

Women in the Professions



Survey Report 2004

FOREWORD

I am delighted to present APESMA's survey of professional women's remuneration and employment conditions, in the Women in the Professions Survey Report 2004.

The Report challenges us to address the ongoing disparity in professional women's salaries and career progression.

It informs us that workplace culture and lack of women in senior roles are the major obstacles to career progression as perceived by professional women.

It identifies the most important issues facing professional women as access to flexible working arrangements and career development and training.

I encourage you to carefully digest the contents of this report and to identify how your government or organisation can address the issues raised and thus enhance the future careers of professional women.

On behalf of APESMA I would like to thank the 535 women members who participated in this survey. Once again, we intend to put their contributions to good use.

Regards,

A handwritten signature in black ink, appearing to read 'Jillian Reynolds'.

Jillian Reynolds
Chair
APESMA Professional Women's Network

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INTRODUCTION

The Association of Professional Engineers, Scientists and Managers, Australia conducts a number of surveys of professional groups each year in order to ascertain information concerning prevailing market rates of pay and elicit the views of members on various issues relating to them as professionals.

The Women in the Professions Survey was conducted by APESMA in March 2004. The intention of the survey was to elicit views from female APESMA members on a range of issues, so that the Association might best reflect their particular needs in the development of policy and the on-going provision of services to them.

The survey report is available free of charge as a membership service to all members of APESMA. Further information regarding this survey, the use of extracts, or the APESMA's Women's Network is available at <http://www.apesma.asn.au/women> or by contacting APESMA directly (details on page 12).

SECTION 1 - EMPLOYMENT STATUS

TABLE 1.1 - EMPLOYMENT STATUS OF WOMEN PROFESSIONALS

Table 1.1 shows 14.5% of professional women are engaged in part-time or hourly contract work, a large number of these being professional Pharmacists (the Pharmacy industry being one where part-time and casual work are a significant feature of employment patterns).

The proportion of women working in part-time or hourly contract positions within other professional groups was considerably lower than in pharmacy, reflecting the current structures of employment.

	Sample	%
Full-time Not working - seeking work	405	75.7%
Part-time	66	12.3%
Self-employed prop/director	15	2.8%
Hourly contract employee	12	2.2%
Not working - on extended leave	6	1.1%
Not working - seeking work	20	3.7%
Not working - not seeking work	4	.7%
Other	7	1.3%
Total	535	100.0%

Comparison with male professionals by professional discipline reveals that where part-time and hourly contract work exists, it is much more likely the incumbent will be a female professional (See Table 1.2).

TABLE 1.2 - EMPLOYMENT STATUS BY PROFESSIONAL DISCIPLINE BY GENDER

	Engineering		Science		Computing		Pharmacy	
	M	F	M	F	M	F	M	F
	%	%	%	%	%	%	%	%
Full-time	86.7	86.3	86.9	68.8	76.8	73.9	36.1	35.9
Part-time	0.8	2.1	1.7	10.6	2.4	6.8	16.6	32.5
Hourly Contract	3.4	2.1	2	4.4	8.5	7.2	16.1	14.8
Other	9.1	9.5	9.4	16.2	12.3	12.1	31.2	16.8

SECTION 2 - HOURS OF WORK

In recent years, the problem of excessive working hours has become more serious for professionals, particularly when it is considered that around two-thirds of all professionals receive no additional compensation for the average 5-6 additional hours worked each week.

It is of concern that whilst many women continue to assert their need to be compensated for additional hours worked, many in order to cope with the demands of balancing work and family life, the level of formal recognition remains low.

According to the latest Professional Engineer Remuneration Survey Report ², 63% of full-time male engineers receive no compensation for additional hours worked (the same proportion as two years ago), while the corresponding figure for full-time female engineers was reported as 55%, up from 49% reported two years earlier.

When asked directly as part of the Women in Professions Survey to compare working hours this year to last year, 17.5% of full-time respondents indicated they were working more hours.

Across all professional disciplines, the average number of hours worked per week by full-time employees was reported as 42, well in excess of the general standard of 38 hours.

All disciplines worked long hours. Scientific disciplines were generally seen to be working very long hours.

