged families. Their parents were more highly educated, one-fifth to graduate level. By father's occupation and their own assessment their origins were predominantly middle- or upper-class; less than one-fifth came from the working class. Four out of ten were educated at private schools. Social class origins show little change over time. For the majority of respondents the academic profession has been an avenue of upward social mobility.

They came from small families and over half were the first-born or only-child.

Nearly half the respondents' mothers had worked after marriage. One-third of the mothers of female respondents had worked while their daughters were growing up: this experience, as did that of a non-working mother, stimulated respondents to pursue careers for themselves.

Very few were reared divorced from religion but now only one-third have any religious affiliation. In this they differ significantly from the population.

Politically they differ from the Australian electorate in their high allegiance to the Labor Party, low to the Liberal Party. A small percentage belonged to, and a very few held office in a party, but considerably more took part in various political activities. Labor supporters differed from Liberal in their greater involvement in the women's movement and their radical position on feminist issues.

There were differences between the women and the men. Less women

were of overseas origin—by parentage, birth, academic recruitment. Their class backgrounds were higher—by their own assessment, educational level of parents, father's occupation, private school attendance. Considerably more were agnostic or atheist. Their positions on feminist issues except lesbianism were more radical. They had a greater experience of growing up with a mother who worked.

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2
Qualifications

Madge Dawson

To compare the study pathways of our female and male respondents, we looked at reasons for and influences on going to university; the field and location of first degree; undergraduate participation in campus activities; motivation for post-graduate study and factors that helped or hindered its pursuit; post-graduate diplomas/degrees; sources of financial support.

WHY THEY WENT TO UNIVERSITY

A small number of our respondents, mainly women, said they had no real motivation for going to university: it seemed the most obvious or most attractive sequel to school. Rather more saw university as a broadening cultural experience — again more women than men, and particularly women in the humanities. But for nine out of ten their reasons were to prepare for a career or to pursue their intellectual interests. Overall, the women in this larger group were equally divided between these two responses; however, more of the women in science gave preparation for career as the reason, while more of those in humanities gave pursuit of intellectual interests. The men, on the other hand, were motivated much more highly by career than by intellectual interests. These motivations are not mutually exclusive and require some hindsight, but the variation in the responses of the sexes, reflecting their differing socialization, shows the earlier orientation of males to career.

Sommerkorn (1969) found in her sample of British female academics a denial or disguising of vocational interest. Most had chosen their course of study from 'interest or liking', only a few because of its 'usefulness for a career'. This led her to comment:

> Thus even these career-minded women seem to conform to the rather typical female attitude of not being occupationally orientated when embarking on a course of study.

Our respondents appear more, or more openly, career-minded than hers, but it is possible or likely that some of our women were conforming to expected female behaviour by concealing what career interests they had

(and later showed) under the more acceptably female 'intellectual interests'.

Most respondents acknowledged some influence on their going to university — particularly from mothers, then school teachers and fathers, and a few said there was a family tradition or expectation of tertiary education. Half claimed they chose their own field of study, others were influenced by teachers, fathers and friends (in that order), and family traditions had little effect.

FIRST DEGREES

Predictably, the majority of the women had arts degrees (Table 2.1) — includes 3.8 per cent who graduated at Macquarie University where all first degrees are BA. Arts, together with science, accounted for 91 per cent of all the women's degrees, leaving only 9 per cent spread thinly over nine other degrees. When this distribution is related to age of respondents it shows little change over time — for a full analysis see Wills (1976).

Although arts and science were also the most frequent degrees of the men, their relative frequency differed from that of the women (29 per cent BA, 44 per cent BSc). Together they were 73 per cent of all men's degrees,

Table 2.1 Undergraduate Degrees (percentages)

	Women	Men	All respondents
Degree			
Arts	61.2	29.4	54.3
Science	29.8	43.8	32.6
Economics	2.2	2.7	2.7
Architecture	1.4	—	1.1
Social work	1.4	—	1.1
Medicine	1.2	4.4	1.9
Law	0.7	2.7	1.1
Vet. science	0.7	1.8	0.9
Music	0.7	—	0.6
Pharmacy	0.5	0.9	0.6
Commerce	0.2	5.4	1.2
Engineering	—	8.9	1.9
	100.0	100.0	100.0
	N = 420	N = 112	N = 532
All respondents	79	21	100
Level			
Pass	32.9	28.6	31.0
Honours	67.1	71.4	69.0
	100.0	100.0	100.0
	N = 398	N = 112	N =510
All respondents	78	22	100

leaving 27 per cent spread less thinly over seven other degrees.

Slightly more of the men than of the women graduated with honours. We know only the women's class of honours as this information was unfortunately not asked of the men. One-quarter of the women (or 38 per cent of those with honours) had first class honours degrees.

Over three-quarters of all respondents graduated from an Australian university, particularly Sydney, and in each case considerably more of the women than the men (Table 2.2). Melbourne was the most highly represented of the universities outside New South Wales: 5 per cent of the women, 10 per cent of the men. Nearly three times as many men as women took their degrees at an English or Scottish university and twice as many in New Zealand.

Thirty-three women (8 per cent of the total) and eighteen men (15 per cent) had a second degree: mainly arts and law (eighteen women, ten men), but they included fields which were not taken as a first degree. Two women graduated in engineering (one at Delhi University), two in Education, one in divinity, and one man took a degree in social work.

Participation in Campus Activities

Respondents were asked the extent of their participation as an undergraduate in social-cultural, sporting or religious organizations and in student government and politics.

Women's main involvement was in social-cultural activities: one-quarter participated 'a lot', one-third not at all. With the men sport was most popular: one-quarter heavily involved, one-half not at all. Over three-quarters of both sexes had taken no part, and less than a tenth a large part, in a religious organization. In the organizations where they were highly active participants nearly all the respondents had at some time held office.

Over a quarter of both sexes had taken some part and well over a tenth had held office in student government and politics — which seems a high proportion. Although we have no comparative figures it would appear that these academics took a fairly active part in campus life as undergraduates.

POST-GRADUATE STUDY

We were interested to know at what stage respondents first considered that they might or would continue beyond the first degree, and what were their motivations.

One-fifth of both sexes said they had post-graduate study in mind well before completing their first degree (6 per cent while still at school); nearly one-half had decided by the time of their graduation, presumably on their initial success; just over one-third said the decision came later, after experience outside the university — mainly work, but also for some women marriage and children:

- Lecturer, Social Science: 'I was top scholar and planned upon graduation to proceed directly through Masters and PhD. Dropped plans due to male counsellor in the department advising me not to go on, as I wouldn't be given a job in a good university due to sex. Said I was already too smart

Table 2.2 First Degree: Where Granted

University	Women N	Women %	Men N	Men %	All respondents N	All respondents %
Australia						
Sydney	199	47.9	38	33.0	237	44.7
New South Wales	41	9.8	8	7.0	49	9.2
Macquarie	16	3.8	1	0.9	17	3.2
Other Australian	83	20.0	31	26.9	114	21.5
Total Australia	339	81.5	78	67.8	417	78.6
Overseas						
United Kingdom	27	6.6	20	17.4	47	8.9
New Zealand	14	3.4	8	7.0	22	4.1
U.S.A.	13	3.1	6	5.2	19	3.6
Europe	8	2.0	1	0.9	9	1.7
Canada	7	1.7	—	—	7	1.3
Asia	3	0.7	—	—	3	0.6
Eire	2	0.5	—	—	2	0.4
Africa	2	0.5	2	1.7	4	0.8
Total overseas	76	18.5	37	32.2	113	21.4
All respondents	415	100.0	115	100.0	530	100.0

and would "educate myself out of the marriage market". I didn't go for Masters until four years after I'd married. Finished it after divorce . . . My effort to 'do the feminine thing' with a very authoritarian male settled the issue for me that I could never give up my career or intellectual pursuits — that the man would have to fit my needs and not vice versa.'

- Tutor, Social Science, working class background: 'Initially I had no interest in continuing post-graduate study (never even heard of the word before I went to university), then when teaching in high school became interested in the subject.'

The main reason for taking a higher degree was to enhance career qualifications — in most cases for the academic career. The difference between the sexes in their motivations for first degree persisted, but were much less marked. Almost as many women as men were now motivated by career, including the academic. Women's increased focus on career had been at the expense of (or perhaps had merged with) their interest in a subject, but this interest still motivated rather more women than men. Some respondents, and more women than men, saw in graduate work an opportunity to pursue their interest in research.

Encouragement by a university teacher provided the major impetus to graduate study for only fourteen women and one man, but it was a contributing factor for one-third of the women and one-quarter of the men in the smaller numbers of respondents who listed a secondary motivation. American studies have noted the influence of faculty on women's decisions to go to graduate school. Respondents in Ginzberg's study (1966) 'singled out as "key persons" . . . teachers in high school and, even more, teachers in college'. Gropper and Fitzpatrick (1959) found that more women than men were influenced by faculty, and particularly in their choice of field. They also found that women delayed their decision on graduate study to a later age than men; this they see linked with their differing motivations — men earlier oriented to career, women more interested in a field of study. Over half (57 per cent) of Ginzberg's female respondents gave a career reason for graduate school; about half of the rest 'indicated

Table 2.3 Factors which Aided or Hindered/Prevented Women's Post-Graduate Study (percentages)

Factors	Aided	Hindered/ prevented
Scholarship (224)	96	4
Attitude of husband (181)	89	11
Undergraduate preparation (276)	89	11
Home circumstances (255)	82	18
Employment (199)	71	29
Marriage (141)	57	43
Money (178)	51	49
War (19)	39	61
Responsibility for parents/others (37)	24	76
Children (93)	15	85

that they "enjoyed" their studies and had an interest in their field, but said not a word about any career goal'; most of the others mentioned external influences, family, teachers, winning a fellowship.

Women respondents were asked to indicate from a list any factors which had a positive or negative effect on their pursuit of higher degrees. Responses to each factor varied with its applicability (for example, marriage or war), and whether the respondent considered it to have any effect — as shown in the bracketed figures in Table 2.3.

Scholarships above all eased the road to higher degrees; responsibility for others caused the most difficulty.

Some women had the responsibility, commonly associated with their sex, of caring for parents or other relatives, and for three-quarters this limited their opportunities for further study:

- Lecturer, Social Sciences: 'Responsibility for an elderly parent now hinders my staying overseas long enough to obtain a doctorate (satisfactory opportunities do not exist in this country in my field).'

A much larger number had children to care for and few found it easy or possible to combine this responsibility with graduate study. Their situation is very different from that of the woman without children, or with that of a man whether or not he has children. Most men, as shown later in this survey, regard women as having the major responsibility for child care.

- Tutor, Humanities: 'Arrival of two children (still under five) markedly reduced opportunity for research — staying late at night or spending evenings at research libraries became scarcely possible, and weekends are no longer free for study to the same extent as before.'
- Senior Tutor, Social Sciences, divorced: 'Marriage, home and children depressed me (clinically) and drove me back to post-graduate study on the one hand and made it exceedingly difficult to undertake on the other.'
- Tutor, Sciences: 'I decided I was not organized enough to continue research and teaching when the children were small, so I gave up research.'

For the majority of the women marriage had a positive effect on their study, but for a large minority, a negative effect difficult to define. For only a few it meant having discouraging husbands:

- Tutor, Social Sciences: 'Attitude of husband postponed return to post-graduate study for many years.'

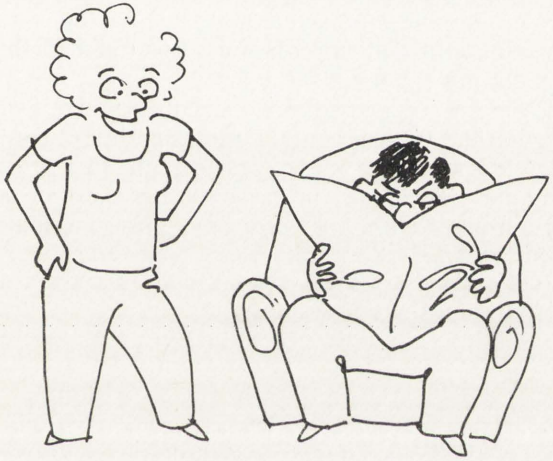
Most found their husbands very supportive:

- Senior lecturer, Sciences: 'Marriage and husband have helped my career most, possibly for emotional reasons (security, dependence).'
- Lecturer, Social Sciences: 'My husband provided both emotional support (occasionally a "kick in the pants" even) and financial support.

He was doing his PhD at the time and this helped. We delayed having children until both PhDs were finished.'

The negative effect of marriage was shown in the many women who had to accommodate their study to the careers of their husbands:

- Tutor, Social Sciences: 'Post-graduate courses I would prefer are not available in Sydney and I am at present unable to leave due to my husband's study. I am supporting a student husband.'
- Research Assistant (PhD), Sciences: 'Delay in commencing post-graduate study because of geographic location of husband's occupation. Resigned from two academic appointments because of husband's transfer to another state.'
- Tutor, Humanities: 'Husband's decision to study medicine led to my abandoning my PhD because of financial difficulties.'
- Lecturer, Social Sciences: 'Movement of my husband from city to city or university to university to accept promotion or change jobs. I began PhD three times and had to change its content and begin anew whenever we moved. The whole process put me back with respect to post-graduate studies about ten years.'



Well, I got the scholarship dear. Afraid you'll have to scrap your theory on the intellectual inferiority of women.

Few men accord priority to their wife's career, or even equality with their own career (see Chapter 6). Bernard (1972) considered marriage to be generally good for men, but much less good for women in that they are expected to make the major accommodations in the marital situation.

Some women found difficulties in a combination of factors associated with marriage:

- Tutor, Social Sciences: 'Combination of marriage and family and financial instability creates emotional and physical strains and stresses and role conflict, and greatly affected my post-graduate years.'

• Senior Tutor, Social Sciences: 'It is very difficult to maintain home and children and job and study (but not impossible).'

Some found it easier to study when their marriage ended, even if they still had children to care for:

• Lecturer, Social Sciences: 'My divorce from my first husband and my subsequent life style as a single parent of a four-year-old child was probably the major factor contributing to my further studies.'

Finally, the response of one of the not-married was probably typical of others who would postpone or avoid marriage and family in the interests of study and career:

• Senior Tutor, Sciences: 'Keeping out of marriage and family I feel helped.'

(See Chapter 6 for full discussion of marriage and family.)

Post-graduate Diplomas/Degrees

Having made their decisions early on or later about post-graduate study, motivated by career and intellectual interests, having contended with circumstances propitious and unpropitious, how far had their decisions or intentions been implemented?

One-fifth of both women and men had completed or were enrolled for a diploma — over half (55 per cent) of the women, but less of the men (36 per cent), in education. Diplomas were sought to a greater extent than degrees as a qualification for a profession other than the academic: for 22 per cent, as compared with 9 per cent of all post-graduates, this was their main motivation.

Table 2.4 Higher Degrees (percentages)

Degree	Women	Men	All respondents
Masters			
Completed	28.9	46.6	32.7
Enrolled for	25.4	6.8	21.3
Neither	45.7	46.6	45.9
	100.0	100.0	100.0
	N = 426	N = 118	N = 544
Doctorate			
Completed	18.3	47.9	24.8
Enrolled for	24.7	20.7	23.8
Neither	57.0	31.4	51.4
	100.0	100.0	100.0
	N = 426	N = 121	N = 547
All respondents	78.0	22.0	100.0

One-third of all respondents already had, and a further one-fifth were enrolled for a masters degree (Table 2.4). Combination of completed degrees and enrolments shows the sexes equally represented in this enterprise, but considerably more of the men than of the women already had their masters.

One-quarter of all respondents had completed, and nearly another quarter were working towards, a doctorate. But at this level there was a wide difference between the sexes, many more men having and slightly more women enrolled for a PhD.

Some respondents had both a masters and a doctoral degree; some had or were enrolled for a doctorate without having taken a masters. This overall pattern is shown in Table 2.5.

One-quarter of all the respondents had a doctorate (the majority, particularly of the women, without having taken a masters), but very many more men than women. A further quarter had stopped at a masters or were going on to a doctorate, the sexes evenly divided in each case. One-third, but more than double the proportion of women than men, were enrolled for their first higher degree. One-fifth, and more women than men, neither had nor were seeking a masters or doctorate.

If all these respondents, together with those having masters and enrolled for doctorates, complete their degrees, many more women (47 per cent) than men (31 per cent) will have masters, and although more men (67 per cent) than women (43 per cent) will still have doctorates, the gap between the sexes will be very much reduced. There will still remain the one-fifth of all respondents (and more women than men) uncommitted to the pursuit of higher degrees—unless they change their minds and hearts meantime.

Table 2.5 Pattern of Higher Degrees and Enrolments (percentages)

	Women	Men	All respondents
Respondents with higher degrees			
Doctorate and masters	6	22	10
Doctorate without masters	12	25	15
Masters without doctorate	12	13	12
Masters, enrolled for doctorate	11	11	11
Total	41	71	48
Respondents without higher degrees			
Enrolled for masters	25	7	21
Enrolled for doctorate	13	9	12
Total	38	16	33
No degree or enrolment	21	13	19
	100	100	100
	N = 424	N = 121	N = 544

As has been pointed out in the Introduction and tabulated in Appendix A, there is a marked disparity between the female and male samples in relation to position: the men are largely in the upper and the women largely in the lower ranks. We remind readers of this disparity here, as it means that the two samples are not truly comparable when it comes to noting the vast difference in percentages of female and male respondents with higher degrees. Furthermore, women respondents were younger than the men and this might be expected to affect the relative proportions with higher degrees.

Age and Higher Degrees

Age of respondents does not change the overall sex-related pattern: at each age more men than women had completed their degrees and at most ages more women than men were enrolled for a degree. What emerges is that the men finished their degrees at earlier ages than the women, and that women were still studying at later ages than the men. More than double the proportion of men than women had already been awarded masters and doctoral degrees in their twenties and doctorates in their thirties. Considerably more women than men were pursuing higher degrees when they were over thirty: 19 per cent, as compared with 5 per cent, were enrolled for a masters; 22 per cent, compared with 13 per cent, for a doctorate.

The later age at which women took their higher degrees might be related to the difficulties some had found in marriage. The only test we had for the possible delaying effect was to compare the married with those who were not married, using two age groups (up to thirty, over thirty). They may or may not have had children, and although we know that three-quarters of the women with higher degrees took them during marriage (see Chapter 6), we don't know how far marital status at the time of the survey coincided with when the degrees were taken.

Overall and in both age groups more of the single women had or were enrolled for a masters, more of the married a doctorate. Of these, higher proportions of the married had completed their degrees: 55 per cent, as compared with 48 per cent of the single, their masters; 50 per cent and 30 per cent their doctorates. This difference applies in each age group for both degrees, with one exception: slightly more of the older single women had their masters. It was marked in the younger women, particularly with doctorates: 34 per cent of the married, and 6 per cent of the single, had their PhD.

As they stand these findings do not support the proposition that marriage of itself accounts for the later age at which women took higher degrees.

Rank and Higher Degrees

In Table 2.6 categories in which there were female but no male respondents are excluded, namely, graduate student, research assistant, research fellow. Four of the twenty-nine students already had, and eleven were enrolled for, a masters degree; nineteen were studying for a PhD. Five of the fifty-six research assistants had, and eleven were enrolled for, a masters; one was on the way to, and one had completed, her doctorate. Of

Table 2.6 University Position by Higher Degrees (percentages)

	Below lecturer		Lecturer		Senior lecturer		Assoc. prof./ professor		Total	
Degree	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Masters										
Completed	25	35	44	49	45	48	50	48	33	47
Enrolled	36	25	9	7	3	—	—	—	25	7
Neither	39	40	47	44	52	52	50	52	42	46
	100	100	100	100	100	100	100	100	100	100
Doctorate										
Completed	4	20	46	38	67	66	83	62	23	48
Enrolled	29	40	20	33	7	6	17	4	24	21
Neither	67	40	34	29	26	28	—	34	53	31
	100	100	100	100	100	100	100	100	100	100
	N = 203	N = 20	N = 91	N = 41	N = 31	N = 31	N = 6	N = 25	N = 331	N = 117

the six research fellows four had masters, two had doctorates.

The combination of holders of and aspirants to a masters degree shows little variation between the sexes at any level. Overall, slightly more women (58 per cent) than men (54 per cent) had, or were enrolled for, this degree. But nearly half the men, as compared with one-third of the women, had their masters, and one-quarter of the women but very few men were still seeking it. This difference between the sexes was marked only in respondents in junior positions and reflects, as seen earlier, the younger ages at which men were awarded higher degrees. The disparity in the number of women and men in the lower ranks does not allow valid comparison, but as they stand the difference between the sexes was considerably more marked with doctorates than with masters: five times the proportion of men than women had a PhD, and two-fifths as compared with two-thirds neither had nor were enrolled for it.

When respondents holding lectureships or more senior positions are isolated from the total, the differences between the sexes are slight with masters and disappear with doctorates. Forty-four per cent of the women and 48 per cent of the men had a masters degree (with a further 7 per cent and 3 per cent enrolled). Equal proportions of both sexes had or were enrolled for a doctorate: 53 per cent had completed and 17 per cent were enrolled for this degree.

Women took masters degrees principally in English, education and history; doctorates in psychology and history. With the men it was engineering for masters; engineering, chemistry and physics for doctorates.

Less than half of all masters, but over two-thirds of doctoral degrees, were taken by full-time study; more men were full-time students for masters, more women for doctorates.

Women had spent, or expected to spend, a longer time than men to complete their degrees. Twenty-seven per cent, as compared with nineteen per cent, had taken or expected they would take, more than three years for their masters. The modal time for doctorates was three years for men, four for women; 22 per cent of the women, but only 3 per cent of the men, had taken or expected to take six years or an unspecified longer time to finish their PhD. This difference between the sexes is neither surprising nor unexpected, given the difficulties already reported of women finding time and energy for study in the pressure of family responsibilities. (For further on this, see Chapter 6.)

Nineteen respondents said they did not intend or expect to finish the degree for which they were enrolled: five women and one man their masters, nine women and four men their doctorates.

The overall distribution of these degrees is very close to that of first degrees (Table 2.2): about three in Australia to one overseas (Table 2.7). The women's degrees remained in the same overall ratio of about four to one, with a marginally lower proportion of doctorates, than of first degrees (18 per cent) from an overseas university. As before, the women differed from the men in their much higher proportion of Australian degrees and the lower proportion taken overseas. The difference was greater than with first degrees, as the male Australian/overseas ratio had changed from two

to one in first, to three to two in higher degrees.

ECONOMIC SURVIVAL AS A STUDENT

The women are clearly differentiated from the men in that they were more heavily supported by scholarships and much less dependent on their own earnings (Table 2.8). A partial explanation for this might be found in the younger age of the women when Commonwealth Scholarships were more available: 52 per cent of the women in their twenties had scholarships for their first degree, falling through 40 per cent to only 18 per cent of the women over forty; for masters 30 per cent, through 26 per cent to 6 per cent; for doctorates 58 per cent through 31 per cent to 5 per cent. The women over forty, so few of whom had scholarships, had a greater reliance than the younger women on their own money: 14 per cent compared with 1.5 per cent for first degree; 60 per cent compared with 40 per cent for masters; 51 per cent compared with 18 per cent for doctorates. We saw earlier (Table 2.3) that women regarded scholarships as the major agent in their taking higher degrees; it would also seem that, although Commonwealth support has not greatly affected the class composition of university students (Chapter 1), it has facilitated the entry of more women into the university and affected its sex composition.

Parental support was minor, and mainly during first degree. Spouse support was marginal, but it was almost entirely one way—husband supported wife, rather than 'putting husband through'.

But why is it that more men than women pay their own way through university without scholarships? Men are conditioned to pursue careers and most women are not? Gaining a scholarship re-orients women's attitudes, provides a psychological assurance of their capacity for tertiary study and career, changes parental attitudes to a daughter's future? Women, particularly those from upper socio-economic backgrounds (predominant among our respondents), expect support from others rather than self-support? Women have family responsibilities that preclude their having paid employment? Answers to these and other questions could be sought only in the deep-seated attitudes of society towards the roles of the sexes, which are internalized in both men and women and profoundly affect their orientation to study and career.

SUMMARY

The women differed from the men in their later orientation to career, including the academic, their more restricted fields of study, the higher proportion of their degrees from an Australian university, their greater dependence on scholarships for financial support. Scholarships were their greatest help in taking higher degrees; caring for children presented the most difficulty. They took their higher degrees at later ages than the men, were still enrolled for a degree that men had already completed. Overall, fewer women than men had completed a higher degree, particularly a doctorate, but at the level of lecturer and above the sexes were equally qualified.

Table 2.7 Higher Degrees: Where Granted (Completed or Enrolled)

University	Masters			Doctorates			Both degrees		
	Women	Men	Total	Women	Men	Total	Women	Men	Total
Australia									
Sydney	41	34	40	35	18	29	38	25	35
New South Wales	19	12	18	22	22	22	20	18	20
Macquarie	12	6	11	14	5	11	13	5	11
Other	13	12	13	6	11	8	10	11	10
Total	85	64	82	77	56	70	81	59	76
Overseas									
United Kingdom	5	12	6	12	26	16	8	20	11
U.S.A./Canada	8	8	8	7	11	8	8	10	8
Other	2	16	4	4	7	5	2	11	5
Total	15	36	18	23	44	29	18	41	24
	100	100	100	100	100	100[a]	100[a]	100	100
	N = 226	N = 65	N = 291	N = 187	N = 81	N = 268	N = 413	N = 146	N = 559

[a] Rounded to nearest integer.

Table 2.8 Main Source of Financial Support as Undergraduate and Post-Graduate (percentages)

Source	First degree		Diploma		Masters		Doctorate		Total		All respondents
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	
Scholarships/grants											
Commonwealth	41	24	9	4	23	16	37	14	33	18	29
Teachers' college	13	9	25	29	—	—	—	—	8	6	8
Other	15	24	18	10	22	24	28	23	20	22	20
Total	69	57	52	43	45	40	65	37	61	46	57
Own earnings/income	7	20	34	43	44	54	26	42	22	36	26
Parents	19	15	4	—	2	2	1	—	10	6	9
Spouse	2	—	6	—	6	—	5	2	4	1	3
Other	3	8	4	14	3	4	3	19	3	11	5
	100	100	100	100	100	100	100	100	100	100	100
N	411	111	79	21	222	63	185	79	897	274	1171

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3

Work History and Academic Career Patterns

Madge Dawson

The simplest career pattern for an academic is a straight progression from school to university, to graduation, to post-graduate study, to first appointment, to movement up the hierarchy. It was not the pattern typical of the majority of our respondents. Some were late entrants to university. Some had a continuous work history since they graduated; others had periods when they had not worked. Some had spent their entire working lives in academia; the majority had also worked outside the university, usually between graduation and first appointment, sometimes between appointments. Movement upward in academic rank was limited to a minority.

Occupational histories were varied and complicated, but we can outline the major patterns of female and male respondents—at first, because of their difference, separately; later brought together.

WOMEN'S WORK HISTORY

Before University

One-fifth did not go straight from school to university. They worked in a variety of professional and other occupations, some for a brief period of two years or less, a few for more than fourteen years. Late entry to university occurred more frequently among the women over forty and among women in humanities and social sciences.

None of our questions directly tapped why some women were late entrants to university. The age variation might be seen as reflecting over the post-war years economic prosperity, greater availability of scholarships, change in community attitudes to tertiary education perhaps particularly of girls. The faculty variation possibly relates to early professional orientation and/or social class: women in the medical sciences differed from the other disciplines in seeing university education as a preparation for career (see Chapter 2) and in their having a higher social class background.

After Graduation

One-half of the women had been in continuous, but not always full-time, employment. One-half had spent from one to twenty-four years out of the workforce: one-third for not more than one year; four-fifths not more than five; one-fifth six or more years, mainly six to ten, but one woman for twenty-three and one for twenty-four.

The average of just over four years spent out of the workforce by one-half of the sample represents just over two years (2.11) for the whole sample. Although some women had not been employed for many years, an average of two years does not suggest that our respondents, despite other responsibilities, lacked career commitment.

A higher proportion of the women in senior than those in lower positions had spent time out of the workforce, but the average time was shorter (Table 3.1). Career progression seems less dependent on whether or not one has been out of employment at some time, than on how long the interruption has been, or how long before a career has even started. The four women in the top positions who had not been in continuous work had been out for a very short time. Of the seven women who had not worked for twenty or more years after they took their degrees, two were still research assistants, four were tutors, one a senior tutor. But four women showed that it is possible to be out of the workforce for ten to sixteen years and still reach a lectureship or a senior lectureship: one lecturer had been out for ten years, one for fifteen; one senior lecturer for twelve years, one for sixteen.

When they were not working they were mainly taking post-graduate study or rearing children or both, but particularly rearing children. For half of the women who delayed starting work, or took time out to care for their children, it was for a short period of two years or less, but extending from nine years to an unspecified time over fourteen years for over one-tenth of the women. (For further analysis of the housewife-mother role see Chapter 6).

Table 3.1 Women who Had Not Worked Continuously since Graduation by Present Position

	Not continuous work		
		How many years	
Position	%	Range	Mean
Research assistant (N = 56)	41.0	1-24	5.5
Tutor/demonstrator (N = 129)	46.5	1-23	5.0
Senior tutor (N = 56)	55.4	1-20	3.8
Teaching fellow (N = 18)	38.9	1- 5	2.3
Research fellow (N = 6)	50.0	1-11	6.7
Lecturer (N = 94)	57.4	1-15	3.6
Senior lecturer (N = 31)	61.3	1-16	3.7
Associate prof./professor (N = 6)	66.7	1- 2	1.3
All respondents (N = 396)	50.8	1-24	4.2

Work Experience since Graduation: Inside/Outside the University
Nearly half (45 per cent) of the women respondents had worked only in a university; 55 per cent had also worked outside.

The youngest, and to a lesser extent the oldest, women differed from those in their thirties and forties in their greater confinement to academic work and their lesser experience of other employment. There was a similar but less marked difference between the medical sciences and humanities on the one hand, and the sciences and social sciences on the other. A partial explanation of the age variation might be that university posts were more available when the young women graduated. The likelihood of greater outside job opportunities for scientists and social scientists might partly explain their difference from the graduates in humanities, but not from the medical scientists.

Apart from the senior tutors, there appears to be some correlation between rank and work experience: the higher the rank the higher the proportion with non-academic experience. Does this suggest that work, or some kinds of work, outside the university may be an asset in appointment or promotion? If this were so, it does not seem to apply to the senior tutors who, despite their considerable outside experience, were out of step in the rank progression.

Work Outside the University
For 86 per cent of the 234 women who had 'mixed' careers their non-academic employment came before their first academic appointment, for 14 per cent between university posts.

Those who had worked outside the university did so in a variety of occupations: nine out of ten in professional, the rest mainly in clerical. Teaching was the major occupation: one-third were teachers (27 per cent secondary school). One-quarter were scientific/research workers/assistants. Other professions included psychology, social work, librarianship, journalism, law, medicine and architecture. They spent from a short period of two years or less (50 per cent) to more than fourteen years (2.5 per cent) in these occupations: the mean was 3.37 years, exclud-

Table 3.2 Women who Worked Only in a University: Work Patterns

Worked	N	%
Continuously		
Always full-time	102	53.0
Always part-time	13	7.0
Sometimes full-time, sometimes part-time	35	18.0
Total	150	78.0
Not continuously		
Always full-time	13	7.0
Always part-time	4	2.0
Sometimes full-time, sometimes part-time	25	13.0
Total	42	22.0
All respondents	192	100.0

ing the five women whose longer time was not specified.

Work Only in a University

The majority (53 per cent) of the women with 'pure academic' careers had been in continuous and full-time employment; a further quarter had maintained continuity but not always full-time (Table 3.2). The rest had interrupted work patterns.

An alternative arrangement of the above figures demonstrates the association of full-time work with unbroken careers, the mixture of full- and part-time with interrupted careers. Sixty per cent had always worked full-time when they were employed; of these, 88 per cent (compared with 78 per cent of the total) had been in continuous employment, 12 per cent (compared with 22 per cent) had not. Thirty-one per cent had alternated between full- and part-time work; of these, 58 per cent (compared with 78 per cent of the total) had unbroken, and 42 per cent (compared with 22 per cent) had interrupted, careers. Of the few (9 per cent) whose work had always been part-time the majority had maintained continuity of employment.

Finally we can point to some close similarities in the occupational histories of British female academics (Sommerkorn, 1969) and our Australian women. Almost identical proportions had 'pure academic' careers and 'mixed careers'. Most of the British women, as of the Australian, who had worked outside the university had done so before their first academic appointment. School teaching was the most common outside experience, but for considerably more of the British academics (46 per cent) than of the Australian (27 per cent).

MEN'S WORK HISTORY

This is a shorter story than the women's. We made it so, partly in order to shorten their questionnaire, mainly because we considered some information asked of the women was not so relevant to the men whose careers were more likely to be straightforward and to have less interruptions.

Slightly more of the men than of the women did not go straight from school to university; they spent an average of 3.48 years in white- or blue-collar jobs or the armed services.

They differed considerably from women in that after graduation only just over one-quarter (27 per cent, as compared with 45 per cent) had worked only in a university; 73 per cent, as compared with 55 per cent, had worked outside. Pure academic careers were highly represented in men in the humanities and those in positions below lectureships; mixed careers in medicine and social science and in positions at lecturer level or above.

For the majority, as with the women, post-graduate work outside the university preceded their first academic post. Their occupations were almost entirely professional, differing from the women's in that less men were in teaching (25 per cent, 19 per cent secondary), more in science, engineering and medicine. They spent rather longer than the women in pre-academic employment: 36 per cent two or less years, extending to 6 per cent more than fourteen years; the mean was 4.5, excluding those with an unspecified long time.

In their description of the British academic professions Williams,

Blackstone and Metcalf (1974) comment on the 'large majority' who had worked in other occupations: 'The evidence of extensive experience in jobs outside the universities by a substantial proportion of academics should do much to combat the image of a profession cut off from the world in its ivory towers'. Sixty-two per cent had worked for at least six months full-time in an outside occupation: 40 per cent four years or less, 14 per cent fifteen or more years. Main areas of employment were private industry (29 per cent), civil service and local government (19 per cent), school teaching (16 per cent), National Health Service (14 per cent). There were differences between the sexes in outside work experience: 'Women are rather less likely to have worked in another occupation (51 per cent) than men (63 per cent) .... As would be expected for fewer women had been in industry than men and more had been in school teaching.'

Our respondents show a similar difference in the career patterns of the sexes. The women were much more likely to have worked only in a university, much less likely to have worked in another occupation, and for more women (27 per cent) than men (19 per cent) this occupation was school teaching.

FIRST ACADEMIC APPOINTMENTS: WOMEN AND MEN

There was a quite remarkable difference in the levels at which the women and men began their academic careers: women at the bottom, men at the top (Table 3.3).

Nearly nine out of ten women (86 per cent), but only one out of two men (48 per cent), were appointed to positions below a lectureship. Seven out of ten, as compared with one out of four, were research assistants or tutor/demonstrators. The proportion of women who began their careers as tutor/demonstrators was almost identical with the proportion of men who began as lecturers. Nearly four times as many men (53 per cent) as women

Table 3.3 First Appointment: Position (percentages)

Position[a]	Females	Males	All respondents
Research assistant	24.25	7.63	20.46
Tutor/demonstrator	44.75	17.80	38.61
Senior tutor	2.00	3.36	2.32
Teaching fellow	11.75	17.80	13.13
Research fellow	2.75	0.81	2.32
Assistant lecturer	2.75	1.73	2.51
Lecturer	11.50	43.24	18.72
Senior lecturer	0.25	5.90	1.54
Associate professor	—	1.73	0.39
Professor	—	—	—
	100.00	100.00	100.00
	N = 400	N = 118	N = 518
All respondents	77.22	22.78	100.0

[a] Excluding graduate students (none in male sample) and respondents who gave their position as 'other' (unidentified).

(14 per cent) were appointed at lecturer level or above: only one woman but seven men as senior lecturers, two men as associate professors.

Thirty per cent of all respondents, but rather more of the women (31 per cent) than of the men (26 per cent), had part-time appointments. Only 14 per cent of the women lecturers, but 35 per cent of those in lower positions, worked part-time—a difference largely accounted for by the tutor/demonstrators, 51 per cent of whom were employed part-time.

Although the modal age of appointment was the same for both sexes and the mean age almost identical, their distribution varied over the age groups. More of the women were in their twenties, particularly the early twenties, more of the men in their early thirties. Of interest and significance are the women who started an academic career at a late age: no man, but eighteen women were over forty-five and five of them were in their fifties.

The sex variation in age may reflect the tendencies seen earlier — of women, particularly the young women, to have worked only in a university, of men who have worked first outside. It probably also reflects women's child-bearing role, making entry to a career less likely in those years when men were entering, and in some cases causing postponement of entry until free of this role.

PRESENT ACADEMIC APPOINTMENTS

Again there is a marked disparity in the ranks of female and male respondents at the time of this survey (Table 3.4).

Less than one-fifth of the men, but two-thirds of the women, were below the rank of lecturer. One-third and one-quarter respectively were lecturers. Nearly one-half of the men, but only one-tenth of the women, held more senior positions. (For full analysis of the rank distribution of the sexes in Australian universities see Appendix D).

Fewer respondents were now working part-time — a fall from 30 per cent in first appointments to 13 per cent overall, in the women from 31 per

Table 3.4 Present Appointment: Position (percentages)

Position	Females	Males	All respondents
Research assistant	14.2	—	10.8
Tutor/demonstrator	32.6	7.4	26.7
Senior tutor	14.2	4.1	11.8
Teaching fellow	4.5	5.0	4.6
Research fellow	1.5	—	1.2
Assistant lecturer	1.0	0.8	1.0
Lecturer	22.8	33.9	25.4
Senior lecturer	7.8	27.3	12.4
Associate professor	1.3	15.7	4.6
Professor	0.2	5.8	1.5
	100.0	100.0	100.0
	N = 396	N = 121	N = 517
All respondents	76.6	23.4	100.0

cent to 15 per cent, in the men from 15 per cent to 5 per cent. Part-time work was and remained a more common experience of the women than of the men, largely due to their concentration in sub-lecturer positions, many of which are part-time.

Age of respondents scarcely affected the distribution of full-and part-time work, except in two cases. An above average proportion of women now in their forties (42 per cent, as compared with 31 per cent of all respondents) began their careers in part-time employment, and an above average proportion of the older women (28 per cent, as compared with 15 per cent) were now working part-time.

Expectedly, from their higher positions, the men were older than the women when they were appointed. Modal ages: men early thirties, women early twenties. Mean ages: men 33.11 years, women 31.24. The high proportion of women who were appointed by the time they were thirty (57 per cent) is offset by the 10 per cent who were over forty-five, so that the women's mean age approaches the men's. Twenty-eight women were between forty-six and fifty and nine were in their early fifties.

When current age, rather than age at appointment, is related to position, we find—not unexpectedly—that the lower positions were held by the younger women (Table 3.5). Women below lecturer level ranged in age from early twenties to over fifty: mode twenty-one to thirty (except for senior tutors thirty-one to forty); mean 31.5 (30.1 without the senior tutors whose mean was 37.4). Lecturers covered the same age range, but their mode was thirty-one to forty and their mean 35.3. No senior lecturer was under thirty-one, no associate or full professor under forty-one. Half of the senior lecturers were in their thirties, mean 42.3 years. Five of the six women in the highest positions were in their forties, mean 46.7 years.

The overall picture of rising age with rising rank (below, at, above, lecturer level) was broken at one point—again by the senior tutors. Their average age was higher than the lecturers'. It can also be noted that of the twenty-nine respondents who were over fifty, five were senior tutors, three research assistants.

No man in the junior ranks was over forty. Male lecturers were slightly younger than the female (mean 34.3 as compared with 35.3); senior lecturers were a good deal younger (36.2 as compared with 42.3), and two men (6 per cent) were still in their twenties. In so far as the twenty-six

Table 3.5 Age by Present Position (percentages)

Position[a]	up to 40 years		over 40 years	
	Women	Men	Women	Men
Below lecturer	66	26	46	—
Lecturer	28	45	29	14
Above lecturer	6	29	25	86
	100	100	100	100
	N = 250	N = 77	N = 83	N = 43

[a] Graduate students and research assistants are not included, as there were no male respondents in these categories.

men can be compared with the six women in the top ranks, average age was almost identical at just under forty-seven years; four men but no women held an associate professorship in their thirties.

Table 3.5 clearly shows that men of younger ages hold positions of lecturer and above in greater proportions than do women of a similar age, and that women of any age, particularly those over forty, are very over-represented at the sub-lecturer level.

We know that more women than men are employed part-time and their work patterns have been more disrupted, that men gained their academic qualifications at younger ages. But these factors seem scarcely sufficient to account for the wide discrepancy between rank and age in the women as compared with the men. Rather it would seem that a high proportion of women have been disadvantaged by other factors in their access to higher positions. For further on this see later chapters.

Arlie Russell Hochschild (1975), writing on the American academic career, pointed to the nexus between age and achievement:

> The academic career is founded on some peculiar assumptions about the relation between doing work and competing with others, getting credit and building a reputation, building a reputation and doing it while you're young. . . .
>
> Age discrimination is not some separate extra unfairness thoughtlessly tacked on to universities, it follows from the bottom-most assumptions about university careers. If jobs are scarce and promising reputations important, who wants a 50 year old mother of three with a dissertation almost completed? (pp.49, 61)

MOVEMENT BETWEEN FIRST AND CURRENT APPOINTMENTS

In Table 3.6 graduate students are not included except for those few respondents who moved from staff to student status.

The majority of the women (76 per cent) remained at the levels at which they were first appointed; the majority of the men (60 per cent) had advanced to a higher level. Over three-quarters (77 per cent) of the women, as compared with over one-third (38 per cent) of the men, appointed as lecturers were still in that position. The one woman who had been appointed at senior lectureship level had been joined by ten who began their careers as lecturers and nineteen in lower ranks (six as research assistants, four tutors, four teaching fellows, four research fellows, one senior tutor). Of the five women now associate professors, one was first appointed as a lecturer, one as a research assistant, one a tutor, one a teaching fellow, plus one of unstated academic origin. The woman professor had begun her career as a tutor.

Seven men had their first appointments as senior lecturers: three were now associate and two full professors; the remaining two were joined by thirty-one whose initial position was in a lower rank, for two-thirds a lectureship. Of the nineteen men now associate professors ten had begun as lecturers, five in lower ranks, three in higher (including one of the original two, the other now a lecturer). The road to a chair for two men started with

a tutorship, for one a research fellowship, for two a lectureship, for two a senior lectureship.

Our data proved to be too complicated to analyse with any accuracy the time interval between the ranks through which respondents progressed, and to relate age and position at first appointment to respondents' present age and position. But we can show for the women in their current age groups stability or change from first to present positions—precisely and by level (below lecturer, lecturer, above lecturer).

As expected, the older the women the greater the movement:

1. Women in their twenties (182, graduate students not included). Seventy-five per cent were still in the exact positions to which they were first appointed, and although there were changes in positions below lectureships only 8 per cent had risen—from tutor or research assistant to lecturer.

2. Women in their thirties (125). Forty-six per cent were still in their starting positions, but 26 per cent had risen in level: 21 per cent from below a lectureship to a lectureship (14 per cent) or a higher level (7 per cent); 5 per cent from a lectureship to a higher level.

3. Women in their forties (66). Forty-two per cent held their original positions. Thirty-two per cent had increased their status: 26 per cent from below to a lectureship (15 per cent) or above (11 per cent); 6 per cent from lecturer to senior lecturer or above.

4. Women in their fifties (26). Eight women (31 per cent) had not changed position. Ten women (38 per cent) had risen in rank: six from below to a lectureship (three) or above (three), four from lecturer to a senior lectureship or above.

Three-quarters of the youngest women, falling as age rises to less than one-third of the oldest, were still in the positions to which they were first appointed. Less than one-tenth, rising to one-third of the women over forty had risen from their starting positions below or at lecturer level to relatively senior positions. None of the youngest women, but one-fifth of those in their thirties and two-fifths of the older women, who began as lecturers had been promoted.

But this progression with age is not always uniform in respondents who started their careers in lower positions, particularly as research assistants. Fifty-two per cent of all respondents first appointed to this position were still research assistants: 62 per cent of the youngest women, falling to 26 per cent of those in their thirties but rising again to 44 per cent of the women over forty. Tutors, 57 per cent of whom were in their original positions, showed a somewhat similar picture: 79 per cent of the women in their twenties, falling rapidly to 37 per cent of those in their thirties, but a less substantial fall to 33 per cent of the older women. Eighteen per cent had risen to senior tutor (rising with age from 7 per cent to 26 per cent to 29 per cent) and 20 per cent to a lectureship or above.

It may be that the seventeen women in their forties and the eight over fifty who began as and still were research assistants or tutors came late to university work; it may be they lacked promotional qualifications, it may be they liked what they were doing and did not seek promotion. May be—but we don't know.

Table 3.6 First Position by Present Position (percentages)

	First position							
	Below lecturer		Lecturer		Above lecturer		All respondents	
Present position	Women	Men	Women	Men	Women	Men	Women	Men
Below lecturer	76	32	4	2	—	—	65	16
Lecturer	13	38	77	38	—	11	22	36
Above lecturer	7	30	19	60	100	89	9	48
Graduate student	4	—	—	—	—	—	4	—
	100	100	100	100	100	100	100	100
	N = 342	N = 56	N = 57	N = 53	N = 1	N = 9	N = 400	N = 118
All respondents	86	47	14	45	0.25	8	100	100

Table 3.7 University where Employed by University of Graduation and Post-Graduation (percentages)

	Employed at							
	Sydney		New South Wales		Macquarie		Total	
Graduated at	Women	Men	Women	Men	Women	Men	Women	Men
First degree								
Sydney	62	49	32	14	48	33	49	32
N.S.W.	2	5	22	12	4	3	9	7
Macquarie	2	—	3	—	10	3	4	1
Other Australian	18	19	26	31	15	37	20	27
Overseas	16	28	17	43	22	23	18	32
	100	100[a]	100	100	100[a]	100[a]	100	100[a]
	N = 172	N = 43	N = 130	N = 42	N = 91	N = 30	N = 399	N = 115
All respondents	45	37	32	36	23	26	100	100

Masters degree								
Sydney	52	44	18	24	14	31	32	34
N.S.W.	2	—	29	24	7	—	12	7
Macquarie	2	4	5	—	25	15	8	6
Other Australian	11	12	32	18	18	15	19	14
Overseas	33	40	16	35	36	39	28	39
	100	100	100	100[a]	100	100	100[a]	100
	N = 54	N = 25	N = 38	N = 17	N = 28	N = 13	N = 120	N = 55
All respondents	45	45	32	31	23	24	100	100
Doctoral degree								
Sydney	54	35	20	—	43	7	40	14
N.S.W.	—	—	40	36	5	7	13	16
Macquarie	—	—	—	—	5	—	2	—
Other Australian	8	5	30	14	—	29	12	14
Overseas	38	60	10	50	48	57	33	55
	100	100	100	100	100[a]	100	100	100[a]
	N = 26	N = 20	N = 20	N = 22	N = 21	N = 14	N = 67	N = 56
All respondents	39	36	30	39	31	25	100	100

[a] Rounded to nearest integer.

The considerable difference between the sexes in moving up the academic ladder, or remaining stationary on some of its rungs, is followed up in later chapters, together with an analysis of attitudes to and possible factors affecting a situation disadvantageous to women.

MOBILITY

We measured mobility in two ways: inbreeding (employment in university of graduation) and number of universities employed in.

Inbreeding

Half (51 per cent) of all respondents were first employed and one-third (35 per cent) were currently employed in the university where they took their first degrees. Two-thirds (63 per cent) of those who began their careers at their *alma mater* were still there, or had returned there—they represent one-third (32 per cent) of all respondents having both first and current jobs in their university of graduation.

