



APESMA Women in the Professions Survey Report 2007

FOREWORD

I am delighted to present the final report of APESMA's survey of professional women's careers, remuneration and employment conditions.

This is the fourth survey of its type produced by APESMA and it again challenges us to address the continuing issues in women's work lives, including ongoing disparity in professional women's salaries and the need to balance our work and family lives.

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 almost 2,000 women members who participated in this survey. Once again, we intend to put their contributions to good use.

It is significant to have so many professional women in technology take part in such a survey.

We acknowledge the support of the Federation of Scientific and Technological Societies (FASTS) and their member associations in distributing the survey questionnaire.

Regards,

Jane Waldock
Chair
APESMA Professional Women's Network

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INTRODUCTION

The Association of Professional Engineers, Scientists and Managers, Australia (APESMA) 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 February 2007. The intention of the survey was to elicit views from female professionals on a range of issues, so that their needs can be recognised in the development of policy by government, industry and professional associations.

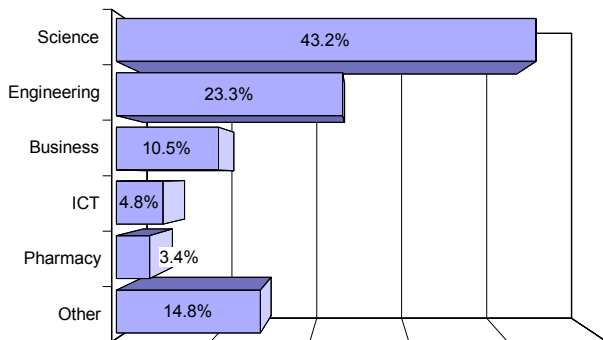
The survey report is publicly available at <http://www.apesma.asn.au/women/survey>. Further information regarding this survey or the use of extracts is available by contacting APESMA.



SECTION 1 – DEMOGRAPHICS

Of the 1953 respondents to this survey, the majority were women from the technology professions – 43.2% of respondents held science degrees whilst 23.3% held engineering qualifications (see Graph 1.1).

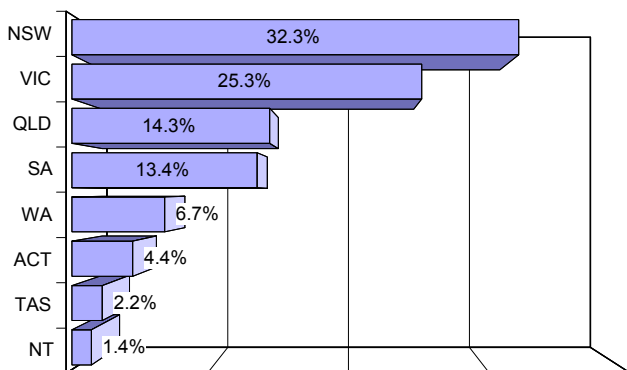
Graph 1.1 – Distribution of discipline of qualification



As professionals, 90% of respondents worked in a field for which they hold tertiary qualifications. A further 59.3% held tertiary qualifications in disciplines other than those in which they were currently employed.

The sample was drawn from all States and Territories (see Graph 1.2). 75.6% of respondents lived in capital cities/suburbs.

Graph 1.2 – Distribution of location



26.7% of respondents were born overseas. The median age of respondents was 39 years. This is younger than the average age of males in these professions.¹

The majority of respondents were drawn from State Government Instrumentalities (38.8%) or the private sector (34%).

SECTION 2 – RECRUITMENT AND RETENTION

Attracting and retaining female technology professionals into the workforce is an important consideration for industry and policy makers.

Women make up a significant proportion of graduates in the technology professions. In 2004, DEST reported 17,194 women graduated in the sciences, information technology, architecture and engineering and related technologies, 34% of all such graduates.