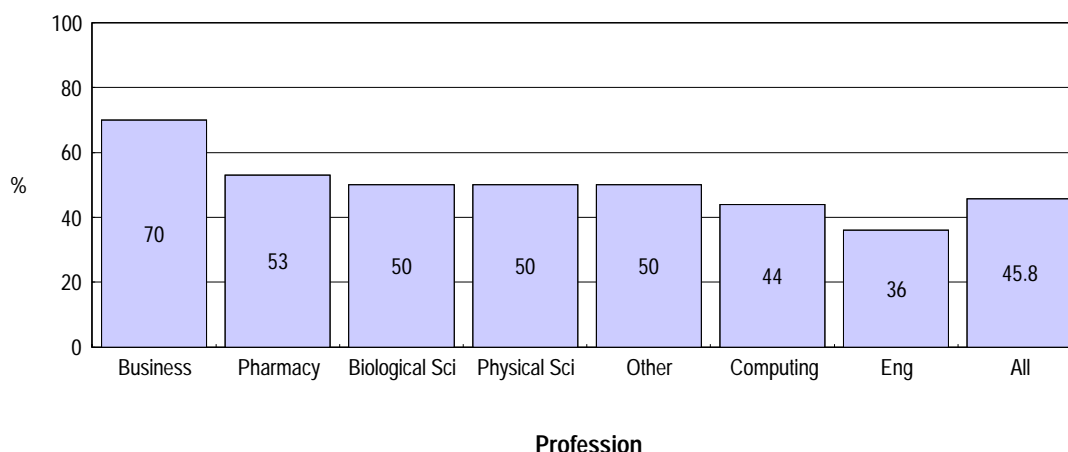
TABLE 2.1 - FULL-TIME HOURS OF WORK BY PROFESSIONAL DISCIPLINE

	No.	Percentile 25	Median	Percentile 75	Mean
Engineering	210	40.00	41.00	45.00	43.01
Computing	23	40.00	40.00	47.00	41.98
Architecture	9	40.00	40.00	50.00	43.44
Pharmacy	15	40.00	45.00	46.00	43.60
Biological Science	32	40.00	42.00	50.00	49.16
Physical Science	16	41.00	45.00	51.00	49.25
General Science	7	40.00	46.50	55.00	48.00
Business	20	41.00	45.00	49.00	46.95
Other (please specify)	58	40.00	40.00	45.00	42.04

Table 2.1 shows one-quarter of all full-time respondent biological, physical and general scientists working 50 hours per week or more, as were full-time respondent architects. Considerable proportion of respondents from all professional disciplines were working well above the general community standard of a 38 or 40 hour week.

In an environment of long hours with little additional compensation, it is not surprising that respondents expressed a preference to be working fewer hours, as shown in Graph 2.1 below.

GRAPH 2.1 - PREFERENCE FOR WORKING FEWER HOURS BY PROFESSION



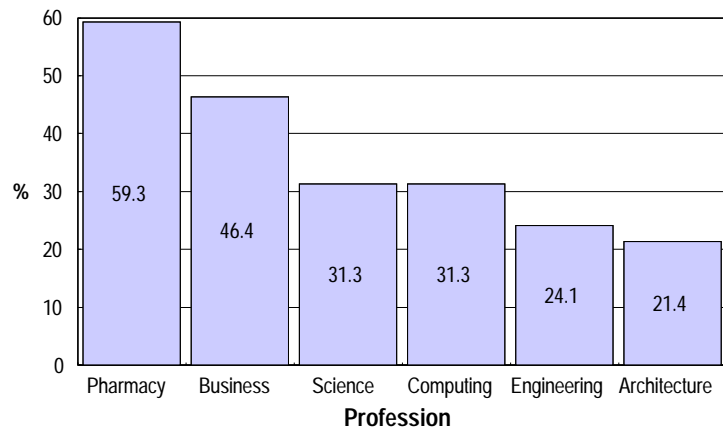
SECTION 3 - FAMILY AND WORKING LIFE

The trend toward women having children later in life continues to be a feature of survey outcomes.

69% of respondents to the Women in Professions Survey did not have children, a result broadly similar to those of the previous two surveys.

It was interesting to note that those professions where greater numbers of women were found saw the greatest prevalence of children.

GRAPH 3.1 - PROPORTION OF WOMEN WITH CHILDREN BY PROFESSION



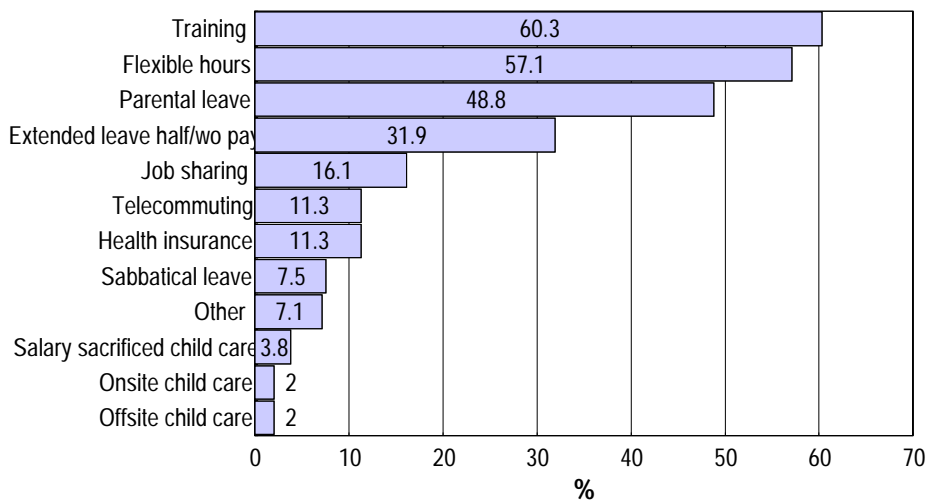
It would not be unreasonable to see this as a result of women feeling the need to compete with males in male-dominated industries by delaying having children until such time as significant career progression has been achieved. In an profession such as Pharmacy, where women are in the majority, these pressures are not as significant.