Women were more likely than men to work where they graduated: 54 per cent, as compared with 44 per cent, in their first positions; 37 per cent, as compared with 26 per cent, in their present positions; 35 per cent, as compared with 23 per cent, in both positions.

Respondents currently holding junior positions were more likely than their senior colleagues to be working in the university where they first graduated: 43 per cent of the women and 35 per cent of the men, falling to 23 per cent and 21 per cent respectively of lecturers, but rising again to 31 per cent and 27 per cent of the higher ranks. Similarly with age: 42 per cent of the youngest women were employed where they took their first degree; this drops to 32 per cent of the women in their thirties and rises slightly to 35 per cent of the older women. These figures appear to suggest that some respondents moved from their *alma mater* to get a lectureship, possibly in their late thirties, and that a smaller number later returned to a senior position. But patterns were too intricate to allow this proposition to be tested.

The figures so far quoted refer to all respondents, wherever their degrees were taken and wherever they held their first appointments. In Table 3.7 we can examine the degree of self-recruitment or inbreeding in the three universities where respondents were now employed.

There was a wide disparity between Sydney and the two other universities in the proportions of their staff who were their own graduates, doubtless due largely to Sydney's longer establishment and its greater supply of graduates. Sixty-two per cent of the women employed at Sydney University, as compared with 22 per cent of those employed at New South Wales and 10 per cent at Macquarie, had taken their first degrees at these institutions. Inbreeding remained high at Sydney with graduate degrees, but not as high as with first degrees: 52 per cent of the women with masters and 54 per cent of those with doctorates had taken them there. At the University of New South Wales, on the other hand, there was a considerable increase in inbreeding: from 22 per cent of first degrees to 29 per cent of masters to 40 per cent of doctorates. The process is evident also at the young Macquarie University. Although approaching half of their first and

doctoral degrees were taken at Sydney, one-quarter of their masters were taken at Macquarie.

Male respondents had a pattern similar to the women's: inbreeding at Sydney high with first degree, falling through masters to doctorates; low at New South Wales rising with higher degrees; masters rising at Macquarie. But the men differed from the women in that with them inbreeding was less pronounced, and considerably more men than women graduated overseas: 32 per cent, as compared with 18 per cent first degree; 39 per cent and 28 per cent masters, 55 per cent and 33 per cent doctorates.

Williams, Blackstone and Metcalf (1974) found British academics to be characterized by inbreeding rather than mobility. To measure its extent they used groupings of universities (e.g. Oxford and Cambridge, London, Civic) rather than individual universities: 'In all university types graduates are more than twice as likely (usually much more) to work in the university type in which they graduated as to move to another university type'.

Inbreeding was less pronounced in our respondents: they were one-and-a-half times as likely to work in the university where they graduated as to move to another. Expressing the figures in Table 3.7 in another way shows that, of all respondents whose first degree was at one of our three universities, 60 per cent were now employed there: 56 per cent of Sydney graduates at Sydney, 77 per cent of New South Wales graduates at New South Wales, 59 per cent of Macquarie graduates at Macquarie. Each university had a strong attraction for its own graduates: inbreeding was well established.

Numbers of Universities in which Respondents had Worked

The British researchers found that most academics had little academic experience outside their present university. This is true also of our respondents and the pattern is almost identical in both countries. Sixty per cent of the British and 57 per cent of the Australians had worked only in the university where they were currently employed, 24 per cent and 28 per cent respectively in one other, and 16 per cent and 15 per cent in two or more.

The men in both countries had experienced a much wider range of universities than the women: 44 per cent of Australian and 58 per cent of British men, as compared with 61 per cent and 71 per cent respectively of the women, had worked only in their present university.

Double the proportion of our male respondents (24 per cent) than of the female (12 per cent) had worked in three or more universities.

Women, particularly married women, are less mobile than men. The married woman is anchored where her husband works; she acompanies him where he moves. His career is primary; she accommodates her career to his. (See Chapter 6).

Additionally, many more of our female than male respondents were in junior positions. In both the British and Australian academics the higher the rank the greater the likelihood of having worked in a number of universities. In the British sample those who had worked in four or more rose by rank from one per cent of junior ranks to 27 per cent of professors; in the Australian from 4 per cent to 28 per cent of associate/full professors. Conversely, the 89 per cent of the British and the 66 per cent of the

Australian junior ranks whose experience was only of their current institution fell progressively to 22 and 28 per cent respectively of those in the top ranks.

Precise comparisons cannot be made with the British because of disparate numbers and rank designations, but our respondents appear rather more mobile. In one category common to both (lecturers), just over half (51 per cent) of the Australians as compared with two-thirds of the British, had worked only in their present university. Unfortunately we don't have enough professors in our sample to be able to compare them with their widely-experienced British colleagues. But for interest we can say that of the eight professors, seven had worked in more than one university, two (including the one woman) in five. Of the twenty-four associate professors (five women and nineteen men) no woman but eight men had not been employed in any other university.

Age might be expected to affect the number of universities in which respondents had worked. Younger academics have not had the same opportunities for movement as their older colleagues and are more often in lower ranks. We found in the women a decline in the proportion who had worked only in their present university from 69 per cent of the women in their twenties to 58 per cent of those in their thirties to 43 per cent of those in their forties—but a rise to 66 per cent of the oldest women. In the men there was a rapid fall from 65 per cent of the youngest to 27 per cent of the men in their thirties, but a rise to 39 per cent of those in the next age group and to 85 per cent of the thirteen men over fifty.

A higher proportion of our respondents who were approaching the end of their careers (71 per cent of those over fifty) than of the British (50 per cent of those aged fifty and over) had worked in one university only.

Williams, Blackstone and Metcalf (1974) conclude their analysis of mobility in the British academic profession:

> Apart from movement to secure promotion — above all, chairs — the picture is of a profession whose members are immobile . . . . tendency for university teachers to remain where they secure their first academic appointment. Those who move are for the most part the

Table 3.8 Consideration of an Academic Career (percentages)

Considered	Women	Men	All respondents
Very seriously, no other really considered	13	12	13
Seriously, but as one of several possibilities	38	31	36
Had secret leanings	7	7	7
Not seriously, had other career plans	20	36	24
Had no serious career plans	22	14	20
	100	100	100
	N = 397	N = 109	N = 506
All respondents	78	22	100

> able and the ambitious . . . . Whether the advantages of such a situation outweigh the disadvantages is not certain. . . . a high rate of turnover would certainly be harmful . . . . some mobility is a useful agent of innovation and change. Whatever the results, there can be little doubt that the tenure system is a principal cause. (p. 174)

THE ACADEMIC CAREER

Finally in this analysis of work history, we can discuss orientation to and involvement in the academic career: how seriously it was considered among other career possibilities; factors important in deciding on this career and making it attractive or unattractive now; intention to stay in or leave the profession.

Consideration of Academic Career

Over half of all respondents, and more women than men, were drawn towards an academic career—some single-mindedly, a few hopefully, the majority placing it among other possibilities (Table 3.8). One-quarter, and considerably more of the men, planned careers outside academia. A surprisingly high proportion, particularly of the women, had no serious career in mind.

Women now in the humanities had been the most career-orientated, particularly to an academic career. Possibly because of the wider employment opportunities open to scientists and social scientists an above average proportion of women in these disciplines planned careers outside the universities.

Respondents who had reached the rank of lecturer or above were more likely than those in lower ranks to have had the academic as a career goal. Of all ranks, desire for academic above any other career occurred most frequently among lecturers and graduate students. Some of the lecturers probably developed and achieved their aspirations in the comparative openness of the period of university expansion. The graduate students face restricted opportunities for the fulfilment of their goal.

Decision to Enter the Academic Profession

Respondents were asked to rate on a four-point scale (from 'very' to 'not at all') the importance of five factors on their decision: (1) intellectual interest, (2) good academic record, (3) offer of post, (4) encouragement from professors or other university teachers, and (5) self-assurance from other experience.

The most decisive factor for both women and men was the pursuit of their intellectual interest, followed by a good academic record — rated by 97 per cent and 84 per cent respectively as very or fairly important. But the means, calculated on all four ratings, show that the men placed a greater emphasis than the women on both these factors.

The other factors decline in importance for both sexes in the order listed above, but the men gave a slightly higher rating than the women to self-assurance from other experience, and the women rated more highly encouragement from a university teacher and offer of a post.

The significance to the women of being offered a post is shown in that

56 per cent, as compared with 44 per cent of the men, said this was a very important factor (rating 1) in their decision to enter the profession. Only 6 per cent, as compared with 18 per cent, said it had no importance at all. More women gave this top rating to offer of a post than they gave to a good academic record (44 per cent). Above average according high significance to offer of a post were women in the humanities, women now in the highest ranks and the research assistants.

Sommerkorn (1969) found that one-third of her British female academics entered the profession with a high degree of commitment. They had always wanted this career and were confident enough to set out to achieve it.

Others needed something additional to stimulate their decision. Some had to overcome psychological resistance ('it is for people cleverer than me'); many needed to develop self-assurance, a quality 'generally more typical of men than women in our culture'. Some found the stimulus in a very good degree (yet one-third of those with first-class honours said this was not enough), some in an interest in research often developed in postgraduate study, some in an increased self-confidence and competency gained from other occupational experience. For some the initiative came from other people — in the direct offer of a post, and particularly in encouragement by university teachers ('It is through their encouragement that respondents developed an awareness of their academic potential').

Sommerkorn concludes:

> It is striking that the teachers in the present study do not conceive of themselves as rational decision-makers. Frequently even those who are deeply committed to their field of study tend to stress the contingencies and external influences decisive in starting them in the academic profession. By stressing the 'fortunate' circumstances, like an offer of a post at the right moment, personal responsibility of having become a 'career woman' is disclaimed.

She asks whether this 'is a "typical" attitude of women who live up to the norms expected of them by giving the impression of not being vocationally orientated', or reflects university recruitment in general.

Whatever may be the answer to Sommerkorn's question, evidence from our survey shows that women are more likely than men to be affected by external circumstances and influences in making career decisions. Men are socialized to career, independence and self-reliance. Women's socialization is to traditional roles, dependence and support; reorientation to other goals, attitudes and life patterns is not easy. Time may be needed and important decisions delayed. New goals do not supersede traditional goals; they are often in conflict. Decisions are likely to be less clear-cut than men's and more dependent on the support and encouragement of others.

In the Profession: Its Attractions

From their experience of the academic career respondents were asked what importance they placed on some features of the profession in making the career attractive to them. Ratings are on a four-point scale, but Table

3.9 shows the means (overall rating) and the top rating (very important).

The order in the table is based on the means of the female responses and shows with each factor its decreasing importance in the attractions of the profession. The slightly different order of 'very important' ratings shows, for example, that for some of the women the easier combination with family was a greater attraction than the chance to contribute to knowledge, lesser discrimination greater than salary. Correlation of easier to combine with family life with the presence or absence of children shows a marked difference in the responses of the childless and the women with families. Over half of the women with children, as compared with less than a fifth of those without, rated this factor as very important; a further 30 per cent said it was fairly important. Nearly half of the childless women, but only 5 per cent of those who had one or two children, and none of those with three or more, rated this factor of no importance. Presumably the women with children were responding from their own experience, over four-fifths confirming very or fairly strongly that in university teaching the accommodation of career with family is easier—or the dual role less difficult—than in other possible occupations. (See also Chapter 6.)

Male responses have a somewhat different pattern from that of the women (and the means and the top ratings coincide). By both sexes the first three factors in the table were accorded the greatest importance, but the women valued most highly the flexibility of the work schedule, the men the freedom the university gave for original work. More women than men found academic life attractive because of contact with people, more

Table 3.9 Factors of Relative Importance in Making the Academic Career Attractive

Factors	Means		Very important (percentages)	
	Women[a]	Men[a]	Women	Men
Flexible work schedule	1.453	1.678	63	52
Independence from direct authority	1.733	1.681	44	51
Freedom to carry out original ideas	1.751	1.555	52	55
Dealing directly with people	2.093	2.305	34	24
Chance to contribute to a field of knowledge	2.178	1.814	27	37
Easier to combine with family life	2.371	2.637	31	14
Salary	2.579	2.419	9	7
Less discrimination against women	2.703	—	14	—
Community prestige	3.112	3.095	5	3

[a] Response rate varied slightly with each factor: average for women 418, i.e. 97 per cent; average for men 118, i.e. 96 per cent.

men than women because of the opportunity to make a contribution to knowledge. Although neither sex gave a high priority to the easier combination of academic than of other work with the family, considerably more of the women (31 per cent) than of the men (14 per cent) rated this as very important. Probably, or hopefully, combined with their emphasis on the flexible schedule, the women had found it so in practice. Possibly, or probably, the men were less concerned about the combination of work and home as they were about less rigid time demands. But they gave a higher priority than the women to salary. To the extent that there were differences in female and male responses, they might be seen as reflecting differences in the roles and responsibilities of the sexes as society sees them.

Respondents were united in disavowing community prestige as an attraction, or may be disavowing that the community affords prestige to the academic. The low rating given by female respondents (not asked of males) to less discrimination against women suggests either that this was a matter of little interest, or that they had not found the university less discriminatory than other institutions in attitudes or practices.

Intention to Stay in Academic Work

Women were asked about their commitment to the profession. Would they or would they not remain in it? If their intention was to stay, would it be continuously or would there be breaks? If interrupted, what would they be doing in the breaks? Not surprisingly, a high proportion were not prepared to make such a commitment to the future and replied 'Don't Know'.

With rising rank, commitment to the academic career increases rapidly, uncertainty about the future declines, and intention to leave the profession falls to zero (Table 3.10).

Within the lower ranks where commitment was comparatively low and uncertainty and intention to leave the profession high, research assistants

Table 3.10 Female Respondents: Rank by Intention to Stay in Academic Work (percentages)

	Rank			
Intend to stay	Below lecturer	Lecturer	Above lecturer	All respondents
Yes				
Continuously	32	62	89	44
With breaks	31	23	5	27
Total	63	85	94	71
No	10	2	—	7
Don't know	27	13	5	22
	100	100	100[a]	100
	N = 292	N = 94	N = 37	N = 423
All respondents	69	22	9	100

[a] Rounded to nearest integer.

were least, senior tutors most, committed.

Only two lecturers would abandon their academic career, but nearly a quarter expected it to be interrupted for some purpose, and over one-tenth were indefinite about their intentions.

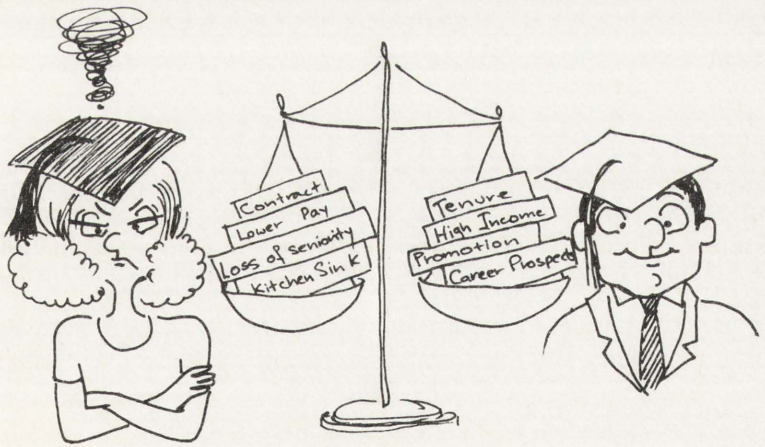
Expectedly, commitment was highest in the top ranks. No one would leave the profession. All but four would work continuously: two senior lecturers expected to take a break and two left the future open.

There was a marked difference between the women in their twenties and the older women. Many more of the young women had firm intentions to leave the profession and more had not made a decision. Eight out of ten of the older women, as compared with six out of ten of the youngest, intended to continue in academic work. The most committed were the women in their forties.

Intending to remain in the profession, and being more definite about their future, characterizes the middle-aged rather than the young. Probably this is true of any profession. Intention to stay may mean commitment in a full and positive sense; it may mean tolerance of, or resignation to, a career to which one has at least committed years of one's life. We could not know in what sense the older women's intention to stay means commitment. Nor do we know why four out of ten of the youngest women had either rejected, or were doubtful about, continuing in the profession. Young and leaving doors wide open? Disenchanted with academia—about their own roles, the position of women, the chances of promotion, male dominance, hierarchical structures? (See Chapter 5.)

Rather more than a third of the women who intended to stay in academic work expected to have breaks—for child-bearing and rearing, further study, travel, outside work experience, or just for a rest and some leisure.

We asked respondents to say how long they expected their breaks to be, with the option of saying 'Don't Know'. About three-quarters very understandably took this option, so we also don't know how long these women will be away from the profession, particularly for the function that causes the greatest interruption to women's careers—child-bearing.



SOME CONCLUSIONS

These women academics belie the stereotype that women do not take careers seriously, are not reliable, drop out to have children:

1. They were relatively new, in some cases pioneer, entrants into a traditionally male profession in institutions male-dominated and structured to male life patterns.
2. Their motivations were to pursue their intellectual interests from the basis of a good academic record.
3. The majority maintained continuity of employment.
4. Many did 'drop out', mainly for child-rearing, but only temporarily and for short periods and sometimes combined with further study.
5. They found satisfactions in their work.
6. Most were committed to remaining in the profession.

For reasons still to be discussed they have not attained equality with men. They entered the profession at lower levels; they have progressed at a much slower rate or not at all; and they are still heavily over-represented in sub-lecturer positions.

Their work patterns differ from men's. Fewer women had worked outside the university and fewer in a number of universities — factors considered by some as assets to appointment and promotion. Many women had (and more are likely to have) interruptions to their work for the biological role of child-bearing and the socially expected role of child-rearing. For some this meant postponement of career, for others an accommodation by means of part-time work, for most a period out of the workforce. Breaks have a cost to career. This female experience is not seen as an asset; the academy does not easily accommodate its policies and structures to female discontinuity nor compensate for its cost.

Further differences between the sexes reflect their differing socialization and their roles and responsibilities. In their decision to embark on an academic career the women, less self-assured than men, placed greater importance on the encouragement they received from a university teacher and on the offer of a post. In appraising the university as a place to work they valued more highly than did the men the flexibility of a work schedule and relative to other occupations the easier combination with family life.

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4

Productivity and Gender Divisions in the Academic Labour Market

Bettina Cass

The dominant theme in the literature of women's participation and status in academic work revolves around the assumed conflict between teaching and research—a conflict which is considered to be applicable to the experience of all academics, regardless of gender. Debates about the dominant role and purpose of universities have a long history, and judgements about the ideal relationship between teaching and research have varied in different national contexts and in different historical periods. Newman, in Victorian England, saw the transmission of a liberal education to young gentlemen as the chief concern of the British university, basing his model on Oxford. Flexner, on the other hand, in 1930, basing his prescriptions on the German university, gave investigation (research and detached scholarship) primacy over instruction. Later writers, like Clark Kerr, using the North American university as their model, saw both the 'community of scholars' of Newman and the 'ivory-tower detachment' of Flexner as outmoded concepts. They emphasized the necessity for the democratization of knowledge and the development of vocational studies with practical utility, thereby indicating the close connection between the university, the state and the job market in advanced industrial societies (Leinster-Mackay, 1977). Despite the founding fathers' intention to transplant Oxbridge to the Antipodes, most commentators consider that Australian universities have always been a mixture of 'cloister and market-place' (Medlin, 1976).

Academic staff are therefore presented, in theory, with various means for expressing their productivity: the preservation, criticism and transmission of knowledge (liberal scholarship); the transmission of vocational and professional skills; the creation of new knowledge and new skills; and the fusion of research with political conviction and social action or social policy (compare Mills, 1971). In effect, however, there appears to be a consensus in the current literature that the most highly evaluated form of produc-

tivity in the academic labour market is published research, which has become the major criterion for recruitment and promotion (Caplow and McGee, 1961; Bernard, 1964; Sommerkorn, 1967; Williams, Blackstone and Metcalf, 1974; Blunt, 1976; Walker, 1976).

But the conflict between research and teaching in the course of performing academic work has not been eradicated—as Caplow and McGee (1961) noted of the American academic labour market:

> For most members of the profession, the real strain in the academic role arises from the fact that they are, in essence, paid to do one job (teaching) whereas the worth of their services is evaluated on the basis of how well they do another (research with publishable results). (p. 82)

The authors cite various incidents in which committees deliberating on appointments and promotions dismissed such academic activities as highly acclaimed teaching, university administration and writing for popular audiences as of less consequence in assessing productivity and evaluating performance than publication of scholarly books and articles in professional journals.

In Australian universities, the tremendous emphasis on research as the prime measure of academic competence has been traced to the watershed of the 1960s, when research became formalized and directed in order to make a claim for the financial support which was available. In this context, the criterion for assessing the potential scholarly competence of an aspirant for a university position, or of a candidate for promotion within the ranks, became publications as *the* measure of research activity (Walker, 1976). Research and publications are status-conferring not only for individual academics, but also for individual universities, which therefore have an interest in attracting staff who will attract research funds. At the same time, however, the great increase in intake of undergraduate students in the post-World War II period and the expansion of the vocational functions of the university heightened the demands made upon academics to be teachers, as well as 'men-of-knowledge' and research entrepreneurs who could attract research funds.

The status of women in the academic workforce can be placed in this context of the contradictory demands of teaching and research. Jessie Bernard (1964), in her influential account of women in American universities, noted that in theory university teachers were concerned with both the conservation/transmission of knowledge and the creation of new knowledge, but, in effect, a division of labour had arisen between the role of teacher and the role of 'man-of-knowledge'. The teacher is concerned with the established, non-controversial aspects of knowledge and its preservation; the 'man-of-knowledge' deals with the controversial, advanced aspect of his discipline—he engages in debate with the major writers, he innovates, he makes a contribution to his field. Bernard does not use the masculine gender without reflection: she notes the incontrovertible American tendency for women to perform primarily in the teaching role and for the 'man-of-knowledge' role to be performed pri-

marily by men. She explains this sexual division of labour in the academic workforce in terms of an analogy with the sexual division of labour in the family: women as teachers are, like mothers, conservators and transmitters of non-controversial knowledge. Just as women serve as the supportive infrastructure of the domestic sphere, they serve as the supportive infrastructure of the university:

> Academic women, then, have performed some of the hardest work that has to be done by academic institutions, the grinding drudgery of unchallenging introductory courses, and have thus released academic men for the more rewarding assignments, graduate courses in new and more exciting areas of the professor or 'man-of-knowledge' role. (p. 125)

Drawing together these two arguments then, women's entry into the academic labour market in the twentieth century, and particularly in the latter half of the twentieth century, has served to soften some of the dilemmas posed by the contradictory demands of teaching and research in a vocationally-oriented, somewhat democratized university. Women have provided a high proportion of the teaching ranks, but have not posed a serious threat to the incumbents of 'man-of-knowledge' positions in the academic hierarchy. For reasons which we shall go on to discuss in this chapter, the academic labour markets of the advanced industrial societies are sex-segmented: according to their representation in the academic staff, women are over-represented in the sub-lecturer, non-tenured teaching ranks, and under-represented in the ranks of lecturer and above where the conditions for job-security and promotion apply and therefore where the 'man-of-knowledge' role can be actively pursued (Caplow and McGee, 1961; Bernard, 1964; Sommerkorn, 1967; Sommerkorn, 1970; Rossi and Calderwood, 1973; Williams, Blackstone and Metcalf, 1974; Lodge, 1976; Federation of Australian University Staff Associations' Committee on the Status of Women Academics, 1977).

Given these structural conditions then, it is not surprising that various researchers into the academic profession have found that women express greater interest in teaching than research, compared with their male colleagues (Bernard, 1964; Sommerkorn, 1967; Williams, Blackstone and Metcalf, 1974). Such an avowal of interests is a realistic assessment of the respondents' major occupational task, a psychological strategy for enjoying what one must do. If the conditions, funding, time and assistance for research are scarce, then it is clearly rational to express greater interest in what one is paid to do, teaching, rather than in the tasks which must be fitted into 'spare' time. However, changes are taking place, *not* in the structural dualism of the academic labour market and women's subordinate position within it, but in women's *expression* of their academic interests.

Williams, Blackstone and Metcalf's (1974) analysis of the British academic labour market shows that women are only slightly less oriented towards research than their male colleagues. On indices of the importance attached to teaching and research, on interest in attending courses on teaching methods, on rating research facilities as important in evaluating a

university as a potential workplace, women showed only a slightly greater tendency towards identifying themselves primarily as teachers. However, higher proportions of women, than of men, felt that they had been handicapped in doing research by their teaching commitments.

The authors claim, however, that in comparison with earlier surveys (for example, Sommerkorn, 1967), women university teachers in Britain have become more research oriented 'without becoming more productive in research terms, as yet' (p. 398). They attribute this increased interest in research to educated, middle-class women's resistance to traditional sex-role typing in the intellectual climate of the resurgence of the women's movement of the late 1960s and early 1970s. Women are refusing to accept only the role of the transmitter of non-controversial knowledge, however, they have not yet become 'aggressive and competitive enough' to take on fully the research role. This alleged diffidence is attributed to sex-role socialization. The authors might, much more fruitfully in terms of their own research focus, have looked to the conditions of the academic labour market to explain the contradiction between women's (especially younger women's) expressed interest in research, and their lower rates of published research output, compared with their male colleagues.

We asked our respondents to indicate how many hours they spend, 'in a normal working week', on the following tasks: teaching (contact hours), research, preparation, with students outside class, staff consultation, committee meetings and administration. Our respondents, quite rightly, expressed considerable hostility about making this calculation, in some cases informing us that there is no such thing as a 'normal' working week. We are certainly aware of the problems entailed in making this calculation given that tasks can and do vary over the year. Clearly academic work has its seasonal variations: peak times of marking and lecture preparation; peak periods of endless committee meetings when departments are arguing out policies. Nevertheless, there is usually a certain pattern which can be averaged-out over the year (or session, semester or term) and formal requirements for student teaching and consultation hours are often codified in the conditions of each academic rank. We should also note that such activities as research, teaching preparation, teaching and staff consultation are not mutually exclusive: ideas generated in research and discussion with colleagues are themselves part of teaching preparation, and ideas generated in tutorials and lecture preparation feed back into research. The following figures then are obviously no more than artifacts, and serve only as a guide to the allocation of time which academic staff make in various ranks.

Analysis of the hours spent in teaching and research by respondents in different ranks shows that slightly greater proportions of tutors and senior tutors spend somewhat more time in teaching (the hourage is actually under-stated for tutors because of the 31 per cent who are employed part-time). The major divergence, however, lies in the time spent on research. Times of ten hours or more per week on research are cited by 48 per cent of tutors, 28 per cent of senior tutors, 41 per cent of lecturers, and 56 per cent of senior lecturers, associate professors and professors in the sample of women, and by 64 per cent of male staff in the ranks of lecturer and

above. The inter-connections of senior rank and masculine gender are most conducive to the maximization of time spent in research and in administration.

It is important to note that in a profession like university teaching, no optimum job description can be made, even though a minimum job description may be formally codified. Some academics may be interested in minimizing teaching and routine administration so as to maximize time available for research. Others may be interested in maximizing time spent supervising honours and post-graduate students—in quantitative terms, such tasks are time-consuming, but in qualitative terms, they are of benefit to the supervisor, as well as to the students. Supervisors of honours and post-graduate students are involved in discussion of ideas and collaboration in research which maintains their acquaintance with the latest literature and the latest developments in their field. A mere log of hours spent does not begin to show the benefits which flow to those involved in such research interactions.

The greater concentration of men in the higher ranks may partly account for the greater amount of time spent by the men in research and administration, and their greater involvement in honours and post-graduate student supervision. If so, then these samples are an indication of the division of labour in universities, where both women and men contribute to teaching and research, but men, because of their virtual monopoly of the ranks of senior lecturer, associate professor and professor, are in a position to participate more extensively in research, administration and the supervision of students at advanced levels.

To summarize, our data have shown that women in the lower ranks of the academic workforce participate least in supervision of students at advanced level, consultation with colleagues, committee meetings and administration; that is, they are least likely to be involved in those social contexts where the academic 'talk' takes place, where decisions and policy are made. Cynthia Fuchs Epstein's analysis of women in the professions (1971) shows that professions function like small, relatively closed and homogeneous communities, anxious to control recruitment of personnel, to exercise exclusion practices, to exercise social control over their members, and to protect the interests and privileges of their members, vis-a-vis their clients, the state and employing bodies. The everyday academic activities which we have delineated—consultation with colleagues, supervision of advanced level students (the 'new recruits'), committee meetings, administration, research work and its communication in journals and at conferences (to be discussed below), are the mechanisms by which members of the elite of the academic profession exercise control, both at the departmental level, and in the wider context of the discipline as it extends beyond the immediate institutional setting.

TEACHING OR RESEARCH: IS THERE REALLY A CONTRADICTION?

In order to test the hypothesis that academic women have a greater interest in teaching than in research, as claimed by Bernard (1964)—a claim which can be used to justify women's relegation to the predominant-

ly teaching ranks—we asked our respondents to indicate their relative interests in teaching and research. We found that women in the ranks of tutor, demonstrator, teaching fellow and senior tutor are only slightly more likely than their male colleagues in the same ranks to express greater interest in teaching. In the ranks of lecturer and above, all staff, both men and women, express somewhat reduced interest in teaching as they move up the promotional ladder. Women lecturers express slightly more interest in teaching than their male colleagues, but women senior lecturers, associate professors and professors indicate a distribution of interests analogous with men in the same ranks.

Like Sommerkorn (1967) and Williams, Blackstone and Metcalf (1974), we found that younger women are more likely than their older colleagues to indicate greater interest towards research and less interest towards teaching. We would agree therefore that younger women are rejecting the traditional stereotype of total identification with the teaching role.

Our findings suggest that there is little substance in the blanket claim that all women see themselves primarily as teachers in the academic profession: on the contrary, younger women, women in the higher ranks, and women in medicine, veterinary science and the social sciences show the widest divergence from the traditional stereotype.

We asked our respondents to indicate on a four-point scale the extent to which they enjoyed the various activities which are associated, formally and informally, with the academic job: teaching, research, contact with students, discussion with colleagues, administration and policy-making. When the women's responses to this question are cross-tabulated with their university position, a consistent pattern emerges. Women in the predominantly teaching ranks of demonstrator, teaching fellow, tutor and senior tutor indicate a clear hierarchy of tasks which they enjoy: greatest enthusiasm is expressed for contact with students and teaching, followed by discussion with colleagues, then research, and finally, with marked lack of enthusiasm, administration and policy-making. Given that staff in these ranks have heavy teaching loads, they still express considerable enjoyment of research (50 per cent stating that they enjoy research 'very much', and 41 per cent that they enjoy it 'moderately'). The lack of pleasure taken in administration and policy-making reflects the level at which tutors and senior tutors are usually eligible to participate in these tasks—at the level of routine course administration and book-keeping. Administration and policy-making clearly have different connotations and entail different functions at different positions in the academic hierarchy.

Women in the ranks of lecturer and above express equally high enjoyment of teaching, contact with students and research, and a somewhat greater enthusiasm for administration and policy-making. It would appear that in those ranks where the conditions for research exist, and where administrative tasks are more diversified and carry somewhat more scope for decision-making, women are able to enjoy a wider range of academic tasks.

The alleged contradiction between teaching and research operates within the general context of the reward system of Australian universities,

which, like British and American universities, place almost total emphasis on published research as the basis for promotion and accrued benefits. Women academics, like men, are probably aware that their career-interests if not their personal interests, must be oriented towards research at least to some extent in order to ensure job security, promotion, or job survival. However, all academic staff are employed within an educational context which emphasizes undergraduate teaching as the major rationale for the existence of the university and the existence of their university positions. In Australia, recurrent funding for universities through the Tertiary Education Commission is made on the basis of student numbers, not on the basis of research produced. Staff in the sub-lecturer ranks are usually made aware of job descriptions which emphasize their teaching duties, while their own research (which they may be doing towards post-graduate degrees) is seen as their private concern. In other words, the activity which is most highly evaluated in the reward system, research, is considered to be an adjunct to the major duties of teaching staff in the 'junior' ranks. In the senior ranks, not only are teaching hours somewhat reduced, but promising or established reputations have the opportunity to attract research funds—thus enabling the research enterprise to be taken out of the ranks of an individual, personal activity and into the ranks of the research-team, with paid personnel, and (in the sciences, medicine and veterinary science, engineering and in some cases in the social sciences) with major investment in equipment.

Any analysis of women's orientation to research which remains only at the psychological level of explanation (that is, at the level of motivation) and which does not take into account the occupational, economic and social structures in which research is carried out, cannot begin to estimate the structured contradiction between research and teaching built into the academic profession. The dominant strategy for dealing with this contradiction has consisted of a division of labour and a co-existing division of rank, reward and authority. We could see the recruitment of women into the teaching ranks in the period of post-war university expansion as a further extension of this strategy. In that case, the dominant idea that women are more psychologically oriented towards teaching rather than research has operated as a useful legitimation for the academic division of labour and the corresponding distribution of rewards.

In this context, those younger women, women who have been persistent and atypical enough to break into the upper ranks, and women in medicine, veterinary science and the social sciences (also atypical fields for women) who have rejected the stereotype of the 'woman as teacher' and have included research in their armoury of interests, are challenging one of the major, supportive ideologies of the sex segregation of the academic labour market.

ADMINISTRATION AND POLICY-MAKING: WHO PARTICIPATES?

Of women staff, almost one-third of the tutors and 6 per cent of senior tutors indicated that they were not eligible to participate in administration and policy-making in their department; two-thirds of tutors and one-fifth

of senior tutors were not eligible to participate in policy-making at faculty level; four-fifths of tutors and half of the senior tutors were not eligible to participate at university level.

Actual participation in administration and policy-making at departmental, faculty and university levels increases with higher rank, and this is applicable to all staff. A majority of lecturers (almost three-quarters of both men and women) indicated either a great deal or a moderate amount of participation at departmental level, as did 78 per cent of women and 88 per cent of men in the ranks of senior lecturer and above. However, the proportions participating in the administrative levels of faculty and university progressively decrease: one-third of the women lecturers and a somewhat smaller proportion of the male lecturers indicated some involvement at faculty level, together with approximately 60 per cent of all respondents in the ranks of senior lecturer and above; while 12 per cent of women lecturers, 18 per cent of women in the ranks of senior lecturer and above and 30 per cent of men in the ranks of senior lecturer and above indicated some participation at the level of the university. These figures indicate the increasingly hierarchical nature of the various structures of authority in which the academic workforce is situated.

Men and women in the same ranks have similar patterns of participation, with some significant exceptions: for senior staff at the level of the department and at the level of the university, men predominate.

It would be plausible to suggest that the large minority of women in the ranks below lecturer who indicated their lack of enjoyment of administration and policy-making (46 per cent) are expressing their dissatisfaction with the forms of routine and low-level administration in which they are eligible to participate. Similarly, the substantial minority of men and women in the ranks of lecturer and above who indicated their lack of enjoyment of administration and policy-making (37 per cent of women and 49 per cent of men) may be reacting to the forms of administration in which they are currently involved.

This explanation gains greater plausibility when we consider replies to the question: 'Would you like to take a greater part in administration and policy-making?'

Replies to this question appear to tap a substantial pool of university staff interested in more extensive participation in administration and policy-making. Unfortunately, we did not ask respondents to indicate the levels and type of administration in which they would like to participate more fully. Respondents who appended comments differentiating between the two made us aware of the importance of separating administration and policy-making, but we don't have the data to explore this issue.

Our data indicate that similar proportions of women and men in the ranks of tutor and senior tutor express an interest in greater participation in administration and policy-making. We might expect the disadvantages of subordinate rank to be experienced by men as well as women. In the ranks of lecturer and senior lecturer, greater proportions of women indicated their interest in increased participation. If we are to explain the relationship of women to administration and policy-making, we need to take into account not only the hierarchical nature of university administration,

but also the essentially masculine character of the academic profession.

Several women, having indicated that they would like to take a greater part in administration and policy-making, wrote into the questionaire, 'given time'. These comments, and other similar responses to open-ended questions, reflect the experiences of a certain section of women academics, particularly those with long teaching hours, research commitments and family responsibilities, who would like to participate more, but for whom time is a scarce resource.

Other women, however, feel themselves excluded from administration against their interests: a large proportion because they are disqualified by their rank, and others, in senior positions, because the formal and informal networks where influence is wielded and decisions are made are predominantly masculine in composition.

Other Australian data support this proposition. The Federation of Australian University Staff Associations' Committee on the Status of Women Academics carried out a survey of academic staff (1977) and report in relation to women's participation in policy-making:

> There was a marked difference in response to the question (would you like to take a greater part in policy-making?). Women gave 207 separate responses and men 143. Many responses clearly came from the heart—'ineffectiveness of the individual', 'negative response anticipated', 'procedural wrangling' and whilst these were echoed by some men, it was clear that women felt very much more strongly than men when they complained 'women are not taken seriously here', 'there is a reluctance to appoint women to committees', or 'it is hard to get appointed to committees because of bias against women'. (p. 19)

In addition, the FAUSA Committee found that most of their male and female respondents (88 per cent of the women and 93 per cent of the men) worked in contexts where power was principally exercised by men. Only 3 per cent of the women and 0.4 per cent of the men worked where women exercised power in relation to academic matters, while a further 8 per cent of women and 6 per cent of men claimed that in their departments both men and women exercised power equally. (Three hundred and seventy-three women and 258 men replied to the FAUSA survey Committee — see page 21.)

Research in other job contexts—the legal profession (Epstein, 1971) and the training of sales personnel (Kanter, 1977)—shows that in occupations where men are dominant both in absolute numbers and in their monopoly of top positions, processes are established which reinforce women's minority and subordinate status. Women are perceived and treated either as tokens ('exceptions') or as representatives of their sex, subject to the alleged psychological disabilities associated with the feminine stereotype (for example, lack of ambition, low career-motivation, emotionalism, inability to make decisions).

Our respondents' and the FAUSA respondents' perceptions of exclusion from policy-making and their expressed desire to take a greater part

must be understood not only in terms of the hierarchy of authority, but also in terms of the highly visible masculinity of those authority structures—structures which are masculine in composition, in style, in 'talk' and in work-patterns (predicated on freedom from domestic responsibilities). Some of our respondents told us that much behind-the-scenes politics is carried out in informal contexts of sociability, where few women, of equal status, enter. For an enlightening account of the masculine character of university politics in Sydney, see Don Aitkin's 'fiction', *The Second Chair* (1977), where women, as auxiliary workers (secretaries, wives, research assistants, lovers) frame the borders of the political action, but only men sit in the committees, send memos to each other and appoint new staff—establishing and maintaining the over-all assumptions and ground-rules within which the academic profession operates.

PARTICIPATION IN CONFERENCES

Academic and professional conferences are an acknowledged occupational context in which recent research is communicated, intellectual debates are waged, old and new reputations are established, displayed and scrutinized. Even if academic conferences in Australia do not function as an overt academic market-place (as they do in some other countries), they nevertheless function as important locations for the establishment and maintenance of an informal network of contacts—a network along which information, ideas, pre-publication drafts of articles are exchanged. By means of the conference, in conjunction with publication in books and professional journals, academic work moves outside its university location into the wider context of the community of practitioners. In the proceedings of conferences (in the formal papers and in the informal talk) as well as in journals, definitions of what is to be acclaimed as currently appropriate knowledge and currently significant areas of research are constructed, usually by the most influential practitioners and their challengers. To what extent do the women in our sample participate in these strategic events of boundary-maintenance in the various sub-disciplines of their occupation?

As a group, the women had attended fewer conferences than the men, were less likely to have been conference organizers, to have chaired sessions or presented papers. Clearly, the younger ages and more junior rank of the women in our sample must be related to this finding. When we isolated the women and men in lecturer and above positions, we found that women were not less frequent in their attendance at conferences and only very slightly less prolific in their presentation of papers.

These findings suggest that attendance and paper-giving at conferences and the cumulative advantages which these activities provide (professional visibility and immersion in the collegial network) are an additional reward of high rank. Senior-ranking staff members who are presenting papers are more likely to have their fares paid to attend conferences than are junior ranking staff members not presenting papers; senior ranking staff, whose reputations have been established, are much more likely to be *invited* to participate in conference sessions than are relatively unknown junior staff. The conference is another example of cumulative advantage

in the academic labour market: most of those who have achieved a position in the ranks of lecturer and above (women as well as men) appear to take up the opportunity to participate and contribute; staff in the teaching ranks below lecturer (where women are over-represented) suffer cumulative disadvantage. Since men predominate in the higher ranks, they are in strategic positions to reconstruct, annually, the most legitimate areas of scholarly interest in their discipline and to maintain their professional contacts.

The resurgence of the women's movement in the late 1960s and 1970s in some academic disciplines, notably in the social sciences and humanities, has precipitated a situation in which feminist scholars have attempted to redefine the boundaries of legitimate knowledge and to construct their own social networks. They have adopted two major strategies for breaking down the paradigms of conventional wisdom (male-constructed knowledge which maintains the relative invisibility of women): firstly through vigorous participation in their professional associations and in the conferences of their respective disciplines, e.g. women's caucuses in sociology and political science in U.S.A. (Rossi and Calderwood, 1973) and in Australia in the same disciplines (Sawer, 1980); and secondly, through the organization of feminist conferences which transcend the conventional boundaries of academic disciplines. Conferences such as the 'Women and Labour Conference' held at Macquarie University in May 1978, the 'Women and Law' conference held at Sydney University in August 1978, and the 'Second Women and Labour Conference' held in Melbourne in May 1980 have successfully brought together women working as teachers, researchers and practitioners in the various fields of social, economic and political studies, in history, law and literary studies, in government administration, the trade unions and industrial relations, with the goal of communicating women-centred scholarship, research and experience.

PUBLICATIONS: SOME AUSTRALIA-WIDE AND SYDNEY DATA

> Intellectual productivity is sometimes discussed as if it were a gift from heaven to the chosen few, which had nothing to do with families or social environment at all. If we inspect the social context of male productivity, we often find nameless women and a few younger men feeding the 'productive one' references, computer outputs, library books, and cooked dinners. Women, single or married, are in competition not simply with men, but with the heads of small branch industries. (Hochschild, 1975, p. 67)

We asked our respondents to state their numbers of publications, itemized in several categories. For this analysis, we have selected the following because they are the most commonly recognized forms of publication activity in the academic labour market: whole books, parts of books (articles or chapters), editing books, journal articles, and the editing of journals. Numbers of publications were cross-tabulated with some

aspects of respondents' occupational and non-occupational experience which could be considered to significantly affect the enterprise of research, writing and publication: age, faculty, present university position, marital status, and the number of children born to the respondent.

A large proportion of our respondents, both men and women, did not list books, parts of books or the editing of books and journals amongst their publications. The most frequently cited publications were journal articles: 46 per cent of the women and 89 per cent of the men indicated that they had published journal articles. In this category, as in all the others except the editing of books, men have published more than women. Some of the possible reasons for this disparity will be discussed below.

The publication rates for our study of academic men and women in Sydney are very similar to the findings of the 'Survey on Women in Australian Universities' carried out by a committee of the Federation of Australian University Staff Associations (see Table 4.1). In their 1977 Report, the committee states:

> More than 50 per cent of all males and females did not respond to any section of this question (on publications) except that on journal articles. In total, it is apparent that a very large percentage (almost equal percentages of males and females) *do not publish.* (p. 15)

The FAUSA committee asked their respondents why they had not published, and received the following replies: more women than men reported heavy teaching loads, commitment to post-graduate work and thesis writing, and family commitments among their reasons for not publishing. In addition: 'A number of women questioned the necessity to publish or claimed that their contract excluded the requirement to do research' (p. 17).

The implication of these replies will be explored in the discussion of our own research findings.

Publication Rates and Faculty

There are differences between faculties in the established routes for the publication of research and ideas. In all faculties, journal articles are the most frequently cited form of publication, but this is even more predominant in the medical, veterinary and science-based faculties. Publication of books and parts of books are more frequently cited by all staff in the humanities, in the social sciences, and by men in the medical and veterinary sciences.

Women show lower rates of publication than men in all faculties, except in the writing of books in the humanities and in the medical and veterinary sciences, and in the editing of books in all faculties (a very infrequent publishing activity for all staff). Amongst the women academics, those in the humanities and social sciences were the highest producers of books and parts of books, and those in the medical and veterinary sciences were the most prolific publishers of journal articles.

These findings are comparable with both British and American evidence. An interview survey of university teachers in Britain found that

there were differences in type and rates of publication for staff in different subjects: staff in the humanities and social studies were much more likely to write and review books than were staff in other disciplines, while staff in medical faculties had the highest rates of publication of articles (Williams, Blackstone and Metcalf, 1974, pp. 367-8). A study of women with doctorates in the United States found that women in the natural sciences were the most prolific producers of journal articles, while those in the arts and humanities had written more books than women in other fields (Astin, 1973, pp. 155-6).

It is clear from these findings and from our own experience, that research and its communication entail different activities and different sets of expectations in different fields. In the science-based faculties, research is very often organized and produced by teams of research-workers, as a collective enterprise, with a clear division of labour and division of rank and authority, and research reports are often regularly produced for the appropriate journals, usually with multiple authorship, with the researcher of senior rank heading the list. In the arts and humanities, the research enterprise can be quite different: in philosophical, literary and historical studies, the research act may be carried out individually, and alone, in libraries and archives, and the communication of the research, as a book, may take the form of an extended exploration and elaboration of ideas and themes, rather than the precise reporting of findings. This is, of course, a far too trite and simple categorization, taking into account only the opposite poles of the research enterprise in the sciences and the humanities and considerable variations do occur.

However, the illustrations serve to show the problem of making comparisons across faculties for publication rates, when different research activities, different sets of expectations for the writing up of research, and different criteria of evaluation are operating.

When our project is to compare male and female rates of publication, then it is even more essential to take the research context into account, since this is where the whole gamut of male-female collegial relations of equality, or authority and deference, are played out, before, and in the process of production of the written words. Williams, Blackstone and Metcalf (1974, p. 402) look forward to a time when university women feel confident and secure enough to make their ideas and research public, and to engage in their career with competitive assurance, rather than with diffidence and self-doubt. However, they are actually individualizing an essentially social-structural situation, where it is *not* the ambition or aggression of the individual researcher which is the major issue, but the relationship in which she is placed. Various behind-the-scenes accounts of how research is *really* carried out gives us a glimpse of the hidden world of the research enterprise, where a woman may play a subordinate role as a barely acknowledged research assistant, or an anthropologist's wife, or the protegee in a sponsor-protegee relationship (Epstein, 1971) or as an unwelcome co-worker in the laboratory team (Sayre, 1975).

It is a mistake to see male/female differentials in publication scores as predominantly the result of allegedly sex-linked styles of academic behaviour: aggressive and competitive productivity for men, retiring and

Table 4.1 FAUSA Survey of Academic Women and Men—Publications (percentages)

Authorship		Since present appointment				Prior to present appointment			
		Blank + no publications	1	2-4	5+	Blank + no publications	1	2-4	5+
Books									
Sole	Women	89	8	2	.3	92	5	3	—
author	Men	85	10	4	1	89	7	3	1
Joint	Women	85	10	3	2	91	6	2	1
author	Men	82	8	9	1	87	9	2	2
Articles[a]	Women	42	12	24	22	54	8	15	23
	Men	28	10	23	39	37	7	17	39

[a] Includes articles in referred journals, monograph collections and books.

Note: Women: N = 373; Men: N = 258.

Source: FAUSA Committee on the Status of Women Academics: *Project Reports. Survey of Women in Australian Universities.* November 1977, p. 16.