However, professional women are not being effectively retained by these professions. APESMA surveys show that in 1996, 18% of all engineering graduates were female. However, by 2006, female engineers made up only 11% of all engineers with between 7 and 10 years experience.²

This indicates that women are leaving the engineering profession at a rate of 38.8% faster than their male counterparts. In a time of skills shortage, this is a loss that Australia and industry cannot afford.

SECTION 3 – EMPLOYMENT STATUS

76.3% of professional women respondents are engaged in full-time work.

Across all professionals, high levels of full-time employment are to be found in engineering (84%), science (81%) and ICT (80%). Professional pharmacy provides a significant contrast at 48.5% (pharmacy being an industry where part-time and casual work are consistently available).³

This reflects our findings in past surveys that traditional industry structures of professional employment dominate in many of the technology professions.

Significant differences exist in the rates at which men and women fill positions on a basis other than full-time. For example, female engineers are eight times more likely than men to be working part-time, ICT professionals six times more likely and scientists four times more likely than males.

Table 3.1 – Distribution of female employment status

	Full time	Part time	Self employed	Hourly contract	Other
	%	%	%	%	%
Engineering	78.5	12.1	1.8	2.6	5.0
Science	75.4	16.5	3.1	1.2	3.8
Computing	76.6	17.0	2.1	3.2	1.1
Pharmacy	48.5	45.5	1.5	1.5	3.0
Business	78.0	14.1	3.9	2.0	2.0

SECTION 4 - HOURS OF WORK

Across all professional disciplines, the average number of hours worked per week by full-time employees was reported as 44.9, well in excess of the general standard of 38 hours. 45% of respondents stated their desire to work less hours.

Overall, over half (52.1%) of respondents reported receiving no compensation for additional hours worked; 25.9% received time off in lieu.



Flexible hours of work were of considerable importance to respondents. 64.9% of respondents indicated that their employers currently provide flexible working hours and 21.1% of respondents indicated that flexible hours of work would be major factor in influencing their next career move.

Table 4.1 – Full-time hours of work by professional discipline

	Lower Quartile	Median	Upper Quartile	Mean
Engineering	40	42	45	43.5
Science	40	43	50	44.7
Computing	38	40	45	42.4
Pharmacy	40	42	45	43.6
Business	40	45	50	45.7
Other	40	45	50	46.7

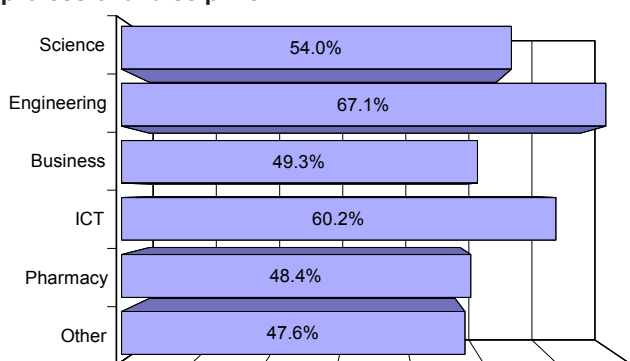
SECTION 5 - FAMILY AND WORKING LIFE

52.9% of respondents did not have children, which is less than prior APESMA Women’s surveys, reflecting a lower proportion of engineer respondents to this survey. However this level of childlessness remains significantly above the rate of one in four Australian women reported by the ABS.⁴

Whilst this reflects the youth of respondents (average 39 years), it may also be symptomatic of the higher rate of loss of women from the professions due to family responsibilities.

Consistent with the findings of past surveys, there is considerable difference in the proportion of women with children by profession (see graph 5.1).