In terms of employer-provided benefits, employer-provided assistance with child care is rare although access to flexible working hours was not uncommon.

The survey results were broadly similar to the previous report where access to training and development, the provision of flexible working hours and parental leave were the benefits most often made available.

Graph 3.2 illustrates a perceived lack of access to parental leave with fewer than half of respondents (48.8%) recognising it as a benefit or entitlement. Reasons for this continuing problem include confusion between paid and unpaid parental leave, confusion over the terms parental and maternity leave, and a lack of interest in the entitlement given the large numbers of respondents to the Women in Professions Survey without children.

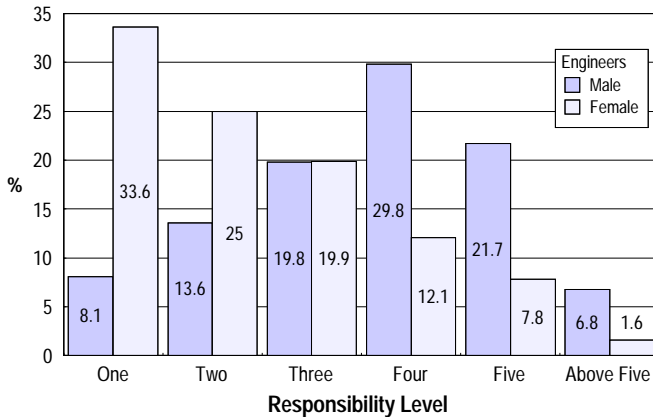
GRAPH 3.2 - EMPLOYER-PROVIDED BENEFITS



SECTION 4 - CAREER DEVELOPMENT

The evidence on gender-based career pathing differences continues to be varied and dependent for the most part on professional discipline.

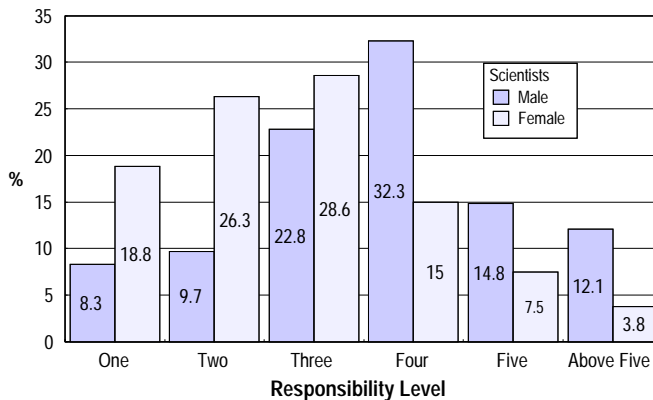
**GRAPH 4.1 - RESPONSIBILITY LEVEL BY GENDER
- PROFESSIONAL ENGINEERS**



Graph 4.1 shows an approximately normal distribution of positions for male engineers based on the responsibility level of positions².

The same type of distribution is not found for those engineering positions where the incumbent is female. The distribution is skewed downward toward lower levels for these incumbents.

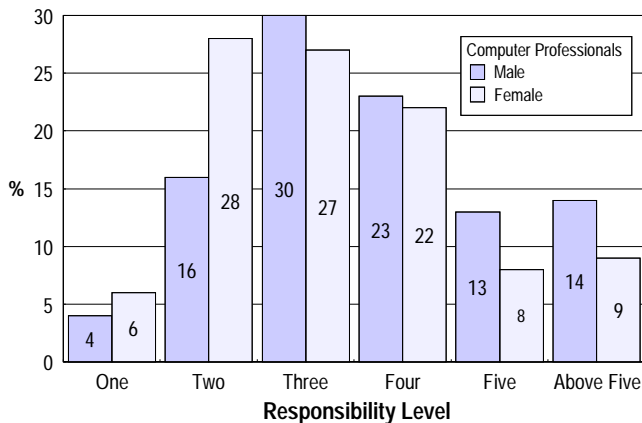
**GRAPH 4.2 - RESPONSIBILITY LEVEL BY GENDER
- PROFESSIONAL SCIENTISTS**



Graph 4.2 illustrates the skew toward lower level positions for female professional scientists, even though a greater proportion of professional scientists are women than professional engineers who are women³.