Table 4.2 Number and Type of Publication by University Position: Women and Men, Sydney (percentages)

Number and type of publication	Research assistants		Demonstrators, teaching fellows, tutors, senior tutors		Lecturers, assistant lecturers, research fellows		Senior lecturers, associate professors, professors	
	Women	Men	Women	Men	Women	Men	Women	Men
Whole books								
No publications	95	—	98	100	87	98	73	73
1-3	5	—	2	—	12	2	27	25
4-9	—	—	—	—	1	—	—	2
	100	—	100	100	100	100	100	100

Parts of books								
No publications	88	—	91	70	72	81	46	54
1-3	12	—	9	25	26	19	49	37
4-9	—	—	—	5	1	—	5	7
10 or more	—	—	—	—	1	—	—	2
	100	—	100	100	100	100	100	100
Journal articles								
No publications	64	—	66	30	35	17	11	—
1-3	30	—	26	25	24	33	19	4
4-9	6	—	6	20	29	36	24	12
10 or more	—	—	2	25	12	14	46	84
	100	—	100	100	100	100	100	100
Editing books								
No publications	98	—	97	95	89	100	76	90
1-3	2	—	2	5	9	—	19	10
4-9	—	—	1	—	1	—	5	—
10 or more	—	—	—	—	1	—	—	—
	100	—	100	100	100	100	100	100
Editing journals								
No publications	95	—	97	95	92	76	78	75
1-3	2	—	3	—	7	17	11	19
4-9	2	—	—	—	—	5	—	2
10 or more	1	—	—	5	1	2	11	4
	100	—	100	100	100	100	100	100
	N = 56		N = 203	N = 20	N = 100	N = 42	N = 37	N = 59

timid withdrawal from self-exposure for women (although we cannot, given prevailing modes of sex-role socialization, totally discount this explanation). It is more fruitful to examine the social contexts of the research enterprise, where the 'heads of small branch industries' enjoy cumulative advantages, with access to the rewards of high rank in academe: research funds, research assistance, a network of communication with other researchers, an established reputation, knowledge of *who* is doing what, as much as knowledge of what is being done. It is *rank* which is the predictor of high productivity, since it is rank which provides access to the material conditions and culture of research and publication (Bernard, 1964, p. 158).

Oh yes, all my own work.

Publication Rates and Rank

In Table 4.2 the small number of men in the ranks below lecturer (N = 20) compared with the number of women (N = 203) presents an obvious problem of analysis. However, the ranks of lecturer and above enable us to discern the general trend of the relationship between gender, rank and publication rates.

For all forms of publication, publication rates for both men and women increase with higher rank, suggesting that when the conditions favourable to research and publication are present, women as well as men take advantage of them. The women in our sample, in the positions of lecturer and above, appear to be no more reticent or unconfident in making their ideas public, or unproductive than are the men in the sample in similar positions. The differences due to gender are minimal: greater proportions of women publish books, parts of books, edit books, while greater proportions of men publish journal articles and edit journals. (It is highly likely that these differences are related to faculty: 64 per cent of the women are in the humanities and social sciences, where staff are more likely to write books, while 59 per cent of the men are in medicine/veterinary sciences and the various sciences where staff are more likely to publish journal articles.)

This result demonstrates that correlations of publication rates and gender, which do not emphasize the importance of rank, actually falsify the position of women as producers in the academic workforce. This falsification occurs because, although both men and women publish more in the ranks of lecturer and above, women are concentrated and over-represented in the sub-lecturer ranks of the occupational hierarchy, where favourable conditions for publishing research do not apply and where tutors and senior tutors are very likely to be engaged in post-graduate research which they have not yet converted into publication form. Since 65 per cent of our sample of academic women are in sub-lecturer ranks compared with 16 per cent of our sample of academic men, over-all rates of publication provide a false impression of much greater male productivity, when the conditions of rank are not taken into account.

It is important to note that a very large proportion of the women in the sample in sub-lecturer ranks are carrying out research for a post-graduate degree: 20 per cent of the research assistants are engaged in research towards an MA; 72 per cent of the demonstrators, tutors and teaching fellows are completing either masters degrees (40 per cent) or doctorates (32 per cent); 48 per cent of the senior tutors are working towards masters degrees (27 per cent) or doctorates (21 per cent). Post-graduate research contributes substantially to the research function of a university, though the contribution of these women does not show up, at this stage, in the data for publications.

Our research indicates that women and men are similarly productive in the ranks of lecturer and above. But other Australian data show how the conditions of the sub-lecturer ranks, where women are over-represented, militate against the accumulation of publications: in the ranks of tutor, senior tutor and principal tutor because of heavy demands of teaching and course administration (University of Melbourne University Assembly, 1975, pp. 69-72); in the marginal position of research assistant, because of the dependent and subordinate role played by the assistant in the production of knowledge (Hudson and Sayre, 1978, pp. 17-18).

Williams, Blackstone and Metcalf (1974) also found in their British study a consistent relationship between seniority of rank and amount published. They suggest that promotion appears to be based on the ability to publish work, and, in addition, that those who are promoted continue to publish more than those who have not been promoted.

> Greater seniority in the university and a reputation in his (sic) field, make it more likely that his articles will be accepted for publication, and he may be better able to obtain large research grants which enable him to employ extensive help in the form of research assistants. (p. 367)

Thus, as Bernard also points out, the material conditions and established networks of the senior ranks facilitate publication, as the conditions of the junior ranks militate against it. Williams, Blackstone and Metcalf (1974) use the masculine gender advisedly. The relationship between rank and gender in the university labour markets of the advanced societies (Bri-

tain, U.S.A., Australia) adds a very significant gender dimension to the two cultures of productivity: on the one hand, a privileged group with high publicly visible productivity (a group in which men predominate); on the other hand, a disadvantaged group with low publicly visible productivity (a group in which women are over-represented). It is also clear that some of the advantages of the former group are augmented by the services of the latter, whose members provide research assistance and a large part of the university's teaching function.

Publication Rates and Age

As we might expect, publication rates for both men and women are higher in the older age-groupings: amongst the women, those aged between forty-one and fifty have been the most productive; amongst the men, those over fifty are the highest producers of publications. Secondly, in certain publication categories, men have published more than women in the same age-group. The differences due to gender are minimal for the publication of books and parts of books by staff under forty, but in the publication of journal articles, men appear to have been much more productive than women in all age groupings.

How can we explain this difference, given the previous findings that men and women in the ranks of lecturer and above have similar patterns of productivity? Clearly, we must examine the relationship between gender, rank and age to see whether the distribution of women according to age in the occupational hierarchy differs from the distribution of men. Are younger men more likely to be in senior positions than are younger women? Are older women more likely to be in junior positions than are older men? In fact, this is the case in our samples, as Table 3.5, Chapter 3, indicates.

These samples do not allow us to generalize to the population of academic staff in Australia, but they do allow us to make some speculations about the groups in the survey. Firstly, for a variety of reasons which require further exploration, men of younger ages have moved into the positions of lecturer and above in greater proportions than have women of similar ages. Secondly, women over the age of forty are much more likely to be in sub-lecturer positions than are men of that age. Therefore, while rank and productivity are closely related for women (as for men), there is a disjuncture between rank and age for women, suggesting that a high proportion of women have been disadvantaged in their access to positions of lecturer and above. Whether or not this disadvantage has its source in structured and institutionalized discrimination (at the level of the institution where hiring and promotion takes place), or in processes of ideological discrimination (located in sex-role beliefs and practices outside the place of employment, for example in undemocratic family relationships), or in both sets of processes, remains to be established (see Blackstone and Fulton, 1975). Certainly, data presented in this and the preceding chapters suggest that men climb the ladder with greater rapidity than their female colleagues; that men gain their academic qualifications and have published more at younger ages than their female colleagues. Again, a greater proportion of women than men are employed part-time, and half of our sam-

ple of women have not been in continuous employment. (Chapters 2, 3 and 6 discuss these issues further.)

The academic career is cast in the image of a linear progression, traversed at optimum time intervals: an image which conforms to the aspirations and potentialities of a traditional man with his traditional wife. Building a reputation while you're young entails hoarding scarce time and minimizing family life—minimizing family life and leaving it to your wife. The question remains to be explored, do marriage and childcare militate against the productivity of academic women? Given that productivity, as it is conventionally measured on the curriculum vitae, never takes into account the production of vegetable gardens or children, we might predict that women with children will have published less than women without children. Given the traditional division of labour in the family, with childcare devolving upon women, we might predict that women with children will have published less than men with children.

Marital Status, Children and Publications

For the women in our sample, there is no relationship between marital status and rates of publication: having, having once had, or having not had a husband appears to have no effect upon productivity. For the men, however, the picture is different: publication rates rise with the acquisition of a wife—but this is hardly of significance, since 85 per cent of all the men are married, and, over the age of thirty, almost all the men are married, which means that comparisons between the married and the unmarried are actually comparisons of age-groups. However, this does suggest that the conjugal bond does not inhibit men's increasing productivity with the passing years (compare with Hochschild, 1975).

The relationship between publication rates and numbers of children born to the women in our study is unexpected. Firstly, greater proportions of women with one, two or three children have published more books, parts of books and journal articles than have women without children. This is partly a function of age, since in our sample, women over thirty are twice as likely to have children than women under thirty. However, having four or more children reverses the relationship between increasing productivity in the domestic and academic spheres. Having responsibility for more than three children appears to exert a marked inhibiting effect upon women's ability to publish. For the men, however, high productivity in the domestic sphere continues to have a close connection with high publication rates in the academic sphere. By some strange 'domestic contradiction', having a larger than average family has different repercussions upon men and women.

However, it is important to note that women with one, two or three children (who constitute 90 per cent of those with children) do not appear to be disadvantaged in their rates of publication in relation to women without children (using only the quantitative data as our evidence). This is similar to the finding of the British academic labour market survey, which found that women with children were more productive than their female colleagues without children and that this relationship was not a function of age (Williams, Blackstone and Metcalf, 1974, pp. 399-400). Furthermore,

the authors found that this was the only group of university women whose publications output was as high as their comparable male colleagues.

Unable to interpret this unexpected finding without further research, the authors propose what they consider to be a plausible explanation. They suggest that women with children who continue in professional employment break two very strongly and widely held conventions: firstly, that which restricts professional occupations to men, and secondly, that which proscribes the full-time employment of mothers. 'They have to be women of exceptional drive and confidence to break down this double barrier' (p. 400).

Their explanation is posed in psychological terms: academic women with children assuage the guilt which they experience from their 'deviant' behaviour by giving tangible proof to themselves and others of their exceptional productivity. However, there are other equally plausible explanations which do not require the supposition of a sense of guilt—explanations located within the material conditions of the academic labour market. We would suggest that those who gain and remain in a university appointment, even though they bear the double stigma of deviant gender *and* responsibility for the care of children, require a strong armoury of the conventional symbols of academic productivity to offset what may be defined as disabilities by those who control access to and promotion within the occupation.

Williams, Blackstone and Metcalf (1974) claim that the position of women in British universities is dependent upon more subtle considerations than women's greater involvement in domestic responsibilities. In their view, all women, regardless of marital status or responsibility for the care of children, are inducted into patterns of diffidence and self-doubt which lead to greater withdrawal from the occupation at all stages and, for many of those who remain, a reluctance to make their ideas public for appraisal and criticism in a competitive knowledge market. This type of explanation can be dangerous since it can be used as grounds for blaming the victims for their own disadvantaged position.

Other explanations of women's status in the profession cite not the psychology of femininity, but the structured processes of discrimination in the hiring and promotion of women (Caplow and McGee, 1961; Astin and Bayer, 1973; Blackstone and Fulton, 1975). Hochschild (1975) combines the two levels of explanation: not only do women 'cool themselves out', and the academic labour market discriminate on the grounds of gender, but both of these processes occur because the academic career itself is predicated on the traditional male life-style—a life-style in which the single-minded dedication to competitive work is bastioned by a domestic support system.

However, an adequate explanation of women's contribution to the academic profession and to the teaching, research and administrative functions of the university requires an understanding of the duality of the academic labour market. The academic ranks of lecturer and above are tied into a promotional system with the opportunity for security of tenure—like the primary labour markets of other industries (compare Barron and Norris, 1976). In the elite positions of the primary sector of the academic

labour market, workers enjoy the material conditions conducive to research and publication, and they have access to the informal social networks where research ideas are exchanged, pre-publication drafts of research papers are circulated, where colleagues legitimate each others' research by citation and reference and where reputations are constructed and scrutinized (Bernard, 1964; Epstein, 1971; Zuckerman and Cole, 1975; Baldock, 1977). The sub-lecturer ranks of the academic hierarchy are, like other secondary labour markets, subject to insecurity of tenure, restricted vertical job mobility, and restricted access to the career rankings. In these positions, academic staff carry out the primary university functions of teaching, course administration, post-graduate research, participation in departmental research projects—but with restricted access to the research and publication advantages which staff enjoy in the primary sector of the university workforce.

Processes of cumulative disadvantage are operating which lead to the over-representation of women in the secondary sector and their restricted entry into the primary sector. The productivity of our respondents, as teachers and researchers, needs to be understood in the framework of this duality.

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5

Perceptions of Discrimination: Realism—not Paranoia

Sue Wills

PERCEPTIONS OF PRESENT DISCRIMINATION

In most of the overseas studies of the position of women academics little, if any, attention is paid to the subjective aspects of discrimination. While this is understandable from a short-term perspective, it is, viewed from another perspective, regrettable. It is understandable, and this applies most specifically to the bulk of the published research coming from the United States, because most of the studies were aimed at 'proving' to institutions such as university administrations and federal government departments, that women in universities were discriminated against at an institutional and on an objectively verifiable level. (See Wills, 1976, for a summary of the types of action possible once discrimination against women in American universities has been demonstrated.) It is unlikely that these institutions would have taken much notice of studies detailing the personal experiences and beliefs of great numbers of individual women academics. Their response would probably have been similar to that of one of our male respondents, a senior lecturer in science, when answering the question as to whether or not he thought women in Australian universities were discriminated against: 'No. One learns to disregard complaints, rumours and so on.'

It is regrettable that the studies do concentrate almost exclusively on the objective aspects of discrimination because this involves reducing the richness of direct experiences to indirect reflections of those experiences and, in the process, removing by one step the potential effect that reading of another woman's personal experiences of discrimination can have. Unquestionably, statistical studies can have an effect on the awareness of women in universities to their own inferior status. But the translation of personal experiences into anonymous numbers always allows the 'none so blind as those who will not see' to continue to believe that if discrimina-

tion against women does occur in universities (and some do not believe that it does) then it occurs in other universities not mine, or in other departments, not mine.

It is one thing to sit in the staff common room and discuss the latest statistics on discrimination with colleagues—statistics somehow enable the discriminatory practices and beliefs to remain 'out there', non-specific and inapplicable to your own department and colleagues. It is quite another thing to wonder whether the person you are talking to shares the beliefs expressed by some of our respondents that, for example, women are incapable of exercising authority; or for women to share with one another their experiences of discrimination and realize that they have not been singled out for individual persecution as a result of their personal attributes. In short, the use of personal experiences as valid data in addition to statistical data can be far more sensitizing than the use of statistical data alone.

The present study elicited from a few female and male respondents expressions of hostility and contempt for their opposite sex colleagues and bitterness from some women at the unequal treatment meted out to women as a group and themselves in particular:

- Research Assistant, Sciences: 'The universities will accept male mediocrity but only female excellence.'*
- Senior Tutor, Social Sciences: 'I haven't met a female permanently employed who is not competent but there are a number of males in this category.'
- Tutor, Sciences, Male: 'Women here seem to feel put upon, but as I said, some pretty dull ones do quite well for themselves.'

Such feelings cannot be dismissed as the personality defects of a few aberrant individuals because they differ from the feelings of many of our female respondents and males in intensity only. To some academics, such as the two quoted below, it may come as a surprise that Australian universities are not the institutional exceptions to the general rule of discrimination against women:

- Senior Lecturer, Social Sciences, Male: 'The discrimination against women that exists in the general community does not exist in the more enlightened university environment.'
- Lecturer, Social Sciences: 'This certainly is a problem in the business world, but I don't think it is in universities.'

In fact, looking at the results of overseas studies and of our own, it becomes difficult to decide whether to be surprised that, given the socio-psychological conditioning of women, so many have managed to see through their conditioning and become aware of discrimination against women, or to be surprised that, given the blatantly sexist nature of so much institutional and individual discrimination, so few perceive dis-

* In this chapter, quoted respondents are female unless specified as male.

crimination to be against women as a group and instead still attribute their own lowly status to what they have been led to believe are their own personal inadequacies. For example, in 1973, a nation-wide survey in the United States covering a wide range of occupations found that although 95 per cent of all working women were earning less than they should have on achievement grounds (approximately 58 per cent of what an equally qualified male earned), when asked if they felt that they were discriminated against, only 8 per cent answered that they did (Levitin, Quinn and Staines, 1973, p.91). Similarly, while a series of studies in America have established that women are unquestionably discriminated against on a variety of objective criteria, the awareness of discrimination is relatively low. In 1969 for example, Astin (in Morlock, 1973, p. 293) found that 33 per cent of the women doctorate-holders she studied believed that their careers had been adversely affected by sex-discriminatory practices. In 1972, a study of women in physics reported only 15 per cent of those women surveyed believed that they occupied positions lower than they felt they should—because of sex discrimination. In psychology in 1970, the figure was 41 per cent; in anthropology in 1971, 66 per cent; and in American studies in 1971, 85 per cent (Morlock, 1973, p. 293). While we do not know exactly how the questions which produced these figures were worded, it is important to remember that they apply to the personal experiences of respondents, not to beliefs about the position of (other) women in universities. Again, bearing in mind that different questions at different times produced these figures, it is nonetheless interesting to note that perceptions of discrimination are more likely in the social sciences than in physics.

In 1971 the Committee on the Status of Women in the American Political Science Association questioned female and male members and graduate students about their perceptions of sex discrimination. What the study found was that while graduate students as a group were more likely to perceive discrimination based on sex (and more in teaching than in training or research) than either female or male professionals, the difference could be attributed to the female respondents alone. In other words, there was no difference between the perceptions of discrimination of male students and male professionals, but there was a noticeable 'generation gap' between female students and female professionals, with the female students being the group most likely to perceive (and anticipate) sex discrimination. The single point about discrimination which all four groups were in most agreement about was that it was most likely to occur at the 'gateways that represent access to standard teaching roles' (Morlock, 1973, p. 298). Still in the United States, Ferber and Loeb (1973, p. 236) found that married women academics were more likely to perceive sex discrimination than unmarried women academics. For men, it was low salary which was associated with tendency to perceive sex discrimination against women; and in this study women were more likely to perceive that discrimination than men. Evidence of discrimination cited by their respondents was in the areas of being paid less, in hiring, in slower promotion, and heavier workloads for women (p. 237). Looking at perceptions of discrimination

and the objective evidence gathered from their own earlier work, Ferber and Loeb concluded that 'women's perceptions of sex discrimination are more realistic than those of their male peers' (p. 239).

In Britain, Sommerkorn (cited in Blackstone, 1973) found that while 60 per cent of her female respondents believed that sex discrimination did occur in universities, only 33 per cent claimed to have personally experienced it. Blackstone comments on these findings that:

> Women university teachers should not be castigated, therefore, for inventing barriers... that do not exist. On the contrary, they exhibit surprisingly few paranoid tendencies, instead giving reasons that undervalue their own competence rather than projecting hostile attitudes about the university hierarchy that appoints and promotes them. (p. 66)

In Australia in 1973, Blewett (1974)surveyed academic women at the University of Adelaide and found that only 20 per cent of her respondents believed that there was overt unequal treatment of women at the university and 24 per cent believed that there was covert unequal treatment of women. At the more personal level, 75 per cent felt that individual male colleagues treated them as equals, although several felt that the male attitude was 'superficially equal, basically inferior' (p. 28).

PERCEPTIONS OF DISCRIMINATION WITH RESPECT TO THE SELF

In the present study three questions asked of women were most directly aimed at tapping perceptions of discrimination. These questions asked our female respondents whether at any time in their university careers they had ever felt there may have been discrimination either against them or in their favour because they were women. They were also asked whether they thought there was discrimination against or in favour of women in universities; and they were presented with a quotation from some American

Table 5.1 Frequencies of Female and Male Respondents to Questions on Sex Discrimination in Universities

	Females			Males		
	N	% answering Yes	No	N	% answering Yes	No
Experienced discrimination						
Against self	380	41	59			
In favour of self	325	30	70			
Think universities discriminate						
Against women	380	70	30	104	61	39
In favour of women	207	14	86	58	21	79
Think club situation						
Exists	302	57	43			
Is problem for self	387	18	82			

research of 1967 which claimed that a major problem for women academics was denial of the informal signs of belonging and recognition that are accorded to male academics, denial of full membership of the 'club' atmosphere of the university, and they were asked if they thought that this situation existed and whether or not it had ever been a problem for them. Our male respondents were asked one of these questions only, whether they thought that there was discrimination against, or in favour of, women in universities. Excluding those who responded 'don't know' or 'no answer', the frequencies of responses to these questions are given in Table 5.1.

With total numbers of completed questionnaires of 430 females and 122 males, there is a marked drop in the number of those answering those parts of the above questions which relate to the existence of discrimination *in favour of* women. There are several possible explanations for this, one of which is that respondents thought the suggestion of there being discrimination in favour of women so ludicrous that they didn't even bother to answer the question; another, perhaps more plausible, is that it may have been the wording and lay-out of these particular questions. Respondents were asked whether they thought that there was discrimination against women or in favour of women in universities, perhaps implying to some that, although there was opportunity to answer both sections (and this was our intention), respondents should answer either discrimination against *or* discrimination in favour of women.

In figures similar to those Sommerkorn obtained, while 41 per cent of our women had experienced discrimination against themselves (and 30 per cent in their favour), 70 per cent felt that women were discriminated against in universities.

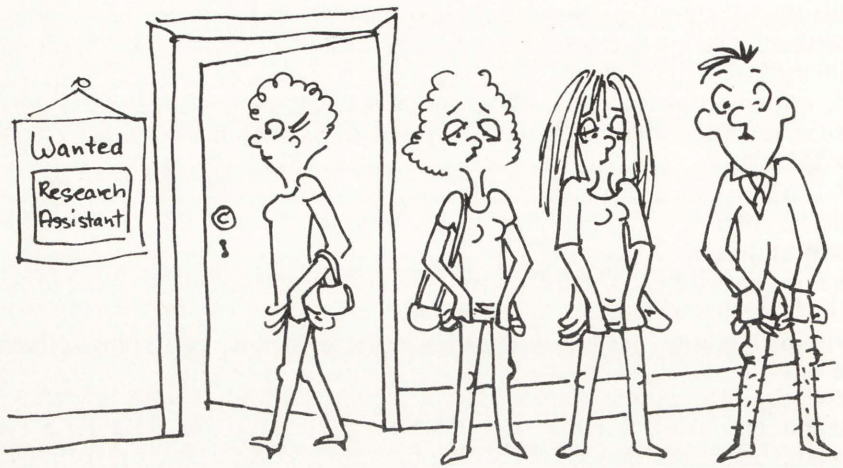
The specific instances that respondents gave can be classified broadly into discrimination on particular grounds, and discrimination at particular points in their university careers. And it appears that for those women who claim discrimination in their favour, the same sorts of experiences were classified by others as discrimination against them—the major difference being the grounds of marriage and children, with none of our women claiming that this had led to, or been the grounds for, discrimination in their favour.

GROUNDS OF DISCRIMINATION

Physical Appearance

It is a commonplace that some men respond primarily to the physical attractiveness (or lack thereof) of women rather than to qualities which are relevant to the situation. It is equally commonplace that women react differently to this; some, when told that their physical attractiveness was the paramount consideration in granting them the job are flattered, others insulted. There is no doubt that women have been (and still are being) conditioned to regard physical attractiveness as an asset if they have it and something to be compensated for if they do not. One might have thought (hoped?) that in jobs which emphasize intellectual capabilities, physical attractiveness was a totally irrelevant criterion. Not so. Some of our res-

pondents classified physical attractiveness as discrimination in their favour, others as a form of discrimination against them—either way, it was, to many, a form of discrimination *they* had experienced:



• Tutor, Humanities: 'One's physical attractiveness (or lack of it) seems quite an important factor in one's acceptance in *some* departments. The kind of sexual discrimination I find most commonly practised is simply that of benignly treating me as beneath serious consideration. One's views are passed off, if they are enquired about at all, as a matter for joking. I find this particularly irksome.'

• Research Assistant, Social Sciences: 'In demonstrator job, boss enjoyed working with attractive women.'

• Lecturer, Humanities: 'I've never really *known*, but felt when I was younger a great deal of sex-object tolerance and sympathy. I'm fast becoming a tough old bitch.'

• Lecturer, Social Sciences: 'Discrimination in the sense of being liked more by male members of staff due to "feminine charm".'

The Feminine Virtues

The stereotype of the 'real woman' contains an endless list of characteristics that women are supposed to possess. According to the stereotype women are understanding, patient, compassionate, loyal, long suffering, 'good with people', untroublesome, industrious, a civilizing influence, and so on and so on and so on. Those who possess these attributes, which look like an advertisement for a lost dog in search of a good home, are 'rewarded', those who do not are made to feel 'unfeminine':

• Lecturer, Humanities: 'As a post-graduate student I was taught by men who regarded their students to be confidantes and allies and to provide a sympathetic shoulder on which to load matrimonial, academic and other problems and this generally was suffered by (and was expected of) female students.'

- Lecturer, Social Sciences: 'In my present position frequently asked to chair or run difficult committees on grounds that not aggressive and can get on with people (stereotype of feminine, etc.).'
- Senior Tutor, Humanities: 'Some male colleagues resent my lack of humility when I am only a senior tutor.'
- Research Assistant, Sciences: 'My work will entail a fair amount of interviews and it was felt that a woman would be better.'
- Lecturer, Social Sciences: 'If a male member of staff clashes with the head of the department he is a stupid, stubborn (or what have you) "bastard", if *I* or other females clash, we are "giving him the rounds of the kitchen".'
- Tutor, Social Sciences: 'Occasionally playing the demure innocent girl got me essay extensions, etc.'

Marriage and Child-bearing Capacity

The possibility that women might marry is seen by many as grounds enough to relegate them to untenured positions—women, statistical evidence to the contrary, are not expected to want to work after marriage. Indeed, the Australian Commonwealth Public Service did not drop its bar against the employment of married women as permanent officers until 1966. It seems to be assumed by many that while marriage has a salutary stabilizing effect on men, its effects on women are the direct opposite. The parenting of children seems to be seen in a similar way. What is in fact merely a capacity for women to bear children is translated into a need felt by women to have to bear children and the strength of that need somehow seems, miraculously, to increase immediately after the marriage ceremony has been performed. Once children are born, if they are, the problems take on a slightly different nature. One woman (not answering the questionnaire) tells of her experience of being interviewed for a tenured university position by an all-male committee and of her reaction. Asked what she planned to do with her children, she replied, 'Chain them up to the Hills Hoist with a bowl of water. What do you do with yours?'

Our respondents experienced similar sorts of problems:

- Senior Lecturer, Humanities: 'During the period of early married life I was not appointed to a permanent position in spite of more adequate qualifications, because of the possibility that I might have children.'
- Tutor, Social Sciences: 'I have been criticized by a male colleague for working while pregnant—and he's my age (thirty-three years) not in his sixties—but I dine out on that story.'
- Tutor, Sciences: 'Other factors might have been involved, but I found it significant that I was not accepted as a part-time tutor until my youngest child began kindergarten, nor as a full-time tutor until that child started school.'

POINT OF DISCRIMINATION

The two crucial points in an academic career are those of initial appointment to a tenured position and promotion. It was at these points that those of our respondents who had experienced personal discrimination were

most aware of it. There is, of course, that other time when women academics become aware of sex discrimination—every day.

At Time of Appointment

- Tutor, Social Sciences: 'I was once asked to teach a male recruit to catalogue. I had a degree, professional qualifications and two years' experience. He had a degree, no professional experience and no library experience but he was appointed on a salary $1,500 greater than mine.'
- Tutor, Humanities: 'I was one of six candidates (five females, one male) short listed for a position. The male candidate was given the position although his qualifications (and I think, his suitability for the job) were not as good as my own. I believe some of the other women were probably better qualified than he was.'

At Time of Promotion

- Lecturer, Social Sciences: 'I feel an opening was made for a man to apply for promotion in 1973 whilst the head of the school "forgot" to make enquiries about mine—so holding me up and conveying latent message that I *should* not apply.'
- Senior Tutor, Social Sciences: 'Of all those on equal status level with me four years ago only I remain although I am more qualified than most of them and have produced as much as most of them—they are all men.'

Everyday Life

- Tutor, Social Sciences: 'One's commitment is not taken as seriously as a male's.'
- Senior Lecturer, Sciences: 'On the whole, there is no natural inclination on the part of men, to consider that a woman could make a useful contribution, either in opinion or execution of a task.'
- Tutor, Humanities: 'Often feel that regardless of your ability you are not taken as seriously as a man. Also my attempt to break away from "male" academic style treated with scorn as it is mostly males who judge work.'

If we look at the fields and positions of those respondents who felt they had been discriminated against, the following picture emerges (Table 5.2)—again considering only those who actually answered the question.

If we also note the distribution of our female respondents within the fields at various ranks (and they do match the distribution of the population of academic women) an interesting phenomenon is visible (Table 5.3).

Remembering that in most cases the numbers are small, the most interesting thing to note is how those in medicine/veterinary science stand out as different at the lowest ranks from those in other fields. This is a pattern which is repeated in the other questions tapping perceptions of discrimination. This is despite the objectively determined distribution of

Table 5.2 Experiences of Personal Discrimination of Women Academics in Sydney broken down into Field and University Position

	Tutor		Senior tutor		Lecturer and research fellow		Senior lecturer and above	
	N	% answering yes	N	% answering yes	N	% answering yes	N	% answering yes
Humanities								
Experienced discrimination against self	32	41	10	40	28	46	11	36
in favour of self	24	29	8	50	24	25	8	37
Social Sciences								
Experienced discrimination against self	49	37	17	47	44	48	13	70
in favour of self	44	30	13	23	37	38	10	30
Medical and Veterinary Sciences								
Experienced discrimination against self	14	7	3	0	7	57	6	50
in favour of self	14	21	3	33	4	0	3	33
Sciences								
Experienced discrimination against self	31	26	24	54	16	44	7	86
in favour of self	31	35	18	28	12	16	4	0

Table 5.3 Distribution of Women Academics in Sydney, 1974, by Field and University Position

Field	Tutor		Senior tutor		Lecturer and research fellow		Senior lecturer and above	
	N	% of total in field	N	% of total in field	N	% of total in field	N	% of total in field
Humanities (24% of total sample)	35	40	11	13	29	34	11	13
Social sciences (39% of total sample)	55	41	17	13	48	36	13	10
Medicine/veterinary sciences (11% of total sample)	16	50	3	10	7	22	6	18
Sciences (26% of total sample)	39	45	25	29	16	18	7	8

women within the field (50 per cent at the tutor level) and the overall small percentage of women in the field.

In trying to account for this difference it is important to remember that we were only able to reach those who had actually managed to obtain positions within universities. That is, we were unable to get questionnaires to those women who never made it across the first appointment barrier *because of* sex discrimination. In such an obviously male-dominated field such as medical/veterinary sciences, it is understandable that simply getting past that initial barrier could indicate to some women that in fact they had not been discriminated against at all in their university careers.

If we ignore the fields into which our female respondents have gone, and simply look at the ranks, we get Table 5.4.

The small number of respondents in many of the categories makes it difficult to generalize. Excluding the assistant lecturers, of whom there were only four, the group most likely to perceive that they have at some stage in their university careers been discriminated against is that of senior lecturer. Perhaps it is that senior lecturers have been in an academic career long enough to have been in several appointment and promotion situations where discrimination would seem to be more obvious. The small number of associate professors and professors in our sample (indeed in universities) makes it impossible to say whether or not length of time in academic career (with increased opportunities of being discriminated against) is the most important element.

Marital status, in our study, bears no relationship at all to whether or not the respondents believed that they had experienced discrimination: 41 per cent of our non-married (including divorced and separated women) and 41 per cent of our married women perceived discrimination against themselves.

Table 5.4 Perceptions of Discrimination with Reference to Self by Rank: Women Academics

	Experiences of discrimination			
	Against self		In favour of self	
University position	N	% answering yes	N	% answering yes
Post-graduate student	24	54	19	26
Research assistant	43	21	45	33
Tutor	104	36	91	29
Demonstrator	7	14	7	57
Teaching fellow	16	13	17	29
Senior tutor	51	49	42	31
Research fellow	6	50	3	0
Assistant lecturer	4	75	4	25
Lecturer	84	46	69	30
Senior lecturer	31	65	22	32
Associate professor	5	60	2	0
Professor	1	0	1	0

As regards age, again including only those who actually answered this particular question, and if for the moment we leave out those three respondents over sixty years of age, there appears to be some sort of rough break around the forty-year mark with those under forty being slightly less likely to have experienced discrimination against themselves but with there being no similar break point for perceptions of discrimination in their favour.

In the other question which requested information about their personal experiences of discrimination, respondents were asked to comment on a quotation about the denial to women of the informal signs of recognition and belonging within the university, about their exclusion from membership in 'the club'. They were asked if they thought this situation existed and also whether or not it had been 'a problem' for them. Of those who answered (N = 302) only 57 per cent said that they thought that the situation existed and 82 per cent (N = 387) said that it had *not* constituted 'a problem' for them. It was perhaps the use of the word 'problem' which resulted in such a small percentage answering 'yes'. Had we asked if the respondents had had any experience of the situation, chances are the number answering 'yes' might have been higher. To acknowledge that a situation constitutes a 'problem' has greater personal implications than to acknowledge simple experience of that situation—it implies a certain degree of difficulty in handling the situation which in turn can be seen as some reflection of the respondent's abilities. This 'distancing effect' will be discussed later in more detail, but to illustrate here, two points can be made with reference to this particular question in the survey. First, a lecturer in social sciences, describing her experiences of discrimination against herself, wrote:

- 'All my immediate superiors are men and until this year I have rarely been consulted about matters concerning my specific area other than by my immediate senior in the same area—male. Other—male—lecturers and tutors appear to be consulted more frequently—at lunch or at the staff bar more often than not.'

While this description closely resembles that presented to the respondents, describing the club atmosphere in the university (to the extent of mentioning that the atmosphere seems to extend to the bar or lunches from which she feels excluded), this particular respondent answered that the club situation presented no problem to her. And hers is not an isolated response.

The second point to be made here is that there were quite a few female respondents who were not only reluctant to acknowledge that the club atmosphere constituted a 'problem' to them, i.e., they said that it wasn't, but who also, in suggesting why some women did find it a problem gave a clue as to why they were not prepared to acknowledge that it was a problem for themselves. More so in this question than in any of the others which provided an opportunity to comment, did respondents offer explanations for discrimination which involved some notion of the 'fault' lying within the individual:

- Tutor, Humanities: 'I think if such a situation exists for a woman in academia, it is largely her own fault.'
- Lecturer, Humanities: 'It's all so intangible really, and one tends to think that such problems as one has are individual personality problems.'
- Lecturer, Sciences: 'In the few instances when I have known this to occur, I feel almost sure that it is generated by the woman herself.'
- Professor, Humanities: 'If this situation does exist, surely it is partly, if not largely, of the woman's own making.'
- Senior Tutor, Medicine/Veterinary Science: 'In our school, the only problem would lie within the woman herself (e.g., me).'

For some, the solution to the 'problem' is to avoid situations in which it is likely to arise and then to justify the avoidance in terms of being lone wolves:

- Tutor, Social Sciences: 'I tend to either keep to myself or else talk with other female tutors. I don't see it as a problem, as I like to walk alone.'
- Lecturer, Sciences: 'It may be a coincidence that I normally have lunch by myself and am also a lone wolf in research.'
- Senior Lecturer, Social Sciences: 'I've come to accept it as a fact. Possibly I adjust to it by finding my research more interesting than most of my colleagues.'

To seek a solution to this 'problem' in avoidance of the situation is perfectly understandable when you realize that the other major alternative—trying to gain acceptance in the 'club' — can be so grossly misinterpreted by male members of that club:

- Lecturer, Social Sciences: 'I have never had any difficulty in finding someone to chew over an idea or finding a partner to share a research interest. If I invite anyone to lunch however it is usually a woman and generally only a male if there is business to discuss. I cannot breast the bar alone or join a group of men unless invited. This may be my social conditioning—it is nevertheless a handicap. I also believe it is realist based because almost daily my male colleagues complain about the "pushy" behaviour of certain women who try to break into the "club", and joke about imagined sexual overtures. There are many exceptions but one nevertheless becomes cautious about initiating contact with male groups in view of the kinds of attitudes among them.'
- Lecturer, Humanities: 'Sharing an idea with someone is a sign of friendship. Friendship between a man and a woman even on these terms, is likely to be thought to have a sexual element, even if it has not. This inhibits real fellowship, with the mutual help that goes with it.'
- Senior Tutor, Sciences: 'Only *once* in eighteen months asked to have a beer by a male member of staff—refused the invitation. In this field relaxation is very segregated—also feel some resentment from staff wives, suspicion.'

• Tutor, Sciences: 'My only problem is that while I can always find someone for any of the above purposes, he tends to be a married man, and as I am a single woman, rumours fly thick and fast about innocent situations.'

The other reasons given by respondents for avoiding the situation appear to fall into two broad categories. First, they find the situation in itself, or the maleness of it, objectionable:

• Lecturer, Humanities: 'Most of my colleagues are men who have the same interests as each other—the academic version of football and motor cars. Their interests are very different from mine and often offensive to me—as is their behaviour.'

Second, that women are made to feel unwelcome in the situation because men appear to feel threatened by the presence of women:

• Lecturer, Humanities: 'Increasingly a problem since the women's movement. When I was content to try to be a girl among the boys, I seemed to be accepted at that level. These days I seem to constitute a threat, speak a different language and have a different view of the world.'

In looking at the marital status of those who did find the club atmosphere a problem for themselves, 15 per cent of the married respondents and 24 per cent of the non-married (including separated and divorced women) answered in the affirmative. While the difference is marginal, the alleged sexual unavailableness of married women as compared with non-married women may, in fact, have mitigated the sexual component of the problem.

When we break down the responses according to fields, again it is those in medicine/veterinary science who are most noticeably different from our other women respondents in terms of being least likely to perceive discrimination, especially those women at the lower academic ranks.

PERCEPTIONS OF DISCRIMINATION WITH RESPECT TO WOMEN

Turning now to that question which was asked of both our female and male respondents, whether they thought there was discrimination against or in favour of women in universities, 70 per cent of the women and 61 per cent of the men who answered the question thought that there was discrimination against (14 per cent of women and 21 per cent of men, in favour of) women in universities. As with the preceding question, those actually giving examples of discrimination in favour of women were relatively few and the examples double-edged.

For example, a senior lecturer in science, calling it discrimination in favour of women, wrote: 'Women can retire earlier, are generally treated with more consideration and are given paid accouchement leave, even though they are not employed for the purpose of having babies'. Another woman, a lecturer in humanities, calling it discrimination against women

wrote: 'Women have a statutory retiring age lower than a man's—which is ridiculous'.

By comparison with the types of evidence cited for the case of discrimination against women, those given for discrimination in favour of women appear rather weak, and in the first case quoted, no longer applicable:

- Lecturer, Social Sciences: 'Only in rather insipid form, e.g., female toilet facilities must have an area for "sitting", i.e., a place where they can lie down. No such requirement for the men (I presume they must lie on the floor of their room when feeling slightly ill on occasion).'
- Post-graduate, Sciences: '"For" in the respect that some men bend over backwards not to *appear* prejudiced against you.'
- Teaching Fellow, Social Sciences, Male: 'Discrimination in favour of women would be against them in terms of the fallaciousness of the feedback.'

The response of many female and male respondents to this question was either to ask us to simply look at the statistics or to ask us why we should think the university was any different from the society of which it is a part:

- Tutor, Social Sciences: 'How many women professors do you know?'
- Lecturer, Humanities: 'Look at the disproportion between the numbers of women doing university courses and the numbers teaching them.'
- Lecturer, Social Sciences, Male: 'The university is not a refuge from broader social attitudes—look at the numbers!'
- Senior Lecturer, Humanities: 'It's part of the general riddling of the whole community with anti-woman prejudices.'

Examples of a more specific nature which outlined actual types of discrimination against women followed broadly the sorts of examples that women gave when they spoke of discrimination against themselves. On sexual attractiveness:

- Tutor, Humanities: 'In my own field many women succeed by exploiting their sexuality. This makes men suspicious of the rest of us. A case in point: of those who were in the fourth year with me the only two to gain scholarships to Oxbridge were two girls who had "affairs" with the professor who recommended them. The male students of that year were noticeably suspicious of female academics.'
- Senior Tutor, Social Sciences, Male: 'Much is latent because academics are not honest—especially in regard to favouring women students in latent/blatant sexual factors.'

On the grounds of the traditional 'feminine' qualities:

- Tutor, Social Sciences: 'Chiefly in the form of the strong view still held of the irrationality of female thought—conclusion that they could not

possibly make good academics.'

- Professor, Social Sciences, Male: 'Amongst older male academics, there is possibly a lingering belief in the innate intellectual inferiority of women.'

On the grounds of marriage and the capacity to bear children:

- Lecturer, Sciences: 'Known cases of women being treated less favourably, e.g., "Don't give her a scholarship, she might get pregnant".'
- Tutor, Social Sciences: 'There is the inevitable suspicion that women's biological urges (not necessarily just for procreation) interrupt, limit or terminate their academic potential. Unfortunately this is frequently justified but it is regrettable that all women must suffer accordingly since an increasing number are not prepared to subordinate their own careers to the needs of their consorts.'

There were instances cited of institutional discrimination, including the lack of adequate facilities, pay, scholarship allowance and superannuation scheme discrepancies, and the whole problem of the university as a disseminator of 'male' cultural knowledge and values:

- Tutor, Sciences: 'Facilities available inadequate (e.g., child care) now and in the past non-existent; superannuation scheme based on assumptions underlying stereotype male/female roles.'
- Lecturer, Social Sciences: 'The most obviously glaring is in the continuing irregularity of pay for undergraduate clerical assistants and in the archaic superannuation regulations which discriminate against divorced/widowed women with dependent children.'
- Lecturer, Sciences: 'Many scholarships are discriminatory, e.g., a man usually receives a living allowance for a dependent child, but a woman does not.'
- Lecturer, Humanities: 'The whole language of universities is built on and around the concept of a man ("he is a good man") and around the notion of women as prone to irrationality (excessive emotionalism)... Also, universities are generally staffed by men who teach in accordance with male priorities (e.g., women are not usually dealt with in History, Government or many of the social areas which concentrate on *man*kind and assume that people equals man). It is necessary to absorb entirely this set up and become an honorary man to cope well or succeed. There are some superficial signs of change now, but they are very peripheral.'

The times at which discrimination becomes most obvious are, again, similar to those written about by respondents with respect to their own experiences: at appointment, promotion and everyday. With respect to appointment, for example:

- Lecturer, Social Sciences: 'Known of several cases in which qualifications seemed similar or better, yet male applicant got the job rather than female applicant.'

• Lecturer, Social Sciences: 'Interesting case in this school now: best applicant for chair was a woman—chair to be readvertized.'

With respect to promotion and tenure:

• Lecturer, Sciences: 'There is a tendency to consider women highly suitable for lower academic positions which have little prospects for further advancement.'
• Tutor, Social Sciences: 'Men in power (Profs are overwhelmingly male) tend to promote men into the serious/important/permanent jobs and leave women, especially those past child bearing, in the lower/less important/temporary jobs. The rationale is that women like the part-time jobs, which they can fit in with their families, etc.'
• Senior Tutor, Social Sciences: 'Universities are quite shamelessly using married women as a source of non-tenured labour. They know in most cases these women are not free to move around and take the best jobs offering.'
• Senior Lecturer, Sciences: 'I know three women academics who are excellent in their field who are my age or older and cannot get tenured positions because their husbands are academics.'

Again, the type of discrimination women academics experience everyday sometimes involves the necessity of taking the fragility of the male ego into account:

• Tutor, Social Sciences: 'Men appear threatened by the success of women—to look up to a woman seems degrading.'
• Senior Tutor, Sciences: 'Lots of little put downs that you mostly ignore, but occasionally get angry about.'
• Tutor, Humanities: 'Nor are women listened to with the same respect (as men) by some men.'
• Tutor, Sciences: 'Resentment against women with much power.'
• Senior Lecturer, Humanities, Male: 'Of course there is *both* open and concealed discrimination against women, often where the women concerned think there is none.'

If we now try to locate who exactly were those who believed that women in universities experienced adverse discrimination, we find that 74 per cent of our non-married (including divorced and separated women) and 66 per cent of our married female respondents believed this to be true.

Again, if we look at the fields our respondents fell into, those in the medical/veterinary sciences stand out—both female and male—as different from their colleagues in terms of having less awareness of discrimination against women in universities (Table 5.5).

As regards age, the group of women most likely to believe that women in universities are discriminated against are those between thirty-one and fifty years of age, which is different from the groups that appeared with respect to perceptions of discrimination against themselves, which broke roughly into those under forty and over forty years of age—the former

Table 5.5 Perceptions by Female and Male Academics of Discrimination Against Women in Universities broken down by Field and University Position

	Females								Males	
	Tutor		Senior tutor		Lecturer and research fellow		Senior lecturer and above		All ranks	
Field	N	%	N	%	N	%	N	%	N	%
Humanities	33	76	10	100	27	81	9	78	18	72
Social sciences	50	78	16	81	41	76	12	83	24	62
Medical and veterinary sciences	12	50	2	0	6	50	6	83	9	45
Sciences	33	45	23	52	16	81	7	86	54	59

% = % who had perceived discrimination.

being slightly less likely to report having experienced personal discrimination.

Looking at the position held by female respondents who believed that women experienced adverse discrimination in universities, there does not appear to be any single group which is more aware (given that some numbers are very small) than the others.

Amongst our female respondents, 75 per cent (N=47) of research assistants, 69 per cent (N=104) of tutors, 68 per cent (N=51) of senior tutors, 77 per cent (N=81) of lecturers, 86 per cent (N=28) of senior lecturers, and 80 per cent (N=5) of associate professors, all believed that there is discrimination against women in universities.

The other question in the survey which most directly tapped respondents' beliefs about a specific form of discrimination against women in universities asked whether they thought it was more difficult for a woman than a man, firstly, to achieve a position of authority and secondly, to handle such a position (Table 5.6). The placement of the question in the survey—in the work section—implied that the question referred to a position of authority within a university and this seems to have been the way that our respondents took it.

Table 5.6 Beliefs about Whether it is More Difficult for a Woman than a Man to Achieve and Handle a Position of Authority

	Females		Males	
Question	N	% answering yes	N	% answering yes
Believe it is more difficult for a woman than a man—				
to achieve	415	76	118	72
to handle	414	21	122	34
—a position of authority				

The simple frequencies of yes/no answers to this question mask the complexity of the answers. That the questions themselves were very ambiguous is revealed by the comments that women and men made about their responses. To answer 'yes' to both parts on the grounds that women are innately or otherwise inferior has vastly different implications from answering 'yes' to both parts on the grounds that men make it difficult for women to assume and handle positions of authority. Our respondents made these and other comments about why they thought it was difficult for women to achieve positions of authority; their comments are also revealing about how and where they believe such decisions involving promotions are made.

The comments of our respondents may be divided roughly into five categories; some of these, it will be noted, correspond to the types of discrimination that women experience in general university life.

On the 'Nature' and Conditioning of Women

Some of the personality predispositions attributed to women, which in the eyes of some make it difficult for women to assume authority, are viewed positively by some of our respondents and negatively by others:

- Teaching Fellow, Sciences, Male: 'Women are less motivated (no personal need "drives" them) and women are less impressive (not taken seriously); also they sometimes "overcompensate".'
- Research Assistant, Social Sciences: 'Women are conditioned to be submissive and passive on the whole and to achieve and hold a position of authority requires initiative and firmness.'
- Senior Lecturer, Sciences, Male: '*Most* women have softer personalities than the majority of men and are therefore more reluctant to indulge in the in-fighting to get to the top and stay there.'
- Research Assistant, Sciences: 'Environmental conditioning fights against the confidence to bullshit at the same level as male colleagues.'