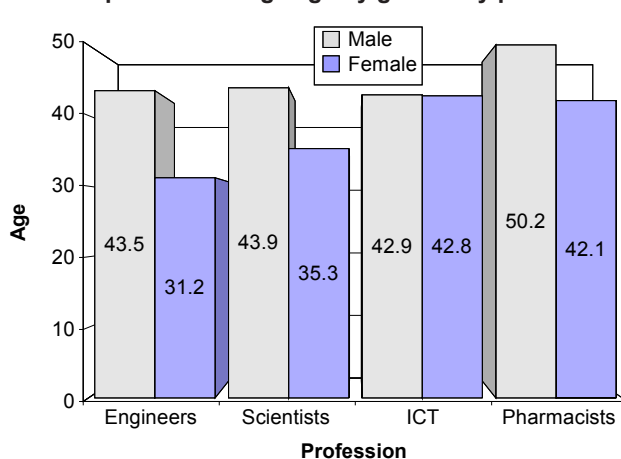
Graph 5.1 – Percentage of women without children by professional discipline



Comparison of average ages of professionals based on gender shows the greatest disparity in average ages between men and women professionals to be amongst engineers. ICT professionals have little or no apparent disparity in average ages between men and women incumbents.

Female engineering respondents were the youngest, at a mean age of 31.2 years.

Graph 5.2 - Average age by gender by profession



However, consistent with past findings, respondents in the professions of pharmacy and IT are older, with a mean age of 42.1 and 42.8 respectively yet there is considerable difference in the proportion of respondents without children in these professions, 48.4% and 60.2% respectively.

This is consistent with the findings of past APESMA surveys and reflects a significant contrast in the structure of work in these professions, such as access to part-time work.

The capacity of women to effectively balance work and family can impact upon the rate of childlessness and the retention of women with children in a profession.

A key employer-provided benefit that supports women with children is maternity leave. 46.3% of respondents reported that they did not have access to paid maternity leave.

Of those respondents who had children, 34% had not taken any maternity leave. Of those who took maternity leave, 26% received no paid leave. When combined, this means that nearly 60% of respondents with children received no paid maternity leave.

56.9% of respondents with children reported their belief that the taking of maternity leave would be detrimental to their career. This reflects significant discomfort around accessing maternity leave and the impact of family responsibilities on careers.

Yet for women, the realities of family and working lives remain. Of women with children, 31.5% reported taking additional extended leave due to family responsibilities, other than maternity or parental leave.

Another key employer benefit to support professional women with family responsibilities is childcare. However 77.6% and 93.9% of respondents respectively reported that they do not have access to employer provided on-site or off-site childcare.

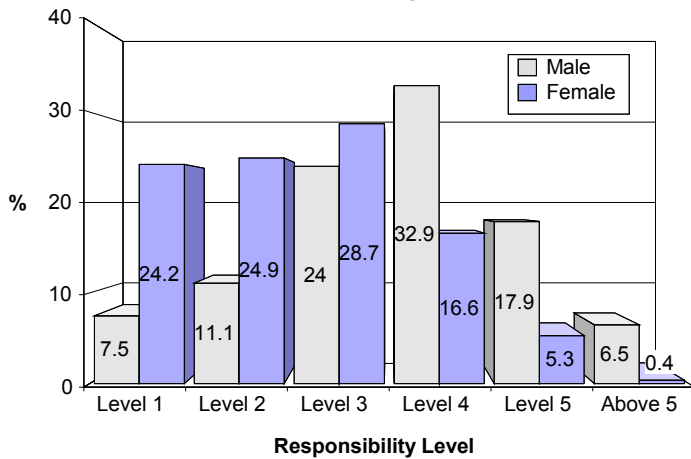
Given the long hours of work and the lack of part-time work described earlier, this finding can help to explain the priority given by respondents to flexible hours of work.



SECTION 6 - REMUNERATION

6.1 Professional Engineers⁵

Graph 6.1 - Responsibility Level by Gender Professional Engineers



The graph shows an approximately normal distribution of male engineers based on the responsibility level of positions.

Female engineers, however, are clustered at the lower levels, with more than three quarters (77.8%) of female engineers holding positions at responsibility levels 1-3. Nonetheless, this represents a significant improvement on the 2004 results.

The proportion of female engineers holding positions at Level 1 fell from 33.6% in 2004 to 24.2% in 2007, while the proportion holding positions at Level 3 increased from 19.9% to 28.7%. The proportion of female engineers holding positions at Level 4 increased from 12.1% in 2004 to 16.6% in 2007.