There did not appear to be any significant overall change in the pattern of responsibility levels between male and female professional scientists since 2000.

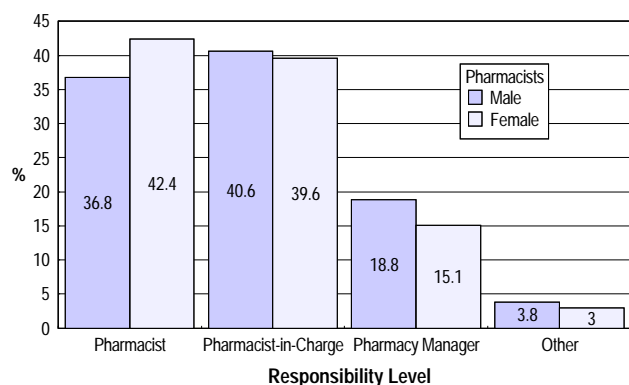
**GRAPH 4.3 - RESPONSIBILITY LEVEL BY GENDER
- COMPUTER PROFESSIONALS**



Graph 4.3 show that amongst computer professionals, women are still under-represented at more senior levels in the profession, although the degree of disparity is much less than for professional engineers and scientists⁴.

There does not appear to have been any significant overall change in the pattern of responsibility levels between male and female computer professionals since 2000.

GRAPH 4.4 - RESPONSIBILITY LEVEL BY GENDER - PHARMACISTS



Graph 4.4 shows that as in previous surveys, the pattern of career progression amongst female Pharmacists was not substantially different from that of male Pharmacists⁵.

Overall, there emerged a deal of evidence to suggest that women continue to be under-represented at higher levels of responsibility in other professions.

TABLE 4.1 - PERCEPTION OF CAREER PATH OF MEN AND WOMEN

	Same		Different	
	Count	%	Count	%
Engineering	122	52.8%	109	47.2%
Computing	8	29.6%	19	70.4%
Architecture	7	53.8%	6	46.2%
Pharmacy	7	28.0%	18	72.0%
Biological Science	17	41.5%	24	58.5%
Physical Science	11	44.0%	14	56.0%
General Science	8	66.7%	4	33.3%
Business	18	75.0%	6	25.0%
Other (please specify)	31	47.0%	35	53.0%
Total	228	49.4%	237	50.6%

As shown in Table 4.1, there is little doubt that women generally perceive a significant difference in the career paths of men and women within their particular profession.

It is somewhat unclear whether this result is founded on a belief that there are distinctly different career patterns for men and women during their working lives, or that men enjoy an advantage over women in the workplace when seeking to further their career objectives.

TABLE 4.2 - AGE BY GENDER BY PROFESSIONAL DISCIPLINE

	Average Age	
	Male	Female
Engineer	43	30
Scientist	42.6	35.6
Pharmacist	52.1	41.8
IT Professional	45	41

Table 4.2 describes the average ages of professionals based on gender, and shows the greatest disparity in average ages between men and women professionals to be amongst engineers; computer professionals have the least disparity between average ages based on gender.

Further analysis of experience levels between male and female professionals confirmed a significant difference in professional experience across professional disciplines, with the exception again of computer professionals.

The results suggest that where there exists broadly similar levels of experience between male and female professionals, the disparity in the rates of progression to more senior positions is less likely.

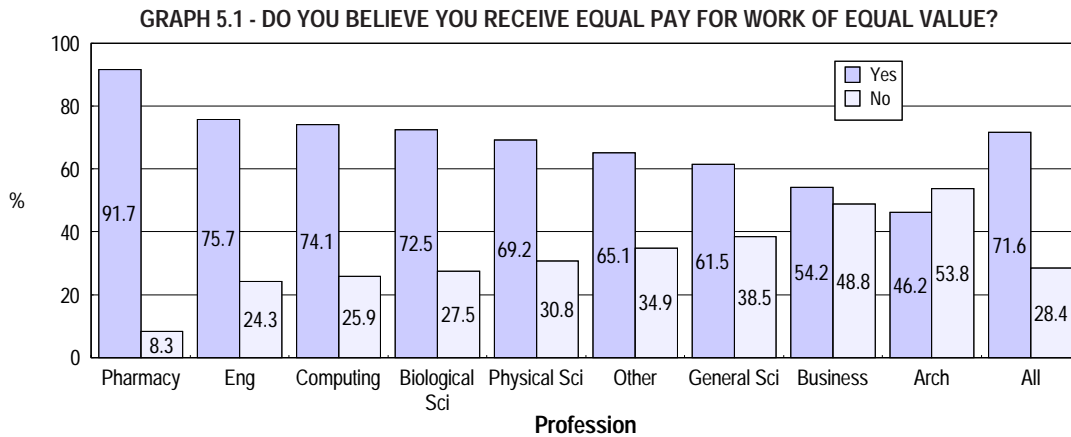
TABLE 4.3 - EXPERIENCE BY GENDER BY PROFESSIONAL DISCIPLINE

	Average Experience	
	Male	Female
Engineer	18.7	7.1
Scientist	16.7	10.2
Pharmacist	29	18.9
IT Professional	19	15

Table 4.3 suggests the gap in seniority levels between male and female professionals is also significantly influenced by the relative years of professional experience, although there is naturally a strong correlation between age and experience. It is expected that, as greater numbers of women enter these technical and scientific disciplines, the seniority gap will be narrowed.