On the Existence of the Double Standard

- Lecturer, Humanities, Male: 'We're conditioned to pay more respect to male authority than to female.'
- Tutor, Humanities: 'Because this is a male-dominated institution and to achieve and hold such a positon a woman must compete on male terms and generally be better than men.'
- Lecturer, Sciences: 'It is more difficult to achieve because a woman has to be exceptionally good in her field before men will recognize her as an equal.'
- Senior Lecturer, Sciences: 'I was asked recently in relation to taking a rotating administrative job, "Are you ambitious really, or are you just a housewife?" Is this question's equivalent ever asked a man?'

On the Nature of Men who are Reluctant to Take Orders from a Woman

- Senior Lecturer, Sciences, Male: 'Majority of men will not accept her direction and make it difficult.'
- Research Assistant, Sciences: '*Both* men and women are more willing to carry out instructions given by a man than those given by a woman.'
- Research Assistant, Social Sciences: 'Because in most cases those who do the employing and promoting are small-minded, middle-class, middle-aged males.'

On the Interruptions to the Careers of Women

- Lecturer, Sciences, Male: 'As one who has worked for women, perhaps I'm biased: (a) emotional temperament; (b) often coping with family responsibilities as well.'
- Lecturer, Sciences: 'Major difficulty is lack of mobility to accept positions and acquire training necessary for high positions if a woman is married. The family's location and hence the woman's location is determined by the husband's position. This tends to discourage employment of women in tenured positions by universities, etc.'

On the Absence of Women from Places where such Decisions are 'Really Made'

- Senior Lecturer, Social Sciences: 'Harder for a woman to participate in informal communication where decision making often occurs between predominantly male incumbents.'
- Senior Tutor, Social Sciences: 'Much decision making, etc., that appears significant in being kept to the notice of the authorities takes place in golf courses, pubs, etc., where women do not invite themselves to accompany men and often cannot—and it appears to me that "who you know" is as important as "what you do with the job".'
- Lecturer, Sciences: 'Because most women do not "politic" for their positions—they are more concerned with getting on with the job at hand.'
- Lecturer, Humanities: 'Inexperience in administration and political manoeuvering.'
- Lecturer, Sciences: 'One has to overcome the tendency to choose from the old boy networks. Likewise one has to steer a course between being pushy and being overlooked.'

The extreme variation in the open-ended responses for people who answered yes or no to either part of this question, indicating the ambiguity of the question itself, makes statistical analysis pointless.

Equally as interesting as, and perhaps more important than, the respondents who do perceive discrimination within universities are those respondents who do not, and the overall pattern that perception of sex discrimination takes. Put very broadly, that pattern is presbyopic: our respondents were very long-sighted when it came to perceiving discrimination against women. The further away from themselves we asked them to look, the more clearly could they see that women were discriminated against. As the questions which tried to tap perceptions of sex discrimination moved closer and closer to the respondents' own life experiences, however, acknowledgements of the existence of discrimination against women became fewer and fewer. The pattern went something like: 'it happens to women outside the university more than it does to women who work in universities and it happens to women in other departments more than in mine, and it happens to other women in my department more than it does to me'.

To the very general question, for example, of whether our female respondents thought that 'change is necessary in the position of women to enable them to play an equal part with men in society' 92 per cent replied in the affirmative; this question located the discrimination 'in society'. Using a couple of the attitude questions to illustrate further, the less specific (further away) question, 'Men consciously or unconsciously view themselves as superior to women', had 82 per cent of our female (69 per cent of male) respondents agreeing. Moving into the academic world, only 69 per cent of our female (46 per cent of males) respondents agreed with the statement that 'a woman has to be better than a male competitor to succeed in the academic world'; again 67 per cent of women (57 per cent of men) agreed that 'There is a strong, if often unacknowledged prejudice

amongst academic men against women in top positions'. Judith Long Laws (1972) and Arlie Hochschild (1973) amongst others, have suggested that academic women might be more reluctant to see themselves as being discriminated against because they take as their reference group non-academic women rather than academic men: compared with non-academic women, academic women are in a position of relative privilege; compared with academic men, academic women are in a position of relative deprivation. This explanation would seem to work well when we are considering academic women as a group who compare themselves with non-academic women as a group, and the findings of our survey tend to support this hypothesis; more of our women academics were likely to think that discrimination against women was worse outside the university than within it. But the relative deprivation hypothesis does not account for the differences in perceptions of discrimination *within* the university environment; something more is needed to account for that.

If we look specifically at the three sets of questions which tried most directly to tap perceptions of discrimination, the pattern becomes clearer when we list the questions and frequency rates in order of 'closeness' to the person (see Table 5.7). The closer the question gets to involving the respondent in discrimination, the fewer the respondents answering in the affirmative. Some of the comments of the respondents to these questions will illustrate further.

On Discrimination Occurring Outside the University but Not Inside

- Senior Lecturer, Humanities: '*Not* in university here, but before in career especially in BBC and ABC.'
- Research Assistant, Social Sciences: 'Universities have a less prejudiced atmosphere than the business world.'

If it Happens at all it Happens in Other Departments—Not Mine

- Tutor, Social Sciences: 'This problem may occur in non-Arts faculties.'
- Senior Tutor, Sciences: 'I think this may be a problem in Arts-type faculties.'
- Lecturer, Humanities: 'Perhaps my department is more tolerant than others.'
- Tutor, Social Sciences: 'May exist in other schools.'

Table 5.7 Discrimination Questions Ranked for 'Closeness' to Respondent and Frequency Rates for Female Academics

Question	N	% answering yes
Discrimination against women in universities	380	70
Club atmosphere exists	302	57
Discrimination against self	380	41
Club atmosphere 'problem'	387	18

The question about whether or not the 'club' atmosphere within the university constituted a 'problem' for our female respondents which was discussed earlier and the unanticipated reactions some respondents gave to that question in terms of their 'blaming' those who experienced that problem, gives a clue as to one possible explanation for the 'distancing effect'. It is as though there were some stigma attached to having experienced discrimination: it resembles the 'blaming of the victim' which occurs in cases of rape—nice girls don't get raped; competent women academics don't get discriminated against. In the case of rape the victim is often accused of 'provoking' the attack; perhaps in the case of academic sex discrimination women are led to believe that the discrimination is warranted by their own behaviour. In both cases, the advice offered to women is in terms of avoidance. To *avoid* rape, women are advised to dress sensibly (and be labelled unfashionable, frumpy and unattractive to men) and stay off the streets at night; to *avoid* discrimination in academe, women are advised, by clear implication from the comments of our respondents, not to marry and have children (and be labelled unnatural women, bitter spinsters, left on the shelf) or to behave like men, get in there and become involved in the politiking (and be labelled pushy and accused of making sexual overtures to the men). There are no male equivalents, carrying the same pejorative overtones, of 'dragon lady', 'frustrated old maid', 'castrating bitch', 'maiden aunt', or 'ball breaker'. Neither do we hear the call very often for men to stop raping women, to stop discriminating against women; it is always women who are placed in the Catch-22 of being damned if we do and damned if we don't.

Past experiences and present perceptions of sex discrimination are not simply those; they are inputs into future plans and expectations. The fact that so many of our respondents believed that women experience discrimination in universities could not but affect both their anticipations that this state of affairs would continue and their aspirations as far as their own promotional prospects were concerned.

Perceptions of Anticipated Discrimination

A second set of questions in the survey were measures of perceptions of anticipated discrimination. Respondents were asked whether or not they were interested in promotion (Table 5.8), if so, to what rank (Table 5.9); and then to estimate the likelihood of their being able to achieve their ambitions (Table 5.10). Respondents were also asked to estimate, compared with a member of the opposite sex, their chances of being promoted

Table 5.8 Interest in Promotion Expressed by Female and Male Academics

Question: Are you interested in promotion?	Females		Males	
	N	%	N	%
Yes	292	72.3	90	76.3
No	112	27.7	28	23.7
	404	100.0	118	100.0

to a chair and to a position of sub-professorial rank (Table 5.11). Both sets of questions were asked of female and male respondents.

The difference between female and male academics in terms of whether or not they are interested in promotion is only marginal and may be accounted for by the larger proportion of female tutors in the sample of women. As far as the women were concerned, in fact, tutors were the least interested in promotion—33 per cent of women tutors stated that they were not interested in promotion at all. The comments that some of our women tutors made revealed that for many of them, a tutorship, as an untenured position, was not seen as part of the academic hierarchy. It was seen as a testing time: a time to finish higher degrees; a time to decide whether or not they wanted to commit themselves to an academic career and all they believed that entailed:

- Tutor, Social Sciences: 'Not interested in promotion for the moment anyway. I want to get my higher degree and then do some long overdue travelling.'
- Tutor, Humanities, not interested in promotion: 'There is too great a class division once you become staff and pressure on you to uphold the establishment in which you are receiving promotion.'
- Tutor, Social Sciences, uncertain of chances of promotion to lecturer level: 'Uncertain whether I will go into academia or into profession.'
- Tutor, Humanities, uncertain of chances of promotion to senior lecturer level: 'I am still not sure of my commitment to my field of study.'

When it comes to the question of the rank to which academics aspired, the comparison between female and male academic aspirations must be related to their present positions (see Table 5.9).

Of course what must be borne in mind, as is obvious from the above, is that the women academics are concentrated at the lower end of the hierarchy. The pattern for males is not clear, but for women the most common occurrence was for the respondents to aspire to either one rank above where they presently were (especially for senior lecturers and lecturers) or to two ranks above where they presently were (for senior tutors and tutors). Worthy of note is the marked difference between the proportions of women and men aspiring (irrespective of how they estimated their chances of getting there) to a chair (14.3 per cent of women and 26.4 per cent of men) and to a personal chair (3.5 per cent of women and 20.9 per cent of men).

For men, the questionnaire did not provide the opportunity for them to comment on their responses to what rank they aspired, or to their chances; but for women it did. One of the most common comments associated with female aspirations to associate professor or senior lecturer level was that if they went beyond this level they would end up with an administrative load they clearly did not want:

- Senior Tutor, Sciences, optimistic of chances of promotion to senior lecturer: 'I am not interested in promotion which would minimize student contact and research/study—wouldn't want administrative obligations of chair.'

Table 5.9 Present Position and Level of Promotional Aspirations: Female and Male Academics

	Females				Males			
	Present position		Aspiration		Present position		Aspiration	
Position	N	%	N	%	N	%	N	%
Professor	1	0.3	41	14.3	7	5.8	24	26.4
Personal chair	—	—	10	3.5	—	—	19	20.9
Reader/associate professor	5	1.5	72	25.2	19	15.7	32	35.2
Senior lecturer	31	9.1	84	29.4	33	27.3	8	8.8
Lecturer	94	27.6	44	15.4	42	34.7	1	1.1
Senior tutor	56	16.5	—	—	5	4.1	—	—
Tutor/demonstrator/teaching fellow	153	45.0	—	—	15	12.4	—	—
Other	—	—	35	12.2	—	—	7	7.6
	340	100.0	286	100.0	121	100.0	91	100.0

Table 5.11 Chances of Own Promotion to a Chair and Sub-Professorial Position Compared with a Member of the Opposite Sex with Similar Qualifications

	Chances of own promotion to a chair				Chances of own promotion to sub-professorial position			
	Females compared with a man		Males compared with a woman		Females compared with a man		Males compared with a woman	
	N	%	N	%	N	%	N	%
More likely	8	2.8	49	51.0	9	2.9	26	27.7
About the same	84	29.5	41	42.7	188	61.3	63	67.0
Less likely	193	67.7	6	6.3	100	35.8	5	5.3
	285	100.0	96	100.0	297	100.0	94	100.0

• Lecturer, Medicine/Veterinary Science, optimistic of chances of promotion to reader/associate professor: 'The administrative work associated with a chair (especially head of department) is too time consuming.'

In addition to their lower aspirations, women academics were far less positive about their chances of achieving their ambitions than were male academics (Table 5.10).

That the situation has not changed much as far as women are concerned is indicated by the fact that the 1977 FAUSA study on the status of women academics found a similar degree of pessimism on the part of women with respect to their estimations of achieving their promotional ambitions.

If we take out those women who were either optimistic or confident about their chances of achieving their promotional ambitions and look at the comments they made, what is striking is their belief that hard work will be rewarded by promotion, a faith in the university as a meritocracy:

• Lecturer, Humanities: 'I do not think that the step between lecturer and senior lecturer should provide insuperable difficulties if I publish and outlast my colleagues.'

• Lecturer, Social Sciences, optimistic of chances of promotion to chair: 'It's a matter of doing the necessary work.'

• Lecturer, Social Sciences: 'Have been a lecturer for three years and have done work capably and have pursued own higher degree as well as doing same—therefore optimistic.'

What is also interesting to note is that of those women who were either optimistic or confident about achieving their promotional aspirations, 78 per cent reported that they had never experienced any discrimination against themselves—perhaps one factor contributing to their confidence and optimism.

Whether or not respondents had experienced any personal discrimination seemed to be irrelevant as far as pessimism and uncertainty about their chances of promotion were concerned. The direct statements that respondents were pessimistic or uncertain because universities practised sex discrimination were fewer than might have been expected given that 70 per cent of our academic women believed that this was the case. There were, however, a few statements:

Table 5.10 Estimated Chances of Achieving Promotional Aspirations

	Females		Males	
Estimated chances	N	%	N	%
Uncertain	120	41.7	23	24.7
Pessimistic	70	24.3	19	20.4
Optimistic	70	24.3	34	36.6
Confident	28	9.7	17	18.3
	288	100.0	93	100.0

- Senior Lecturer, Medical/Veterinary Science, pessimistic of chances of promotion to chair: 'Women are not considered suitable for many applied sciences.'
- Tutor, Humanities, uncertain of chances of promotion to associate professor/reader level: 'Uncertain because of the miniscule proportion of women who ever reach lecturer level, let alone the gods.'

With the other comments, what at first glance looks like anticipated individual failure unrelated to sex discrimination is, on closer examination, fairly clearly anticipated discrimination on the grounds of sex. The reasons given for uncertainty and pessimism apply either exclusively to women or more commonly to women than to men: women who are pessimistic because they have accepted stereotypes of female inadequacy and thought it theirs alone; cannot or will not 'play the promotions game' but consider that an individual failing; see a conflict between commitments to family and career as hindering their chances:

- Lecturer, Humanities, pessimistic of promotion to senior lecturer: 'Many other colleagues at present are more deserving than I in terms of achievement and devotion to work.'
- Senior Lecturer, Humanities, pessimistic of promotion to chair: 'Do not consider I have the academic abilities and the field is tight.'
- Senior Lecturer, Social Sciences: 'I rate my chances of appointment to a chair as extremely low as I am unwilling to withdraw the time I spend with family and house and channel it to getting the publications and political support necessary.'
- Senior Lecturer, Social Sciences: 'Domestic responsibilities make wholehearted dedication to necessary work a trifle difficult.'

When we compare the figures from this indirect measure of anticipated discrimination with those of a more direct measure, they are in fact quite similar. The more direct measure was contained in the question which asked respondents to consider the likelihood of their own promotion to a chair and a sub-professorial level compared with a member of the opposite sex with similar qualifications to their own (see Table 5.11 on page 117).

The responses of women comparing their chances with a male of similar qualifications are almost a mirror to the responses of men comparing their chances with those of a woman of similar qualifications; the major differences between the sexes is in the higher percentage of men who think that the chances of a man (themselves) and a woman of similar qualifications being promoted to a chair are about the same. More respondents (both female and male) regarded women and men as having the same chances of being promoted to a sub-professorial level than to a chair— not an unexpected finding. It is similar to the figure of 64 per cent of women in Britain (cited in Blackstone, 1973, p. 59) who thought that they were less likely to get a chair than other university teachers (not specifically men) of their age.

What emerges in terms of perceptions of anticipated discrimination is a picture of women and men believing that women will be discriminated

against, the more so the higher the promotional aspirations; and of women having lower aspirations and less confidence of achieving those levels, than men. Both women and men agree that a woman has less chance than a man of getting a chair and fewer women than men aspire, with less optimism, to getting one. Whether you regard the lower aspirations of women academics as a mark of sanity in not wishing to participate in the destructively competitive 'promotions game' or whether you regard it as a sign of lack of 'career commitment' is another matter. But even with lower promotional aspirations, women are understandably less confident about getting where they want to. Understandably, because fewer women do make it up the academic ladder than men; because they know that women in universities are discriminated against—even if they do not believe that they themselves have been discriminated against in the past.

A Note on Frequencies

It is always difficult to tabulate open-ended responses to questions, to categorize comments, but some attempt has to be made to satisfy those whose main concern is quantitative. Not all of our respondents took the opportunity to comment on their responses; this was more so in the case of our male respondents than with our women academics. Respondents often cited more than one type of discrimination that they knew of and so their multiple responses have been recorded under the various categories listed in Table 5.12.

Table 5.12 Frequency of Types and Points of Discrimination Cited by Women Academics in Open-Ended Comments

Discrimination	Cited by % of women academics making comments
Grounds of discrimination	
Physical appearance; sexual politics	14.0
Ascribed feminine personality characteristics, alleged abilities and inabilities	17.0
Alleged female intellectual inferiority, women not being taken seriously, alleged suitability for lower positions	29.0
Marriage and children	19.2
Institutional, lack of adequate facilities	14.0
Men feeling threatened by women	6.8
Point of discrimination	
Time of appointment	35.0
Time of promotion	27.0
Everyday experience	38.0

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6

Woman's Place or Domestic Contradictions?

Bettina Cass

In a 1977 literary account of academic life in a university in Sydney, the novelist, who is also a prominent political scientist, propels his hero through the political manoeuvres of appointing a new professor to his department, through the intricate diplomacies of teaching, committees and university parties—without ever bringing him into contact with a woman colleague of comparable rank or academic standing. There are four women in the novel: the wife, the secretary, the mistress (a colleague's wife) and a research assistant of some acumen, who is summarily dismissed from the action of the novel after making a promising debut (Aitkin, 1977). Here is a male world of scholarship, of decision-making, of intrigue, in which a supporting cast of women provide secretarial, research, domestic and sexual services.

Aitkin's account is clearly a male academic's construction of reality—the 16 per cent of academic staff who are women have made little impact on his perceptions of the university's significant social universe. In some ways this novel is an accurate reconstruction: it relegates women to the support staff of the academic department and to the support staff of personal life according to dominant definitions of the sexual division of labour in Australian society.

In the context of dominant sex-role beliefs and practices, our sample of women academics are a 'deviant' group: first, because they have obtained university qualifications; second, because they are employed in a male dominated profession, and third, because they have redefined certain aspects of the domestic division of labour.

If we compare the marital status of our sample of women academics (Table 6.1) with a profile of the marital status of the female population in 1976 (Table 6.2), it becomes apparent that in each age-grouping greater proportions of academic women have remained outside the marriage institution in comparison with general marriage patterns. In addition, our respondents over the age of 30 are somewhat more likely to be divorced or

separated than are women in the population.

There are several possible explanations for this pattern. First, married women, with husbands, children and household commitments are more likely to drop out of the university workforce and find great difficulty in re-entering this competitive labour market. This leaves an over-representation of women who have not entered, or who have left, a formal marriage relationship.

Second, women with educational qualifications, marketable job skills and occupational interests are in a position to construct for themselves

Table 6.1 Age by Marital Status of Women Respondents (percentages)

Age	Not married	Married	Divorced/ separated	Widowed	% of all women respondents
21-30	41	56	3	0	47.4 (N = 204)
31-40	27	62	11	0	29.8 (N = 128)
41-50	16	72	10	2	15.8 (N = 68)
51-60	23	50	19	8	6.0 (N = 26)
60+	33	67	0	0	0.7 (N = 3)
% of all women respondents	32	60	7	0.7	100
	N = 136	N = 258	N = 31	N = 3	(N = 430)

Table 6.2 Women: Marital Status, Percentage Distribution by Age (1976 Census)

Age (years)	Never married	Married	Permanently separated	Divorced	Widowed
20-24	40.1	56.0	2.7	1.0	0.2
25-29	13.1	79.8	3.9	2.8	0.4
30-34	7.0	85.0	3.8	3.4	0.7
35-39	5.1	86.1	3.7	3.6	1.4
40-44	4.5	85.4	3.7	3.7	2.6
45-49	4.6	83.3	3.5	3.8	4.8
50-54	4.8	79.6	3.2	3.6	8.7
55-59	5.4	73.7	2.8	3.3	14.7
60-64	6.4	64.3	2.5	2.9	23.9

Source: Australian Bureau of Statistics: *Social Indicators,* No. 2. A.G.P.S. Canberra 1978, p.15.

favourable alternatives to marriage. A large minority of women under thirty are postponing marriage, postponing child-bearing, or choosing to live alone, in a *de facto* relationship, or with several friends. Analysis of the open-ended responses in the questionnaires shows a certain tendency toward active innovation in life-styles amongst this age group, some of whom are participating in households which are attempting to foster a co-operative spirit and non-rigidity of sex roles.

The position of women over the age of fifty is particularly interesting. High proportions are either 'not married', or 'divorced/separated', and 'living alone'. Women of this generation required particular resilience and drive to enter and remain in the academic workforce at a time when not even lip-service was paid to the idea of equal occupational opportunities, and when women were often presented with the choice of marriage or career.

The pattern of under-representation of the married amongst women

Table 6.3 Age by Marital Status: Men (percentages)

Age	Not married	Married	Divorced/ separated	% of all male respondents
21-30	34	58	8	21.3 (N = 26)
31-40	4	94	2	42.6 (N = 52)
41-50	7	87	6	25.4 (N = 31)
51-60	0	100	0	10.7 (N = 13)
% of all male respondents	11 N = 13	85 N = 104	4 N = 5	100 (N = 122)

Note: None of the respondents in the male sample was widowed.

Table 6.4 Men: Marital Status, Percentage Distribution by Age (1976 Census)

Age (years)	Never married	Married	Permanently separated	Divorced	Widowed
20-24	66.7	31.7	1.2	0.4	—
25-29	25.5	69.7	2.8	1.8	0.1
30-34	13.0	81.2	3.0	2.5	0.2
35-39	9.5	84.6	2.9	2.6	0.3
40-44	8.7	84.9	2.9	2.8	0.7
45-49	8.8	84.0	3.0	3.0	1.2
50-54	8.2	83.5	3.0	3.2	2.1
55-59	7.7	83.0	2.7	3.0	3.4
60-64	7.7	81.5	2.5	2.7	5.5

Source: Australian Bureau of Statistics: *Social Indicators,* No. 2. A.G.P.S., Canberra 1978, p.15.

academics might be an intrinsic part of the job (long nights spent 'pushing back the frontiers of knowledge', etc., long years spent in laboratories and libraries, eschewing social life for scholarship). If this were so, then we would expect academic men to have a similar pattern of marital status. They do not. See Tables 6.3 and 6.4.

After the age of thirty, this sample of academic men are much more likely to be married than our women respondents, and less likely to be divorced or separated. These men have a marriage pattern analogous with that of the general male population, except for a slightly greater tendency towards marriage in the age range thirty-one to forty.

It seems apparent that marriage fits well with an academic career for men, or at least, does not represent too great a discordance with their job commitments. This is predictable, given the meaning of marriage for men in contemporary society—to provide the services of confidante, sexual partner, housekeeper, mother for the children, as well as a haven of emotional intimacy and often also a source of additional income. Jessie Bernard (1972, p. 24) summing up studies on the benefits of marriage for husbands, states:

> There is no better guarantor of long life, health, and happiness for men than a wife well socialised to perform the 'duties of a wife', willing to devote her life to taking care of him, providing, even enforcing, the regularity and security of a well-ordered home.

I recognize that this paints a rosy picture of the marriage institution—but the comparison with the position of academic women could not be clearer. As wives they tend to perform many of the services connected with the duties of a wife, especially bearing major responsibility for childcare, but they themselves do not have a wife to provide the regularity of a well-ordered home, although many attest to the emotional security which their marriages provide.

David Reisman, in his introduction to Jessie Bernard's *Academic Women* (1964), comments on the advantages of marriage for academic men in the U.S.A. He depicts the work of wives as part of the hidden infrastructure upon which husbands' professional lives are based:

> the advantages the male professor has, in that in most (over 90 per cent) of the cases he has a wife, who even if she does pursue a part-time career, guards her husband's productivity and performance in obvious and in subtle ways, just as her husband's secretary or the woman librarian speed him on his way.

We asked our respondents to designate which life-style came closest to their own present living arrangements (Table 6.5). 'Life-style' is not co-terminous with household composition, and respondents who nominated 'free-floating independence' were drawn from the ranks of those who live alone, and of those who live with spouse and children. Because these categories are not mutually exclusive and some respondents could validly

describe themselves as fitting two or even three situations (for example, living with friends, choosing not to marry and choosing not to have children), the table is useful only because of the obvious discrepancy in male and female life-styles which it highlights.

Our male respondents were much more likely than the women to designate conjugality and parenthood as their life-style; less likely to be living alone, or with friends, and less likely to describe themselves as 'independent'. We could explain this generally in terms of the men's stronger adherence to traditional ideas of marriage, family and the sexual division of labour within the family—an adherence which is demonstrated in other responses, particularly in attitudes towards the ideal care for young children. Content analysis of men's responses to the question 'What do you consider the ideal care for young children?' shows a dominant pattern of endorsing the importance of a full-time mother, with some support from the father: 'Attendance from the mother at home with as much attention from father as possible'; 'Mother mostly with support from father'; 'Care within a normal (monogamous) family situation'; 'With mother predominantly'; 'A good mother'; 'I disapprove of full-time employment for women while children are under approximately fifteen years old'; 'Constant presence of both parents, on tap, as it were. Impossible of course, therefore ditto for one—in our case, the mother'; 'A loving mother in full-time attendance with emotional and economic support from the father'; 'A man and a non-working wife, both with sense of humour'; 'Home care by mother'; 'Stability and presence of the mother in the home'; 'Mother at hand when needed'.

There is also a minority group of men in the sample who state that the ideal care for young children should be equal attention from both parents, supplemented by other substitute child-care arrangements. The *dominant* response by our sample of married women, however, was towards a transformation of current child-care practices from which men are excluded. They emphasized schemes for father's participation in child-care, informal patterns of substitute child-care from relatives, friends and

Table 6.5 Question: Which of the Following Life-Styles Comes Closest to Your Own? (percentages)

	Women	Men
Free-floating independence	14	8
Living with spouse (and children)	53	80
Living with children	3	—
Choosing to live alone	7	3
Living with partner and choosing not to marry	9	4
Choosing not to marry	5	1
Choosing not to have children	3	3
Living with friends	6	1
	100	100
	N = 430	N = 122

paid helpers, the extension of child-care centres of high standard, and the inclusion of the conjugal family in a communal living arrangement with co-operative child-care. The women's interest in mapping out programmes for flexible child-care arrangements, which do not depend solely on the full-time presence of the mother, must be understood in the context of their own experience of co-ordinating child-care with employment and study—a co-ordination which in many cases demonstrates amazing innovation and flexibility. They themselves, however, retained major responsibility for their children's care, and their ideal of equal sharing of child-care by mother and father was rarely realized in practice.

We turn now to a comparison of academic women and men's family size. For the tables, I have taken the numbers of children born to the respondent because we have comparable figures for the male and female samples, and because these figures give some indication of our respondents' family responsibilities either at the time of the survey, or at an earlier stage of their lives. In some cases the number of children born understates a woman's actual family commitments, because of the addition of adopted children or of husband's children in the event of a second marriage.

It is clear from the previous discussion that academic women and men's relationship to child rearing is quite different: for a woman, bearing and rearing children represents a choice which is highly likely to have repercussions upon her ability to pursue post-graduate study, stay in academic employment, apply for and obtain university positions; while for a man, having a family may involve financial and emotional commitment but the actual day-by-day responsibility for his children's care usually devolves upon his wife. Thus we find (Tables 6.6 and 6.7) that the women are much less likely than their male colleagues to have children (60 per cent of women have no children compared with 25 per cent of men); married women are less likely to have children than are married men (60 per cent of the married women in the sample have children, compared with 84 per cent of the married men); women's family size is smaller than that of their male colleagues (of women with children, 72 per cent have one or two children, 28 per cent have three or more; of men with children, 57 per cent have one or two children, 43 per cent have three or more); younger women (in the age range twenty-one to thirty) are much less likely to have children than their male colleagues of similar age (15 per cent of women have children compared with 39 per cent of men, and 25 per cent of married women have children, compared with 60 per cent of married men).

In the age range thirty-one to forty, married women are a little more likely to have children than their married male colleagues (82 per cent of married women compared with 78 per cent of married men), although their families are slightly smaller. This suggests that women under the age of thirty-one, interested in pursuing an academic career, are postponing child-bearing, like other women in similar occupations. Several of our respondents commented on their own decision to do this:

- Tutor, Arts: 'Choosing not to have children is at present vital. I doubt my ability to work efficiently and full time while coping with children.'

• Lecturer, Science: 'I have no children at the moment. I think perhaps if I do have children I may not be able to produce sufficient research for the position.'

We cannot infer from these tables that the present generation of women under thirty-one will go on to bear children in the same pattern of family formation as their older women colleagues. They may be postponing childbearing, they may continue to have no children, they may have fewer children. It is possible that a somewhat different range of experiences is shaping their pattern of private life: there is some questioning of the belief that marriage and motherhood are necessary for a woman's fulfilment (which has been influenced by the revival of feminism since the end of the 1960s) and a spirit of confidence among some women (not only those under thirty) that remaining outside a formal marital relationship is extending rather than restricting their lives.

It should be noted that the married women in our sample over the age of thirty are almost as likely to have children as their male colleagues. The higher proportion of men with children is due to their much greater tendency to be married after the age of thirty while, after the age of forty, they are almost universally paterfamilias. The majority of our sample of academic men appear to be immersed in the nuclear family, in their domestic arrangements and in their values and attitudes, an arrangement which usually provides a beneficial domestic support system.

A large minority of our sample of academic women are neither married at the present (they may have been previously), nor are they mothers. Many of the women in this position attest to the freedom which they enjoy to pursue their work and their interests:

• Senior Tutor, Behavioural Sciences: 'I find that living alone means greater freedom and time to pursue my own work and interests (though perhaps only temporary).'

• Senior Tutor, Education: 'Living by myself has given me more time to reflect on what I want and how I can attain it.'

• Lecturer, Professional Faculty: 'Freedom has permitted me to move freely to seek out new opportunities—haven't had to compromise except for 1–2 years at a time, and have developed broad-scoped competence as well as depth competence. More time to study, work on anything I like.'

They commented on a life-style of 'free-floating independence' and its effect upon work:

• Lecturer, Law: 'Increased mobility to work in different places; flexibility in work programme; non-commitment to continuous, stable and undiversified employment.'

To summarize our data at this stage: our sample of academic women is less likely to be married than women in the general population; over the age of thirty, they are more likely to be divorced or separated than women in the population; they are less likely to be married than our male respon-

Table 6.6 Age by Number of Children: Women and Men (percentages)

	21–30 years		31–40 years		41–50 years		Over 50 years	
	Women	Men	Women	Men	Women	Men	Women	Men
No children	85	61	40	25	34	6	35	—
1–2 children	15	39	46	50	33	36	45	39
3–4 children	—	—	13	18	30	52	20	47
More than 4 children	—	—	1	7	3	6	—	15
	100	100	100	100	100	100	100	100
	N = 204	N = 26	N = 128	N = 52	N = 68	N = 31	N = 29	N = 13

Table 6.7 Proportions of Ever-married Women and Men with Children, by Age (percentages)

	21–30		31–40		41–50		Over 50	
	Women	Men	Women	Men	Women	Men	Women	Men
No children	75	40	18	22	20	—	14	—
1 child	—	—	—	—	—	—	—	—
2 children	25	60	63	51	40	40	60	40
3 or more children	—	—	19	27	40	60	26	60
	100	100	100	100	100	100	100	100
	N = 118	N = 17	N = 93	N = 50	N = 57	N = 29	N = 22	N = 13

dents, and over the age of thirty, are more likely to be divorced or separated; they are less likely to have had children than their male colleagues, and those who do tend to have smaller families. They attest to a wider diversity of life-styles than their male counterparts, a considerable minority electing to live alone, or with friends, and they often describe their living arrangements in positive terms. The men are much more likely than their women colleagues to express strong support for the traditional sexual division of labour in marriage, particularly with regard to childcare.

It might be argued that our samples of men and women academics are biased and do not represent the true conjugal condition of university teachers. Our findings, however, are strongly supported by evidence from Britain and America. According to Cynthia Fuchs Epstein's (1973) account of woman's place in certain occupational structures, the proportion of *married* women in the American workforce has increased markedly in the post-World War II period, but the same increase in the proportion of married women has not occurred in those occupations whose material and symbolic rewards are high enough to attract the title of 'profession' (law, science, medicine, engineering). A far higher proportion of women in the professions are unmarried, compared with men (p. 96). Epstein claims that single women face fewer structural problems handling the demands of a career because they have no obligations as wives and mothers. She does not, however, make the observation that professional women who are not married may be responsible for the care and well-being of relatives—while neither single nor married women are likely to have the same domestic support system as do the majority of professional men.

All employed married women, especially those with children, are faced with the day-by-day need to juggle with and combine dual sets of demands on their time, energy and resources—and women who have no surplus income to employ household help are likely to be much more disadvantaged than many professional women (Harper and Richards, 1979). Professional women, however, confront a particular job situation—the structure and conditions of professional jobs, where entry and promotion are carefully supervized and controlled; where absence for a certain period of time for child-rearing or for accommodating husband's career pattern, seriously impedes opportunities for re-admission; and where female sex status is seen as a major obstacle against inclusion in the collegial network (Epstein, 1973).

Taking these considerations into the arena of the academic profession, Morlock, in examining the status of women in various academic disciplines in the U.S.A., notes that the attempt to combine family responsibilities with professional activities is more likely to create career discontinuity and lack of career mobility for women than for men (1973, pp. 263-4). As a result, a much larger proportion of women than men do not combine academic jobs with marital and parental responsibilities: women are much less likely than their male colleagues to be married and, if married, less likely to have children.

An extensive, nation-wide study of British university teachers found that male academics' marriage patterns approximate those for other men in middle-class jobs: 82 per cent of the men are married (75 per cent of lec-

turers, 93 per cent of professors). The legendary image of the bachelor don needs overhauling. The conjugal situation for women is quite different: only 43 per cent are married, which is only partly explained by the younger ages of the women (Williams, Blackstone and Metcalf, 1974, pp. 41-2). In addition, the families of male university teachers are larger than those in the general population, while those of the women are much smaller.

The authors of this study conclude from these sex discrepancies in marriage and family formation:

> The claim that university teaching is easier to combine with rearing children than most other professions, because of the extensive freedom it allows to arrange working hours may be valid, yet these findings suggest that few women have found it possible to combine this career with a family.

The authors do not confront the possibility that many of these women may have actively chosen not to embark on this combination. On the other hand, as the Australian, American and British data suggest, it would appear to be in academic men's interests to stay within the support system of marriage, where they can obtain the fulfilments of parenthood and family life without usually experiencing the range of career disruptions and discontinuity which many academic women experience. A multiple regression analysis of the variables affecting promotion to high ranking, high salaried university positions in America, found that it helps men, but not women, to have large numbers of children (Astin and Bayer, 1973, pp. 333-56). Large numbers of children appear to make a positive contribution to academic men's achievements—large numbers of children appear (through some mysterious division of labour) to seriously restrict the advancement of women.

In making these points, I am *not* suggesting that high academic positions, or income, or recognition for publications, etc., are intrinsically more valuable and gratifying than marriage or caring for children. To do this would be to endorse unquestioningly a hierarchical structure of prestige and authority, and the criteria which govern them: a structure which is predicated on a male life-style and which men in positions of control in the professions have established and enforced. I *am* suggesting that in the accepted division of labour in the family which now pertains, those aspects of human life which are valuable and gratifying regardless of gender—commitment to another adult and caring for children—have different consequences for the career opportunities of men and women. 'Career' is used here to designate those paid occupations which require a high degree of commitment and which have a continuous, developmental character (Rapoport and Rapoport, 1976). Women whose education and training equip them for potential recruitment into career-type occupations are placed either in the position of choosing between family commitments or job commitments, or attempting, through a series of compromises and considerable expenditure of time and energy, to combine the two spheres of human activity. Men, especially those with high job qualifications, are usually in a position to enjoy both.

A key concept in this account, to date, has been the notion of 'choice': women with tertiary education and professional training have been placed, and are still, in a situation of choice—to choose between marriage and family or career; to choose to have no children; to choose to combine family responsibilities and employment responsibilities in whatever combination is considered desirable or manageable. I have used this idea of voluntarism because it is well-entrenched in some social science explanations of women's 'place' in the professions and in academic jobs (for example, Bernard, 1964; Poloma and Garland, 1971), and because it has strong popular currency. This concept of choice is employed by some of our women and men academics: the women with reference to their own career and family decisions and when referring to the position of other women in universities; the men when answering the question: 'There are fewer women than men in academic work and they tend to have lower positions. Why do you think this is so?' (See Chapter 9.)

There are two core ideas in the responses: firstly, that the professional woman is free to choose one pattern of life (domesticity) or another (committed employment); and secondly, that the duties of motherhood are women's lot, either by nature or by convention.

Some of the women in our sample also express this view of 'woman's place', and the limits to their own or other women's participation in the academic workforce:

- Tutor, Science: 'Many women still prefer to devote themselves to home duties or have not had the opportunity to gain academic qualifications.'
- Research Assistant, Arts: 'An academic career involves more sacrifice than a woman whose goal is to have a family, is prepared to make.'
- Tutor, Arts: 'Because a woman has the traditional work/home problem, and many women for various reasons choose home, regarding it as irreconcilable with work.'
- Tutor, Science: 'Lower positions allow flexibility of work situation for child-rearing and are less strenuous. Few women have the motivation to aim for higher levels.'
- Lecturer, Medicine: 'I chose to have children and to stay home part-time with them; now they are older I have recommenced full-time work.'
- Part-time Senior Tutor, Science: 'Due to heavy home commitments, I found full-time employment too demanding and although offered a full-time position, elected to work part-time only. It has meant acceptance of a limited academic career as I am not prepared to put my career before my family's welfare.'

Other women respondents do not see the issue in voluntaristic terms, but in terms of a *forced* 'choice'—the result of the exercise of control, by others, over women's options:

- Lecturer, Social Work: 'Women are still forced to choose psychologically between career and marriage—exhausted by compromise.'

- Part-time Tutor, Science: 'I think there is a social pressure on women to follow alternatives to academic work (marriage and family rearing) so women have to be more single minded than men to continue, and may give up the struggle.'
- Tutor, History: 'Women's tendency to opt out voluntarily or to under-achieve is probably related to media/family/community pressures.'

These divergent, if not conflicting, responses illustrate a major debate about ways to explain women's ambivalence towards, or withdrawal from competitive, male-dominated, professional labour markets—choice or control, women's preference or unequal family responsibilities?

Summarizing their study of dual-profession marriages in America, Poloma and Garland conclude that married women are under-represented in career-type jobs in the professions because they have a strong 'tolerance of domestication'. In the interests of reconciling their desire for the feminine destiny of husband, home, children and the security of love, with their desire to be employed in a satisfying job, women withdraw from positions which would make inroads into their domestic obligations. A long history of socialization into the feminine role induces them to voluntarily lower their occupational horizons, to hold no expectations of constructing an egalitarian marriage, to deny that they have ever been the subject of discrimination in their employment, and to believe that they enjoy the 'best of both worlds' (Poloma and Garland, 1971).

An opposite explanation of a similar phenomenon is given by Tessa Blackstone and Oliver Fulton in their account of sex discrimination in British and American universities (1975). To make sense of their finding that women, of comparable publishing productivity, age and qualifications as their male colleagues, are not rewarded for their achievements to the same degree (with tenured positions, senior positions and higher income levels) Blackstone and Fulton isolate two mechanisms of discrimination: *structural and institutional,* connected with the education system and the process of recruitment, promotion, reward and control in the academic profession; and *ideological,* the cultural underpinning of sex-role expectations and practices which men and women internalize and carry with them into the educational and occupational areas, sex-role expectations which take their material form in undemocratic family structures and processes.

This is an opposite explanation to that of Poloma and Garland because the emphasis is shifted away from the notion of 'choice' to an analysis of the social structures and processes within which women must construct their choices. In addition, the underpinning of the sex-role expectations and practices is incorporated into the concept of discrimination. Discrimination is seen to be composed of two closely articulated processes: a controlled occupational structure governed by certain criteria for the distribution of recognition and rewards; and the negative image of women as employees and scholars, because of their close association with the functions of child-bearing, child-care and domestic life.

Contrary to the popularly held view that the domestic responsibilites of women are an adequate explanation for their subordinate position in the academic profession in Britain, Williams, Blackstone and Metcalf (1974)

found that married women with children have a research and publication output comparable with their male colleagues, and have only in rare instances left their jobs to take care of their families. Yet these women have not achieved the same positions in the university hierarchy as their male peers. Clearly, processes of discrimination against women were operating, which utilized as rationale the domestic division of labour and negative estimation of women as scholars.

It would appear that a significant effect of the ideology of how difficult (or wrong or unnatural) it is for women to combine the activities of wife, mother, scholar and university teacher has been to eliminate suitably qualified women from the selection procedures at every level: some women because of their own uncertainties about their capabilities, other women through formal and informal processes of discouragement and discrimination.

A case-study, reported by an Australian professor of medicine (interviewed in 1979), illustrates how such processes operate. He recounted that only one woman had ever applied to enter a particular post-graduate training scheme which provides qualifications in a branch of surgery. She had 'excellent undergraduate and postgraduate qualifications and good references, but her personality was not suitable'. She was married to a man engaged in research for a doctorate. At the selection interviews she was asked what would happen to her 'family life' if she were posted to an interstate hospital for a part of her training, which was a stipulated condition of the programme. She replied that her husband would go with her. This was considered to be a clear indication of her unsuitability for admission to the course. Are the male applicants asked the same question?

'They are.'

'And how do they usually answer?'

'By saying that they will take their families with them.'

'Why then was the woman considered unsuitable when she answered exactly as the men had answered?'

'Because her *manner* was different. Her personality was definitely unsuitable.'

There was no way in which this applicant could have passed the 'test'. If she were to refuse to travel, she was clearly unable to fulfil the requirements of the course; if she agreed to travel, accompanied by her husband, then she was clearly (but in an unspecified way) deficient in her personality. It would appear that such a projected reversal of domestic obligations was prima facie evidence of the applicant's unsuitability to train as a surgeon, even though there were apparently no objective criteria, in terms of qualifications and previous training, to support this judgement.

Dual Career Families: Myth or Reality?

In this section, I will be assessing the domestic division of labour, allocation of housework tasks and responsibility for children of the married women respondents, in the light of current research on dual-career families. The concept 'dual-career family' has been used to designate those families in which both the husband and the wife pursue active

careers and family lives (Rapoport and Rapoport, 1976). In both English and American studies it is acknowledged that this family pattern is a very minor one indeed, given the structure of class inequalities which disqualify the majority of both men and women from entering career-type jobs, and the structure of sex inequalities which eliminate potential women, even those with appropriate training, from the career system.

Even in those marriages where women persist in their employment and call upon the assistance of others (husbands or paid household help or child-care centres or relatives and friends, or a combination of all four), there is little evidence that the traditional sexual division of labour has been transformed, particularly in the emotionally-charged area of child-care. One of the major conclusions of research in this field is that while dual career families voice egalitarian ideals, there is usually a marked discrepancy between ideals and practice. Typically, in dual-career families greater importance is placed on the maximization of the husband's job opportunities and greater demands for compromise and family involvement are placed upon the wife (Epstein, 1971; Poloma and Garland, 1971; Holmstrom, 1972; Rapoport and Rapoport, 1976).

This gulf between ideas and practice must be examined in relation to the career system itself—a system based on continuous job attachment, the expectation of progress on a career-ladder, the pursuit of recognition and the accumulation of rewards (salary and status). Such a work pattern is based on the assumption that the aspiring careerist is cushioned from the demands of family and domestic life, which have an ineluctable tendency to devour time and emotional energy. In the context of the successful academic career, this full-time, whole-of-life, family-excluding job is pithily summarized by Hochschild (1975):

> The academic career is founded on some peculiar assumptions about the relation between doing work and competing with others, competing with others and getting credit for work, getting credit and building a reputation, building a reputation and doing it while you're young, doing it while you're young and hoarding scarce time, hoarding scarce time and minimizing family size, minimizing family life and leaving it to your wife—the chain of experiences that seems to anchor the traditional academic career. (p. 49)

Hochschild sees the family as the university's (like any other workplace's) welfare agency, with women as the welfare workers, taking care of the vicissitudes of birth, death, illness, grief, emotional trauma, not to mention the productive tasks which sustain physical life. Married academic men (and they are usually married, as previously demonstrated) enjoy that welfare; married academic women are usually called upon to provide it. Hence at that age when 'reputation' and 'contribution to the field' are to be made, academic women who are also wives and/or mothers may be accommodating the emotional and physical needs of those bound closely to them by love and obligation. In Hochschild's account, 'the career' is not blandly defined and left unevaluated. The competitive hierarchy of the career is conceived of as a 'clockwork', a timing system,

where recognized productivity at an early age is seen as a promise of later productivity, the harbinger of future success which will bring lustre to the hiring department.

The successful university career, as it is currently constituted, is a two-person career, as are positions in the executive-managerial sections of business, in politics, in the army and the church (Papanek, 1973). In a two-person career, the marital pair is the unit of production; not only because the wife sees to domestic matters, but also because she nourishes her husband's career advancement, very often forgoing her own network of friends, relatives and her own employment opportunities to relocate the household when her husband's career demands job mobility.

The dual-career family issue, then, requires not only a discussion of the compromises, and strains of meshing two clockwork systems with the everyday emotional and physical demands of family life; it requires an appreciation of the career structure itself, and the male life-style on which that structure is based.

We could ask then... Do married academic women find a support system in their spouses? Do they incorporate their husbands into their own two-person career?

We shall begin with a discussion of the characteristics of our respondents' spouses, their educational levels and occupational groupings. This provides some 'skeletal' data indicating little more than the bare bones of marriage structure—a skeleton which requires 'fleshing out' with more qualitative data in order to capture something of the conjugal relationships within which spouses negotiate their combinations of paid work and domestic life.

Table 6.8 shows the educational levels attained by the husbands of our sample of academic women and the wives of our sample of academic men, at two stages in the course of the marriage—at its commencement and at

Table 6.8 Educational Level of Spouse, at Marriage and at Present (or at End of Marriage): Women and Men (percentages)

	Women (N = 291) Husbands		Men (N = 80) Wives	
Educational level	At marriage	At present or end of marriage	At marriage	At present or end of marriage
Some secondary education or less	4	2	30	26
Completed secondary education	6	4	8	8
Post-secondary	4	5	36	36
Some university	15	4	8	9
Bachelors degree/diploma	54	46	13	13
Masters/doctorate	17	39	5	8
	100	100	100	100

the time of the survey (or when the marriage ended). It is clear that a majority of our women respondents are or were married to men with educational qualifications similar to their own—more than four-fifths of their husbands having a university degree and almost two-fifths having a post-graduate degree, either at the time of the survey or when the marriage ended. There is a somewhat different pattern for the wives of our male respondents, one-third of whom (both at marriage and currently) have a post-secondary qualification, while a further fifth have a university degree. In most cases, those wives with post-secondary training had primary or secondary teaching, or nursing qualifications.