Table 6.1 - Gender by Responsibility Level by Median Total Package & Years of Experience Full-time Engineers

		N	Median Total Package (\$ pa)	Median Experience (yrs)
Male	Level 1	171	59,924	1.5
	Level 2	253	75,690	4.0
	Level 3	509	96,300	13.0
	Level 4	736	115,592	22.0
	Level 5	366	141,756	25.0
	Above Level 5	123	193,720	30.0
Female	Level 1	57	58,860	1.0
	Level 2	55	72,558	4.0
	Level 3	58	86,945	8.0
	Level 4	30	110,202	14.0
	Level 5	13	123,125	15.0
	Above Level 5	-	-	-
TOTAL		2371	106,266	15.0

A virtually identical percentage (25%) held positions at Level 2 in both surveys. Only a very small number of female engineers in both surveys held positions at Level 5 or Above Level 5.

The results suggest that female engineers are beginning to move through the ranks of the profession; however female engineers are still under-represented at the most senior levels.

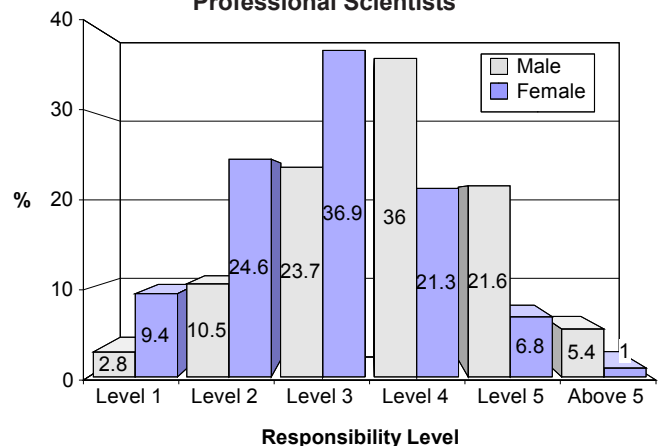
Due to the small number of women in senior positions in the profession, an analysis of remuneration for full-time professional engineers across all levels is inconclusive.

The results suggest that male and female engineers initially earn similar amounts as they enter the profession. However, as they progress through their career, at most levels male engineers earn on average more than their female counterparts.

While part of this may be attributable to the very small numbers of women in the highest paid disciplines such as electrical and mining engineering, it does not fully explain the differential.

6.2 Professional Scientists⁶

Graph 6.2 - Responsibility Level by Gender Professional Scientists



Female professional scientists continue to be clustered at the lower responsibility levels, compared to their male counterparts.

More than a third of female scientists (34%) hold positions at Level 1 or 2, compared to 13.3% of male scientists. More than a quarter (27%) of male scientists hold positions at Level 5 or above, compared to just 7.8% of female scientists.

There has been little overall change in the pattern of responsibility levels between male and female professional scientists since 2000.



As has been the case in the past three surveys, at nearly every level of responsibility female professional scientists are earning on average significantly less than their male counterparts. To a certain extent this may be partially explained by the concentration of males and females in different scientific disciplines.

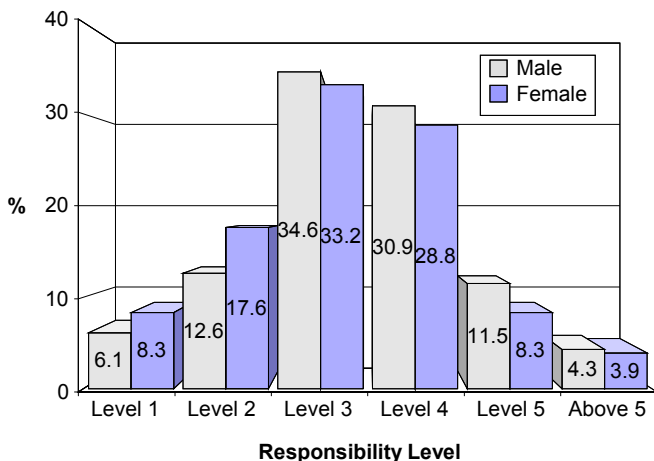
Table 6.2 - Gender by Responsibility Level by Median Total Package & Years of Experience Full-time Scientists