SECTION 5 - REMUNERATION

Graph 5.1 illustrates prevailing perceptions of the fairness of salary outcomes between male and female professionals as reported by survey respondents. Overall, 28.4% of respondents to the Women in Professions Survey believed they did not receive equal compensation in the workplace compared to males. The perception of disparity was particularly evident amongst certain professions, particularly Architecture, Business and general Science. Those professions where underpinning industrial awards or enterprise agreements play a significant role in salary determinations such as Engineering and Pharmacy, generally saw a perception of greater equity in wage and salary outcomes.



Where salaries are above rates prescribed by industrial awards or agreements, many factors combine to produce the salary outcome. Such factors include experience, qualification, industry settings, negotiation skills, corporate policies and prevailing market and economic conditions.

As a result of the interplay of some or all of these factors, female professionals on average receive lower salaries than men. The explanation for this is generally held to be the result of women being less experienced than their male counterparts on average.

A better way of assessing the extent to which any gender-based salary differential exists requires an analysis of job responsibility, given that, ultimately, it is this parameter which should principally determine salary level. Below is an analysis of remuneration for the largest respondent professional disciplines.

ENGINEERS

Analysis of the results for full-time professional engineers is inconclusive across all levels because of the lack of sufficient numbers of women in senior positions in the profession.

The resulting analysis revealed a mixed picture, although at most levels, male engineers earned more than their female counterparts. Part of this may be attributable to the higher concentration of women in the fields of civil engineering and chemical engineering, fields which are not as highly paid as other disciplines such as electrical engineering².

TABLE 5.1 - MEDIAN TOTAL PACKAGE & YEARS OF PROFESSIONAL EXPERIENCE BY GENDER - FULL-TIME ENGINEERS

	Level 1			Level 2			Level 3			Level 4			Level 5			Above Level 5		
	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp
	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median
Male	181	52,333	2.0	322	69,307	8.0	464	80,882	12.0	692	100,246	21.0	516	115,810	23.0	166	152,720	27.0
Female	71	52,320	1.5	59	64,636	5.0	39	76,489	7.0	25	100,700	12.5	16	108,586	7.0	2	171,235	20.5
Total	252	52,320	2.0	381	69,035	6.0	503	80,600	11.0	717	100,280	21.0	532	115,461	23.0	168	152,720	26.0

PROFESSIONAL SCIENTISTS

As was the case two years earlier, at nearly all levels of responsibility, female professional scientists appear to earn less than their male counterparts. Whether or not the degree of difference in salaries is sufficient to discount statistical error is problematical, particularly with the much smaller number of female respondents. Yet, even if statistical error were to explain some difference, it does not explain why the pattern has been so consistent, i.e. that on average, female scientists earn less than male scientists at all levels of responsibility³, as was also found in the previous two surveys.

**TABLE 5.2 - MEDIAN TOTAL PACKAGE & YEARS OF PROFESSIONAL EXPERIENCE
BY GENDER - FULL-TIME PROFESSIONAL SCIENTISTS**

	Level 1			Level 2			Level 3			Level 4			Level 5			Beyond Level 5		
	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp
	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median
Male	27	50,652	7.00	34	61,859	8.50	87	78,400	17.00	120	91,071	19.00	58	101,997	23.00	47	138,060	21.50
Female	16	47,819	1.75	25	55,359	5.50	27	74,602	10.00	14	85,555	14.50	8	94,860	11.00	4	120,500	15.50
Total	43	50,467	4.75	59	60,500	7.00	114	77,393	14.00	134	90,400	19.00	66	101,104	23.00	51	135,660	21.00

COMPUTER PROFESSIONALS

Female computer professionals were, on average, reported to be earning less than male computer professionals at each level of responsibility with the exception of the Level 5 position⁴.

The computing sector has seen significant reduction in job opportunities since the last report and one theory to explain the apparent emergence of a significant salary gap is that women have borne the brunt of the financial constraints brought on by a decline in the sector.