It would be too glib and quite misleading to infer that tertiary educated women seek similarly qualified marriage partners while tertiary educated men seek somewhat less qualified marriage partners. Table 6.8 reflects the predominant differences of educational attainment among men and women in Australian society. In the first place, the attainment of tertiary or post-secondary qualifications of any variety has been the privilege of a small elite, who were, in the majority of cases, well favoured by their parents' high socio-economic status and access to property and income resources (Commission of Enquiry into Poverty, 1976, pp. 12-36). Our respondents and the majority of their spouses are clearly part of the privileged group in terms of their educational qualifications. However, alongside these class differences, sex differences have also been operating. Men have been more likely than women to attain university qualifications, while women, who have had the opportunity for post-secondary education, have been more likely to enter a teachers college or nursing training as preparation for the socially designated 'feminine' professions of teaching and nursing (Study Group to the Schools Commission, 1975, pp. 39-61). Table 6.8 therefore reflects a situation of marriage 'homogamy', in which partners are typically selected from within a fairly narrow range of social contexts, in which social class and educational levels play an important part.

However, more pertinent for this discussion is the finding that more than one-fifth of the husbands of academic women have continued to acquire formal educational qualifications during the course of their marriage—completing undergraduate and post-graduate degrees. It must also be noted that a high proportion of married academic women have acquired

Table 6.9 Ever-Married Academic Women—Completion of University Qualifications

	Completion of first degree		Completion of highest degree	
	N	%	N	%
Before first marriage	215	74	43	15
During first marriage	64	22	100	34
End of first marriage	7	2	13	4
During second marriage	6	2	6	2
Not applicable	—	—	130	45
	292	100	292	100

further educational qualifications (both undergraduate and further degrees) during the period of their marriages—22 per cent completing their first degree and 34 per cent their highest degree (Table 6.9). It would appear that in a high proportion of cases, the marriages of academic women were not inimical to their, or their husbands' pursuit of further qualifications. The wives of our male respondents, however, for reasons which cannot be inferred from these bare figures, did not continue to attain further educational certification.

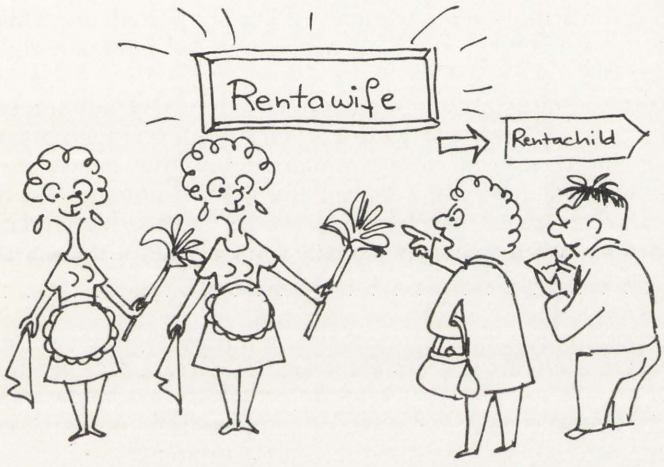
The data on the occupations of spouses shed a little further light on the issue of dual career marriages. Academic women's husbands experienced considerable upward occupational mobility in the course of their marriages: 27 per cent moved out of the categories of clerical, sales, trades, production, process work and labouring, armed services and study while 24 per cent moved into the upper status professional and technical, administrative, executive and managerial categories (Table 6.10). Academic men's wives experienced considerable mobility out of the paid workforce: 30 per cent leaving jobs in the professional and technical, clerical, trades, production, process work and labouring and student categories, while 29 per cent moved into housework. It has been suggested by some researchers (Acker, 1973; Oakley, 1974) that movement into the position of 'housewife' may be interpreted as downward social mobility, under certain conditions.

Table 6.10 Occupation of Spouse, at Marriage and at Present (or at End of Marriage) Women and Men (percentages)

	Women (N = 291) Husbands		Men (N = 103) Wives	
Occupational group (based on Census categories)	At marriage	At present or end of marriage	At marriage	At present or end of marriage
Professional and technical	52	69	57	44
Administrative, executive, managerial	6	13	—	1
Clerical	6	4	19	7
Sales	0.5	—	—	—
Farmers, fishermen	—	0.5	—	—
Tradesmen, production, process workers, labourers	8	2	3	1
Service, sport, recreation	0.5	1	—	1
Armed services	3	0.5	1	—
Student	23	7	12	9
Not in the paid workforce[a]	1	3	8	37
	100	100	100	100

[a] The category 'Not in the paid workforce' is comprised of people who are unemployed or invalid or who are 'housewives'. Spouses of academic women who were not in the paid workforce were usually either unemployed or invalid. Spouses of academic men who were not in the paid workforce were, but for a few exceptions, 'housewives'.

It is an exercise fraught with problems to attempt to infer particular relationships from a table of occupational categories. However the pattern is consistent enough with other qualitative data previously discussed (such as respondents' attitudes to the natural or conventional 'place' of married women and the duties of mothering) to suggest that the women in our sample are much less likely than the men to enjoy domestic support. The majority of married academic women in our sample are (or were) married to men with jobs in the professional, technical, administrative and executive categories (almost 30 per cent are married to other university and college teachers). These are jobs whose career structures and promotional ladders rarely provide men with the time or the incentive for a great deal of domestic involvement. In comparison, a smaller proportion of our married male respondents have wives employed in the professional, technical and administrative sectors of the workforce (12 per cent are married to other university or college teachers) while a considerable minority have wives who are not involved in the paid workforce. We may infer that, as a group, but not necessarily in all cases, men are more likely to be provided with domestic comfort and good order which academic women must either provide for themselves or pay other women to provide.



However, occupations are not the total determinants of domestic life. Job demands may cut into time available for domestic and private life; salaries and wages provide greater or lesser material resources to purchase child-care and other substitutes for the housewife's labour. Even within the constraints and rewards of professional/administrative jobs, however, it is possible to construct 'joint role' or 'symmetrical' marriages depending on peoples' interests and their definitions of an appropriate or just domestic division of labour.

An illustration of both husband and wife completing their post-graduate degrees during the course of the marriage is given by a woman lecturer in psychology. In response to the question: 'How did your husband's attitude

affect your pursuit of post-graduate studies?' she wrote: 'My husband provided both emotional support (occasionally a kick in the pants even) and financial support. He was doing his PhD at the same time which also helped. We delayed having children until these were completed.'

Other women respondents attest to the positive effects of their husband's emotional and sometimes financial support while they were doing post-graduate research. The most likely situation in which this pertained was when the husband was also a post-graduate student (or had recently been a student), and when the woman had already, or would in the future be providing similar support—in other words, in a situation of reciprocity:

- Tutor, Behavioural Sciences, post-graduate student: 'My husband is now more accepting of my career (and more prepared to take some responsibility for childcare) since he has left a 9–5 job and started studying too.'
- Tutor, Social Work, husband a lecturer in social sciences: 'We took it in turns to work and study. This is the first time we have both had a regular income.'

A minority of our men respondents also give evidence of a similar pattern of reciprocity:

- Lecturer, History, wife a student: 'She supported me while I was studying at the university, now I am supporting her (and us) while she is studying.'
- Lecturer, Philosophy: 'We were both post-graduate students together, and we are now both lecturers. This required me to organize my work, study and general life to accommodate both our needs.'
- Lecturer, Social Work, wife a medical practitioner: 'We came to Sydney so that she could train here. Our work is greatly inter-related—we help each other a lot with it personally and publicly—she earns more. That's good too.'

However, situations are often more complex than these relatively straightforward accounts of reciprocity suggest. (Responses to a questionnaire, of course, cannot do justice to the actual day-by-day 'working-out' of such arrangements and the range of compromises, potential conflicts and exchanges of support of which they are comprised.)

- Lecturer, Science: 'I began my PhD on a post-graduate scholarship and living with my parents. I finished it fourteen years later, married, with no scholarship, living with my husband, my father (my mother had since died) and two small children. Thus domestic responsibilities were greater in the latter part of the candidature, but live-in housekeepers and a great deal of family co-operation made completion possible. Moreover, my husband's income as a shift worker barely covered household expenses, so I financed the completion of the degree with part-time demonstrating at university and two evening colleges.'

In contrast to the pattern of reciprocity, analysis of the women's open-ended responses reveals another recurring pattern of women postponing or interrupting their post-graduate studies because of the demands made upon them by their husband's studies or the location of his job:

- Research Assistant, Applied Science: 'The commencement of my PhD studies were delayed by the geographic location of my husband's work in a place where no suitable course was available. My commitment to caring for our children when they were young deprived me of many years of work experience and possible advancement. Also, I have resigned from two academic appointments because my husband's employer transferred him to another state.'
- Lecturer, Science: 'My commitment to my husband and his work has restricted my obtaining overseas training, attending overseas conferences or accepting interstate or overseas assignments or jobs.'
- Tutor, Arts: 'I had to abandon work on my doctoral thesis because my husband was accepted by a medical school in another city a year earlier than we had expected and I found it impossible to concentrate on research while worrying about the financial problems this brought about. Therefore, I haven't the necessary qualifications for a tenured post.'

In such cases, which constitute a significant proportion of our married women respondents, husband's job or career has been given priority over the wife's post-graduate training and her availability for full-time paid work in the area of her interest. This situation is usually accentuated when children are born and women take on the major or total responsibility for their care.

Even so, some of our respondents show that their joint attempts to inter-relate jobs, studies and household and child-care responsibilities are rarely simple processes which are easily amenable to the spouses' intentions.

A tutor and post-graduate student in philosophy illustrates this well. In response to the question: 'How does (or did) your husband's occupation and income affect your work or study situation?' she answered: 'His fairly high earning rate has given me reasonable freedom from financial worries, has paid my fees when necessary, also books, etc. without strain. But his long hours of work have meant he is rarely available during the week to help mind children, do shopping, etc.'

Later, in response to the question: 'How would you characterize the inter-relation of your career and your husband's?' she wrote: 'We are working towards equality of careers and sharing of all home duties. I want it and he is so far accepting it. But it can't happen overnight.'

All attempts to inter-relate jobs and domesticity do not inevitably impose strains, particularly when there are no children in the relationship. Several women respondents noted the stimulation and pleasure which they obtained from the interchange of ideas with a husband working in the same or a related field:

- Tutor, Education: 'Since my husband teaches in a high school and I at university in the field of education, we frequently discuss (and sometimes argue about) differences between practising education as he does, and theorizing about it (his perception) as I do'.
- Tutor, Geography, husband also a university teacher: 'My husband's interests are similar to mine. We are both enabled to work effectively in the relationship. We gain intellectual stimulus, similarly flexible working hours, financial security—no need to find highest paying job available.'
- Senior Tutor, Biological Sciences, husband a research scientist: 'My relationship with my husband promoted and strengthened my work. But the arrival of the baby makes intensive work more difficult.'

This respondent above introduces the critical element in any discussion of dual career marriages—who takes care of the children?

- Part-time Tutor, Science, husband a medical practitioner: 'Due to heavy home commitments, I found full-time employment too demanding and although offered a full-time position, elected to work part-time only. My commitment to husband and children has meant acceptance of a limited academic career as I am not prepared to put my career before my family's welfare.'

A senior tutor whose husband is a professor in the same field, and who has cared for two children, has spent forty years teaching, twenty-six years part-time and fourteen years full-time, but she does not currently hold a tenured position.

There would seem to be no need to spell out the career contradictions involved in such domestic decisions (or taken-for-granted non-decisions) about how household and child-care duties will be apportioned. While only a minority of the married women in our sample hold the view that it is women's natural or conventional responsibility to care for children and this militates against or excludes her entirely from full-time study or a full-time career position, this view is widely held by our male respondents. The following are a selection of responses illustrating this position.

An associate professor in science whose wife was a secretary and not currently employed, replied that he takes a 'neutral' attitude towards his wife having a job, and describes himself as having a minor share in the care of their three children, while other household tasks are divided on the basis of sex. In response to the question: 'What do you consider the ideal care for young children?' he wrote: 'A man plus a non-working wife'.

A professor of medicine whose wife is not employed, takes a 'neutral' attitude towards her having a job. He described himself as having a minor share in the care of their three children, helps with certain household tasks on the basis of sex, and believes that 'reliable, consistent mothering' is the ideal form of care for young children.

A lecturer in education whose wife was a clerk and is not currently employed, takes a minor share in the care of their five children, approves of his wife's having a job, and believes that: 'A loving mother in full-time attendance with emotional and economic support from the father' is the

ideal form of care for young children.

A senior lecturer whose wife has a post-graduate degree in the same field and is not currently employed, takes a minor share in the care of their four children and disapproves of his wife having a job. He wrote: 'I disapprove of full-time employment until children are approximately 15 years old. No objection to occasional or part-time work.'

A similar pattern of responses recurred fairly consistently. However, there was also a countervailing, but less frequently recurring set of responses from men whose wives have skilled job qualifications and are usually employed—men who wrote that they try to share in the care of their children and who attribute the scarcity of women in academic life to processes of institutional discrimination and the psychological inducement for women to withdraw from competitive, intellectual work. In terms of their ages, university positions and disciplines, these two groups of men are not distinguishable.

Another index of these domestic contradictions and their relationship to women's academic careers is found in our data on women's family size and the periods of time which they have spent outside the workforce taking care of children. Of our women respondents with one child (N = 53), 50 per cent have been employed continuously, full-time; 15 per cent have combined part-time and full-time continuous employment; 5 per cent have been employed continuously on a part-time basis, and 30 per cent have taken time off from paid employment to take care of their children for an average period of one year. Of our respondents with two children (N = 70), 20 per cent have continued full-time employment, 10 per cent have been continuously employed on a part-time basis, and 70 per cent have been out of the workforce for an average of three years while taking care of children. Of those respondents with three children (N = 30), 15 per cent have been in full-time continuous employment, 18 per cent have combined full-time and part-time continuous employment, while 67 per cent have taken time off for an average period of six years for child-care. Of those women with four or more children (N = 19), 10 per cent have worked full-time, 5 per cent have combined full-time and part-time continuous employment, and 85 per cent have taken time out for child-care, for an average period of twelve years. The pattern is clear; with more children to care for, women are more likely to take time out from their paid employment and to be out of the workforce for a longer period of time.

However, the patterns of family size of our women respondents and the periods of time which they have spent outside the workforce taking care of children differ according to their university position. As Table 6.11 shows, senior tutors, lecturers and those in the ranks above lecturer are, on average, older than respondents in the more 'junior' ranks and are somewhat more likely to have children. In comparing average family sizes, it should be noted that women in the ranks of lecturer and above, while being on average older than women in the more 'junior' grades, nevertheless have somewhat lower average family size and are somewhat less likely to have more than two children. In this respect, women in the rank of senior tutor are in an anomalous position. They are, on average, considerably older than their colleagues in tutors' positions, being in a similar

Table 6.11 Age; Proportions with Children; Average Family Size; Time Spent Outside the Workforce Taking Care of Children—Correlated with University Position (Women)

Present university position	Age: % in each rank under 30	% in each rank who have had children	Average family size	% of those with children taking time off outside the workforce for child-care			
				no time	2 years or less	3-5 years	6 years or more
Post-graduate N = 29	70	38	1.9 18% have more than 2 children	45	40	12	3
Research assistant N = 56	70	23	2.2 30% have more than 2 children	55	20	5	20
Tutors, demonstrators, teaching fellows N = 147	67	37	2.2 33% have more than 2 children	50	18	7	25
Senior tutors N = 56	20	55	2.4 40% have more than 2 children	26	30	17	27
Lecturers, assistant lecturers, research fellows N = 100	30	43	1.9 18% have more than 2 children	56	20	14	10
Senior lecturers, associate professors, professors N = 37	—	51	2.0 25% have more than 2 children	63	32	5	—

age range to lecturers and senior lecturers; they are somewhat more likely to have children than women in all other grades and they have the highest average family size.

Of women with children, more than one-half in each teaching rank (except senior tutor) have not taken time off from employment for the purposes of child-care, and those least likely to have done so are lecturers, senior lecturers and those few women respondents in the ranks of professor and associate professor. Again, women in the ranks of lecturer and above are least likely to have spent more than two years outside the workforce. Senior tutors, however, having higher than average family size, are the group most likely to have spent time outside the workforce and for longer periods.

These data suggest that the 'clockwork' of the academic career demands commitment to continuous or almost continuous employment. Those women who have survived the vicissitudes of both domestic obligations and the competitiveness of the academic labour market and have gained appointments as lecturers, or promotion to more senior positions, are very unlikely to have been outside the workforce for any period of time for the purpose of child-care (11 per cent of women in these ranks have spent two years or less outside the workforce taking care of children and only 8 per cent have spent more than two years outside the workforce). To look at the issue from another perspective, four out of five of our women respondents in the ranks of lecturer and above have either not had children, or, if they have, have not interrupted their employment. Our other data indicate that it is currently much harder for women than for men to incorporate their spouse into their two-person career. It would appear that those women who 'choose' or who have no choice but to leave the workforce in order to care for their children are seriously handicapped in a highly competitive labour market—where conspicuous talent at an early age, measurable productivity and precocious promotion are the hallmarks of success.

In order to test some of the claims made about dual-career families, we asked our married respondents to characterize the inter-relation of their occupation with that of their spouse, on several issues: the acceptance of positions; place of residence; responsibility for children; responsibility for household tasks and decisions about holidays and study leave.

The responses have been tabulated for those who indicated that the questions were applicable to their marital situation (95 per cent of the married women and approximately 75 per cent of the married men). The men were asked to categorize the inter-relation of their job and their wife's job if she had ever been employed outside the home since marriage. For the question relating to responsibility for children, the proportions have been calculated for those who have children (Table 6.12).

What emerges most clearly is that the manner in which jobs are interrelated depends upon the issue—on the tasks which must be done or the decision which must be made. When we focus on the proportions indicating primacy of husband's occupation, we see that for the men 'acceptance of positions' emerges as the critical issue: seven out of 10 men categorize their own job as primary. For the women, responsibility for children is the

Table 6.12 Inter-Relation of Occupations, Dual-Job Marriages (percentages)

Inter-relation of occupations	Acceptance of positions		Place of residence		Responsibility for children		Household tasks		Decisions about holidays and study leave	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Own occupation is primary and spouse adapts	4	72	7	48	3	38	3	21	10	47
Spouse's occupation is primary and respondent adapts	47	1	44	4	57	10	43	7	29	3
Both are equally important—mutual adjustment	49	27	49	48	40	52	54	72	61	50
N	278	79	277	77	188	67	274	81	256	73

critical issue: three out of five women with children categorize their husband's job as primary. We know from other qualitative data previously analysed that these two vital aspects of the inter-meshing of domestic and occupational life loom large in our respondents' experience. It is also significant that 43 per cent of the women academics see their husband's job taking precedence in relation to household tasks compared with only 7 per cent of the men. The men are much more likely than the women to see responsibility for children and for household tasks as a matter of mutual adjustment in which both jobs are equally important. We cannot view these responses as 'conflicting definitions of the situation', since these respondents are not involved in the same marriages. We would need to interview both the husbands of our women and the wives of our men to begin to grasp the complexities of these inter-relationships. But we should heed Jessie Bernard's warning that there are two marriages in every marriage—'his' and 'hers'—and these respective perceptions of reality may not be consensual (Bernard, 1972).

On one major aspect, however, there is no gender differentiation at all: I refer to the very *small* proportions of respondents who see women's job interests as primary. Both the women (with reference to themselves) and the men (with reference to their wives) indicate that the women's job is very rarely given precedence in relation to the issues which were posed.

Turning to those dual-job marriages where respondents indicated mutual adjustment and the equal importance of occupations: again, the categorization is contextual and issue-related. In relation to responsibility for children, 40 per cent of women with children report mutuality; in relation to the acceptance of positions and place of residence, 49 per cent report mutuality; in relation to household tasks, 54 per cent report mutual adjustment; and in relation to decisions about holidays and study leave, 61 per cent indicate mutuality. These slight variations should not be allowed to obscure the similarity of the proportions, which indicate that approximately one-half of our women respondents in dual-career marriages categorize their domestic/occupational arrangements in terms of mutual adjustment, or what we might call 'reciprocity'.

For our men respondents, a hierarchy of contexts and issues emerges: men are least likely to indicate mutuality in relation to the acceptance of positions (27 per cent), more likely to indicate mutuality in relation to responsibility for children (52 per cent) and most likely to do so in relation to household tasks (72 per cent). The over-all proportions of men indicating reciprocity therefore cannot be approximated — what is most significant is that different areas of domestic life and decision-making appear to be negotiated differently. Primacy in the acceptance of positions (that is in relation to occupation) would appear to be of greatest importance to the men, while reciprocity in relation to responsibility for children and household tasks is easier for them to envisage.

The question must be asked: What did our respondents understand by the term: 'responsibility for children'? Analysis of another question about child-care which we asked the men makes us keenly aware of the complexity and range of activities and responsibilities involved in this question. We asked the men to indicate whether they took a major, equal, minor or

no share in the care of their children at various stages in their children's lives. We found that of those men who reported mutuality of jobs in relation to 'responsibility for children', 60 per cent indicated that they took a minor or no share in the care of their children from birth to two years; 62 per cent indicated that they took a minor share in the care of their children aged three to five, but 60 per cent reported an equal share in child-care for their school-age children in the hours after school and in school holidays. In addition, all but one of the few men who reported that their wife's job was primary in relation to responsibility for children, indicated that they took a minor share in child-care when their children were of pre-school years.

Clearly, 'responsibility for children' is *not* the same as taking an equal share in child-care. The answers to this question and our analysis of other data indicate that the crucial issue is the care of infants and young children—a responsibility which continues, in the majority of cases, to devolve upon women.

In order to gain a fuller understanding of our respondents' experience of negotiating dual-career marriages and family life, we shall leave the quantitative analysis and allow the respondents to speak for themselves.

The responses which follow have been selected to illustrate the potential for reciprocity in dual-job marriages — to highlight the potential for change in the employment/domestic nexus and to show that the traditional division of labour is, in some circumstances, being challenged and transcended.

A senior tutor in the social sciences alerts us to the problem of using only the quantitative data as evidence of our respondents' conjugal relationships. On all questions relating to the domestic division of labour she indicated that she was held, and held herself responsible for housework, cooking, child-care and substitute child-care arrangements. However, she also indicated that this situation caused her little rancour, and appeared to generate few conflicts. She used paid substitutes for her labour wherever possible (the laundry and the restaurant), and she indicated that she derived pleasure from her husband's intellectual and emotional closeness with her own interests and projects—in a situation of reciprocity which appears not to be concerned with the 'mechanical' division of labour. Commenting on the question relating to the inter-relation of jobs, she appended this comment:

• 'These have never been an issue for us! Have simply indicated what has happened (husband's career was more important on all but place of residence). Husband is very encouraging about my work. Approves of it, is interested in it, seems in no way jealous or resentful. He is simply very undomesticated and unwilling to take on household tasks or much responsibility for child, especially when very young. House and children are women's business. However, I intend to go on study leave next year with my child and without my husband—and so far he hasn't complained—so I suppose he intends to "adapt".'

A tutor in arts, whose husband took care of their three-year-old child

while she was teaching, commented on the effects of her employment on her child:

- 'So far not much, except that it emphasized my husband's maternal role'. She also commented that 'the second, domestic role which women have been forced to play prevents women from taking themselves as seriously as men. This is a virtue in that they don't become so dehumanized, but it consigns them to dilettantism in their life occupation.'

What these two respondents and many of our other respondents with children indicate is their strong belief (which they also put into practice) that, using a variety and a combination of child-care arrangements (sharing with one's partner or other household members; employing a baby-sitter, nurse or housekeeper; calling on the services of a network of friends and relatives; finding a creche or a kindergarten) they can continue in academic work, both research and teaching. In the process, according to some of the women and men, the worker/parent/partner is able to remain or become more 'human', since paid work and the competitive career are not able to subsume the whole of life.

A senior tutor in arts comments that her life-style (living with husband and children) 'slowed my progress through the "expected career pattern" but enriched my participation in woman/family research areas and in teaching. Most significant contribution—the development of a "whole life"—in "whole human experience" rather than a "careerist philosophy".'

In addition, she commented that she has 'gradually learnt to take my career more seriously and my husband, (a scientist) who encouraged me in this, has gradually realized that this means inroads into his own time and career plans'.

A tutor in the behavioural sciences articulates the attitude of a substantial minority of women (and a few of the men) that the 'clock-work' of the academic career, with its built-in notions of progress in a hierarchy, are situations which they do not accept unquestioningly—but subject to critical scrutiny. She wrote:

- 'The present university structure with its continuum of achievement and philosophy of learning is at odds with their [some academic women's] views of learning and achievement.'

However, other women do not feel alien to the career system, particularly when their domestic/private life and social circles reinforce its values and support their own position in it. A senior lecturer in arts, whose husband is a university teacher, commented on the effects of her life-style (living with husband and children) on her job: 'Beneficial support and stimulation from my husband—need to operate more efficiently occasioned by the presence of our children'. Her husband's work situation has given her 'commitment to the same place of work, flexibility of domestic arrangements, intellectual stimulation, emotional support'.

A senior lecturer in law appended this final comment on her questionnaire, which shows that she views her job and her marriage in close, beneficial inter-relation:

- 'My choice of career was (among other factors) strongly motivated by the idea: "It's a man's field—I must prove a woman can do it!" I recognize that this attitude is only possible where a woman can get highly qualified enough to put her appointment beyond question. One further comment—my husband and my friends all tend to be similarly minded—that is, dual-career graduates with firm intentions of both husband and wife that family life shall not suffer and shall equally not prevent or hinder the wife's career. It would almost be non-conformist in our social circle for a woman to give up work solely to devote herself to home and children. Most husbands would, I think, take my husband's attitude—he is very strongly against abandonment of the wife's career. He was prepared to take up a university job with a step down in salary and status to enable me to take my present position. Our adjustment of careers will certainly require some big decisions later as our areas of study require mobility, but this is on the basis of what is best for both of us.'

It would be misleading to leave the impression that only women married to academics are able to negotiate a dual-job marriage. A lecturer in science whose husband is a skilled shift worker writes that she and her husband have shared household tasks, child-care (as far as hours of work would allow), the nursing of a sick parent. Her responses are permeated by a sense of matter-of-fact cheerfulness, particularly apparent in her ongoing attempts to combine post-graduate study, paid work and domestic obligations very often aided by joint family activity.

Conclusions

The data in this chapter pertaining to the domestic, marriage and family experiences of academic women and men are interesting in their own right, in so far as they give us a glimpse into the relationships which a particular group of women and men (within a particular educational level and range of occupations) construct in their 'private' life. However, for the purpose of our study of women academics, the significance of this chapter on 'home-life' lies in the evidence it provides of the close nexus between private life and paid work—in this case, the academic career.

Clearly, the Australian data support overseas research findings and explanations.

First: that women university teachers (in comparison with the general population of women and with their male colleagues) are less likely to be married, less likely to have children, and have smaller families. This finding may be explained in either of two ways: married women with children are eliminated from the competitive academic labour market; or tertiary educated women with a secure, relatively well-paid job (with intrinsic interest) are able to construct alternatives to marriage, domesticity and motherhood. I believe that both processes are operating.

Second: that a 'forced' choice between domesticity and motherhood or

career is placed before suitably qualified women, but not before suitably qualified men. Men in academic jobs are very likely to enjoy a domestic support system which is useful not only in terms of 'private' emotional gratification, but also because of the provision of an additional, facilitative base for the rigours of an achievement-oriented, competitive, geographically mobile career-system. In other words, the academic career tends to function as a two-person career: women academics are less successful in incorporating a partner into their two-person career, and are even quite likely to be called upon to serve as their partner's 'second'.

Third: that the 'clockwork' of the academic career has built into it a set of assumptions and processes concerned with continuity, competition, hierarchy, and, of utmost importance, set within a time scale in which reputations should be made and secured early. In this career-system, people (usually women) with job discontinuity (for domestic reasons) and pressing domestic obligations which may prevent total absorption in the job, are seriously disadvantaged.

Fourth: that processes of discrimination against women in the academic labour market are to be understood not only in terms of those institutional processes of attrition and exclusion which take place in the education system, in processes of recruitment, promotion, reward and control in the profession; but also in the material and ideological underpinning of the sexual division of labour in the family.

But—from the evidence of a minority of our respondents—some changes are taking place, changes at the level of ideas and practice which challenge the traditional domestic division of labour. The Australian academic labour market, however, in its present 'steady-state' condition, may not, in the short term, feel much impact from these changes in the family, since recruitment opportunities into the career-grades and promotion opportunities out of the 'junior' ranks will shrink and the currently-occupied career grades will consolidate.

But family changes tending towards 'reciprocity' appear to have a stimulating effect on those who experience them—effects which bear watching.

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7

Dr Who? Women in Science and Medicine

Diana Temple

The professions of engineering, law, medicine, veterinary science and, to a lesser extent, science, have always been male-dominated, and the results of our survey reaffirm this. There are indications that the situation is changing. The proportion of women in university departments is increasing, particularly in medicine, pharmacy and veterinary science. A third of our women academics were educated in a science-based faculty; 29 per cent with a BSc as their first degree and approximately 1 per cent with first degrees in each of the faculties of medicine, agriculture and veterinary science, while 61 per cent of our respondents had a BA as their first degree (Figure 7.1a). These first degree figures may be compared with 43 per cent BSc in the male sample, 4 per cent MBBS, and 28 per cent BA. The academic fields in which women are currently working produce a similar picture, but the total of 37 per cent now working in scientific fields (Figure 7.1b) suggests that a small proportion of women have moved into science-based academic areas since completing their first degree. For the purpose of this chapter, 'science-based' faculties include pure science, applied science, medicine, dentistry, veterinary science, agricultural science, engineering and mathematics.

Why Science?

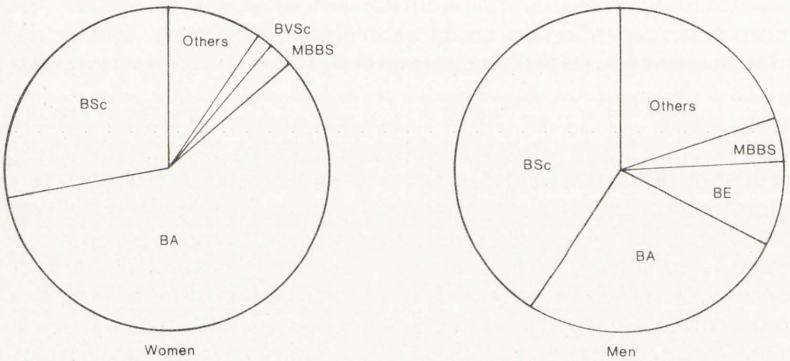
What causes women to crowd into the arts and humanities (although in the academic world men still predominate there), and to be so underrepresented in the science-based fields? The socializing of women is probably the main factor responsible for channelling some of them into the traditional spheres of learning. Women have been conditioned to regard science as a masculine area into which they should not intrude, to think that subjects like physics are 'hard' and that engineering and mathematics are unfeminine. The sex-role stereotyping of girls by school and society which produces attitudes like these in intelligent young women is discussed in 'Girls, School and Society' (1975) where it is stated that having a

brain for mathematics and science is considered to be harmful to social success. A mathematics lecturer answering our questionnaire says 'Girls learn early that academic success is not considered socially desirable and give up'. Horner (1972) discusses the psychological barrier to achievement which motivates women to avoid success in careers, and particularly careers among males.

In addition to this well-documented conditioning against science, there is also some evidence that schoolgirls perform on average less well than boys at science and mathematics (Reeves and Read, 1976). This may be part of a real preference or aptitude for fields which are more people-oriented (Kelly, 1974). The mathematical achievements of girls have, however, been defended by Fennema and Sherman (1978). The educational bias starts very young, and many professional women were already headed down traditional pathways in their school-days, either by insufficient careers' counselling or by lack of certain subject facilities in the schools they attended. Girls' schools are notoriously worse in their teaching of science subjects than boys' schools, and at co-educational schools the subtle forces mentioned above are responsible for fewer girls than boys studying mathematics and science.

Figure 7.1 First Degrees and Current Fields of Work of Academics Surveyed

(a) First Degrees



(b) Fields of Work

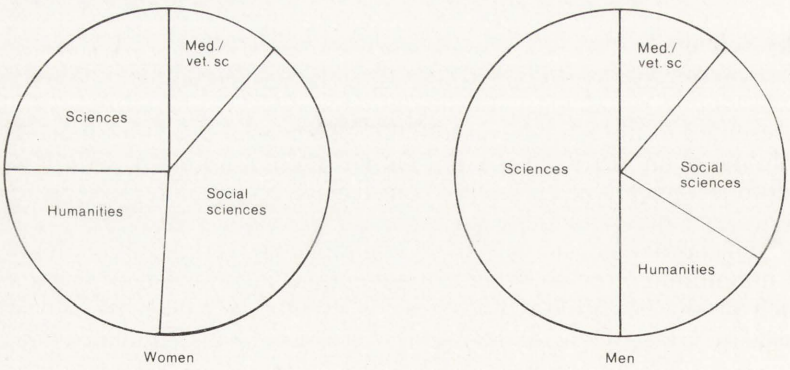
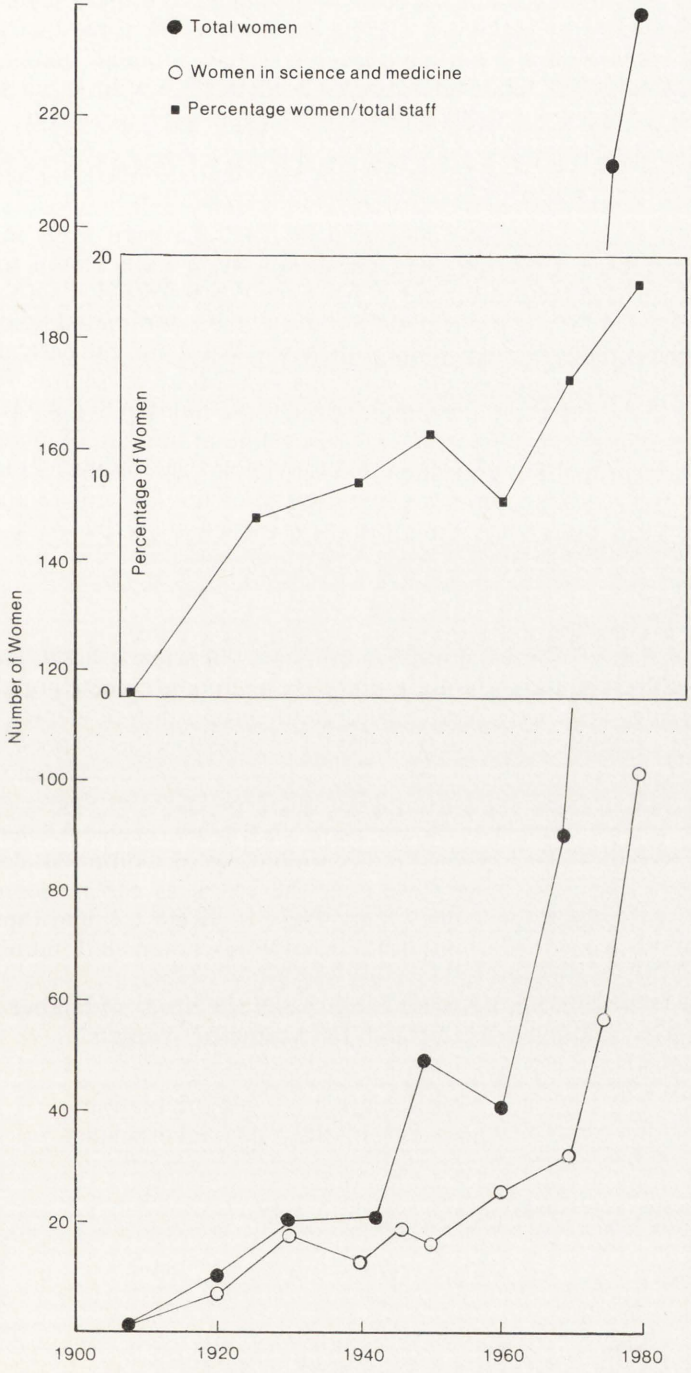


Figure 7.2 Academic Staff at University of Sydney, 1900–80



The women surveyed who were employed in science-based faculties showed, predictably, a stronger tendency than others to have studied higher level mathematics and science for matriculation when at school. Nearly two-thirds of respondents in science and medicine/veterinary science had studied higher level maths as schoolgirls, and nearly three-quarters of scientists and medical/veterinary scientists had studied higher level science. In contrast, about one-third of academics now in social studies studied these levels of maths and science (Table 7.1). However, 23 per cent of the 48 academics in medicine/veterinary science who answered this question claimed that at the schools they had attended, higher level science was not available.

Sex differences in science education in Australia have been analysed (Reeves and Read, 1976) and evidence produced for an increased employment of women in scientific occupations since World War II. There was an early increase in female participation in these male-dominated fields during the period 1911–21, coinciding with World War I and the early days of the women's rights movement, and this is evident in figures for the increase in numbers of women employed in these fields at Sydney University during those years (Figure 7.2). The decline in the rate of increase in numbers and proportion of women that is evident (see Figure 7.2) around 1950, which is a reflection of a general trend of the immediate post-war period, is also noted for American women scientists by Alice Rossi (1965a).

Students of Science

The proportion of women academics employed in science-based faculties does not reflect the proportion of women in the undergraduate population. Taking Sydney University as an example, the proportion of women members of the academic staff in the science faculty in 1980 was 16 per cent and of the medical faculty 19 per cent. These figures may be contrasted with those for women students currently enrolled for bachelor degrees in the faculty of science, which is 39 per cent, and in medicine, 33 per cent. There has been a clear trend for the proportion of women students in science-based faculties to increase over the years, as can be seen from statistics, particularly for Sydney University, in Table 7.2; and there is a similar but probably less pronounced increase in women staff members in

Table 7.1 The Relation Between Faculty and the Study of Higher Level Mathematics and Science at School, for Academic Women (percentages)

	Matriculation high level maths	Matriculation high level science	N
Science	61	72	106
Medicine and veterinary science	60	75	49
Humanities	60	31	103
Social studies	36	36	170
			(428)

the same faculties. The sharp increases in medicine, and in veterinary science where the proportion of women students has more than doubled in the past ten years, are the most striking in Table 7.2. As a result, a senior lecturer in veterinary science speaks of 'mutterings from male Faculty members about vastly increased intake of female students under the quota system based on exam results only', and similar mutterings have been heard in medicine and pharmacy.

It is apparent from Table 7.2 that the proportion of women students enrolled in degrees in science-based faculties is rising quite sharply. An increase is seen in the percentage of women enrolled in all bachelor's degrees, which is most striking in medicine, veterinary science and architecture, although a levelling of the rate of increase or a slight fall appears in the proportions of females in some faculties in 1980, for example science and medicine at Sydney University. The proportion of women PhD candidates has also risen remarkably in most faculties and departments.

The Scientists and Applied Scientists

The women academics in the 'applied science' fields of veterinary science, agricultural science and engineering, and the pure science fields of physics and chemistry, are scarcer than those in the medical sciences or biosciences, which include medicine, biochemistry, zoology and botany (Table 7.5).

The women in the applied science fields, where it is very unusual for females to participate, must therefore be regarded as pioneers, having presumably chosen to study their fields in a period when it was a more unusual choice for a girl than now. Alice Rossi (1965b) classified American women in science and engineering by way of career goals as homemakers (90 per cent married, goal to be a housewife), traditionals (66 per cent married, career ambitions in fields traditional for women) and pioneers (50 per cent married), who were characterized by their lesser dependence on interpersonal ties, being less nurturant and more independent. Rossi noted the importance of these girls' fathers in their formative years, in cultivating their interest in science. She also noted that the key difference between the sexes lies in the kind and degree of independence received in childhood. In Rossi's sense, probably most medical/veterinary/agricultural/chemical academics in this study tend to be pioneers.

In a review of American women scientists and engineers, Vetter (1980) showed that women had doubled their share of bachelors degrees in these fields and tripled their share of PhDs since 1960. About 80 per cent of women with science and engineering training were in the American workforce but many were employed in fields outside their training.

Engineering has always been a particularly male-oriented profession in Australia. In 1980, 51 (4.5 per cent) of the undergraduates in the Faculty of Engineering at Sydney University were female, and 51 (2.6 per cent) at the University of New South Wales. Figures for all Australian universities show a remarkable increase in the number and proportion of women students enrolled in all types of engineering, from 0.1 per cent in 1960 to 0.7

per cent in 1968, 2 per cent in 1974 and 6 per cent in 1981. Only one of the academic women who answered our survey was an engineer. In 1980, the University of New South Wales listed two women tutors on the staff of its engineering faculty.There was one female lecturer in engineering at the Institute of Technology but none at Sydney University. Macquarie University has no engineering faculty.

A few years ago, a young woman broke tradition and was employed in a junior teaching post in an engineering department at Sydney University. A story is told that the week she started, an elderly engineering lecturer walked past the open door of a lecture theatre where she was instructing a class, and, very shaken, reported to a colleague: 'There is a *woman* in there, *writing on the blackboard!*'

It may not be only socialization and the general disapproval of peer-groups and society that inhibit women from entering the engineering profession (just as they are inhibited from taking up apprenticeships in engineering-based trades). While women scientists appear to meet relatively little open sex discrimination in employment, and doctors meet it mainly in certain specialities, the range of jobs open to women engineering graduates is probably more restricted than those available to men. Though minuscule, a higher proportion of women are employed as engineers in Britain and the U.S.A. than in Australia (1 per cent in U.S.A., 0.5 per cent in Britain [Kelly, 1974] and 0.2 per cent in Australia) though they are scarce in academic fields.

Most people have a mental image of what a female engineer might be like. When my daughter was born during a period I spent in the U.S.A. I shared a hospital room with a pretty young American woman who seemed to be a very pleasant outgoing average American from the much excited chatter to the groups of gushing friends who visited her bearing flowers and gifts for the baby. During a neighbourly exchange of conversation, she asked me if I had a career, and volunteered that she was an aeronautical engineer. My astonishment then has helped me since to be more wary of stereotypes, and of judging people by appearances.

The Medical Profession

Medicine and veterinary science are, in Australia, the two most competitive faculties for entry. Students enrolling in medicine and veterinary science at the University of Sydney did so on the basis of aggregate marks from the Higher School Certificate, so high that in 1982 they were in the top 21 per cent (medicine) and 37 per cent (veterinary science) of students enrolling in all faculties at that university. There has been much discussion of the method of selection of students applying for entry to these faculties where demand far exceeds supply of places, and some medical schools in the U.S.A. and Britain use additional methods of assessment including interviews and questionnaires aimed at uncovering special aptitudes and personality traits. Such a method of selection is in use for half of the students entering the new medical faculty at the University of Newcastle. It will be interesting to observe the results of this selection procedure, which is open to criticism.

This competition for entry, and the high cost of training, currently estimated to be $100 000 per student, underlines the need for a responsible attitude among medical graduates to their obligations. It is widely thought that women graduates have an obligation to use their highly sought-after and expensive education for the benefit of the community, and most girls among the undergraduates appear to accept this responsibility. It is rare to find an attitude as casual and self-centred as that of a woman medical student, interviewed in the ABC television documentary *Chequerboard* on medical students in 1974. She reported that she had just become engaged, was to live in the country, and would 'let my husband decide' as to whether she would practise after her marriage. When questioned further about this by the interviewer, she saw nothing amiss with her attitude, because 'I've enjoyed the five years of work [study]'. The other women medical students interviewed reported, in contrast, that all intended to use their medical training.

It is notable that while the entry standards for medical undergraduates have been becoming progressively higher in the past twenty years, the number of women enrolling has increased progressively also— a reflection, no doubt, of changing attitudes of schoolgirls, their parents and counsellors on the suitability of medicine as a career for women. Some medical schools overseas have special quotas for women, aimed at limiting their number to a small proportion of the total intake. This was also suggested in Australia several years ago by certain influential members of the medical profession. The 'justification' for this is that many women medical graduates may drop out, or at best work part time, for a number of years in the cause of motherhood and family commitments, and thereby waste the scarce university and hospital resources which had contributed to their training, as well as their great cost, largely government-borne.

The comprehensive research of Ione Fett (1974) on Australian women medical graduates, the whole population of whom (2540) she surveyed in 1972, showed that women medical graduates had remarkably little tendency to abuse their relatively privileged position. The time spent away from full-time work by medical women during their whole careers was notable for its brevity. At the time of the survey, 89 per cent of the medically

qualified women were employed using their medical skills compared with 92 per cent of medically-qualified men. It is true that the women medical graduates worked shorter hours than their male colleagues. One reason for this, shown in a more recent paper by Fett (1976), is the quite extraordinary division of domestic responsibilities applying to households where husband and wife were both working doctors. The working doctor-wives were found to spend about as many hours per week on domestic pursuits such as child-care, shopping and preparation of meals, as non-working wives of other doctors. Fett comments:

Table 7.2 Women Undergraduate Students Enrolled in Science-Based Faculties for Bachelors and Post-Graduate Degrees, Expressed as Percentage Women/Total in Each Group

University of Sydney		1956	1966	1976	1980	N
Science	BSc	32.3	33.6	40.0	38.9	1906
	BPharm (Pharmacy)	34.3[a]	53.0	66.0	55.3	481
	MSc	n.a.	28.7	28.8	33.5	152
	PhD	n.a.	10.4	18.3	19.3	202
Medicine	MBBS	16.7	21.1	35.7	32.5	1229
	PhD	n.a.	10.0	30.3	34.1	41
Veterinary Science	BVSc	7.3	14.0	33.7	39.3	318
	MVSc	n.a.	33.3	21.9	44.1	34
	PhD	n.a.	0	22.2	25.0	20
Agricultural Science	BSc (Agr)	15.1	13.7	28.3	30.5	167
	MSc & MAgr	—	15.4	15.9	19.8	106
	PhD	—	5.2	14.3	19.0	42
Engineering	BE	0.2	0.7	2.5	4.5	1136
	ME	—	—	—	1.8	55
	PhD	—	—	1.8	0	51
Architecture	BSc (Arch)	—	—	37.2	35.6	227
	BArch	19.5	15.6	26.4	35.0	120
	All masters	8.1	8.8	—	15.4	26
	PhD	—	0	23.5	13.0	31

New South Wales Institute of Technology	1980	N
School of Life Sciences	64.2	497
School of Physical Sciences	11.2	223
Engineering	7.6	1576
Maths and Computer Science	30.1	234

N = total number enrolled, 1980. n.a. = information not available.

[a]Diploma of Pharmacy.

> This division of labour is an exact reflection of the general status relationship of men and women in the wider society, but in spite of men and women in Medicine being stringently selected from the most highly educated category... if allowed by default to continue... a second-class status for women in Medicine can confidently be predicted.

The burden of work and responsibility on such women may, of course, be shared by other professional women with family responsibilities. Simi-

Table 7.2 - *continued*

University of New South Wales		1973	1976	1980	N
Science	BSc	34.5	38.3	41.8	2012
	MSc	12.8	12.5	19.1	63
	PhD	7.1	13.5	9.8	102
Applied Science	BSc	17.5	22.3	24.1	849
	MSc	8.8	12.3	15.6	109
	PhD	4.4	12.9	16.5	109
Biological Science	BSc	56.8	63.8	62.9	170
	MSc	34.4	21.5	34.3	67
	PhD	26.0	38.8	34.8	92
Medicine	MBBS	25.4	32.3	30.0	1130
	MSc, etc.	37.5	30.0	34.6	26
	PhD and MD	34.0	27.0	25.4	59
Engineering	BE & BSc (Eng)	1.1	1.5	2.6	1969
	MEngSc	4.2	9.3	2.0	489
	PhD	0	2.4	3.3	122
Architecture	BArch, etc.	11.7	16.0	18.2	1168
	MArch	4.4	10.5	13.6	22
	PhD	11.1	15.8	3.9	26
Macquarie University		1973	1977	1980	N
Biological Sciences	BA	41	48	51	533
	MA	20	33	31	74
	PhD	7	21	35	40
Earth Sciences	BA	35	40	39	483
	MA	0	17	19	68
	PhD	6	11	21	28
Chemistry	BA	24	19	18	124
	MA	14	20	20	25
	PhD	0	19	9	11
Mathematics and Physics	BA	28	30	35	350
	MA	0	26	8	38
	PhD	0	17	0	10

lar surveys of medical women in America have produced comparable results. The productivity of women physicians in Detroit was measured by Heins, Smock, Jacobs and Stein (1976) who showed that 84 per cent of the women doctors surveyed were engaged in medical work, 90 per cent of these 'full time' or more than forty hours per week. Two-thirds of these women doctors were married, and three-quarters of them reported doing all the cooking, shopping, child-care and budgeting in their households. Not surprisingly, 80 per cent of the women doctors said there were 'too many demands on [their] time and energy', which is a familiar remark among dual-career women, whatever the career.