		N	Median Total Package (\$ pa)	Median Experience (yrs)
Male	Level 1	27	57,932	1.00
	Level 2	95	69,671	5.00
	Level 3	214	83,600	11.00
	Level 4	323	104,500	19.00
	Level 5	187	132,000	25.00
	Beyond Level 5	39	196,200	30.00
Female	Level 1	42	50,366	1.00
	Level 2	117	63,800	4.00
	Level 3	155	77,000	8.00
	Level 4	92	85,707	13.50
	Level 5	31	115,221	21.00
	Beyond Level 5	3	107,800	20.00
TOTAL		1325	90,034	13.00

For example, a much higher proportion of geologists – currently benefiting from the resources boom – are male, while female professional scientists are more likely to be life scientists working in the less well-paid manufacturing and government sectors. However, this does not fully explain the differential that has been found in every survey since 2000.

6.3 ICT Professionals ⁷

Graph 6.3 - Responsibility Level by Gender ICT Professionals



Female computer professionals are still under-represented at the more senior levels and over-represented at the more junior levels, however the degree of disparity is much less than for professional engineers and scientists.

The proportion of female computer professionals at Level 2 dropped from 28% in 2004 to 17.6% in 2007 while the percentage at a Level 3 increased from 27% to 33.2%. The proportion of female computer professionals at Level 4 rose from 22% to 28.8%.

The results suggest that female computer professionals are moving through the ranks of the profession; however female computer professionals are still under-represented at the most senior levels.

Table 6.3 - Gender by Responsibility Level by Median Package & Years of Experience Full-Time ICT Professionals

		N	Median Total Package (\$ pa)	Median Experience (yrs)
Male	Level 1	62	52,640	2.0
	Level 2	116	78,121	10.0
	Level 3	334	95,440	15.0
	Level 4	292	119,886	20.0
	Level 5	107	166,451	24.0
	Above Level 5	26	246,540	25.0
Female	Level 1	14	53,758	1.5
	Level 2	24	74,260	5.0
	Level 3	46	90,158	13.0
	Level 4	40	113,706	19.5
	Level 5	14	121,505	22.0
	Above Level 5	5	223,106	20.0
TOTAL		1080	102,168	17.0

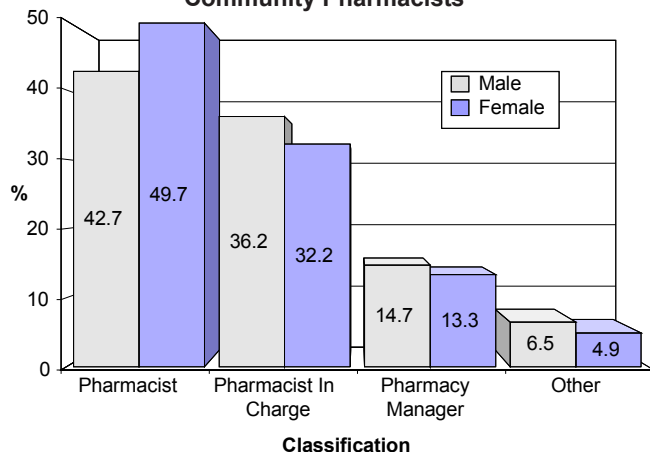
As was the case in 2004, at nearly every level of responsibility female computer professionals are earning on average significantly less than their male counterparts.

The results suggest that male and female computer professionals initially earn similar amounts as they enter the profession. However, as they progress through their career, at most levels male computer professionals earn on average more than their female counterparts.