**TABLE 5.3 - MEDIAN TOTAL PACKAGE & YEARS OF PROFESSIONAL EXPERIENCE
BY GENDER - FULL-TIME COMPUTER PROFESSIONALS**

	Level 1			Level 2			Level 3			Level 4			Level 5			Above Level 5		
	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp	Total Package		Years Exp
	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median	N	Median	Median
Male	48	54,285	5	128	69,981	11	204	86,850	16	183	103,277	20	120	126,342	24	129	170,430	24
Female	16	51,067	3	37	68,400	10	42	82,218	15	32	93,925	20	18	129,992	20	12	154,260	19
Total	64	54,070	4	165	69,270	10	246	85,347	16	215	102,438	20	138	126,821	22	141	168,200	23

PHARMACISTS

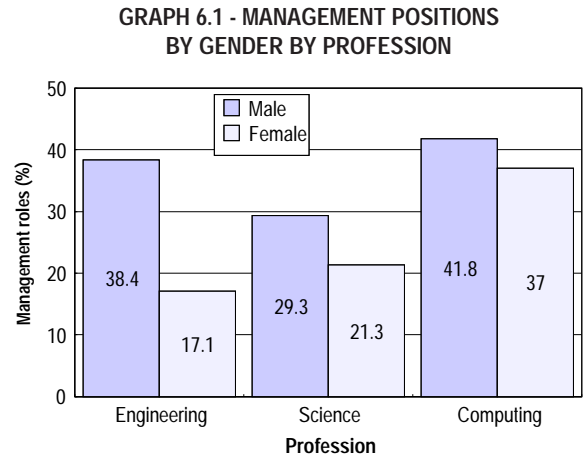
The Association has conducted annual remuneration surveys of Pharmacists over many years. In this time, little overall difference in rates paid to male and females has been evident.

There is little doubt this is the result of pay rates in the industry being largely determined by prevailing industrial awards and agreements which cover both Community and Hospital Pharmacists. Significant over-award payments are relatively uncommon here.

SECTION 6 - JOB FUNCTION

Once again, the survey showed women professionals to be generally under-represented in positions of management. This gap was evident across the major comparative groups of engineering, science and computing. (See Graph 6.1).

The contention for some time has been that a lack of experience has contributed to the imbalance and that as greater numbers of young women enter the various professions, more and more women will assume more senior positions, particularly those in management.



On the basis of the comparison between the current and previous survey results, it appears very little headway has been made. There are very many more management functions performed by men than women.

What this result may also serve to highlight is that experience is not the only factor influencing career progression and women may not be able to compete equally for higher level positions even when similar levels of experience are taken held.

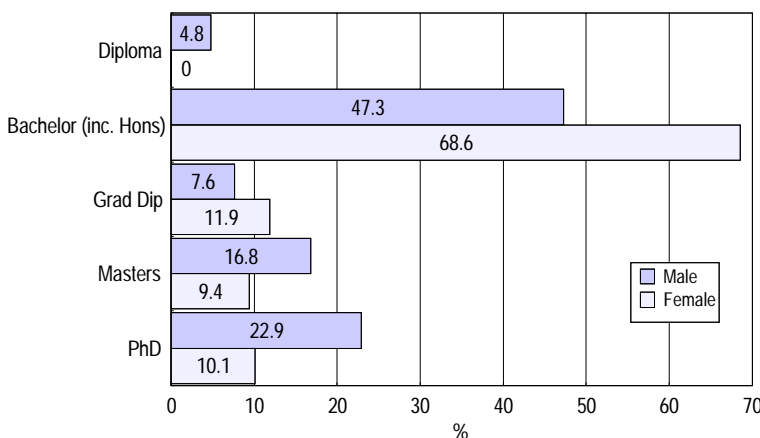
SECTION 7 - EDUCATION

Overall, 66.9% of respondents to the Women in Professions Survey held a Bachelor degree with Pass or Honours in the profession in which they were currently employed.

As with male professionals, the extent to which higher qualifications are held will be influenced by professional discipline. Very few Pharmacists, for example, have their highest formal qualifications beyond the degree level⁵.

Professional scientists on the other hand, are much more likely to pursue higher qualifications. Overall, only 52.7% of professional scientists hold a Bachelor degree (Pass or Honours) as their highest qualification³.

GRAPH 7.1 - HIGHEST QUALIFICATION - PROFESSIONAL SCIENTISTS



Amongst professional scientists however, there continues to be a significant gender gap in the rates at which higher qualifications are held.

As illustrated in Graph 7.1, 31.4% of female professional scientists hold qualifications other than a Bachelor degree (inc. Hons), compared to 52.7% of male professional scientists.

Such a disparity in qualifications may manifest as career disadvantage³.