The medical bureaucracy in Australia was attacked by Susan Britton (1979) from her position as Deputy Director of Medical Services in a large Sydney teaching hospital. She produced numerical tables to illustrate and prove her hypothesis that women form the major labour source for the health industry but are not proportionately represented amongst the leaders in the health services: 33 per cent of undergraduates were female in 1978, 76 per cent of all the employees at the Royal Prince Alfred Hospital in Sydney were female, but the proportion of females in senior and medium status hospital positions was very low.

In 1975, Judith Jussim and Charlotte Muller reported that the U.S.A. was remarkable for its under-representation of women in the medical profession: though four-fifths of the people employed in health services in the U.S.A. were women, only 7 per cent of physicians were women. The reluctance to train American women in the medical profession was explained by the estimation that women practise 40 per cent fewer hours than men during their lifetimes. Female enrolment in American medical schools increased from 6 per cent in 1960 to 22 per cent in 1976, and was 24 per cent of new enrolments in 1975 (Heins *et al.*, 1976) and 28 per cent of new enrolments in 1979. In Britian in 1979, 30 per cent of medical graduates were female. American women medical students complain of discrimination against them and the antagonism of some professors, after admission to medical school (Howell, 1974), and very similar complaints about overt and covert discrimination against women students in Australian medical schools were made by students Kate Moore (1978) and Maureen Davey (1977). In Britain, the proportion of women entering medical school is similar to the Australian figure of nearly 40 per cent, while in some Eastern European countries, the figure may be 80 or 90 per cent.

Alison Kelly (1974) wrote about education in science for women in Britain and made the point that the proportion of female doctors in Britain

Table 7.3 Proportions of Women Doctors and Engineers in Various Countries (percentages)

	Doctors	Engineers
Britain	17	0.5
U.S.A.	8	1
U.S.S.R.	74	30
Australia	16	0.2

had increased to 17 per cent. In Table 7.3, Australian data are included with hers.

These great differences between countries in female participation in 'applied sciences' are decreasing with time. In Russia and Eastern Europe, medicine is a female-dominated profession. Despite the rising proportion of women in the medical profession, it seems unlikely that Australia or the other western countries we resemble will reach the Russian figures for women doctors—if it does, the high status and charisma of medicine will no doubt be lost, as in Russia! Medicine could be regarded as a natural choice for women students, with its emphasis on caring and healing.

Women are quite well represented on the staff of each of the two medical schools in Sydney. In 1980, 19 per cent of the medical teaching staff at Sydney University and 20 per cent at the University of New South Wales were female. Thus women appear to be better represented in New South Wales medical schools (Table 7.5 and 7.6) than in the U.S.A. but worse than in Britian. Our survey showed that the women staff in Sydney science and medical departments had the same proportion of married women and mothers as the whole sample of women staff.

Science, Medicine and Social Class

The social class of origin of our academics as seen by themselves is discussed in Chapter 1 (Table 1.4). When class origins are broken down by faculty (Table 7.4), some differences emerge. Nearly twice as many women in medicine and veterinary science as in science give their origins as upper middle class. Incoming undergraduates in the medical faculty at Sydney University were surveyed by Walker, Channon and Beed (in press) and shown to originate from social classes significantly higher than undergraduates in other faculties.

It has been traditional in Britain to regard science as rather 'non-U'; it is a training to which students from the lower-class end of the social spectrum aspire. Williams, Blackstone and Metcalf (1974) classified British academics by subject compared with their father's occupation; university teachers in applied sciences had the greatest proportion of manual worker fathers (39 per cent) and the least of professional fathers (30 per cent), compared with medical teachers for whom the corresponding figures were 24 per cent and 49 per cent. Women university teachers were less likely to come from families with fathers in manual occupations; only 20 per cent of them were in this class, compared with 34 per cent of men.

Similar trends are apparent in the Sydney academic population, women academics in science having the smallest percentage of upper middle class self-classification (Table 7.4). In 1974, Kenneth Hardy, writing of social origins of American scientists and scholars, analysed scientists and other eminent scholars in *Who's Who*. He showed that the most productive 20 per cent of doctorate-awarding institutions in the U.S.A. were those attracting students from high socio-economic backgrounds; in the case of women these included Bryn Mawr, Radcliffe, Vassar, Mount Holyoake and Wellesley. He proposed that women at these colleges had strong career orientations which often led them into scientific pursuits. The social origins of the one-third of the Sydney academic women who are scientists

appear to be diverse (Table 7.4) and not to support Hardy's theories about American academics, though our women in medicine and veterinary science have certainly more tendency to privileged origins. There is no evidence from our survey for academic daughters following their mothers' professions, perhaps because mothers of earlier generations tended not to have professions. Patricia Graham (1970) refers to 'a substantial category of women PhDs [who are] daughters of professional women', and mentions that the daughters of working mothers seem more inclined to pursue definite career patterns than other women. In the Australian scene, it would have been so very unusual a generation ago for a middle-class mother (of a potential medico-to-be) to have or continue her own profession that this is not apparent for the Australian sample.

The country of origin of academic parents seems to have influenced their choice of field. Of the women in medicine/veterinary science, 22 per cent had European-born mothers and 18 per cent had European-born fathers, as did 17 per cent of the women in science compared with 10 per cent in humanities. Humanities and social sciences academic women tended to have English-born fathers (19 per cent and 21 per cent) in contrast to science academic women (10 per cent).

The scientific and medical academic women are less inclined to have worked before becoming undergraduate students than the women in the humanities and social sciences. Both in the humanities and social sciences, 24 per cent of the respondents had worked for two or more years before starting their degrees, but only 13 per cent of the scientists, and 4 per cent from medicine/veterinary science. These figures imply perhaps a greater career commitment from the time of school leaving, and suggest a more favourable socio-economic background for the medically-oriented women.

Another explanation is that among the younger respondents those in medicine/veterinary science are more highly selected, on the basis of a matriculation entry examination. The award of Commonwealth Scholarships followed the same pattern and would probably have made it less necessary for any intelligent medical or veterinary student to need to work to support herself.

Hardy (1974) showed that American scientists who qualify for *Who's Who* entries were only half as likely as non-scientists to claim religious affiliation. Of the respondents to our survey, 58 per cent of the male scientists and 62 per cent of the female claimed to have no religion, and 61 per cent of the women in medicine/veterinary science. The medical and veterinary male respondents tended to be very significantly more religious than those in humanities, only 36 per cent describing themselves as having no religion compared with two-thirds (65 per cent) in humanities.

In Table 1.11 the political allegiance of academics is classified by faculty. The general trend is for both male and female academics in science, and particularly in medicine, to be politically conservative compared with those in humanities and social sciences.

Academic Status and Promotion in Science and Medicine

The proportion of women on the academic staff of science-based faculties

Table 7.4 How Academic Members of Different Faculties See the Social Class of their Origins (percentages)

	Faculty/school							
	Humanities		Social sciences		Medicine/ veterinary science		Science	
Social class	Women	Men	Women	Men	Women	Men	Women	Men
Upper middle	22	6	17	4	25	27	14	8
Middle	45	17	48	39	52	36	45	31
Lower middle and upper working	29	50	28	35	20	27	26	47
Working	4	28	8	23	2	9	15	14
	100	100[a]	100[a]	100[a]	100[a]	100[a]	100	100
	N=96	N=20	N=165	N=20	N=48	N=11	N=102	N=60

[a] Rounded to nearest integer.

is tabulated in Table 7.5. The almost vanishingly small numbers who reach the level of senior lecturer or higher is a striking feature, and it is only in biological fields, including medicine and veterinary science, that a few women have reached senior positions.

Historically, women have been employed on the academic staff in science and medicine significantly before they were in arts (Figure 7.2); predictably in the first twelve years of their history they were confined to the lowest rungs as junior demonstrator or demonstrator. Margaret Deer, BSc, was appointed as Junior Demonstrator in Geology at the University of Sydney in 1908, and began a long succession of women teaching in geology at that university, which remained unbroken until recent years. Two women senior demonstrators in pathology were appointed in 1913, and a demonstrator in chemistry in 1914. In 1916, Gladys Marks, who had been Tutor to Women Students since 1900, was appointed a demonstrator in French. Since those days the number and proportion of women on the Sydney University academic staff has risen greatly. At the two newer universities, the proportion of women has also risen since their foundation in 1949 (University of New South Wales, then called New South Wales University of Technology) and 1965 (Macquarie University). In a history of the chemistry department at Melbourne University, Joan Radford (1977) discusses the proportion of female chemists on the academic staff, and their level of appointment. After the appointment of the first woman, a demonstrator, in 1914, the proportion of women as a percentage of total staff did not vary greatly from 25 per cent for a quarter of a century, then rose to 36 per cent in 1942 and dropped to 10 per cent in 1952, both these fluctuations no doubt reflecting effects and after-effects of World War II. It has since levelled off at about 20 per cent, a lower proportion than during the 1920s and 1930s.

The 1920s are described by Fogarty, Rapoport and Rapoport (1971) as the 'classic decade of breakthrough', when women began to break into the professions. By 1941 some of these women had reached high positions. Although this trend was not maintained, the increasing proportion of women PhD students today gives cause for optimism for the future.

When asked if they believed discrimination against women exists at universities, the replies from women in science faculties were notable for the proportion (48 per cent in science, 43 per cent in medicine/veterinary science) who did *not* perceive discrimination, compared with only 19 per cent in humanities and 22 per cent in social sciences. Our figures for promotion and levels of employment of women in science show few women in top jobs, so that either few suitably qualified women scientists are available for such jobs, or our science respondents are somewhat naive or over-optimistic. More than half the women respondents in humanities and social sciences believe that latent discrimination against women occurs, and another significant group perceives it to be both latent and open. These faculty attitudes are reinforced in the replies to a question asking if a woman was less likely than a man to become a professor: 54 per cent of humanities replies were pessimistic on this issue, compared with only 38 per cent and 37 per cent of science and medicine/veterinary science replies. On the other hand, a forty-year-old woman tutor in a science depart-

ment wrote 'I am not interested in promotion because I enjoy what I am doing'—some women are not ambitious. Whilst on the subject of promotion, a lecturer in the medical faculty who is married with children, while aspiring to promotion, said 'I do not and cannot commit myself as heavily as my male colleagues, many of them work 60 and 70 hours a week'.

The High Achievers

Very few women reach the top in science, and the women we surveyed were no exception. There was a slightly greater tendency for the scientific respondents compared with others in our survey to have taken, or be studying for, higher degrees. While only a quarter of our female respondents were in science (Figure 7.1), they represented 38 per cent of all holders or candidates for masters degrees (mostly in chemistry) and 39 per cent for doctoral degrees. This supports other evidence (Rossi, 1965b) that scientists tend to have, or need, more higher degrees. Figures for the male academic sample showed half of them to be scientists, of whom 56 per cent had masters degrees and 66 per cent PhD degrees. Fewer women in science had first class honours degrees, 21 per cent compared with 30 per cent of those with BAs. Table 7.2 indicates the large increase during the past few years in the proportion of PhD students who are women, both in science and medicine. The current higher aspirations of women postgraduate students, many more of whom are now enrolling for the PhD, indicate that the proportion of women in science and medical faculties may continue to rise, since a pool of qualified women will be available for appointment to academic positions. The commonest problem for women aspiring to higher degrees is that of coping with multiple demands on their time, exemplified by the tutor in biology, explaining having 'dropped out' from a masters degree with 'I decided I was not organized enough to continue research and teaching when the children were small, so I gave up the research'. Another problem sometimes encountered is quoted by a senior tutor in a science department, who had 'a very poor relationship with supervisor for my Masters degree; treatment was very different from his men students'.

Currently, the proportion of women academics in senior positions compared with those who are tutors or senior tutors is markedly lower for the science faculty than for other faculties. When the grades of our female respondents were compared for different faculties, we found 75 per cent of the women in science were in tutor/senior tutor grade and 25 per cent lecturers and above, compared with corresponding figures of 57 per cent and 43 per cent in humanities, and 53 per cent and 47 per cent in social sciences. This may reflect a tendency in science faculties not to promote women, and perhaps greater difficulty for women to succeed in science in Australia. Or it may reflect the high proportion of technical assistants and research assistants who are female in schools of science and applied science.

By 1976 the proportion of women PhD candidates had reached 19 per cent in science, medicine, veterinary and agricultural science faculties at Sydney University (Table 7.2). Vetter (1980) says that in 1974, one-fifth of all PhD holders in the biosciences in the U.S.A. were women and one-

tenth of those in mathematics and chemistry, and comments that these proportions were very similar to those of the 1920s, when one-sixth and one-twelfth of PhDs in biosciences and physical sciences were women, although at that time the total numbers for both sexes were much fewer. During the interim period, in the 1950s, the proportions of women in these categories were much smaller, one-eleventh of biosciences PhDs, and one-twenty-fifth of physical sciences. Sydney did not reflect the American trend: the University of Sydney awarded its first PhD degree in

Table 7.5 Distribution of Women in Academic Staff of Science-Based Faculties, Schools and Departments, 1980, Expressed as Percentage of Total Academic Staff

	N	Total women (%)	Senior women[a] (%)
University of Sydney			
Faculty of Science	358	16	10.7
School of Physics	42	0.5	0
School of Chemistry	52	9.6	20
School of Biological Sciences	45	31.1	14.3
Department of Biochemistry	24	25	0
Faculty of Medicine	138	18.7	42.6
Faculty of Veterinary Science	63.5	15.1	41.7
Faculty of Agricultural Science	52.5	12.4	15.4
Faculty of Engineering	76	0	0
University of New South Wales			
Faculty of Science	176	8.5	6.7
Faculty of Applied Science	131	9.2	0
Faculty of Biological Science	110.5	17.7	25.6
Faculty of Medicine	107	19.6	19
Faculty of Engineering	202	1.0	0
Faculty of Architecture	69	10.1	42.8
Macquarie University			
School of Biological Science	35	20	28.6
School of Chemistry	20	10	0
School of Earth Sciences	58	5	0
School of Mathematics and Physics	37	3	0
New South Wales Institute of Technology			
Faculty of Science	82	16.1	15.2
Faculty of Engineering	74	1.5	0
Faculty of Mathematics and Computer Science	63	11.1	0

N = total number of academics.
[a] Senior women = percentage of academic women in each department who are in or above the grade of senior lecturer.

1951, and from then until 1959 the total number awarded was eighty-four, 18 per cent of whom were women. Graham (1970) quotes results to indicate that American women with doctorates were more likely to be career-orientated and to work professionally than those with bachelor degrees, and that, in her sample, married women with doctoral degrees published more than either a corresponding male sample or unmarried women PhDs.

The contribution of women in science and medicine to publications and conferences has been discussed in Chapter 4.

For our whole survey sample of women, the proportion of PhD candidates plus holders was 42 per cent. Despite this relatively high level of higher degrees, and publications, women have not very often risen to the top or to high levels in their academic profession, particularly in the science-based faculties. None of the universities in Sydney has, or ever has had, a woman as a full professor in a scientific department, although other Australian universities have: Beryl Nashur was Professor of Geology at the University of Newcastle, as Dorothy Hill was at the University of Queensland. Mollie Holman is Professor of Physiology at Monash University, which had five women professors in 1976 compared with three at Sydney University and one at the University of New South Wales, all in humanities or social sciences. Melbourne University, after years of having no women professors, appointed Priscilla Kincaid-Smith to a chair in the medical faculty, and Newcastle has appointed Beverley Raphael as Professor of Psychiatry. At Sydney University in 1981 there were six women associate professors in the faculty of medicine, two in the science and two in the veterinary science faculties, while at the University of New South Wales there was one woman associate professor in biological sciences and one in medicine. At Macquarie University, there is a woman Professor of Behavioural Science and several lecturers in science.

- Senior Lecturer, Psychology: 'The few women who achieve the highest positions probably possess unusual blends of intelligence, persistence to long-term goals and, if married with children, the ability to organize the time available for all their commitments and to channel their energy effectively to achieve their goals.'

At the very top of the scientific profession is the Academy of Science, or its equivalent in other countries. There were in 1977, 179 Fellows of the Australian Academy of Science, of whom two were women, that is 1.1 per cent. Corresponding figures for Fellows of the Royal Society in Great Britain were 790, of whom twenty-four or 3 per cent were women; and for Fellows of the National Academy of Science in the U.S.A., 1134, of whom twenty-five (2.2 per cent) were women. Australia thus would seem to lag in its production, or recognition, of eminent women in science. In the fields of specialist medicine, the Royal Australian College of Physicians in 1970 had 3 per cent of women members, and the College of Surgeons 0.3 per cent. Women are reported to be discouraged from the College membership examinations because such specialist qualifications tend to be acquired during the age span when many women are having time off for

child-bearing. The recent decision of the Royal Australian College of Physicians to accept part-time candidates will prove to be of great benefit to aspiring women medical graduates. The award of the Nobel Prize for Physiology to an American woman, Rosalyn Yalow, makes her the fifth woman Nobel Laureate in scientific fields, after Dorothy Crowfoot Hodgkin, Maud Mayer, Marie Curie (who won two) and her daughter Irene Joliot-Curie.

Blackstone and Fulton (1975) compare the incidence of women in all levels of academic positions in science, medicine, social science and the humanities in Britain and the U.S.A. They then compare the top third of all academic teaching staff in the U.S.A., which comprises full professors, with the top third in Britain which includes professors, readers and senior lecturers (Table 7.6). In 1977, 13 per cent of all tenured academic staff at the University of Sydney were professors, 18 per cent were readers or associate professors, 36 per cent were senior lecturers and 33 per cent lecturers. In Table 7.6, for comparison with the U.S.A. and U.K. figures, the combined group of professors, readers and associate professors (31 per cent of the total) is used.

Although the figures for senior women in Pure Science are very similar for Britain and the U.S.A. (15 and 16 per cent respectively), the corresponding Sydney figure of 5 per cent suggests a pronounced scarcity of academic women near the top in science or in applied science. It is striking that women are so poorly represented in American medical professorial positions where British women show up relatively well (24 per cent), and in Sydney they occupy an intermediate position with 17 per cent in senior academic posts.

Blackstone and Fulton (1975) concluded that prima-facie evidence existed of discrimination against women in British and American universities. Williams, Blackstone and Metcalfe (1974), using similar data, concluded otherwise. Using the data in Table 7.6, our results seem either to provide prima-facie evidence of discrimination against women in science and medicine in Sydney, or evidence that women do not apply for promotion to senior positions.

Table 7.6 Percentage of University Teachers who are Professors (U.S.A.), Professors, Readers or Senior Lecturers (U.K.), and Professors, Readers or Associate Professors (University of Sydney)

	U.S.A. (1969)		U.K. (1969)		University of Sydney (1976)	
Subject	Men	Women	Men	Women	Men	Women
Applied science	37	18	33	0	28	10
Pure science	37	16	31	15	30	5
Medicine	27	4	40	24	47	17
Social science	39	15	38	25	25	6.5
Humanities	32	11	32	4	24	4

Note: The grade-groupings are approximately the top third of all university staff in each country.

In Profile

How, if at all, do women in science-based faculties differ from other academic women? Does C. P. Snow's theory of 'the two cultures', emphasizing the difference in outlook of scientists and the rest who walk in British corridors of power, fit the Australian academic corridors?

The women scientists have many factors in common with their colleagues in non-science faculties. Seventy per cent of them are or have been married and 39 per cent have had children, figures very similar to our statistics for all academic women, so the domestic and social consequences of these situations are common to all, though scientists may have less opportunity to carry out their work at home.

They tend to be Australian-born or of European descent, and to have been educated at State or private non-Catholic schools if they are medical. They tend to have origins more middle-class than their male counterparts, but more working-class than the students they teach.

Although academics on the whole claim to be less religious than the general population, women scientists and medicine/veterinary science graduates are more religious than their humanities and social sciences colleagues. Politically, the science-based women academics are less left-wing and more middle-of-the-road.

There was a tendency for science-based women to describe themselves in their growing-up years as having warm relationships with their mothers and fathers but as being less maternal, less gregarious and more independent than the self-descriptions of women in social sciences and humanities. These characteristics agree with those described by Rossi (1965a) as those typical of eminent scientists.

Like the men, the women in science tend to be more competitive and less ambivalent about their careers or achievement than those in humanities and social science, to believe less in discrimination against women within universities, and to be more optimistic about promotion—this, in spite of the concentration of their numbers near the bottom rungs of the hierarchy to a greater extent than in the arts faculties.

The BSc honours graduates have fewer firsts than the BAs, but have a greater tendency to pursue higher degrees.

Among the Universities surveyed, Sydney University had the highest proportion of women academics in the sciences (38 per cent) and very much the highest in medicine/veterinary science (67 per cent), while social sciences are numerically strongest at the University of New South Wales.

Is Science Different?

People educated in the humanities tend to be suspicious and mistrustful of science. This is partly what C. P. Snow was writing about in his famous essay on 'the two cultures' (1964), in which he deplored the fact that, in a world depending increasingly on science and technology, Englishmen educated in the classics tend to be proud of their complete ignorance of science. Snow did not refer to the place of women in his two cultures, but pride in their ignorance of science and technology appears to be a characteristic of many women.

A similar point is made in a more earthy style by Pirsig (1974) in *Zen and the Art of Motorcycle Maintenance*:

> talking and thinking from a completely different dimension . . . technology. . . . In this other dimension he gets all screwed up and is rebuffed by it. . . . He tries to swing it without any rational premeditation and botches it and botches it . . . and gives up and just kind of puts a blanket curse on the whole nuts and bolts scene.

Pirsig's philosophy describes two modes of understanding, the classic, proceeding by reason and law, and the romantic, based on feelings not facts, depending on imagination and creativity. He says that in Northern European culture, the romantic mode is usually associated with femininity, and the classic mode is masculine. He exemplifies motorcycle maintenance as 'classic'. He says: 'the fields of science, law and medicine are unattractive to women largely for this reason'.

These two writers exemplify the attitudes which tend to exclude women from science.

But why? Many women are very practical creatures, and science depends upon practical aptitudes, as well as imagination and creativity. Efficient housewives, capable cooks, women who can and do glue and screw together broken household equipment, mend fuses, check the oil and water levels in their car engines, organize busy multi-phase work-plus-domesticity lives—such women (and men) may be scientists *manqué*.

There is no doubt that the scientist, working in a laboratory, has a fundamentally different work-style from graduates in other academic disciplines. In scientific research and in routine laboratory work, industrial development, chemical analysis and product testing, we scientists work in laboratories—we locate our experimental methods in textbooks or practical manuals or scientific journals, or if we are lucky, we are shown the method by one who knows it. We have absorbed a certain amount of scientific methodology during our education perhaps without realizing it: the necessity for measuring all variables, for precision, accuracy, neatness, for results reliable and reproducible, and perhaps statistically analysed for significance or variability. Commonsense and practical ability make a good laboratory worker, intelligence becomes important in the interpretation of results, when the unexpected happens, for trouble-shooting when things go wrong, and for planning improvements in technique. As well as common-sense, practical know-how and intelligence, there is an undefinable aptitude in a good laboratory scientist, like the 'green thumb' of the born gardener.

Much laboratory work is inevitably routine and superficially boring. The same mechanical routine may be repeated day after day, using different materials or varying minor factors. The results, or expectation of them, must keep up the enthusiasm of the experimenter. To make up for weeks or months of boring slogging, we who are scientists can all think of occasions in the laboratory, quite rare occasions of pure delight, when a symphony of ordered and predicted happenings plays itself through, the experiment works after many attempts, bringing an ultimate sensation of

satisfaction: 'I made it work'.

Science is a search for truth and our practise of it follows the straight lines of truth, sometimes to the mountain peaks of discovery. There is no point and no satisfaction in bending the truth or manipulating results, and cheating is exceedingly rare among scientists, although there has been the occasional grand scandal where the hope of fame or financial reward in an individual overcame the principles of science.

Most young scientists work in large laboratories, together with other scientists and technicians and assistants, and in such laboratories it is common for camaraderie and good working relationships to develop, such as may also happen in other working environments—the factory floor, the office complex? I have happy memories from my youth of working in laboratories, in different cities and different countries, shared with a great variety of co-workers (varying in age, sex, nationality, social class, education). In an English research laboratory, I remember loud and long political arguments and discussions, reverberating over our manual bench-work, and arguments with conservative men about women's position in the world and the laboratory, and social interactions and involvements in musical and theatre and tennis-playing groups. I remember reporting to my London flat-mate when I first felt accepted as 'one of the lab' the day one of my colleagues dropped some laboratory ice down the back of my neck. As a young, outspoken female from the other side of the world, I was no doubt something of a mild curiosity. It is my general impression, on looking back on this period, that the relatively junior female scientists were treated much the same as the males, though few of them ever seemed to reach senior positions.

As scientists grow older and are promoted, they become more occupied with administration, with report writing and committee meetings and management conferences. If they are male and ambitious, working for industrial firms, they switch to the management side if they can, because there the advancement beckons. The senior female has traditionally continued at her laboratory bench, eventually perhaps becoming a section head. In the academic world, it appears that women who 'make a career' in science do reach the senior lecturer level, and a few rise higher though not, in our survey, to the top. Very occasionally, by dint of the excellence of her published work and its wide recognition, helped by intelligence and the right personality (perseverance, motivation and hard work) and sometimes by a senior benefactor-colleague, a woman becomes a professor, or a Fellow of her country's highest scientific society. (Our statistics show how rare this is, particularly in Australia.) She may even become a Nobel Laureate, as Marie Curie did twice against all the odds of her generation.

Why does a schoolgirl decide to study science? Supposing she does well at science subjects at school, she may be counselled by a school careers officer, encouraged by a parent or a teacher to turn off the humanities-bordered avenues of learning. She may have visited laboratories and been fascinated by the glamorous equipment: the ultracentrifuge, the scintillation counter, the auto-analyser, the spectrophotometer, machinery which girls like to use (and often, as technicians, are expert in the use of). She may have a role-model in a woman she knows, or knows of. Perhaps a

reason for so few women in science is the need to decide so early in life, it being so difficult for a fifteen-year-old to imagine she will ever be thirty-five.

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8

Feminism or Female Rejection

Sex-Role Attitudes of Academic Women and Men

Anne Winkler

BACKGROUND

At the time the questionnaire was circulated to women academics in Sydney, (March 1974) the Women's Liberation Movement in Australia had been active for four years (Blewett, 1975). A number of important reforms in the status of women had been recently instituted by the Federal Labor Government and the media was giving frequent, if extremely biased, coverage of issues concerned with the rights and status of women.

One of the central concerns of the study on academic women was, therefore, to explore their attitudes to the issues being raised in the modern feminist debate.

We entertained a number of general hypotheses about the type of attitudes that academic women might hold.

Whilst adequate data on changes in sex role attitudes in Australia were not available, studies in the United States had suggested that undergraduate female students' attitudes were changing in a pro-feminist direction (Frieze, 1974; O'Leary and Depner, 1975; Orcutt, 1975; Parelius, 1975; Voss and Skinner, 1975). It therefore seemed possible that we might find considerable sympathy for feminist causes amongst female faculty.

It also seemed likely that academic women would have feminist sympathies because of their own experience as deviants from the traditional female role.

However, there were also grounds to argue that the very experience of being deviant from general community sex norms might predispose many female academics to reject other women.

A number of different processes associated with 'making it' in a 'man's world' might contribute to academic women feeling alienated from other women and rejecting feminism. Female academics, particularly in traditionally male-dominated fields, may have found that they either had to become 'one of the boys' and deny their own femininity, or use tradi-

tionally feminine wiles, in order to survive.

One would expect use of either strategy to lead to general distancing from, or distrust of other women. Studies of highly successful women in business had suggested that many had survived by the use of these sorts of strategies, displaying what one researcher had termed the 'Queen Bee Syndrome' (Staines, Tavris and Jayaratne, 1974).

As with other members of minority groups who have made good in the dominant culture, women in such positions have been observed to adopt negative attitudes towards their own group, in this case other women.

It therefore also seemed possible that a sizeable proportion of female academics, and in particular of those holding the most senior positions, might be opposed to many of the social changes advocated by the Women's Movement.

However, even though the female academics' attitudes were something of an unknown quantity, it was still anticipated that the attitudes of the male academics would be more traditional than the women's. Despite problems in the comparability of the male and female samples, it seemed important to compare the attitudes of the two groups on sex-role related issues.

Research on the sex-role attitudes of secondary and tertiary students and of university graduates had indicated a greater conservatism on these issues amongst males. Studies had indicated that women believed that men wanted them to be more passive than they wished or felt themselves to be (Steinmann, Levi and Fox, 1964; Rappaport, Payne and Steinmann, 1970; Hawley, 1971, 1972; Kaplan and Goldman, 1973). Research on males' attitudes had suggested that women's beliefs might be based on fact, and had found that men preferred women who sought fulfilment within the traditional role, to women who were committed to successful achievement outside the home (Rossi, 1965; Nelson and Goodman, 1969; Entwisle and Greenberger, 1970; Komarovsky, 1973).

A survey conducted by the American Association of University Women (McCune, 1970) found that whilst a majority of both the male and female samples agreed on a number of issues relating to discrimination against women in the workforce, women's work motivation, and male and female child-rearing responsibilities, women were more strongly in favour than men of equality for women.

It seemed likely that a similar pattern of results would be observed amongst female and male academics. It was felt that the male academics would perceive less immediately obvious gains for themselves from the types of change in sex roles propounded by the modern feminist movement (for example, an equal share in child-rearing by parents of both sexes) and hence would express more conservative attitudes. Certainly the other findings of the current study suggest that academic women would have a great deal more to gain in terms of their careers than would academic men, if some of the changes in male/female relationships advocated by the feminist movement were to be implemented.

MEASUREMENT OF ATTITUDES

Female and male respondents were, therefore, questioned on a wide range

of issues relating to the position of women, and to sex roles. In addition to the questions on discrimination (summarized in Table 8.1), the questions tapped attitudes in the following major areas: the position of women in the society at large, and within the university, and the degree of social change required in both spheres; relationships with the same and opposite sex, including marriage and homosexual relationships; motherhood and child-rearing; abortion and contraception; sex differences in abilities.

Table 8.2 presents the questions* that were used to measure these attitudes. A number of the questions were drawn from a survey of the readers of *Psychology Today,* carried out in 1971 (Tavris, 1971). The majority of the questions required respondents to indicate their degree of agreement or disagreement with a statement, on a five-point scale. Nine of these statements were presented as 'social changes that are sometimes advocated' (for example 'abortion on request for women') and fourteen as 'opinions which are sometimes stated' (for example 'Children of working mothers tend to be less well-adjusted than children of non-working mothers'). Male academics were given only these twenty-three items, while female academics were also asked if they believed a change was necessary in women's social position, if they viewed themselves as feminists, their opinion of the aims of the Women's Liberation Movement, and whether they had ever been involved in any feminist-related activities.

Table 8.1 Questions Relating to Discrimination

1. Preferential hiring for women.
2. Introduction of women's studies courses.
3. Whether women have to be better than male competitors to succeed in the academic world.
4. Whether there is prejudice amongst male academics against women in top positions.
5. Whether it is more difficult for a woman to achieve, and to handle authority than a man.
6. Personal chances of promotion to a chair in comparison to a man.
7. Personal chances of promotion to a sub-professorial position in comparison to a man.
8. Personal experience of positive discrimination.
9. Personal experience of negative discrimination.
10. Whether negative discrimination occurs against women in general.
11. Whether there is a 'club' situation within universities that discriminates against women.
12. Whether personal difficulties experienced because of such a 'club.'
13. Whether universities perceived as less subject to discrimination than other occupational spheres.

* For fuller details see Section H in both the women's and men's questionnaires which are reproduced as Appendixes B and C.

STATISTICAL ANALYSIS

Factor Analysis of Women Academics' Responses

The responses of academic women to the twenty-three five-point scale attitude items were initially factor-analysed to determine whether their attitudes could be described in terms of one or more underlying dimensions.

However, the analysis failed to reveal any clear-cut factor structure. It appeared that female academics' attitudes to sex-role-related issues could not be reduced to one or two simple dimensions, and that the issues tapped were relatively independent of one another.

A simple description will therefore first be given of the women's responses to different content areas. This section will be followed by a description and comparison of male academics' attitudes to the same issues. The final section of the chapter will present the findings of further analyses which explored the correlates of female academics' attitudes.

WOMEN'S ATTITUDES

The academic women revealed a very high degree of consensus in their attitudes. There was little or no evidence that this sample of women were

Table 8.2 General Attitude Questions

1. Equal responsibility for child-rearing and care by both sexes.
2. Child-rearing to break down sex differentiation.
3. Equal access to adoption for married and single women.
4. Free day-care facilities for all.
5. An end to traditional marriage.
6. Abortion on request.
7. Universal availability of contraceptive education and requirements.
8. Unmarried female academics more devoted to work than married academics.
9. General community places equal value on academic brilliance in men and women.
10. Women less reliable on the job than men.
11. Paid allowances for women minding children at home.
12. Children of working mothers less well-adjusted than children of non-working mothers.
13. Possible for women to continue career and family.
14. Motherhood essential to women's full development.
15. Lesbianism is an acceptable form of relationship.
16. The nuclear family must be preserved.
17. The media degrade women.
18. Men view themselves as superior to women.
19. Men have a greater facility for maths and logical reasoning than women.
20. Whether a change is needed in the position of women in society.
21. Opinion of the aims of the Women's Liberation Movement.
22. Whether respondent a feminist.

distancing or cutting themselves off from other women, or the general feminist movement. In almost all areas, the majority of women's responses were extremely 'progressive'.

General Attitudes to Women's Position and the Women's Movement

As was noted in Chapter 5, an overwhelming majority of the female academics felt that change was necessary in the position of women to enable them to play an equal part with men in society. Moreover 41 per cent of those who believed in such a change felt that it would have to involve a radical change in social attitudes and institutions, 20 per cent a reform within the present system and 13 per cent a change in individual behaviour.

Three-quarters of the sample were in favour of the aims of the Women's Liberation Movement and only 11 per cent were opposed. However, as Table 8.3 indicates, very few of the respondents had translated their attitudes into social action. Approximately three-quarters of the sample had never participated in political action for women's causes, set up special facilities for women or had been involved in any activities designed to promote change in women's conditions and status.

Only from 12 per cent to 16 per cent had taught courses concerned with women's issues, or been involved in producing publications or had taken part in consciousness-raising groups. Finally, only 3 per cent were active in Women's Electoral Lobby or in the Women's Liberation Movement.

There was also an interesting discrepancy between women academics' expressed attitudes and their answers to the question, 'Do you consider yourself a feminist?' Although 40 per cent said 'yes', an equal percentage said 'no'.

It is interesting to speculate about the reasons for these observed inconsistencies between attitudes and actions, and attitudes and self-identification as a feminist.

Women academics may have failed to become involved in any social action related to women's causes largely because of lack of time, and heavy work/family commitments. Alternatively, it may be that the academic women in this sample had not communicated and shared their

Table 8.3 Female Academics' Participation in Feminist Activities (percentages)

Activity	Yes	No	Total
Political action	—	71	100
Special facilities for women	—	73	100
Taught women's issues	12	—	100
Consciousness raising groups	16	—	100
Production of publications	14	—	100
Other activities	—	72	100
Member WEL	3	—	100
Member of Womens' Liberation	3	—	100

beliefs about women with other women, and hence had lacked a social support base for action.

There are a number of possible reasons for many women's failure to label themselves as feminists. From their comments to open-ended questions it appears that the term 'feminist' had derogatory or extremist connotations for some. For example one professor commented:

- 'Women's Lib. promotes an image of irrational complaint that I find distasteful. Anger and resentment are negative emotions. Women need practical advice, help and encouragement—and they need to face the reality of their own strengths and weaknesses.'

In a rather similar vein a lecturer indicated that she did not know if she was a feminist noting:

- 'Depends on how it is defined . . . Some so called feminists are as unreasonable and aggressive about the superiority of their sex as men. I am not in favour of this or any other kind of authoritarianism.'

It is interesting to speculate whether more women would have been willing to identify themselves as feminists if they had actually been involved in some sort of social action related to women's issues.

Attitudes Towards Women's Position Within The University

As was noted in Chapter 5, female academics perceived some problems for women within the university. Two-thirds (67 per cent) agreed that there was a 'strong if often unacknowledged prejudice amongst academic men against women in top positions' and 70 per cent agreed that 'a woman had to be better than a male competitor to succeed in the academic world'. This view was also expressed by some of the women in replies to open-ended questions. For example, a senior lecturer stated:

- 'I have always worked with men, got on with them as workmates, sympathized with them as I do myself as a worker. But I've always had to struggle, and certainly am in a far, far lower position at fifty than would have been the case if I had been a man with the same talents and energy.'

Two of the attitude questions referred to possible courses of action which might be taken to change women's positions within the university: preferential hiring and promotion for women, and the introduction of women's studies courses. Female academics' responses on the two questions differed somewhat. Only a very small proportion of women (13 per cent) were in favour of preferential hiring and promotion of women to compensate for past discrimination. Three-quarters of the sample opposed such measures. Whilst a higher percentage were in favour of the introduction of women's studies courses over three-quarters of the sample (80.3 per cent) were also undecided or against this measure. One senior tutor in an arts faculty elaborated on her opposition to women's studies courses in the following terms:

- 'I reckon introduction of women's studies courses (if they are about women and for women only) will only exacerbate the tensions between males and females in our society. Trends along the lines of women's this and that seem more divisive than constructive. I think we ought to try bringing up and educating our children as PEOPLE. Males and females are different but this doesn't mean we have to make females into 'Miss World' or males into MCPs.'

One further question tapped female academics' attitudes to their unmarried female peers. The majority of academic women (54 per cent) rejected the notion that unmarried women academics had a greater devotion to their work than married women. Only one-quarter of the sample (27 per cent) agreed with the proposition.

These attitudes are in harmony with the evidence provided earlier in the book that married women, including those with children, have a strong career commitment.

Relationships

Several questions tapped women's attitudes to intimate relationships. There was some indication that a sizeable proportion of female academics were ready to reject or reconsider conventional notions of marriage, family and homosexual relationships.

Slightly more than half of the female academics (53 per cent) indicated that they did not feel that the 'preservation of the nuclear family was essential for the well-being of the community'; one-quarter (26 per cent) however agreed with this proposition. Their responses to questions on marriage were slightly more conservative. Approximately one-third (33 per cent) felt that there should be 'an end to marriage in its traditional form', but similar proportions of women were uncertain on this issue or disagreed with it.

The response of one tutor who answered neutrally to the question on marriage illustrates the complexities that frequently underlie responses to attitude questions of this type. She noted:

- 'I responded in neutral as it were, because although I believe the institution of marriage is moribund, and has been for sometime, any forced dissolution of a bond that many people still find valid in their lives would be difficult to condone. One cannot simply force social changes on people, but merely hope that women's (and men's) consciousness will be elevated (and that I know implies a judgement) to the state that will reject marriage, monogamy and exclusivity in relationships of any kind.'

Approximately half of the respondents agreed that 'lesbianism is an acceptable form of relationship'. Very few of the remainder disagreed with this statement.

Motherhood and Childrearing

Eight questions were used to explore women's attitudes to motherhood and childbearing, and are presented in Table 8.4.

The majority of academic women appear to have rejected some of the traditional notions about motherhood, and the incompatibility of motherhood with a career. Thus only 20 per cent of the sample agreed that 'motherhood is essential to a woman's full development', and only 16 per cent felt that a family and a career could not be combined without detriment to either.

The fact that three-quarters of the female academics felt that career could be combined with a family without detriment is interesting in the light of the evidence that married women with children appear to be disadvantaged in academic status, and in the light of their responses to open-ended questions about why women in academia are few in number and at the bottom of the hierarchy. In answer to the latter questions women frequently noted that the demands of family prevented women's academic career advancement, for example 'an academic career involves more sacrifice than a woman whose goal is to have a family is prepared to make'. Responses to this attitude question then seemed to have reflected women's perceptions of the ideal rather than the real.

Female academics also rejected the proposition that 'children of working mothers tend to be less well-adjusted than children of non-working mothers'.

Academic women also showed a high degree of consensus on questions relating to responsibility for children and child-care. Over 80 per cent of female academics supported free day-care facilities for all who seek them, and advocated that men and women should take equal responsibility for child-rearing and child-care.

Their responses on the latter issue reveal another discrepancy between attitudes and behaviour. As Chapter 6 indicated, over half the female respondents actually reported having primary responsibilities for children.

Two-thirds of the women were in favour of child-rearing designed to break down differentiation of males and females.

The degree of consensus amongst women academics on a wage for mothers and on equal opportunity for adoption for married and single women was not quite as high as on the preceding issues. Forty-six per cent were in favour of a wage for mothers who stay at home, whilst half the sample supported equal access to adoption for married and single women.

Abortion and Contraception

Women academics were very strongly in favour of free access to contraceptive education and requirements (93 per cent) and abortion on request (82 per cent).

Attitudes to Sex Differences

Female academics clearly rejected stereotypes about women's innate lack of mathematical ability and unreliability on the job.

Eighty-five per cent disagreed that men have a natural facility that women lack for mathematics and logical reasoning, and 75 per cent disagreed with the proposition that women are less reliable on the job than men because they tend to be absent and quit more often.

Perceived Discrimination in the General Community

As Chapter 5 indicated, several of the attitude questions explored respondents' perceptions of discriminatory attitudes in the general community. Very briefly, responses on these questions indicated that 83 per cent of academic women believe that men consciously or unconsciously view themselves as superior to women, 70 per cent believe the media degrade women, and 60 per cent believe the community does not place equal value on academic brilliance in men and women.

MEN'S ATTITUDES

As has already been noted, it is important to observe some caution in making direct comparisons between the samples of male and female academics. Whilst both resembled closely the characteristics of the populations they were drawn from on a number of important dimensions, the male sample contained a higher proportion of respondents in the upper ranks of the university hierarchy, and in science, engineering and professional faculties, than did the female sample. This means that differences in attitudes observed between the two samples may be a function not only of sex differences, but also differences in position and faculty.

With this note of caution sounded, the attitudes of males will be described and compared with those that presented for women.

Chi Square tests were used to determine the statistical significance of differences observed in the distribution of males' and females' responses.

As noted earlier the men were only given the twenty-three forced-choice attitude items. Their answers to these questions revealed less agreement, and were clearly more conservative than the women's responses on almost all issues. Many of their comments to the open-ended questions provided further evidence of a greater conservatism.

Attitudes Towards Women's Position Within the University

Whilst approximately half of the male sample agreed with the items postulating male academic prejudice against women, and the need for female academics to be better than their competitors, the proportion of women endorsing these beliefs was significantly greater.

The two groups, however, expressed very similar attitudes on possible courses of action to bring about change in women's positions.

Like the female academics, the males were clearly (77 per cent) opposed to preferential hiring practices, and did not express a great deal of support for the introduction of women's studies courses (36 per cent were in favour as compared to 44 per cent of females).

A lecturer in the arts faculty commented: 'Why this anti-male discrimination? "Human studies" yes', whilst a senior lecturer in engineering noted: 'What are "women's studies"? Do we have "men's studies"? Is any good thing likely to come from studying one sex in *isolation*? It all seems like a bad joke to me. In fact I have never found out what "Women's Lib." means and end up feeling it might be just an off-colour joke or gimmick to sell a book.'

Finally, the men expressed more bias in favour of single female academics than did the women. Academic men were significantly less like-

ly than women to disagree with the proposition that unmarried women have a greater devotion to their work than married women.

Relationships

The male academics were clearly less ready to reject the nuclear family and marriage than their female peers.

Fourty-four per cent of the males (in comparison to 26 per cent of females) felt that the nuclear family must be preserved, and 56 per cent (in comparison with 38 per cent of females) disagreed with an end to the institution of marriage in its traditional form. These findings are in harmony with Bernard's (1972) thesis that marriage usually offers more payoffs and advantages to men than to women.

One senior lecturer in chemistry, in the course of answering another question, voiced his feelings against advocacy of such reforms in the following fashion:

- 'I am tired of the intellectual vanguard, or whoever we are, making a whipping boy (analyse that term!) of the nuclear family. I often have to apologize for my wife not working—choice is removed.'

There were, however, no significant differences in male and female academics' attitudes to lesbianism. Fifty-four per cent of the males and 53 per cent of the females agreed that 'lesbianism is an acceptable form of relationship'.

Motherhood and Childrearing

As one might predict from their attitudes on marriage and the family, the male academics were more conservative in their attitudes to motherhood and childrearing than females (see Table 8.5).

Male academics were significantly more likely to agree that motherhood is essential to a woman's full development than were females. They were far more likely than female academics to believe that the children of working mothers are less well-adjusted than those of non-working mothers, and they were less confident that women can combine a family and career without detriment to either, than were their female counterparts.

In regard to the last area, it should be stressed that a majority of males (67 per cent) did agree with the feasibility of a dual-career pattern for females, but the percentage was still significantly lower than for the female sample (76 per cent).

Whilst sizeable proportions of the male sample agreed with free day care facilities for all (73.1 per cent), equal responsibility by males and females for the rearing of children (55 per cent) and child-rearing designed to break down sex differentiation (44 per cent), they were significantly more conservative on all these issues than women. They were also significantly less in favour of married and single women having equal chances to adopt children (31.6 per cent of the males compared to 54.6 per cent of females agreed with this principle) than were the female academics.

There has been some division of opinions amongst feminists on the desirability of a government allowance for women who care for children at

Table 8.4 Academic Women's Attitudes to Motherhood and Child-rearing (percentages)

Statement	Agreed	Neutral	Disagreed	Total (N)
Motherhood is essential to a woman's full development	20.0	19.5	60.5	100 (425)
Possible for a woman to combine career and family without detriment to either	76.2	7.8	16.0	100 (425)
Children of working mothers tend to be less well-adjusted than children of non-working mothers	12.8	14.2	73.0	100 (422)
Equal responsibility by men and women for child-rearing and child-care	81.7	10.3	8.0	100 (426)
Child-rearing designed to break down differentiation of males and females	68.6	12.4	19.0	100 (420)
Free day-care facilities for all who seek them	82.1	6.1	11.8	100 (425)
Women who stay at home to care for small children should be paid an allowance by the State	45.9	21.1	33.0	100 (427)
Equal opportunity for married and single women to adopt children	54.6	17.2	28.2	100 (425)

Table 8.5 Academic Men's Attitudes to Motherhood and Child-rearing (percentages)

Statement	Agreed	Neutral	Disagreed	Total (N)
Motherhood is essential to a woman's full development [a]	35.1	23.7	41.2	100 (114)
Possible for a woman to combine career and family without detriment to either [b]	67.5	4.3	28.2	100 (117)
Children of working mothers tend to be less well-adjusted than children of non-working mothers [c]	43.1	20.7	36.2	100 (116)
Equal responsibility by men and women for child-rearing and child-care [d]	55.1	20.8	24.1	100 (120)
Child-rearing designed to break down differentiation of males and females [e]	44.1	19.5	36.4	100 (118)
Free day-care facilities for all who seek them [f]	73.1	7.6	19.3	100 (119)
Women who stay at home should be paid an allowance by the State [g]	54.6	24.4	21.0	100 (119)
Equal opportunity for married and single women to adopt children [h]	31.7	13.3	55.0	100 (120)

Note: Significance of differences in male and female responses:

[a] $\chi^2(2) = 15.5, P < .001$ [b] $\chi^2(2) = 10.0, P < .01$ [c] $\chi^2(2) = 33.0, P < .001$ [d] $\chi^2(2) = 38.0, P < .001$
[e] $\chi^2(2) = 24.2, P < .001$ [f] $\chi^2(2) = 5.1$ [g] $\chi^2(2) = 6.4, P < .05$ [h] $\chi^2(2) = 20.2, P < .001$

home. In general the more radical have opposed such a move. It is interesting then to observe that the male academics were significantly more in favour of such an allowance than the females.