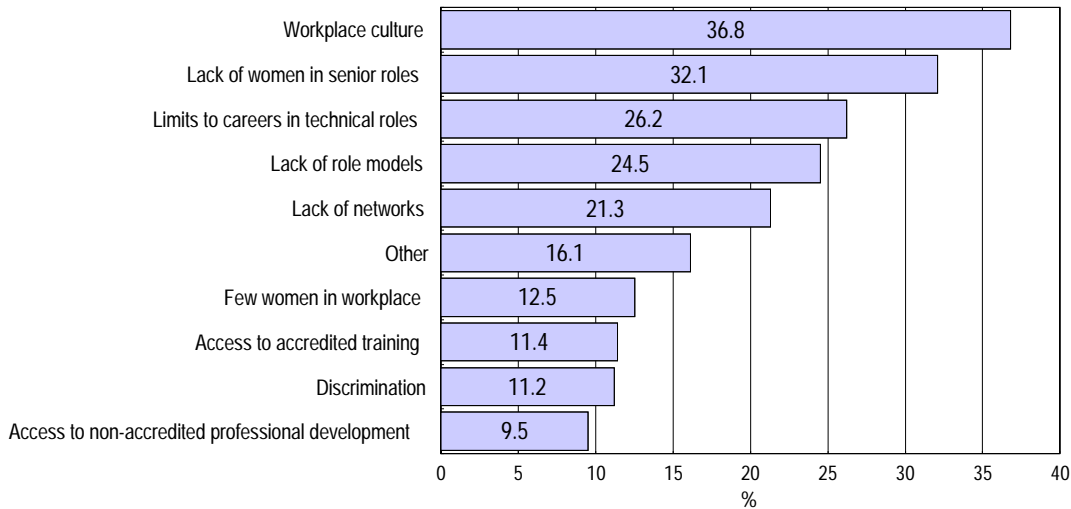
SECTION 8 - MAJOR OBSTACLES TO CAREER PATH

Overall, workplace culture and lack of women in senior roles were identified as being the most common obstacles to career paths for women

Some variation was evident between professional disciplines on this question, suggesting the gender composition of an industry or sector played a role in the prevalence of a perceived obstacle.

For example, 57% of architect respondents identified workplace culture as a major obstacle to career path compared to 27% of pharmacist respondents, pharmacy being a sector where women are in the majority. Similarly, 40% of engineer respondents identified lack of women in senior roles as an obstacle compared to 15.4% of pharmacist respondents.

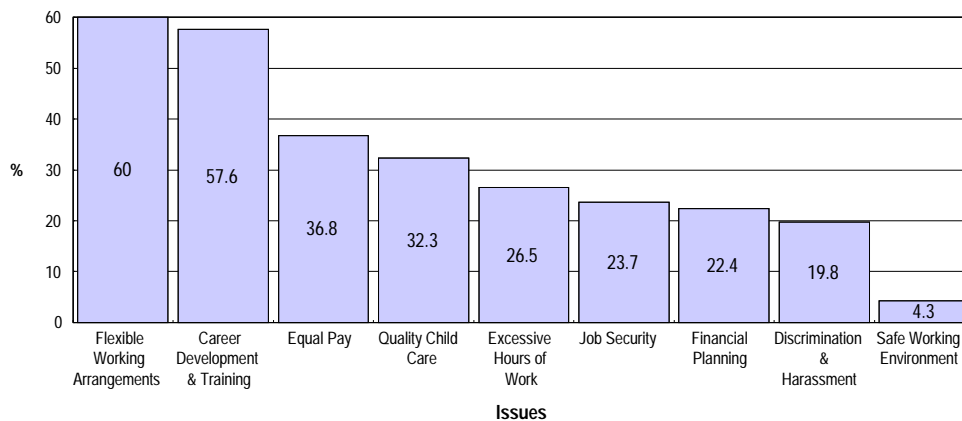
GRAPH 8.1 - MAJOR OBSTACLES TO CAREER PATH - ALL DISCIPLINES



SECTION 9 - IMPORTANT ISSUES FOR PROFESSIONAL WOMEN

As part of the APESMA Women in Professions Survey, participants were asked to identify the three issues of greatest importance to them as professionals and so should be given the highest priority by the APESMA Women's Network. The results were as follows:

GRAPH 9.1 - MOST IMPORTANT ISSUES FACING PROFESSIONAL WOMEN



The three issues identified as being of greatest importance were flexible working arrangements (60%), career development and training (57.6%) and equal pay (36.8%). These three issues were also identified as the most important issues facing professional women in previous surveys.

The result serves to highlight the effect of competing demands on many women in performing multiple roles as a professional and as a parent or carer. The fact that so many respondents identified these issues would suggest that existing arrangements are proving inadequate and that problems continue to be experienced by large numbers of female professionals in trying to balance work and family life.

Issues surrounding the quantity of hours worked and the flexibility in working them continue to be at the forefront for professional women.

The need to maintain skills in order to work to a high standard and promote career opportunities is constantly cited by both male and female professionals and their employers as the key to career advancement, and explains the ongoing importance placed on career development and training by survey respondents. This is of particular relevance to those working in technical disciplines such as computing, engineering and science.

The third most significant issue raised was that of equal pay. Large numbers of women continue to perceive inequities in the levels of compensation offered to male and female professionals, especially in certain professions.

The varying degrees of importance given to the remaining issues indicated some level of interest in them, although they were not deemed to be a priority by most respondents. Some variation did occur within the survey group on these issues, the variation often corresponding to individual circumstance, e.g. those with young children were more interested in quality child care than older respondents who felt financial planning was of greater importance.

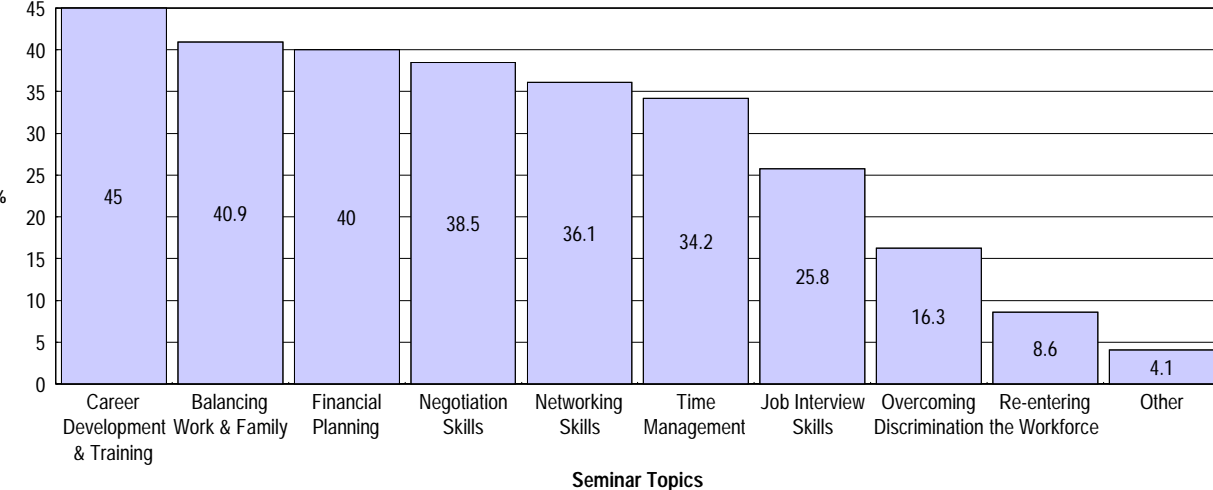
SECTION 10 - SEMINAR TOPICS

As shown in Graph 10.1, when given an opportunity to nominate topics suitable for seminars, respondents to the APESMA Women in Professions Survey indicated their strongest preference for a seminar on the topic of career development and training.

This topic had rated highly in previous surveys, but had not previously been nominated as first preference. Financial planning had previously been nominated as most preferred, though it appears to have slipped in relative importance over the last two years.

Of particular note was the relative increase in interest in a seminar on balancing work and family life, moving to second overall, rising from an interest by 30% of respondents in 2002 to 40.9% in the 2004 survey.

GRAPH 10.1 - MOST REQUESTED SEMINAR TOPICS



CONCLUSION

The survey highlighted a number of issues surrounding hours of work, family and careers. Women want to work fewer hours and are more likely to work part-time where such work is available. A high percentage (69%) of respondents did not have children and the proportion of women who did was influenced by the professions in which they worked.

Women are still establishing their careers in a number of the professions surveyed. In all of these professions there are fewer women at the highest responsibility levels. On the basis of the comparison between this and previous Women in Professions surveys, it appears that women are making little headway into assuming managerial roles. We also again observed that in some professions, such as science, fewer women are completing higher qualifications than men.

Due to the continuing prevalence of women undertaking the bulk of family responsibilities, their careers may be suffering due to longer time periods required in the workforce to gain the same level of experience and reduced capacity to undertake additional career related activities such as further study.

As a result of these and other factors, professional women continue to earn less than professional men.

BIBLIOGRAPHY

The analysis contained herein draws on all of these sources and is an amalgam of information, arising from responses to previous APESMA surveys, as well as the Women in Professions Survey, and indeed other sources and statistics. Where comparisons are made between male and female professionals, the information is drawn from within the latest source where a direct comparison is possible, normally the most recent remuneration survey conducted by APESMA for that professional discipline.

Where reporting is done relevant to female professionals only, the Women in Professions Survey was the primary source used.

1. See 2, 3, 4 below.
2. APESMA, (June 2004), *The Professional Engineer Remuneration Survey Report*
3. APESMA, (2003/2004), *The Professional Scientist Remuneration Survey Report*
4. APESMA, (2004), *The Australian Computer Society Remuneration Survey Report*
5. APESMA, (2004), *The Community & Hospital Pharmacists' Remuneration Survey Report*

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