Abortion and Contraception
Male academics strongly supported the availability of contraceptive advice and requirements for all (86 per cent), and 70 per cent were in favour of abortion on request; however on both issues their responses were significantly more conservative than the women's.

Attitudes To Sex Differences
The male academics appeared to be less willing to reject traditional stereotypes about sex differences in mathematical ability and work ability then their female counterparts. One senior lecturer noted:

- 'I am convinced that there is a difference—quite a significant difference in habitual ways of thinking—but taken all round would not put men superior to women or vice-versa. Try teaching physics to a school girl! . . . I spend a lot of time trying to explain to students that pounds force cannot validly be equated to pounds mass, and I think it equally ridiculous to talk of making men and women equal. This could only be done after some mutilating surgery on both. Men and women are essentially different and there is something very nasty and wrong with the idea that they should be the same.'

However, a majority of males rejected sex differences in the two areas in which attitudes were tapped.

Sixty-five per cent of the males (in comparison to 85 per cent of females) disagreed that men have 'a natural facility, which women lack, for mathematics and logical reasoning'. Sixty per cent of the men, in comparison to 75 per cent of the women disagreed that women are less reliable than men on the job.

Perceived Discrimination in the General Community
A high proportion of male academics (72 per cent) agreed that men unconsciously view themselves as superior to women, but this proportion was still significantly lower than that observed in the female sample (84 per cent).

The differences in the male and female academics on questions concerned with the media's treatment of women and community double standards about academic brilliance for men and women were however much more pronounced. Less than half of the men believed that media degrade women and less than half felt that the community attaches different value to academic brilliance in men and women.

Overview
Although no data were available at the time the study was conducted on the sex-role attitudes of the general Australian community, it seems likely that the academic men sampled held more progressive attitudes than the

general public. On many of the questions half to two-thirds of the males answered in a 'progressive' direction.

However, their attitudes were markedly more conservative than academic women's on all but four questions. They were significantly less progressive in their attitudes to marriage, the family, child-rearing and birth control than the women. They perceived less discrimination against women both within the university and outside in the general community, than female academics, and endorsed traditional beliefs about sex differences more strongly than women. The only issues on which men's and women's attitudes did not differ concerned lesbianism and possible actions to change women's status within the university.

On one issue only, the payment of allowances to mothers caring for small children, was there any evidence of men favouring a change away from the status quo more than women. However, as was noted earlier, this has been a controversial issue amongst feminists, and has been labelled by some as counter-productive for any long-term change in women's status.

Can we therefore conclude that male academics in Sydney are generally more conservative on sex-role issues than female academics? The data point in this direction but, in the absence of comparisons controlling for overall differences in seniority and faculty between the two samples, we cannot be certain the observed differences are due to sex alone. This issue will be discussed more fully when evidence of some correlates of sex-role attitudes in female academics has been presented.

CORRELATES OF ACADEMIC WOMEN'S ATTITUDES

It seemed likely that many of the aspects of academic women's lives that had been explored might influence or be related to their attitudes to sex roles, child-rearing, and discrimination. Unfortunately, it was possible to select out only three major factors for further analysis. Age, faculty and academic position were selected as features of academic women's current life situation which might be expected to influence both their attitudes on a range of issues, and their perceptions of discrimination.

For the purposes of the analysis, questions were divided up into two major categories: general attitudes, and attitudes to perception of discrimination (see Tables 8.2 and 8.1). The latter set of fourteen items comprised all the questions that had been asked on discrimination. The former set contained the remaining twenty-two items which dealt with attitudes to relationships, motherhood, child-rearing, birth control and sex differences.

Statistical analyses were used to determine the degree to which the three factors of age, faculty and academic position were related alone, or in combination with one another, to female academics' answers to the general attitude questions and the questions on discrimination. Respondents were grouped into four major faculty areas: the humanities, the social sciences, the medical and veterinary sciences, and the pure sciences. They were also grouped into three age categories (under thirty, thirty-one to forty, and over forty) and into five academic levels (research assistant/post-graduate student, demonstrator/tutor/teaching fellow, senior tutor, lecturer/assistant lecturer/research fellow, and senior lecturer and above).

The statistical procedures used made it possible to determine whether the background factors moderated one another's relationship with the attitude questions—or differently stated, whether there were interactions between these factors. It was therefore possible, for example, to see whether the effects of faculty on attitudes varied as a function of the age or of the position of respondents.

Overview of the Correlates of Academic Women's Attitudes

Female academics' attitudes varied as a function of all three factors. Statistical functions fitted across the discrimination questions, and across the set of general attitude items differentiated significantly between women from different faculties, in different age groups, and at different levels of the academic hierarchy.

It is interesting that there were significant interactions between faculty and age, and age and position, for the set of general attitude questions, but not for the set of questions relating to discrimination. The analysis, therefore, suggests that the extent to which academic women perceive discrimination may be independently related to their age, faculty and position, and that one may expect similar effects, for example, of age amongst women from different faculties, or at different positions in the hierarchy.

The issues that were found to most strongly differentiate women of different ages, faculties and positions will now be described in more detail.

Relationship of Academic Womens' Age, Faculty and Position to their Attitudes on General Issues

Faculty emerged as the factor most strongly related to academic women's attitudes in the set of 'general attitude' questions. Women from the four different faculty groupings had significantly different attitudes on at least eleven of the twenty-two questions (see Table 8.2).

Women from the humanities and social sciences were clearly more pro-feminist on all issues than women from the sciences and medicine and veterinary science.

The greatest disparities between groups occurred in their attitudes to lesbianism and to the nuclear family. On the majority of questions there was a pronounced split between the attitudes of women from the humanities and sciences, and women from the physical sciences and medicine and veterinary science, but the division was particularly marked on these two issues.

Is the greater conservatism of the science, medical and veterinary women due to self-selection into these disciplines, a more conservative professional socialization after entry, or a greater isolation from other women because of the very small number of women in their fields?

Perhaps all these factors play some part, but it is suggested that the second, professional socialization, may have been particularly important. Certainly the pattern of differences observed across academic women from different faculties supports beliefs about the liberalism/conservatism of different university faculties. In addition there is ample evidence that socialization into professions, such as medicine, produces changes in other attitudes and values (Becker, Geer and Miller, 1972).

Age appeared to be the next most influential factor on academic women's attitudes. Older women were significantly more conservative than younger women on a range of issues including their views on lesbianism, motherhood, males' and females' responsibility for child care, and sex differences.

Although women's positions in the academic hierarchy bore a significant relationship to their answers (when these were pooled across all twenty-three attitude questions) this factor was not strongly related to responses on any one of these questions. There were only two issues on which the effect of position even closely approximated the required level of significance.

There were trends for senior women to be more likely than junior women to agree that men are innately superior to women in mathematical and logical reasoning, and for the most senior and most junior women to be more likely to perceive the general community as holding double-standards about academic excellence than women at the middle levels (senior tutors and lecturers).

It therefore seems that whilst there was some trend for academic women's attitudes to vary with their academic status, this relationship was not a strong one, and only became evident when their answers on a number of issues were intercorrelated.

There was only one issue on which the different factors interacted significantly with one another to shape academic women's attitudes, and this issue concerned the degree to which career and family could be combined without detriment to either.

Women's attitudes varied as a joint function of their age and position, and their age and faculty.

On closer examination it became clear that depending upon their academic status, women of different age levels expressed different degrees of optimism about combining family and career. The most optimistic group of all were research assistants and post-graduate students in the over-forty age group, the least optimistic, the same group in the thirty-one to forty age group. The nature of age changes in attitudes varied for women at other levels; for example whilst senior tutors became increasingly pessimistic with age, lecturers and senior lecturers became more optimistic.

Women's attitudes to combining marriage and career also varied as a joint function of their age and faculty. In the humanities, social sciences and medicine and veterinary science, the women who were least optimistic were those in the thirty-one to forty age group. This group presumably included women who currently had preschool and school-age children. Women scientists below thirty were least optimistic about combining family and career, whilst women in the thirty-one to forty, and over forty age groups were most optimistic (78 per cent in both groups).

In summary, age, faculty and academic position all contributed to variations in academic women's response when all twenty-three items were analysed together. Analyses of individual questions indicated that faculty bore the strongest relationship to attitude questions. Women from the sciences, medicine and veterinary science were significantly more conser-

vative on a number of issues. Older women were also found to be less 'progressive' than younger women on a smaller set of questions. Position did not appear to be strongly related to attitude on any individual issue.

Relationship of Age, Faculty and Position to Perceptions/ Attitudes to Discrimination

The faculty in which academic women worked also proved to be the most powerful predictor of their attitudes on the subset of questions relating to discrimination. Women from the humanities and social sciences were most likely to agree that discrimination occurs against women in universities, and to support the introduction of preferential treatment for women, and women's studies courses, than were women from science, medicine/veterinary science. Similar explanations to those advanced in the previous section might be used to account for this relationship.

Older women also indicated a significantly greater awareness of discrimination on several issues than younger women. Older women were more likely to agree that a woman has to be better than a male competitor to succeed, and to believe their chances of promotion to a sub-professorial level were less than a male with similar qualifications, than were the younger women. However, interestingly, this trend did not occur when women were asked to estimate their chance of promotion to a chair. Over half of the women in all age groups were pessimistic, but the least pessimistic were the women in the over-forty age group. It is also interesting to compare the age differences observed on the discrimination questions to those described for the general attitude questions. It appears that whilst older women were more likely to perceive discrimination on some issues, they were more conservative on some proposed changes in women's role.

Finally, academic women's position seemed to be the least powerful predictor of their perceptions/attitudes to discrimination. The only question on which significant differences occurred between women at different positions in the hierarchy were the two which required women to estimate their chances of promotion to sub-professorial and professorial positions in comparison to a male with similar qualifications. The most pessimistic people were the tutors, demonstrators and senior tutors. It is interesting, and perhaps rather puzzling that post-graduate students and research assistants were more optimistic and had ratings that were similar to those of lecturers and senior lecturers. It may be that the post-graduate students and research assistants retained higher hopes than tutors and senior tutors because they had not yet entered the formal promotional ladder, or anticipated doing so at the lecturer level.

OVERVIEW

It seems valuable now to pause and make an overview of the most salient findings obtained on female and male academic attitudes.

Perhaps the most striking features of the results are the high degree of consensus observed amongst academic women on issues ranging from the general position of women in society, through aspects of family, child-rearing, birth control, to perceptions of sex differences, and the highly

'progressive' or 'pro-feminist' direction of their thinking. The findings clearly contradicted any notions that the researchers may have entertained about academic women rejecting other women or feminist causes.

It is not clear to what degree the attitudes expressed by the sample are typical of those of all university women. Whilst the sample was representative of the total female population in age, faculty and position there may still have been some trend for women with pro-feminist attitudes to be more likely to return the questionnaire.

One would think, however, that any large bias in this direction would also have rendered the sample unrepresentative in other respects. It is possible that the high level of pro-feminist responses simply reflects a more wide-spread social change in attitudes to sex roles, particularly amongst middle and upper middle-class women.

If this is the case, what are the implications of such attitudes for the position of women in the university in the future both at the under graduate, post-graduate and faculty levels? Unfortunately attitudes are frequently poor predictors of behaviour (Fishbein, 1967).

The current study has provided a number of examples of disparities between academic women's sex-role-related attitudes and their behaviour, for example, participation in activities to change women's position, or allocation of child-rearing responsibilities.

We might expect such disparities to continue to some extent in the future, both because of internal psychological and external social constraints. However, such attitudes when coupled with the knowledge that others also hold them and when supported by the growing empirical evidence of discrimination against women in academia (see, for example, Astin and Bayer, 1972) may lead academic women to become more militant in their demands, and to provide rather different role models and sources of instruction to students.

The women who held the most 'progressive' attitudes tended to come from the humanities and social sciences, and to be younger. However, on many issues the differences between various age and faculty groupings were not significant.

A further interesting aspect of the findings was that academic status did not correlate strongly with attitudes. Whilst one might have predicted a more 'conservative' response from women in senior positions in the hierarchy on the grounds that they might as 'special women' have vested interests in the status quo, there was almost no evidence of such a trend.

The marked difference observed in the attitudes of women from the humanities and social sciences, and the medical, physical and veterinary sciences needs some explanation. As was suggested earlier, these differences may reflect both initial differences in orientation prior to professional training, a more conservative professional socialization in the physical and medical sciences, and differences in degree of contact with other female peers.

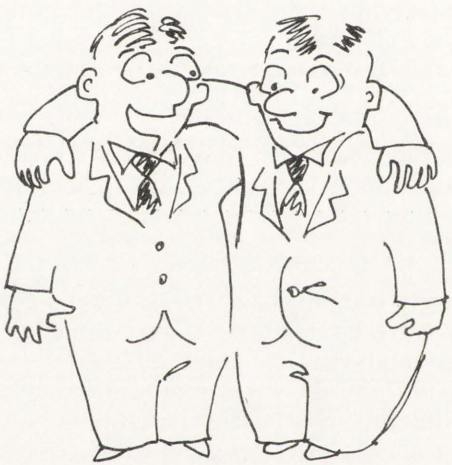
A further salient feature of the findings was the greater conservatism of the male academics on almost all issues. Male academics whilst possibly more 'progressive' in their attitudes than the general community, were clearly less in favour of any radical reallocation of sex roles than their female peers.

One is confronted with the same unknowns in generalizing the attitude data from the male sample to the total population of male academics as one is with the female sample. Again it seems possible that the males who responded may have held somewhat more pro-feminist attitudes than those who did not. And again, it can be argued that it is unlikely that the sample would have remained representative on other dimensions if the attitudinal bias had been too great.

It should be noted, however, that the male sample included a higher proportion of respondents from the sciences and medicine/veterinary science. If faculty also correlates with attitudes in the male sample, then part of the differences observed in male and female academics' responses to the attitude questions may be attributable to differences in distribution across faculties for the two samples. Only further statistical analysis can resolve this issue.

It is possible that more junior male academics in the humanities and social sciences also hold attitudes similar to those expressed by the female academics. However, the reality of the university is such that a large percentage of men hold senior ranks in the traditional male-dominated professions and will hence exert powerful influence on the general climate of opinion towards women in the university. It therefore seems safe to assume that male academics on average will hold more conservative views than their female counterparts.

And, as other chapters have amply demonstrated, men clearly hold the power within the current university system.



Let's pretend women don't take their jobs seriously and just want kids. And let's pretend that this book doesn't even exist!

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9

In Many Ways the Wonder is not *Why So Few?* but *How So Many?*

Implicit in the questionnaire which formed the basis of this study was the assumption that the position of women academics in the four Sydney tertiary institutions we looked at would have to be understood and explained in terms of the complex of relationships between societal, institutional and individual factors. We sought information on their socio-economic backgrounds, their school and university educational backgrounds, on their past and present work experiences within the university system, on their domestic arrangements and on their individual attitudes to a range of questions which bore on the question of the position of women academics and perceptions of discrimination — past, present and anticipated.

We were seeking answers to the question on which, at the end of the questionnaire, we gave our respondents the opportunity to express their own views: 'There are fewer women than men in academic work and they tend to have lower positions. Why do you think this is so?'

RESPONDENTS' ANALYSIS

Broadly speaking, the women and men who took the opportunity to reply to this question did so in terms of seeking answers in 'the nature of women', in the structure and practices of the institution, in wider societal pressures, or in some combination of these.

Male Respondents

Fourteen of the fifty-one men who answered this question said that the reasons for women's positions in academia lay in women themselves, either because of differences between women and men (nine) or because of the choices they saw women freely making (five):

- Tutor, Social Sciences: 'I believe there is a basic sexual difference between males and females which no amount of protest can conceal. It is not a question of males vs females, but a logical functional difference

determined by an accident of birth. Women were designed to be mothers, which is not to suggest inferiority. If women choose to deny nature and compete in the "open market" they will encounter conflicts of both rational and irrational type.' (Five children, wife not working; 'children need a loving mother in full time attendance with emotional and economic support from the father'.)

- Associate Professor, Sciences: 'Far fewer women are interested in purely intellectual achievement than men. Women *in general* are more submissive.' (Takes minor share in care of his three children, wife not working; ideal child care by 'man and non-working wife'.)
- Lecturer, Social Sciences: 'Women seem less inclined to intellectual activity for its own sake and I suspect this is more than a social artifact. Are there more women in applied than pure disciplines, I wonder?' (Shares equally with his working wife care of their two children.)
- Senior Lecturer, Sciences: 'I am quite convinced that there is a difference — quite a significant difference in habitual *ways* of thinking — but taken all round would not put men superior to women or vice versa . . . Men and women are essentially different and there is something very nasty and wrong with the idea that they should be the same . . . I imagine the main reason that there are fewer women in this or that is that most women have enough good sense to realise that they can find more satisfaction in being a woman than trying to be a man.'
- Senior Lecturer, Social Sciences: 'Self-selection out of academic work and "higher" positions by women, i.e. it's women doing what they prefer. There's equal pay and pretty close to equal opportunity except for interruptions due to (1) being a mother (which is their choice) and (2) allowing husband's career first priority — also their choice.' (Has a working wife and four children; minor share in their care.)
- Associate Professor, Humanities: 'I see no discrimination either for or against on sex basis . . . I can only assume that few women want academic work and higher status.' (Found the questionnaire 'somewhat distasteful because of its "feminist bias", stressing differences that seem to be unreal ones'.)

The five male respondents who saw the answer to the paucity of women in academe in the university itself saw it in terms of active discrimination against women rather than in terms of the structural discrimination that results from the institutionalization of the structure of an 'academic career':

- Teaching Fellow, Sciences: '*Prejudice* by male-dominated decision makers . . . *Prejudice* of most university staff and administrators who have effective control on decision making.'
- Senior Lecturer, Sciences: 'There has been discrimination against women applicants unless their qualifications are clearly superior to male competitors. Fewer women have applied for these positions in the past, but now although about 50% of the undergraduate students are women, there are absolutely no women out of a staff of about twenty. Indeed some of my colleagues have voiced dissatisfaction with women post-graduates.'

Thirty-two of the fifty-one men who answered the question saw the explanation for the status of women in universities in the wider society. They expressed this in a variety of ways: society is sexist; women are conditioned to conventional images and specific roles; achievement is neither expected of, nor encouraged in, women; men are valued more highly; women give priority to husbands' careers; men are reluctant to accept a woman's authority; the sex-specific role of child-bearing affects women's careers. These matters were powerful determinants of the number of women available for, or seeking, academic appointments, and their reflection within the universities goes a long way in accounting for their low-level positions:

- Associate Professor, Social Sciences: 'Role expectations *about* women, and those instilled in women, both make it difficult for a woman to choose to have a "career". When she chooses it she therefore needs *more* determination, drive and self-confidence than a man — and society has equipped her with less.'
- Professor, Science: 'It is not socially acceptable for a woman to be in a position of authority . . . social taboos against the employment of women lead to lack of psychological and practical preparation of women for academic work, as well as lack of husband support in the case of married women.' (Shares housework and care of 4 children equally with student wife.)
- Tutor, Humanities: 'Inbuilt male dominated structures in society (and especially in universities). The total social structure and ideology operate to determine that women have a "lower profile" and (perhaps also a more "pleasing" profile) in professional, intellectual, creative etc., terms than men. Obvious practical considerations such as the rarity of adequate child-care and the lack of male and institutional interest in motives such as "half-jobs" for co-habiting pairs of people.' (Sees need for ideological change through consciousness-raising and structural change.)
- Lecturer, Humanities: 'Our society as a whole is sexist and propagates sexist ideology. (Why? One reason is that sexism is functional under Capitalism.) This makes women less likely to try to do academic work (they believe the ideology) and makes it harder for them to succeed if they do (because of institutional or ideological opposition).' (Shares housework and child care equally with his academic wife; hoped the researchers' interest was political as well as academic.)

Female Respondents

In analysing the responses of the women who answered this question we took a random sample of one hundred (one in four). By and large, their answers revealed a far greater awareness of the complexity of the interrelations between individual, institutional and societal factors than those of their male counterparts. No woman ascribed women's position in universities solely to their nature although a few made related comments:

- Teaching Fellow, Sciences: 'They don't make effort to be in academic work, they are conformists, less intelligent (they lack imagination,

endurance and creative ideas) on the whole in fields like Science, Engineering . . . I strongly oppose the view of so-called feminists who blame the men for their position in society and suffer from a strong inferiority complex. If a woman is *really brilliant* and confident, nothing can stop her . . . '

About 10 per cent of the respondents thought that the lower representation of women was related to their 'choice' of other life styles: they want to marry and have children; they want jobs that can be adjusted to family demands rather than demanding careers; they give priority to their husbands' careers; they do not have to work, so can opt out:

- Tutor, Social Sciences: 'Mainly due to lack of commitment on the part of women themselves who often prefer to be "feminine and parasitical" than "aggressive and competitive" — not my terms but many women can't see past these stereotypes.'
- Tutor, Social Sciences: 'Women possibly less ambitious (or perhaps their ambition is more short-lived); they are prepared to scrap (sacrifice?) their careers to accommodate men and children; they probably encounter a degree of discrimination . . . I believe society stigmatizes "the career woman" (via the sanction of categorizing her a freak — not many women are prepared to fight this all their lives) . . . Higher levels involve greater commitments (in terms of time and involvement) which interfere increasingly with the "God"-given role of "wife" and mother . . . The early breeding age is also, I suspect, influential . . . The trick is to get permanent lectureship — then start breeding *on the side.*'

Those women who sought some explanation within the university system itself did so not simply in terms of the active discrimination of decision-makers against women (although some singled this out) but also in terms of the structure of academic careers and in terms of the alienation experienced by women trying to work in a male-dominated institution:

- Tutor, Social Sciences: 'In academia the players are *fully conscious* of historical and present discrimination against employment of women. Many of the holders of power are attempting to dissipate that prejudice. Hence the barriers are not insuperable. But while the odds are still against them, fewer women will gamble their energy and time in academic roulette.'
- Tutor, Humanities: 'There is a tremendous amount of social disapproval of the female academic, particularly the unmarried woman . . . . There is quite blatant discrimination against women; men with lesser qualifications and inferior technical ability are promoted ahead of them . . . one reason is that they are critical, outspoken young women. Young female members of staff are discriminated against either because they are married and could become pregnant, or because they are single and could be lost to marriage and the hearth . . . '
- Tutor, Science: 'It does need a one-directional total involvement to get to the top. Women are not allowed this luxury of self-government.

Society demands *too* much in other family-oriented fields.'

- Lecturer, Humanities: 'Outmoded arrangements for child production and rearing, conditioning to expectations of female role and notions of fulfilment. You have to stay in to get on and up.'
- Lecturer, Humanities: 'Women are waylaid all along the line by the promise of and demands of marriage and family. So few can be bothered to stay the distance — there is a lot of crap and nonsense anyway in the male academic structures. I'd like some power and influence but I'm not sure that I can be bothered with the unequal struggle and the rubbish.'
- Tutor, Humanities: 'The academic world reflects the general structure of male domination. Women become alienated from academic work because the academic world is concerned with male ideas, concepts etc., which are not her concepts, ideas, interests, etc.'

By far the largest number of female respondents (75 per cent) listed societal factors as a major determinant in their explanations for the position of women in universities. In a society where roles are defined by sex, women are pressured to marriage and family rather than career, to dependence rather than independence; ambition is said to conflict with femininity and family life. Society's different and lower expectation of women lowers their ambitions, restricts their self-image and produces role-conflict, a conflict which is intensified by child-bearing and child-rearing. Over half of these respondents specifically referred to the restrictions this function placed on their careers in terms of discontinuity, time lost, physical and emotional pressure, lack of adequate child-care facilities, unequal sharing by husbands:

- Tutor, Social Sciences: 'I think it is very difficult for women in our society to become academics. We are not encouraged to be ambitious and career-oriented but to be family-oriented and accepting of our role; we are encouraged to be emotional and empathetic rather than rational and intellectual. We are expected to raise a family and if we choose to do this it would most frequently occur at the same time as post-graduate studies and the two are, I believe, incompatible. The senior academic positions are male dominated and, because of their cultural conditioning, many men would like it kept that way, thus making it difficult for women to manage to get over all the other hurdles to be accepted.'
- Tutor, Social Sciences: 'Partly the conflict (as roles are presently defined) partly social/professional discrimination. Partly that, historically men have formed the academic "world view" which is frequently alien to the so-called "female" way of perceiving things. Role conflict increases the higher one's position — especially, I think if one is married. Higher positions are also usually research and not teaching positions — I think our society teaches women to fear research as beyond them (they lack confidence generally with regard to academic success) and teaching is very much an acceptable thing for a woman to do, an extension of her "helping", "maternal", role.'
- Lecturer, Social Sciences: 'I am a working mother by choice, for me it is probably the best career. However . . . it is really very hard on me

physically and emotionally. I don't think others should be led to believe that this is an easy result.'

SUMMARY AND DISCUSSION

Analysis of the material from the survey which sought answers to the question 'Why so few?' led us to wonder if perhaps we had asked the question the wrong way around, for in many ways the wonder is not 'Why so few?' but 'How so many?' Given the special combination of background factors in the lives of academic women and the barriers that women need to overcome to gain a toehold on the academic ladder, let alone climb it, the wonder is that so many make it even to the bottom rung.

If male academics are atypical of the general population in terms of their socio-economic backgrounds then female academics are more atypical. The parents of male academics were more highly-educated than the general population and the parents of female academics even more so. Fathers, particularly of the women, were predominantly in high-status occupations; only a small minority were working-class. Fewer female than male respondents, and far fewer than women in the general community, were educated at state schools. These social origins showed little change over time.

Academics of both sexes were usually born into small families where they were the only or oldest of two children. Our women academics were from families where they were encouraged to continue with their education in preparation for a career which was not seen as incompatible with marriage. Half of them had mothers who had worked after marriage and who had acted as role models to stimulate their daughters to pursue careers. Few reported any influence by school teachers on their decisions.

Female academics were motivated primarily by intellectual interest and secondarily by career, while for the males career was primary. Females and males went into different faculties: more men to the science-based faculties, more women to the arts-based faculties. Both female and male academics thought of post-graduate education primarily as a means of enhancing their chances for an academic career. Their ways of financing it were different: women were much more dependent on scholarships than men who tended to rely on their own earnings. It took women longer to complete their post-graduate education, in many cases because of child-bearing and rearing. Overall fewer women had higher degrees but those in tenured positions were equally well qualified as their male counterparts.

The level at which academics received their first appointment varied strikingly, with four times as many men as women being appointed at the level of lecturer and above. Men were appointed at a higher level than women and moved up the academic ladder more rapidly, enhancing the differential which persists in their current positions. The majority of the women maintained continuity of employment, but not always full-time; breaks, usually for child-rearing, were mainly of short duration. They had less experience than the men of work outside a university or employment in a number of universities.

In the sex-segregated labour market of academe where academics are employed to teach but rewarded (promoted) for research, teaching is

emphasized at the lower ranks where women are concentrated and yet women academics, particularly those with children, were shown to publish no less than their male counterparts when matched for rank. Nor in these ranks did women attend conferences any less frequently than their male counterparts, so may be seen to contribute to currently accepted and debated knowledge and research.

In terms of their living situation, women academics were much less likely than their male counterparts or than women in the general population to be currently married, or to have children. If they did have children, they were likely to have fewer. Where women academics were in 'dual-career' families, their husbands' careers usually took priority especially where there were children. There was another small group where the pattern was one of reciprocity and mutuality and this might be seen as a portent for a better future.

Most women academics regarded universities as institutions which discriminate against women at times of appointment and promotion and in the way that important decisions are made in arenas to which women have little access. Their promotional aspirations were lower than those of their male counterparts and held with far less optimism.

Women academics were found to be less likely than the males, and much less likely than Australian women generally, to have any religious affiliation. Politically both sexes were more left-wing than the population, the women slightly less so than the men.

On a range of attitudes to social issues relating to the position of women, women were far more 'progressive' than their male counterparts. Those in scientific and medical fields however tended to be more conservative in their attitudes than other academic women.

Our research indicated to us very clearly that, with the exception of those few men who attributed the paucity of women in academe to biological differences and the intellectual inferiority of women, our respondents had identified some of the major factors which are operating. The society in which women are brought up does socialize women to make 'choices' about their futures within a very restricted range of options, it does socialize women (but not men) to think of their futures as involving sets of decisions about marriage and/or career; it does stream women and men into different areas of study; it does socialize women into 'femininity' and men into 'masculinity' with all the undesirable consequences which attend these social constructs. The university system reinforces all those earlier lessons with rewards for conformity and penalties for non-conformity to those socially constructed sex roles. University decision makers, whether they be administrators or academics, are predominantly males who, as our respondents clearly saw, do openly or otherwise discriminate against women. We would differ with our respondents' analyses probably only in the degree of emphasis placed on this array of factors which operate against women; in particular, we would emphasize the crucial role of 'the structure of the academic career' as a barrier to the advancement of women in academe. It is a structure which rests on the assumption that academics will not take time out for child-bearing and child-rearing and that they will have domestic support systems behind them, most commonly referred to as wives.

Yippee. I made it!

Throughout the conduct of this research and in our daily lives as women working in tertiary educational institutions designed to suit the needs and aspirations of men better than those of women, we were constantly reminded of the need to question the goal of 'equality' — equality with whom and in order to do what?

RECOMMENDATIONS

While it is relatively easy to point to those practices which discriminate against women in the system as it now works, it is rather less easy to suggest how they might be changed towards a more equal representation with men in number and across discipline, rank and power. As women increasingly participate they are in a position to define and promote their concept of equality and the future of the institutions as they wish them to be. If women academics are to be able to participate fully and effectively not only in shaping their own destinies but also in shaping the university of the future and the society of which it is a part, then barriers to that full and effective participation must be broken down.

To this end we put forward two sets of measures. The first, the universities can only influence, directly or indirectly; the second we believe they can implement.

Firstly, universities should make a conscious attempt to influence bringing about the following situations as important bases for positive change:

1. Broadening of the class background of students, hence of potential academics, by the inclusion of more girls from the working class.
2. Extending the horizons of girls beyond 'female' fields of study. (The university can influence these first two changes through its education of school teachers and counsellors, and through its own student counsellors who have been known to discourage girls from entering 'male' fields.)

3. A greater awareness by staff, particularly male staff, of women's conditioned lesser confidence so that they offer support and encouragement to women considering post-graduate study, applying for a position or for promotion. (Women might well be helped through these intricate and often daunting procedures by workshops to inform and support.)

4. An acceptance, beyond that shown by some of our male respondents, by larger numbers of men, of women's equality — an acceptance in both attitude and practice, and within both the university and the family.

Secondly, changes which we believe should be implemented are:

1. The making available of fractional full-time (or permanent part-time) appointments with conditions, including superannuation, equivalent to that of full-time tenured staff.

2. The provision by universities of adequate parental leave, for example six weeks paid and up to one year unpaid. Such leave should not detract from the career prospects of the parent concerned.

3. The provision of adequate child-care facilities to operate at hours appropriate to the needs of university staff and students.

4. The removal of existing inequalities in superannuation so that the same conditions of retirement, dependents' provisions, etc. are available to both sexes.

5. The establishment of systems of continuous review to monitor and report on progress towards equal opportunity, by, for instance, providing updated statistics on the distribution of women and men by rank, faculty, discipline; statistics on the distribution of women and men applicants for academic vacancies and promotions; on the distribution of research funds; on post-graduate enrolment; and on participation at the policy-making level in university affairs.

6. The introduction of women's studies courses on the position of women, past and present, and other women-related matters, and the ensuring that these be considered legitimate areas of study.

7. Consideration of the Anti-Discrimination and Equal Opportunity legislation in the New South Wales Public Service and statutory authorities as a possible model for universities.

Appendix A
Distribution of Respondents

Apart from medicine and veterinary science there is a marked difference in the distribution of the sexes: 63 per cent of the women, as compared with 40 per cent of the men, in humanities and social science; double the percentage of men (50 per cent) than of women (26 per cent) in the sciences. In so far as particular subject fields could be identified within the four broad categories, in the humanities 27 per cent of the women majored in English, 20 per cent in languages, 17 per cent in history; in the social sciences 20 per cent in psychology, 20 per cent in education; in the sciences 23 per cent in biological science, 17 per cent in chemistry; equal proportions (18 per cent) listed medicine, veterinary science and physiology/pharmacology. For the men major fields in the social sciences were economics (39 per cent) and education (21 per cent); in the sciences, engineering (28 per cent) and chemistry (15 per cent); 54 per cent listed medicine, 9 per cent veterinary science.

Tables A.3 and A.4 show a marked disparity in rank between female and male respondents: women in the lower, men in the upper, levels. Adjustment of the figures in Table A.4 to exclude the female categories for which there were no male equivalents shows that 61 per cent of the women, as compared with 16 per cent of the men, were below the rank of lecturer; 28 per cent and 35 per cent held lectureships; 11 per cent of the women but 49 per cent of the men were above that rank. This is a fairly close representation of the overall distribution of the sexes in the academic profession (see Appendix D).

Table A.5 shows that the women were younger: nearly half (48 per cent) as compared with just over one-fifth (21 per cent) of the men, under 31 years; 7 per cent compared with 11 per cent, over 50 years. Mean ages: women 34.2 years, men 38.0. For women the modal age was 24-25 years, median 31.5 (calculated from year of birth, asked of the women, but not the men).

Table A.1 University

	Women		Men		Total	
	N	%	N	%	N	%
University of Sydney	185	43.2	48	39.7	233	42.4
University of New South Wales	135	31.5	42	34.7	177	32.2
Macquarie University	94	22.0	31	25.6	125	22.8
New South Wales Institute of Technology	14	3.3	[a]	[a]	14	2.6
	428	100.0	121	100.0	549	100.0

[a] Questionnaires not sent to male staff.

Table A.2 Faculty/School [a]

	N	%	N	%	N	%
Humanities [b]	101	23.6	20	16.8	121	22.1
Social sciences [c]	169	39.5	28	23.5	197	36.0
Medical and veterinary sciences [d]	49	11.4	11	9.2	60	11.0
Sciences: pure and applied [e]	109	25.5	60	50.4	169	30.9
	428	100.0	119	100.0	547	100.0

[a] Respondents were spread over 67 subject areas, collapsed somewhat arbitrarily into four faculties or schools.

[b] Humanities: archaeology, drama, English, fine arts, history, history and philosophy of science, languages, music, philosophy, Indonesian/Malaysian/Oriental/Semitic studies, theology, arts not identified.

[c] Social sciences: accounting, behavioural sciences, commerce, education, economics, economic history/statistics, general studies, health administration, law, librarianship, marketing, politics, social work, sociology, social science not identified.

[d] Medicine and veterinary sciences: includes anatomy, bacteriology, biochemistry, dentistry, dietetics, histology, microbiology, pathology, pharmacy, pharmacology, physiology, physio- and occupational therapy.

[e] Sciences: agriculture, architecture, botany, chemistry, computer science, engineering, geography, geology, mathematics/statistics, physics, zoology, schools of biological sciences/earth sciences/life sciences/mathematics and physical sciences, science not identified.

Table A.3 Position

	Women		Men		Total	
	N	%	N	%	N	%
Post-graduate student	29	6.8	—	—	29	5.3
Research assistant	56	13.2	—	—	56	10.2
Demonstrator	9	2.1	3	2.5	12	2.2
Tutor	120	28.2	6	5.0	126	23.1
Senior tutor	56	13.2	5	4.1	61	11.2
Teaching fellow	18	4.2	6	5.0	24	4.4
Research fellow	6	1.4	—	—	6	1.1
Assistant lecturer	4	0.9	1	0.8	5	0.9
Lecturer	90	21.2	41	33.8	131	24.0
Senior lecturer	31	7.3	33	27.3	64	11.7
Associate professor	5	1.2	19	15.7	24	4.4
Professor	1	0.2	7	5.8	8	1.5
	425	100.0	121	100.0	546	100.0

Table A.4 Rank

	Women		Men		Total	
	N	%	N	%	N	%
Below lecturer	294	69.2	20	16.5	314	57.5
Lecturer	94	22.1	42	34.7	136	24.9
Above lecturer	37	8.7	59	48.8	96	17.6
	425	100.0	121	100.0	546	100.0

Table A.5 Age

	Women		Men		Total	
Years	N	%	N	%	N	%
under 21	3	0.7	—	—	3	0.5
21—30	201	46.9	26	21.3	227	41.2
31—40	128	29.8	52	42.6	180	32.7
41—50	68	15.8	31	25.4	99	18.0
over 50	29	6.8	13	10.7	42	7.6
	429	100.0	122	100.0	551	100.0

Appendix B
The Women's Questionnaire

Women Academics in Sydney
A survey of their educational, social and professional background, and their experience at work, at home and in the community.

Conducted by a group of academics from the University of New South Wales, Macquarie University and the University of Sydney.

It is important that a response be made to each question. Ring the appropriate code, or NA if the question is not applicable to you, or DK (Don't Know) if the information is not known to you. Reply to uncoded questions in the space provided; if this is not sufficient, extra space is available at the end of the questionnaire.

A PRESENT POSITION

1a Faculty or School: _____

1b University: _____

B BACKGROUND

2a Year of birth:

2b Place of birth of parents and yourself; where you mainly lived during your childhood and adolescence:

	Australia			elsewhere*		
	city	country	DK	city	country	DK
father born	1	2	3	4	5	6
mother born	1	2	3	4	5	6
self born	1	2	3	4	5	6
self lived	1	2	3	4	5	6

* specify _____

3a Where did you get most of your secondary education?

	Australia		
	city	country	elsewhere†
state school	1	2	3
private — Catholic	1	2	3
private — non-Catholic	1	2	3
other*	1	2	3

* specify _____
† specify _____

3b Was your school:

co-educational	1
single sex	2
NA	3

3c Were you:

day scholar	1
boarder	2
NA	3

3d Did your school teach:

	yes	no	NA
advanced maths	1	2	3
advanced science	1	2	3
Did you take:			
advanced maths	1	2	3
advanced science	1	2	3

3e Parents' education — highest level:

	father	mother
primary school only	1	1
some secondary	2	2
completed secondary	3	3
some university	4	4
university degree/diploma*	5	5
other post-secondary +	6	6
other †	7	7
DK	8	8

* specify_____
\+ specify_____
† specify_____

3f Father's occupation during your growing-up years. (Be specific, note changes, if necessary, in occupation and/or status.)

_____

3g Did your mother work:

	yes	no
before marriage	1	2
after marriage	1	2
Did she work when you were:		
under 3	1	2
3-5	1	2
at school	1	2
at university	1	2

If yes (if she worked):
What was her major occupation?_____
What do you think her reasons were for working:
before marriage_____
after marriage _____
If yes or no: What effect, if any, did her working/not working have on your own career decisions? _____

4 Where, in this scheme, would you place your family of origin?

upper middle	1
middle	2
lower middle	3
upper working	4
working	5
lower working	6
DK	7

5a Do/did you have any brothers or sisters?

yes	1
no	2

5b **If yes:**

How many brothers	_____
sisters	_____
Total	_____
Were you oldest	1
middle	2
youngest	3

If not oldest, did you have older brother/s?

yes	1
no	2
NA	3

6a What was the attitude of *your* parents to your having university education?

	father	**mother**
encouraged	1	1
neutral	2	2
discouraged	3	3
NA	4	4

6b If you come from a family of both sexes, which *one* of the following is closest to your parents' attitude towards the tertiary education of their children?

	father	**mother**
encouraged:		
both sexes equally	1	1
son/s more than daughter/s	2	2
daughter/s more than son/s	3	3
discouraged:		
both sexes equally	4	4
son/s more than daughter/s	5	5
daughter/s more than son/s	6	6
neutral	7	7
NA	8	8

6c What is the level of your brothers' and sisters' education, compared to your own?

	brother/s	**sister/s**
above yours	1	1
same as yours	2	2
below yours	3	3
NA	4	4

6d Which *one* of the following aspects of education was seen by your parents as most important in your case?

	father	**mother**
preparation for career	1	1
preparation for marriage and family	2	2
insurance against adversity	3	3
social mobility	4	4
wasted on girls	5	5
DK	6	6
NA	7	7

6e How did your parents regard the relationship of marriage and career?

	father	**mother**
marriage more important	1	1
career more important	2	2
could be combined	3	3
DK	4	4
NA	5	5

7a How would you rate yourself on these characteristics when you were growing up?

	very				not at all
competitive	1	2	3	4	5
dependent	1	2	3	4	5
gregarious	1	2	3	4	5
self confident	1	2	3	4	5
maternal	1	2	3	4	5

7b How would you describe your relationship with your parents?

	very warm	warm	neutral	tense	very tense	NA
when you were growing up:						
with father	1	2	3	4	5	6
with mother	1	2	3	4	5	6
later in life:						
with father	1	2	3	4	5	6
with mother	1	2	3	4	5	6

8 In what ways, if any, did the attitudes of your parents, and/or the atmosphere and circumstances of your parental home, affect your own attitudes and decisions about education, career, marriage, etc.?

_____

_____

9 Your present age group:

under 21	1
21-30	2
31-40	3
41-50	4
51-60	5
over 60	6

C UNIVERSITY EDUCATION

10a Undergraduate degree/s please give details:

first degree:
- degree _____
- field _____
- pass/honours (class) _____
- university _____
- full/part-time _____
- time taken (years) _____

second degree (if applicable):
- degree _____
- field _____
- pass/honours (class) _____
- university _____
- full/part-time _____
- time taken (years) _____

10b Indicate any major influence/s (score one or two only) on:
(1) your going to university
(2) your choice of field

	(1)	(2)
mother	1	1
father	2	2
relative/s	3	3
teacher/s	4	4
school counsellor	5	5

friend/s	6	6
husband	7	7
family tradition/expectation	8	8
other *	9	9

* specify_____

10c Was your reason for going to university primarily (score *one* only):

vocational/prepare for career	1
intellectual interest	2
broader culture	3
other *	4

* specify_____

10d As an undergraduate, did you participate and were you an office-holder in the following university clubs, societies and activities?

	not at all	**participate**		**office-holder**	
		a little	**a lot**	**yes**	**no**
social, cultural	1	2	3	1	2
religious	1	2	3	1	2
sporting	1	2	3	1	2
student government and politics	1	2	3	1	2
other*	1	2	3	1	2

* specify_____

11a Post-graduate study — please give details:

diploma:

completed	**enrolled for**	**NA**
1	2	3
full-time	**part-time**	**NA**
1	2	3

field_____
university/institution_____
time taken or expected to complete (years) _____

masters:

completed	**enrolled for**	**NA**
1	2	3
full-time	**part-time**	**NA**
1	2	3

field_____
university/institution_____
time taken or expected to complete (years) _____

doctorate:

completed	**enrolled for**	**NA**
1	2	3
full-time	**part-time**	**NA**
1	2	3

field_____
university/institution_____
time taken or expected to complete (years) _____

11b When did you first consider taking post-graduate study?

while at school	1
early in undergraduate career	2
by graduation	3
later after other experience*	4
NA	5

*specify_____

11c What motivated you to post-graduate study?
(Score one, or two, if applicable)

qualification for academic career	1
qualification for other profession	2
interest in subject/field	3
interest in research	4
encouragement from university teacher/s	5
other*	6

*specify_____

11d Indicate how these factors affected your pursuit of post-graduate study:

	pre-vented	hind-ered	aided	NA
war	1	2	3	4
depression years	1	2	3	4
undergraduate preparation	1	2	3	4
scholarships	1	2	3	4
home circumstances	1	2	3	4
money	1	2	3	4
employment	1	2	3	4
marriage	1	2	3	4
children	1	2	3	4
attitude of husband	1	2	3	4
responsibility for parents or others	1	2	3	4
other*	1	2	3	4

*specify_____

If any of these had a profound effect, please elaborate.

_____

12a Indicate your *main* source of financial support:

	under-grad.	dip.	masters	doctor-ate
teachers college scholarship	1	1	1	1
commonwealth scholarship	2	2	2	2
other schol. or cadetship	3	3	3	3
parents	4	4	4	4
husband	5	5	5	5
own earnings	6	6	6	6
private income	7	7	7	7
other*	8	8	8	8
NA	9	9	9	9

*specify_____

12b List any scholarships, fellowships, bursaries, prizes you have been awarded:

while at school _____
during undergraduate study_____
on graduation or after_____
during postgraduate study _____
post-doctoral_____

D WORK

13a Did you enter university immediately after leaving school?

yes	1
no	2

If no: What were your occupations before entering university?

occupations	**no. of years in each**

13b Since you first graduated (or first left university as a student) how many years have you been:

	no. of years
working full time	
working part-time	
not working	

13c When you were not working, were you:

		no. of years
studying	1	
being a housewife	2	
caring for child/ren	3	
having a break	4	
travelling	5	
unable to find suitable work	6	
other*	7	
NA	8	

*specify_____

13d Has your work since graduation been entirely in a university?

yes	1
no	2
If yes, has it been:	
continuous	1
not continuous	2
always full time	1
always part-time	2
sometimes full time sometimes part-time:	3

13e If your work has not been entirely in a university since graduation, list other occupations:

Before first university appointment	**no. of years**

Between university appointments	**no. of years**

14a University positions: (i) your first position, (ii) your present position

	(i)	**(ii)**
type of position		
full-time	1	1
part-time	2	2
level of position		
research assistant	1	1
demonstrator	2	2
teaching fellow	3	3
tutor	4	4

senior tutor	5	5
research fellow	6	6
lecturer	7	7
senior lecturer	8	8
associate professor	9	9
professor	10	10
other*	11	11

*specify_____

14b Indicate how long after graduation, and at what age you were appointed to:

	years after graduation	**age**
first position	_____	_____
present position	_____	_____

14c Were/are you employed in the university where you graduated, or were post-graduate?

	first position		**present position**	
university where you graduated	yes	1	yes	1
	no	2	no	2
university where you were post-graduate	yes	1	yes	1
	no	2	no	2
	NA	3	NA	3

14d In how many universities have you been employed in:

Australia	_____
U.K.	_____
U.S.A.	_____
elsewhere*	_____
total	_____

*specify_____

14e If you are employed part-time, or in a non-tenure post, is this by your own choice?

	part-time	**non-tenure**
yes	1	1
no	2	2
NA	3	3

Please comment on your response.

_____

_____

15 Of the two academic activities, teaching and research, would you say that your interest is:

very heavily in teaching	1
in both but leaning to teaching	2
in both activities equally	3
in both but leaning to research	4
very heavily in research	5

16a In a normal working week, how many hours do you spend on the following tasks?

	hours
teaching (contact hours)	_____
research	_____
preparation	_____
with students outside class	_____
staff consultation	_____
committee meetings	_____
administration	_____

16b How many honours or post-graduate students did you supervise in 1973?

	number
honours	_____
masters	_____
doctorates	_____

17a How much do you enjoy each of the following activities?

	very much	moder-ately	very little	not at all
teaching	1	2	3	4
research	1	2	3	4
contact with students	1	2	3	4
discussion with colleagues	1	2	3	4
administration/policy-making	1	2	3	4

17b How much do you participate in administration and policy-making?

	very much	moder-ately	very little	not at all	not eligible
at level of:					
department	1	2	3	4	5
faculty/school	1	2	3	4	5
institution	1	2	3	4	5

17c Would you like to take a greater part in administration and policy-making?

yes	1
no	2

17d Do you think it is more difficult for a woman than a man:

	yes	no
(i) to achieve a position of authority	1	2
(ii) to handle such a position	1	2

If yes to (i) or (ii): why do you think this is so?

_____

_____

18 Do you do any work outside the university, as an academic, but not as part of your employment (e.g., writing, lecturing, broadcasting, consulting)?

yes	1
no	2

If yes, specify

_____

19 Have you applied for research grants (outside departmental funds)?

yes	1
no	2

If yes:

How many have been granted? _____

How many have been refused? _____

20 If you have published articles or books, or edited books or journals, please indicate the number of your publications in the following table.

	no. of publications		
	1-3	4-9	10+
publications:			
whole books	1	2	3
parts of books	1	2	3
journal articles	1	2	3
book reviews	1	2	3
others*	1	2	3

editting:

books	1	2	3
journals	1	2	3

*specify other publications

21a Have you ever been a member of, or an officer-holder in the following organizations and committees?

	member		office-holder	
	yes	no	yes	no
senate/council	1	2	1	2
professorial board/committee	1	2	1	2
board of studies, extension	1	2	1	2
faculty/school committee	1	2	1	2
staff-student committee	1	2	1	2
staff association	1	2	1	2
other administrative body*	1	2	1	2
union	1	2	1	2
staff club	1	2	1	2
child care centre	1	2	1	2
others†	1	2	1	2
professional organization††	1	2	1	2

*specify_____
†specify _____
††specify_____

21b During 1973, how often did you attend meetings of:

	regularly	occasionally	never	NA
staff association	1	2	3	4
faculty/school	1	2	3	4
professional organization	1	2	3	4

21c Indicate any involvement in academic or professional conferences:

	often	occasionally	once	never
attended	1	2	3	4
organizer/assistant	1	2	3	4
social secretary	1	2	3	4
chaired session	1	2	3	4
presented paper	1	2	3	4
other*	1	2	3	4

*specify_____

22a Are you a Fellow of the:

	yes	no
Academy of Science	1	2
Academy of Social Sciences	1	2
Academy of Humanities	1	2
other learned society*	1	2

*specify_____

22b Are you a member of a statutory body (e.g. A.B.C., Commonwealth Literary Board)?

yes	no
1	2

If yes, specify._____

23a If you have received promotion during continuous employment in academic work, indicate the interval between promotions:

	years				
	1-3	**4-6**	**7-9**	**10+**	**NA**
to lecturer	1	2	3	4	5
to senior lecturer	1	2	3	4	5
to reader/associate professor	1	2	3	4	5
to chair	1	2	3	4	5

23b Are you interested in promotion?

yes:	1
no	2

If yes: To what optimum rank?

chair	1
personal chair	2
reader/associate professor	3
senior lecturer	4
lecturer	5
other*	6

*specify_____

How would you estimate your chances of achieving your ambition?

confident	1
optimistic	2
uncertain	3
pessimistic	4

Comment on your response._____

_____

If no (to Q23b): Your reasons?_____

_____

23c Compared with a man of similar qualifications, how do you consider your likelihood of promotion to:

(i) a chair, (ii) sub-professorial levels

	(i)	**(ii)**
more likely	1	1
about the same	2	2
less likely	3	3
DK	4	4

24a Has there been any time in your university career when you knew there was, or felt there may have been, discrimination *against you*, or in your *favour*, because you were a woman?

	against	**for**
yes:		
open	1	1
latent	2	2
no	3	3

Comment on your response (yes or no)._____

_____

24b Do you think there is discrimination *against women*, or in *favour of women*, in universities?

	against	**for**
yes:		
open	1	1
latent	2	2
no	3	3

If yes, expand on your response._____

24c 'The "problem" which bothers the woman academic . . . is that she is denied many of the informal signs of belonging and recognition . . . on such simple daily activities as finding someone to have lunch with, or someone with whom she can chew over an idea, or on larger issues such as finding a partner with whom she can share a research interest. Perhaps, then, it is in matters such as these that she has achieved less than full membership in the "club" and she is left with a feeling that she belongs to a minority group which has not gained full acceptance.'

	yes	no	DK
Do you think this situation exists?	1	2	3
Is it, or has it been, a 'problem' for you?	1	2	3

Comment on your response._____

25a When you thought about career possibilities, how seriously did you consider the idea of an academic career?

very seriously, no other really considered	1
seriously, but as one of several possibilities	2
secret leanings	3
not seriously, had other career plans	4
no serious career plans	5
others*	6
DK	7

*specify_____

25b Indicate the importance of each of the following factors in your decision about a career in a university.

	very important	fairly important	not very important	not at all important
good academic record	1	2	3	4
intellectual interest	1	2	3	4
encouragement from professor or other university teacher	1	2	3	4
self-assurance from other experience	1	2	3	4
offer of post	1	2	3	4
other*	1	2	3	4

*specify_____

25c Indicate the importance you place on each of the following in making the academic career attractive to you now.

	very important	fairly important	not very important	not at all important
flexible work schedule	1	2	3	4
independence from direct authority	1	2	3	4
community prestige	1	2	3	4
salary	1	2	3	4
chance to contribute to a field of knowledge	1	2	3	4
less discrimination against women	1	2	3	4
freedom to carry out original ideas	1	2	3	4

easier to combine with family life	1	2	3	4
dealing directly with people	1	2	3	4
other*	1	2	3	4

*specify_____

26 Do you intend to stay in academic work?

Yes:	
continuously	1
with break/s	2
No	3
DK	4

If yes with break/s, for:

		no. of years	**(or DK)**
further study	1	_____	_____
children	2	_____	_____
travel	3	_____	_____
rest, leisure	4	_____	_____
other work*	5	_____	_____
other†			

*specify_____
†specify_____
If no, please comment._____

E HOME LIFE

27 Do you live:

alone	1
with a friend	2
with children	3
with husband*	4
with husband and children	5
with husband and other/s	6
with husband, children and other/s	7
with children and other/s	8
with a group of friends	9
with relatives	10
other, e.g. college	11

*Here, and in the following questions, 'husband' refers to legal or de facto husband.

28 In your private life, do you have, or have you had, special responsibility for other people (not including your own children)?

yes	1
no	2

If yes, please comment._____

29a In your household, do you perform *most* of the household tasks?

yes	1
no	2

29b Do others who live in your household help with the domestic tasks?

	yes	**no**	**NA**
husband	1	2	3
child/ren	1	2	3
friend/s	1	2	3
relative/s	1	2	3

29c Do you employ household help:

full-time	1
regular part-time	2
occasional	3
never	4
NA	5

If never, please comment on your reasons.

---

30 Indicate any community organizations (not professional) in which you participate or hold office.

organization	mixed membership		women members only	
	participate and hold office	participate	participate and hold office	participate
social	1	2	1	2
cultural	1	2	1	2
welfare	1	2	1	2
religious	1	2	1	2
political	1	2	1	2
educational	1	2	1	2
feminist	1	2	1	2
resident action	1	2	1	2
sporting	1	2	1	2
other*	1	2	1	2
none	1	2	1	2

*specify_____

31a In what religion were you reared, and what is your present religious affiliation?

	were you reared	present affiliation
Church of England	1	1
Presbyterian	2	2
Methodist	3	3
other Protestant*	4	4
Catholic	5	5
Jewish	6	6
other†	7	7
agnostic/atheist	8	8
no religion	9	9

*specify_____
†specify_____

31b Do you attend religious services, on average:

weekly	1
monthly	2
several times a year	3
never	4

32a In party political terms, do you think of yourself as:

Labor Party (ALP)	1
Liberal Party	2
Country Party	3
Australia Party	4
Democratic Labor Party (DLP)	5
Communist Party	6
other*	7
swinging	8
apolitical	9

*specify_____

32b Are you interested in public affairs?

	very	somewhat	not at all
local	1	2	3
state	1	2	3
federal	1	2	3
international	1	2	3

32c Do you:

	yes	no
belong to a political party	1	2
hold office in a political party	1	2

32d Do you:

	often	occasionally	never
take part in electioneering	1	2	3
canvass/lobby	1	2	3
write to the press on political matters	1	2	3
take part in other political activities*	1	2	3

*specify_____

33a Would you say that your relatives (parents, brothers, sisters, aunts, etc.) are important to you for:

	yes	no
visiting, friendship	1	2
financial help	1	2
emotional support	1	2
mutual assistance in practical matters	1	2
other*	1	2
NA	1	2

*specify_____

33b Do you live in the same city as most of your relatives?

yes	no
1	2

33c How often do you contact (e.g. meet, telephone, write to) your relatives?

weekly or more	1
monthly	2
on special occasions only	3
hardly ever	4
never	5

33d Of your close friends, how many:

	most	some	very few	none
work or study in a university	1	2	3	4
work in the same field as you	1	2	3	4
work in your university	1	2	3	4
work in your department /school	1	2	3	4

34 Which three activities in your life have given you the most satisfaction?

	1st choice	2nd choice	3rd choice
professional career	1	1	1
friendship	2	2	2
family relationships	3	3	3
leisure activities	4	4	4
religious belief and activities	5	5	5
participation in community/ national affair	6	6	6
other*	7	7	7

*specify_____

35a Which of the following life-styles comes closest to your own (as you are living now)? Score one, or two, if appropriate.

free-floating independence	1
commitment to husband and/or children in family setting	2
choosing not to marry	3
living with partner and choosing not to marry	4
choosing not to have children	5
choosing to live alone	6
commitment to a lesbian relationship	7
living in a commune	8
living apart from your husband because of your career	9
other*	10

*specify_____

35b What effect has your life-style had upon your work?_____

_____

35c What effect has your life-style had upon your colleagues' attitudes towards you?_____

_____

36 Are you at present:

not married	1
married	2
widowed	3
divorced/separated	4

F MARRIAGE

The following set of questions (37a-43b) is applicable to respondents who are at present married or who have ever been married. If this does not apply to you, proceed to section G.
Respondets married *once* mark the *first marriage* categories and score NA for last marriage. Respondents married *more than once* mark both categories.

37a How old were you and your husband at marriage?

first marriage:
age of self _____
age of husband _____
last marriage:
age of self _____
age of husband _____

37b Did you complete your university degree/s before or after marriage?

first degree:

before first marriage	1
during first marriage	2
at the end of first marriage	3
during last marriage	4
at the end of last marriage	5

highest degree:

before first marriage	1
during first marriage	2
at the end of first marriage	3
during last marriage	4
at the end of last marriage	5
NA	6

38a Indicate your husband's *highest* educational level and field of study, and his occupation.

first marriage:
husband's educational level at time of marriage_____
field of study_____
occupation at time of marriage (please be specific)_____
educational level now (or at end of marriage)_____
field_____
occupation now (or at end of marriage)_____

last marriage:
NA_____
husband's educational level at time of marriage_____
field of study_____
occupation at time of marriage_____
educational level now (or at end of marriage)_____
field_____
occupation now (or at end of marriage)_____

38b Have you and your husband/s worked in the same field, a similar field, or the same institution?

in the past:	**yes**	**no**
the same field	1	2
similar field	1	2
same institution	1	2
at present:	**yes**	**no**
the same field	1	2
similar field	1	2
same institution	1	2

39 Does, or did, your husband's occupation and income affect your work/and/or study situation?

	yes	**no**	**NA**
first marriage	1	2	3
last marriage	1	2	3

If yes, please give brief details._____

40 Have you ever been:

	yes	**no**
widowed	1	2
separated/divorced	1	2

If yes: Was your career affected?

yes	**no**
1	1

If yes: In what way?_____

41 On what basis are/were household tasks allocated in your household?

	first marriage	last marriage
some tasks more appropriate for women, some for men	1	1
shared irrespective of sex	2	2
shared on basis of available time:		
your work leaves more time	3	3
husband's work leaves more time	4	4
Other*	5	5
NA	6	6

*specify_____

42a How would you characterize the inter-relation of your career and your husband's? Please use the following code:
(A) husband's career is primary and wife adapts
(B) wife's career is primary and husband adapts
(C) both careers equally important—mutual adjustment

first marriage	(A)	(B)	(C)	NA
acceptance of positions	1	2	3	4
place of residence	1	2	3	4
responsibility for children	1	2	3	4
household tasks	1	2	3	4
decisions about holidays, study leave	1	2	3	4
other*	1	2	3	4

*specify_____

last marriage	(A)	(B)	(C)	NA
acceptance of positions	1	2	3	4
place of residence	1	2	3	4
responsibility for children	1	2	3	4
household tasks	1	2	3	4
decisions about holidays, study leave	1	2	3	4
other*	1	2	3	4

*specify_____

42b Has there been any significant change over time in this pattern of inter-relation of your career and your husband's?

yes 1
no 2
If yes, please comment._____

43a Was it understood when you married that you would have, or would continue with a career?

	yes	no	NA
first marriage	1	2	3
last marriage	1	2	3

43b How would you characterize your husband's attitude to your having a career?

	highly approving	neutral	dis-approving	highly dis-approving	NA
first marriage	1	2	3	4	5
last marriage	1	2	3	4	5

G CHILDREN

The following set of questions (44-48) is applicable to respondents who are at present, or who have ever been responsible for the care of children. If this is not applicable to you, proceed to section H.

44a How many children have you:
borne? _____
adopted? _____

44b How many children in the following age groups live with you *now* (include your own, adopted, step children, etc., if applicable)?

	no. of children
under 3	_____
3-5	_____
6-15	_____
16-20	_____
20 and over	_____
total	_____
NA	

44c If you were working in a university when any of your children were born, complete this table:

	born in vacation	**granted maternity leave**			
		paid	**unpaid**	**official**	**unofficial**
1st child	1	2	3	4	5
2nd child	1	2	3	4	5
3rd child	1	2	3	4	5
4th child	1	2	3	4	5
etc.					

45 (a) In what ways is/was your work life affected when you had young children?
(b) What arrangements do/did you make for their care when you were working or studying (if applicable)?

	(a) effect on work life	**(b) child-care arrangement**
1st child:		
0-2 yrs	_____	_____
3-5 yrs	_____	_____
child care after school, school holidays, when child sick	_____	_____
2nd child:		
0-2 yrs	_____	_____
3-5 yrs	_____	_____
after school, school holidays, when child sick	_____	_____

If this pattern changed when you had more children, give brief details.

46a Reply to this question if you started or continued working when any of your children were under five years. If this is not applicable, reply to question 46b.

How significant were *each* of the following in your decision to work? Use the following code:

very signficant	1
significant	2
not significant	3
NA	4

	0-2 years				3-5 years			
psychological need to work	1	2	3	4	1	2	3	4
having a satisfactory mother-substitute for your child	1	2	3	4	1	2	3	4
suitable day-care available	1	2	3	4	1	2	3	4
sharing child-care with husband	1	2	3	4	1	2	3	4
economic need to work	1	2	3	4	1	2	3	4
husband encouraged you to work	1	2	3	4	1	2	3	4
other*	1	2	3	4	1	2	3	4

*specify_____

46b If you decided not to work when any of your children were under 5 years, how significant were each of the following in your decision? (Use the codes above.)

	0-2 years				3-5 years			
desire to stay with child	1	2	3	4	1	2	3	4
mother is best for children	1	2	3	4	1	2	3	4
husband encouraged you to stay at home	1	2	3	4	1	2	3	4
unfavourable community attitudes	1	2	3	4	1	2	3	4
No suitable day-care available	1	2	3	4	1	2	3	4

Any other reasons?_____

47a What do you consider the ideal care for young children?_____

_____

47b What effects do you consider your working has/had on your children?

_____

48a What kind of education do/did your children mainly have? (Score NA if children not yet at primary, secondary or tertiary stage.)

	primary education			
	state	catholic	other private	NA
daughters	1	2	3	4
sons	1	2	3	4

	secondary			
	state	catholic	other private	NA
daughters	1	2	3	4
sons	1	2	3	4

	tertiary						
	no tertiary	university	teachers college	CAE	tech. college	other	NA
daughters	1	2	3	4	5	6	7
sons	1	2	3	4	5	6	7

48b If any of your children are studying at a tertiary institution, what is their field?

48c Your children's occupation (if applicable):

H MAINLY ATTITUDINAL

Note: For questions 49 and 50, use the following code:

strongly agree	1
moderately agree	2
neutral	3
moderately disagree	4
strongly disagree	5

49 How do you feel about the following social changes which are sometimes advocated?

		code				
(1)	Preferential treatment for women in hiring and promotion to compensate for past discrimination	1	2	3	4	5
(2)	Equal responsibility by men and women for child-rearing and child-care	1	2	3	4	5
(3)	Child-rearing designed to break down differentiation of males and females	1	2	3	4	5
(4)	Equal opportunity for married and single women to adopt children	1	2	3	4	5
(5)	Free day-care facilities for all who seek them	1	2	3	4	5
(6)	An end to the institution of marriage in its traditional form	1	2	3	4	5
(7)	Abortion on request for women	1	2	3	4	5
(8)	Contraceptive education and requirements available to all, irrespective of age	1	2	3	4	5
(9)	The introduction of women's studies courses in universities	1	2	3	4	5

50 How do you feel about the following opinions which are sometimes stated?

		code				
(1)	A woman has to be better than a male competitor to succeed in the academic world.	1	2	3	4	5
(2)	Unmarried women academics have a greater devotion to their work than married women.	1	2	3	4	5
(3)	There is a strong, if often unacknowledged prejudice amongst academic men against women in top positions.	1	2	3	4	5
(4)	The general community places equal value on academic brilliance in men and women.	1	2	3	4	5
(5)	Women are less reliable on the job than men because they tend to be absent and to quit more often.	1	2	3	4	5
(6)	Women who stay at home to care for small children should be paid an allowance by the state.	1	2	3	4	5

(7)	Children of working mothers tend to be less well adjusted than children of non-working mothers.	1	2	3	4	5
(8)	It is possible for a woman to combine career and family without detriment to either.	1	2	3	4	5
(9)	Motherhood is essential to a woman's full development.	1	2	3	4	5
(10)	Lesbianism is an acceptable form of relationship.	1	2	3	4	5
(11)	It is essential for the well-being of the community that the nuclear family be preserved.	1	2	3	4	5
(12)	The media degrade women.	1	2	3	4	5
(13)	Men, consciously or unconsciously, view themselves as superior to women.	1	2	3	4	5
(14)	Men have a natural facility, which women lack, for mathematics and logical reasoning.	1	2	3	4	5

51 Do you think that change is necessary in the position of women to enable them to play an equal part with men in society?

yes	1
no	2

If yes: How might this best be achieved?

individual effort	1
reform within the present system	2
radical change in social attitudes and institutions	3
other*	4

*specify_____

52. Have you ever experienced anxiety or ambivalence upon achieving academic success or recognition?

frequently	1
occasionally	2
never	3
DK	4

53 Have you ever:

		yes	**no**
(1)	Participated in political action for women's causes	1	2
(2)	Participated in projects to set up special facilities for women, e.g. day-care	1	2
(3)	Taught courses concerned with women's issues	1	2
(4)	Taken part in a women's consciousness-raising group	1	2
(5)	Been involved in the production of publications or papers concerned with women's position	1	2
(6)	Been involved in any other activities designed to produce change in woman's condition or status*	1	2

*specify_____

54a Indicate any involvement in:

	none	**belong**	**active**
Women's Liberation Movement	1	2	3
Women's Electoral Lobby	1	2	3

54b What is your opinion of the aims of the Women's Liberation Movement?

strongly opposed	1
mildly opposed	2
neutral	3
mildly in favour	4
strongly in favour	5

55 Following is a list of writers, mainly concerned with the position of women. Indicate any you have read, and add others if you wish:

Bernard	1	Millet	11
Callahan	2	Mitchell	12
de Beauvoir	3	Oakley	13
Dahlstrom	4	Rigg	14
Figes	5	Rowbotham	15
Firestone	6	Sullerot	16
Friedan	7	Stephenson	17
Gavron	8	Thiering	18
Greer	9	others*	19
MacKenzie	10		

*specify_____

56 Do you consider yourself a feminist?

yes	1
no	2
DK	3

57a There are fewer women than men in academic work. Why do you think this is so?_____

_____

57b Women are more likely to have positions at the lower levels of academic work — and less likely to have positions at the higher levels. Why do you think this is so?_____

_____

The end at last! Thank you for your patience and co-operation. Please use this space, if you wish, to expand your answers to any part of the questionnaire, and to make any additional comments on women in the academic world.

Appendix C

The Men's Questionnaire

Academics in Sydney
A survey of their educational, social and professional background, and their experience at work, at home and in the community.
Conducted by a group of academics from the University of New South Wales, Macquarie University and the University of Sydney.

It is important that a response be made to each question. Circle the appropriate code, or NA if the question is not applicable to you, or DK (don't know) if the information is not known to you. Reply to uncoded questions in the space provided; if this is not sufficient, extra space is available at the end of the questionnaire.

A PRESENT POSITION

1a Faculty or School: _____

1b University: _____

B BACKGROUND

2a Place of birth of parents and yourself; where you mainly lived during your childhood and adolescence:

	Australia			elsewhere*		
	city	country	DK	city	country	DK
father born	1	2	3	4	5	6
mother born	1	2	3	4	5	6
self born	1	2	3	4	5	6
self lived	1	2	3	4	5	6

*specify_____

2b Your present age group:

under 21	1
21-30	2
31-40	3
41-50	4
51-60	5
over 60	6

3a Where did you get most of your secondary education?

	Australia		
	city	country	elsewhere†
state school	1	2	3
private — Catholic	1	2	3
private — non-Catholic	1	2	3
other*	1	2	3

*specify_____
†specify_____

3b Were you:

day scholar	1
boarder	2
NA	3

3c At school did you take:

	yes	**no**
advanced maths	1	2
advanced science	1	2
not available	1	2

4a Parents' education — highest level:

	father	**mother**
primary school only	1	1
some secondary	2	2
completed secondary	3	3
some university	4	4
university degree/diploma*	5	5
other post-secondary	6	6
DK	7	7

*specify_____

4b Father's occupation during your growing-up years. (Please be specific.)_____

4c Did your mother work:

before marriage only	1
after marriage only	2
before and after marriage	3
never	4

4d If she worked, what was her major occupation?_____

5 Where, in this scheme, would you place your family of origin?

upper middle	1
middle	2
lower middle	3
upper working	4
working	5
lower working	6
DK	7

6 Do/did you have any brothers or sisters?

yes	1
no	2
If yes:	
How many brothers	_____
sisters	_____
Total	_____
Were you oldest	1
middle	2
youngest	3

7 What was the attitude of your parents to your having university education?

	father	**mother**
encouraged	1	1
neutral	2	2
discouraged	3	3
NA	4	4

8a How would you rate yourself on these characteristics when you were growing up?

	very				not at all
competitive	1	2	3	4	5
dependent	1	2	3	4	5
gregarious	1	2	3	4	5
self confident	1	2	3	4	5

8b How would you describe your relationship with your parents when you were growing up?

	very warm	warm	neutral	tense	very tense	NA
with father	1	2	3	4	5	6
with mother	1	2	3	4	5	6

C UNIVERSITY EDUCATION

9a Indicate any major influence/s (score one or two only) on:
(ii) your going to university
(iii) your choice of field

	(i)	(ii)
mother	1	1
father	2	2
relative/s	3	3
teacher/s	4	4
school counsellor	5	5
friend/s	6	6
wife	7	7
family tradition/expectation	8	8
other*	9	9

*specify_____

9b Was your reason for going to university primarily (score *one* only):

vocational/prepare for career	1
intellectual interest	2
broader culture	3
other*	4

**specify_____

10a Undergraduate degree/s:

first degree:
degree _____
pass/honours _____
university _____
other undergraduate degree (if applicable):
degree _____
pass/honours _____
university _____

10b Post-graduate study — please give details:

diploma: **completed** 1 **enrolled for** 2 **NA** 3

full-time 1 **part-time** 2 **NA** 3

field_____
university/institution_____
time taken or expected to complete (years)_____

masters:
field_____
university/institution_____
time taken or expected
to complete (years)_____
doctorate:
field_____
university/institution_____
time taken or expected
to complete (years)_____

11 As an undergraduate, did you participate and were you an office-holder in the following university clubs, societies and activities?

	participate			office-holder	
	not at all	a little	a lot	yes	no
social, cultural	1	2	3	1	2
religious	1	2	3	1	2
sporting	1	2	3	1	2
student government and politics	1	2	3	1	2
other	1	2	3	1	2

12a When did you first consider taking post-graduate study?

while at school	1
early in undergraduate career	2
by graduation	3
later after other experience*	4
NA	5

*specify_____

12b What motivated you to postgraduate study? (Score one, or two, if applicable.)

qualification for academic career	1
qualification for other profession	2
interest in subject/field	3
interest in research	4
encouragement from university teacher/s	5
other*	6

*specify_____

13 Indicate your *main* source of financial support.

	under-grad.	dip.	masters	doctor-ate
teachers' college scholarship	1	1	1	1
commonwealth scholarship	2	2	2	2
other schol. or cadetship	3	3	3	3
parents	4	4	4	4
wife	5	5	5	5
own earnings	6	6	6	6
private income	7	7	7	7
other*	8	8	8	8
NA	9	9	9	9

*specify_____

D WORK

14 Has your work-life been entirely in a university?

yes 1
no 2

If no, list occupations and periods studying, not working, etc:

	occupations & activities	**number of years**
before entry as undergraduate	_____	_____
before first university appointment	_____	_____
between university appointments	_____	_____

15a University positions: (i) your first position, (ii) your present position

	(i)	**(ii)**
type of position		
full-time	1	1
part-time	2	2
level of position:		
research assistant	1	1
demonstrator	2	2
teaching fellow	3	3
tutor	4	4
senior tutor	5	5
research fellow	6	6
lecturer	7	7
senior lecturer	8	8
associate professor	9	9
professor	10	10
other*	11	11

*specify_____

15b Indicate how long after graduation, and at what age you were appointed to:

	years after graduation	**age**
first position	_____	_____
present position	_____	_____

15c Were/are you employed in the university where you graduated, or were post-graduate?

	first position		**present position**	
university where you graduated	yes	1	yes	1
	no	2	no	2
university where you were post-graduated	yes	1	yes	1
	no	2	no	2
	NA	3	NA	3

16 In how many universities have you been employed, in:

Australia _____
U.K. _____
U.S.A. _____
elsewhere _____
total _____

*specify_____

17a Of the two academic activities, teaching and research, would you say that your interest is:

very heavily in teaching	1
in both but leaning to teaching	2
in both activities equally	3
in both but leaning to research	4
very heavily in research	5

17b Have you applied for research grants (outside departmental funds)?

yes	1
no	2

18a On the average, in a working week, how many hours do you spend on the following tasks?

	hours
teaching (contact hours)	_____
research	_____
preparation	_____
with students outside class	_____
staff consultation	_____
committee meetings	_____
administration	_____

18b How many honours or post-graduate students did you supervise in 1973?

	number
honours	_____
masters	_____
doctorates	_____

19a How much do you participate in administration and policy-making?

	very much	**moder-ately**	**very little**	**not at all**	**not eligible**
at level of:					
department	1	2	3	4	5
faculty/school	1	2	3	4	5
institution	1	2	3	4	5

19b Would you like to take a greater part in administration and policy-making?

yes	1
no	2

19c Do you think it is more difficult for a woman than a man:

	yes	**no**
(i) to achieve a position of authority	1	2
(ii) to handle such a position	1	2

If yes to (i) or (ii): Why do you think this is so?_____

_____

20a Have you ever been a member of, or an office-holder in the following organizations and committees?

	member		**office-holder**	
	yes	**no**	**yes**	**no**
senate/council	1	2	1	2
professorial board/committee	1	2	1	2
board of studies, extension	1	2	1	2
faculty/school committee	1	2	1	2
staff-student committee	1	2	1	2
staff association	1	2	1	2
other administrative body	1	2	1	2
professional organization	1	2	1	2

20b During 1973, how often did you attend meetings of:

	regularly	occasionally	never	NA
staff association	1	2	3	4
faculty/school	1	2	3	4
professional organization	1	2	3	4

20c Indicate any involvement in academic or professional conferences:

	often	occasionally	once	never
attended	1	2	3	4
organizer/assistant	1	2	3	4
social secretary	1	2	3	4
chaired session	1	2	3	4
presented paper	1	2	3	4
other*	1	2	3	4

**specify_____

20d Do you do any work outside the university, as an academic, but not as part of your employment (e.g., writing, lecturing, broadcasting, consulting)?

yes	1
no	2

If yes, specify._____

21 If you have published articles or books, or edited books or journals, please indicate the number of your publications in the following table.

	no. of publications 1-3	4-9	10+
publications:			
whole books	1	2	3
parts of books	1	2	3
journal articles	1	2	3
book reviews	1	2	3
others*	1	2	3
editing:			
books	1	2	3
journals	1	2	3

*specify other publications_____

22a If you have received promotion during continuous employment in academic work, indicate the interval between promotions:

	years 1-3	4-6	7-9	10+	NA
to lecturer	1	2	3	4	5
to senior lecturer	1	2	3	4	5
to reader/associate professor	1	2	3	4	5
to chair	1	2	3	4	5

22b Are you interested in promotion?

yes	1
no	2

If no: Your reasons? _____

If yes: To what optimum rank?

chair	1
personal chair	2
reader/associate professor	3
senior lecturer	4
lecturer	5
other*	6

*specify_____

22c How would you estimate your chances of achieving your ambition?

confident	1
optimistic	2
uncertain	3
pessimistic	4

22d Compared with a woman of similar qualifications, how do you consider your likelihood of promotion to: (i) a chair, (ii) sub-professorial levels

	(i)	(ii)
more likely	1	1
about the same	2	2
less likely	3	3
DK	4	4

23 Do you think there is discrimination *against women,* or *in favour of women,* in universities?

	against	for
yes:		
open	1	1
latent	2	2
no	3	3

Comment on your response (yes or no). _____

_____

24a When you thought about career possibilities, how seriously did you consider the idea of an academic career?

very seriously, no other really considered	1
seriously, but as one of several possibilities	2
secret leanings	3
not seriously, had other career plans	4
no serious career plans	5
other*	6
DK	7

*specify_____

24b Have you ever experienced anxiety or ambivalence upon achieving academic success or recognition?

frequently	1
occasionally	2
never	3
DK	4

25a Indicate the importance of *each* of the following factors in your decision about a career in a university.

	very important	fairly important	not very important	not at all important
good academic record	1	2	3	4
intellectual interest	1	2	3	4
encouragement from professor or other university teacher	1	2	3	4
self-assurance from other experience	1	2	3	4
offer of post	1	2	3	4
other*	1	2	3	4

*specify_____

25b How much do you enjoy each of the following activities?

	very much	moderately	very little	not at all
teaching	1	2	3	4
research	1	2	3	4
contact with students	1	2	3	4
discussion with colleagues	1	2	3	4
administration/ policy-making	1	2	3	4

25c Indicate the importance you place on *each* of the following in making the academic career attractive to you *now.*

	very important	fairly important	not very important	not at all important
flexible work schedule	1	2	3	4
independence from direct authority	1	2	3	4
community prestige	1	2	3	4
salary	1	2	3	4
chance to contribute to a field of knowledge	1	2	3	4
freedom to carry out original ideas	1	2	3	4
easier to combine with family life	1	2	3	4
dealing directly with people	1	2	3	4
other*	1	2	3	4

*specify_____

E COMMUNITY INVOLVEMENT AND HOME LIFE

26 Indicate any community organizations (not professional) in which you participate or hold office.

	mixed membership		men members only	
organization	participate and hold office	participate	participate and hold office	participate
social	1	2	1	2
cultural	1	2	1	2
welfare	1	2	1	2
religious	1	2	1	2
political	1	2	1	2
educational	1	2	1	2
resident action	1	2	1	2
sporting	1	2	1	2
other	1	2	1	2
none	1	2	1	2

27a Are you interested in public affairs?

	very	somewhat	not at all
local	1	2	3
state	1	2	3
federal	1	2	3
international	1	2	3

27b In party political terms, do you think of yourself as:

Labor Party (ALP)	1
Liberal Party	2
Country Party	3
Australia Party	4
Democratic Labor Party (DLP)	5
Communist Party	6
other*	7
swinging	8
apolitical	9

*specify_____

27c Do you:

	yes	no
belong to a political party	1	2
hold office in a political party	1	2

27d Do you:

	often	occasionally	never
take part in electioneering	1	2	3
canvass/lobby	1	2	3
write to the press on political matters	1	2	3
take part in other political activities*	1	2	3

*specify_____

28 In what religion were you reared, and what is your present religious affiliation?

	were you reared	present affiliation
Church of England	1	1
Presbyterian	2	2
Methodist	3	3
Other Protestant*	4	4
Catholic	5	5
Jewish	6	6
other*	7	7
agnostic/atheist	8	8
no religion	9	9

*specify_____

29 Which three activities in your life have given you the most satisfaction?

	1st choice	2nd choice	3rd choice
professional career	1	1	1
friendship	2	2	2
family relationships	3	3	3
leisure activities	4	4	4
religious belief and activities	5	5	5
participation in community/ national affair	6	6	6
other*	7	7	7

*specify_____

30a Are you at present:

not married	1
married	2
widowed	3
divorced/separated	4

30b Have you ever been:

	yes	no
widowed	1	2
separated/divorced	1	2

30c Which of the following life-styles comes closest to your own (as you are living now)? Score one, or two, if appropriate.

free-floating independence	1
living with wife and/or children in family setting	2
choosing not to marry	3
living with partner and choosing not to marry	4
choosing not to have children	5
choosing to live alone	6
living in a homosexual relationship	7
living with friends	8
living in a commune	9
living apart from your wife because of your/her career	10
other*	11

*specify_____

31 If you live in a household of mixed sexes, on what basis are household tasks allocated?

some tasks more appropriate for men, some for women	1
shared irrespective of sex	2
shared on basis of available time and your work leaves more time	3
shared on basis of available time and your work leaves less time	4
other*	5
NA	6

*specify_____

F MARRIAGE

The following set of questions (32-34) is applicable to respondents who are at present married or who have ever been married. If this does not apply to you, proceed to section G.

32 How old were you when first married? _____
How old was your wife? _____
If married more than once, answer the following questions (33-34) with regard to your *last* marriage.

33 Indicate your wife's highest educational level:

at time of marriage _____
now, or at end of marriage_____

34a How do you categorize your attitude to your wife taking employment outside the home?

highly approving	approving	neutral	disapproving	highly disapproving
1	2	3	4	5

34b If your wife has ever been employed outside the home since marriage, how do you categorize the inter-relation of your job and your wife's? Please use the following code:
((A) husband's job is primary and wife adapts
((B) wife's job is primary and husband adapts
((C) Both jobs equally important — mutual adjustment

	(A)	(B)	(C)	NA
acceptance of positions	1	2	3	4
place of residence	1	2	3	4
responsibility for children	1	2	3	4
household tasks	1	2	3	4
decisions about holidays, study leave	1	2	3	4
other*	1	2	3	4

*specify_____

34c Your wife's occupation:

at time of marriage _____
now or at end of marriage_____

34d Does, or did, your wife's occupation and/or income affect your work and/or study situation?

yes	no
1	2

If yes, please give brief details._____

G CHILDREN

The following questions (35-36) are applicable to respondents who have/had children. If this is not applicable to you, proceed to section H.

35 How many children?_____

36a To what extent have you shared the care of your children?
Please use the following code:

(A) major share (C) minor share
(B) equal share (D) none

	(A)	(B)	(C)	(D)
when aged 0-2 years	1	2	3	4
aged 3-5 years	1	2	3	4
child-care after school	1	2	3	4
school holidays	1	2	3	4
when child is sick	1	2	3	4

36b What do you consider the ideal care for young children?_____

H. MAINLY ATTITUDINAL

Note: For Question 37 and Question 38, use the following code:

strongly agree	1
moderately agree	2
neutral	3
moderately disagree	4
strongly disagree	5

37 How do you feel about the following social changes which are sometimes advocated?

		code				
(1)	Preferential treatment for women in hiring and promotion to compensate for past discrimination	1	2	3	4	5
(2)	Equal responsibility by men and women for child-rearing and child-care	1	2	3	4	5
(3)	Child rearing designed to break down differentiation of males and females	1	2	3	4	5

(4)	Equal opportunity for married and single women to adopt children	1	2	3	4	5
(5)	Free day care facilities for all who seek them	1	2	3	4	5
(6)	An end to the institution of marriage in its traditional form	1	2	3	4	5
(7)	Abortion on request for women	1	2	3	4	5
(8)	Contraceptive education and requirements available to all, irrespective of age	1	2	3	4	5
(9)	The introduction of women's studies courses in universities	1	2	3	4	5

38 How do you feel about the following opinions which are sometimes stated?

(1)	A woman has to be better than a male competitor to succeed in the academic world.	1	2	3	4	5
(2)	Unmarried women academics have a greater devotion to their work than married women.	1	2	3	4	5
(3)	There is a strong, if often unacknowledged prejudice amongst academic men against women in top positions.	1	2	3	4	5
(4)	The general community places equal value on academic brilliance in men and women.	1	2	3	4	5
(5)	Women are less reliable on the job than men because they tend to be absent and to quit more often.	1	2	3	4	5
(6)	Women who stay at home to care for small children should be paid an allowance by the state.	1	2	3	4	5
(7)	Children of working mothers tend to be less well adjusted than children of non-working mothers.	1	2	3	4	5
(8)	It is possible for a woman to combine career and family without detriment to either.	1	2	3	4	5
(9)	Motherhood is essential to a woman's full development.	1	2	3	4	5
(10)	Lesbianism is an acceptable form of relationship.	1	2	3	4	5
(11)	It is essential for the well-being of the community that the nuclear family be preserved.	1	2	3	4	5
(12)	The media degrade women.	1	2	3	4	5
(13)	Men, consciously or unconsciously, view themselves as superior to women.	1	2	3	4	5
(14)	Men have a natural facility, which women lack, for mathematics and logical reasoning.	1	2	3	4	5

39 There are fewer women than men in academic work and they tend to have lower positions. Why do you think this is so?_____

_____

Thank you for your patience and co-operation. Please use this space, if you wish, to expand your answers to any part of the questionnaire, or for additional comment.

Appendix D

Australian University Statistics

Sex Distribution in Australian University Academic Staff

Data from the Australian Bureau of Statistics indicate considerable differences in the distribution of male and female full-time staff through categories of seniority. Full-time teaching and research staff are classified into professors, associate professors and readers, senior lecturers, lecturers and junior staff. In 1979, 49.6 per cent of females in Australian university academic positions were junior staff compared with 14.6 per cent of males. Males had a much higher proportion of their numbers in the top two categories (11.9 per cent professors and 13.1 per cent associate professors) compared with females (1.3 per cent and 2.4 per cent respectively) —see Table D.1.

Trends With Time

Over the period 1972 to 1981, the proportion of women in teaching staff in all categories has increased slightly (14.0 per cent to 16.6 per cent) —see Table D.2. The proportion of female professors and associate professors has remained almost constant with slight increases, and there were some increases in the proportions of women in lower categories. Over all, the position of academic women in Australian universities does not seem to have improved greatly during this period.

Sex Distribution at the Universities in Sydney

Table D.3 gives the total numbers of women in each grade at each of the universities in Sydney at which the present survey was conducted. The numbers are taken from the published details of university staff and student statistics produced by the Australian Bureau of Statistics, 1979.

In each University the greatest number of women are in the tutor/teaching fellow grade, with a good proportion in each of the grades of lecturer and senior tutor.

In 1979 the percentage of academics who were women was 19.5 per cent for Sydney University, 17.6 per cent for University of New South Wales and 24.2 per cent for Macquarie University, compared with 16.1 per cent for all Australian universities (total staff, 10 790).

Degree Qualifications of Australian University Staff, 1976

— from FAUSA Report, 1976 (AUC Report to the Government of Victoria).

The figures in Table D.4 can be compared with the corresponding highest degree figures for the Sydney, New South Wales and Macquarie Universities, broken down into male and female staff in Table D.5. The latter table shows that women senior lecturers have higher qualifications than men in the same grade, and also the associate professor/reader grade although numbers of women in the sample here are small.

Table D.1 Percentage of University Teaching Staff in Status Categories

	Professor	Assoc. professor	Senior lecturer	Lecturer	Principal and senior tutors	Tutors	Total
Females							
1972	1.2	2.0	10.8	26.8	17.4	41.8	100.0
1973	1.0	2.2	12.8	26.4	20.6	37.0	100.0
1974	0.9	2.5	12.3	27.5	18.3	38.5	100.0
1975	0.8	2.8	12.6	28.8	21.0	34.0	100.0
1976	1.2	2.7	13.6	30.1	20.4	32.0	100.0
1979	1.3	2.4	16.5	30.1	19.4	30.3	100.0
1980	1.3	3.1	16.5	30.5	17.9	30.7	100.0
1981	1.3	3.5	17.5	28.8	17.7	31.2	100.0
Males							
1972	10.4	10.2	27.1	28.3	7.8	16.2	100.0
1973	10.0	10.9	27.3	27.8	8.1	15.9	100.0
1974	10.3	10.5	26.9	28.4	7:6	16.3	100.0
1975	10.0	10.5	26.9	29.1	8.8	14.7	100.0
1976	10.2	10.8	27.5	28.8	9.0	13.7	100.0
1979	11.9	13.1	33.8	26.6	5.7	8.9	100.0
1980	12.0	13.6	35.4	25.1	5.3	8.6	100.0
1981	12.2	14.3	36.0	24.7	4.9	7.9	100.0

Table D.2 Women as a Percentage of Status Category for University Teaching Staff

Year	Professor	Associate professor	Senior lecturer	Lecturer	Principal and senior tutors	Tutors	Total
1972	1.6	2.7	5.5	13.3	31.2	36.1	14.0
1973	1.5	3.0	6.9	14.0	37.7	34.3	14.8
1974	1.4	3.6	6.9	14.6	36.3	35.8	15.1
1975	1.2	4.0	7.1	14.9	36.1	34.9	15.1
1976	1.8	3.9	7.7	16.3	35.4	36.3	15.6
1979	2.1	3.4	8.6	17.9	39.4	39.4	16.1
1980	2.1	4.2	8.3	19.0	39.5	41.0	16.2
1981	2.1	4.6	8.8	18.8	42.0	44.0	16.6

Table D.3 Number of Women Academic Staff

	Sydney University	University of N.S.W.	Macquarie University
Professor	4	2	2
Associate professor and reader	5	4	4
Senior lecturer	40	20	25
Lecturer	72	54	39
Principal and senior tutor	36	22	32
Tutor and teaching fellow	88	70	36
Totals	245	172	138

Table D.4 The Highest Degree Held by University Staff in Seniority Grades, Expressed as a Percentage of Each Grade

Highest degree	Professor	Associate professor and reader	Senior lecturer	Lecturer	Senior tutor	Tutor	All staff
Doctor	74	76	63	50	30	6	52
Master	18	16	23	25	27	14	21
Bachelor	7	7	12	21	39	75	24
Diploma	1	1	1	1	3	3	2
	100	100	100[a]	100[a]	100[a]	100[a]	100[a]
	N = 671	N = 570	N = 1428	N = 1714	N = 381	N = 756	N = 5520

Note: Data is the total from the following universities: Adelaide, A.N.U., Flinders, Griffith, La Trobe, Monash, Murdoch, Newcastle, New England, Royal Military College, Tasmania and Wollongong.

[a] Rounded to nearest integer.

Table D.5 The Highest Degrees Held by Male and Feemale University Staff at the Universities Surveyed in Sydney, 1974, Expresseed as Percentage of Total Number in Each Grade

Highest degree	Professor	Associate professor and reader	Senior lecturer	Lectureer	Senior tutor	Tutor
University of Sydney						
Men						
Doctor	75	66	57	35	11	5
Master	16	16	23	24	32	17
Bachelor	11	18	19	40	58	77
Diploma	—	—	1	1	—	—
	100[a]	100	100	100	100[a]	100[a]
Women						
Doctor	50	100	67	28	—	4
Master	50	—	19	30	44	20
Bachelor	—	—	14	40	48	73
Diploma	—	—	—	2	8	3
			100	100	100	100
Macquarie University						
Men						
Doctor	68	93	69	38	11	6
Master	26	7	19	26	42	30
Bachelor	3	—	12	36	47	63
Diploma	3	—	—	—	—	1
	100	100	100	100	100	100
Women						
Doctor	—	100	73	59	6	2
Master	—	—	27	27	44	17
Bachelor	—	—	—	13	43	79
Diploma	—	—	—	—	6	2
			100	100[a]	100[a]	100
University of New South Wales						
Men						
Doctor	63	71	55	44	18	6
Master	25	20	26	26	23	16
Bachelor	12	8	18	28	46	77
Diploma	1	2	1	1	14	1
	100[a]	100[a]	100	100[a]	100[a]	100
Women						
Doctor	—	100	50	50	13	2
Master	—	—	50	25	33	20
Bachelor	100	—	—	23	53	74
Diploma	—	—	—	3	—	4
			100	100[a]	100[a]	100

[a]Rounded to nearest integer.

Table D.6 Number of Males to Each Female, Unddergraduate Students at Australian Universities, 1911-74

Year	1911	1921	1933	1939	1940	1945	1950	1955	19660	1965	1970	1974	1981
Males	3.57	2.42	2.75	2.61	2.50	2.23	3.64	3.56	3.333	2.78	2.38	1.84	1.34

Table D.7 University of Sydney Bachelors Degree Enrolments, 1980

Faculty	Within faculty Females (%)	Within sex (%) (faculty female/ total female)
Engineering	4.4	1.0
Dentistry	26.3	2.7
Economics	26.9	7.5
Agriculture	27.3	1.7
Law	31.0	5.0
Medicine	32.5	7.4
Architecture	33.1	2.2
Science	38.9	13.9
Veterinary science	40.2	2.9
Music	41.9	0.2
Pharmacy	56.3	4.9
Arts	64.8	38.9
Education	69.0	6.4
Social studies	81.6	5.4
Total	41.6	100.0

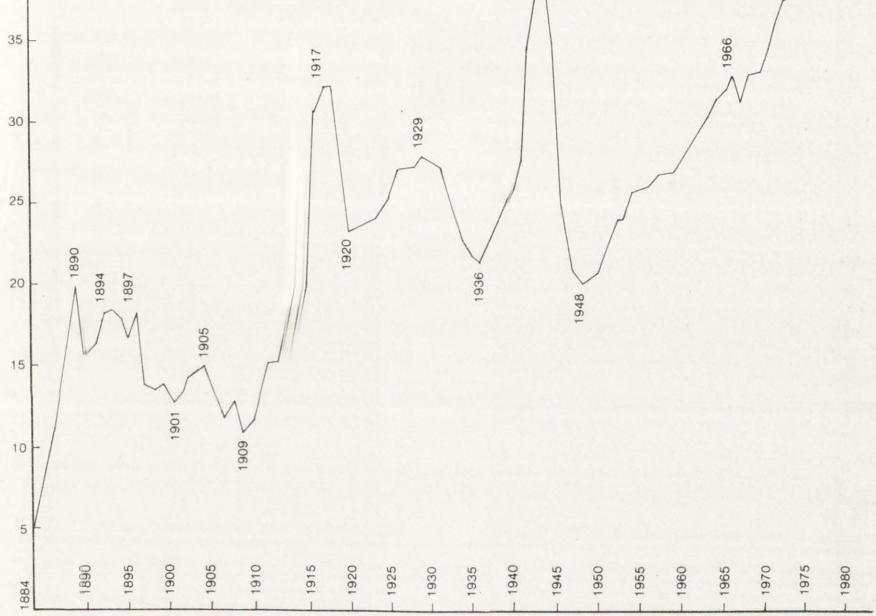

Figure D.1 Graph of Percentage of Female Students at University of Sydney, 1884-1981

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