6.4 Community Pharmacists ⁸

**Graph 6.4 - Classification by Gender
Community Pharmacists**



Around two-third of all pharmacists are women. In line with the results of previous surveys, there is little difference in the career progression of male and female pharmacists. A larger proportion of male pharmacists hold the more senior classifications of Pharmacist-In-Charge and Pharmacy Manager compared to their female counterparts.

It is important to note, however, that job titles in the Community Pharmacy sector, which is dominated by very small employers, are often somewhat arbitrary and have very little impact on overall remuneration.

**Table 6.4 - Gender by Responsibility Level
by Median Total Package & Years of Experience
Community Pharmacists**

		N	Median Hourly Rate	Median Experience (yrs)
Male	Pharmacist	86	35.00	38.00
	Community Pharmacist-in-Charge	68	35.00	35.00
	Community Pharmacy Manager	23	35.00	20.00
Female	Pharmacist	193	35.00	17.00
	Community Pharmacist-in-Charge	122	35.00	20.00
	Community Pharmacy	44	35.00	14.00
Total		536	35.00	20.00

While pay rates for individual pharmacists can vary significantly, there is no difference in the median hourly wage paid to male and female pharmacists, or indeed to pharmacists at different classification levels.

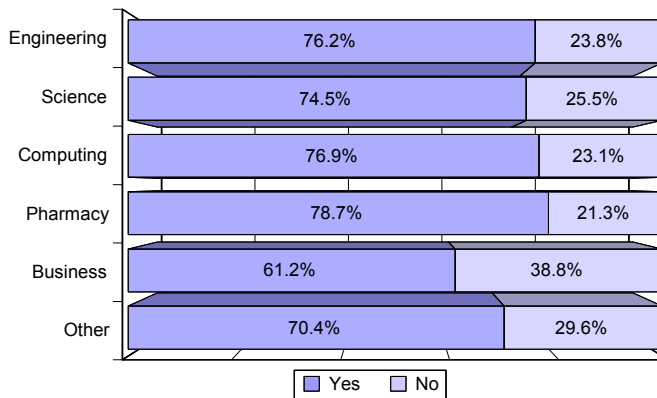
Historically pay rates in the industry have been largely determined by prevailing industrial awards and agreements. While there is no evidence of gender bias in the pay within the profession, it's worth noting that average salary increases for this female-dominated profession in recent years have not been as high as for other science and technical professionals.

SECTION 7 – EQUAL PAY

26.8% of respondents to the survey believed they did not receive equal compensation in the workplace for work of equal value when compared to males.

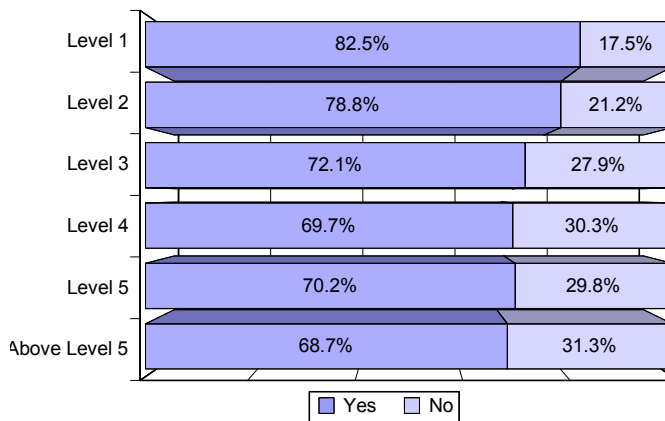
The perception of disparity was particularly evident amongst business professionals at 38.8%.

Graph 7.1 - Do you believe you receive equal compensation for work of equal value performed by your male colleagues?



Higher levels of perceived inequity were also found where respondents had more senior roles, potentially reflecting the greater discretion in remuneration at those levels, as seen in graph 7.2.

Graph 7.2 - Do you believe you receive equal compensation for work of equal value performed by your male colleagues by level of responsibility?



The skills shortage does not appear to have impacted upon respondent's perceptions of pay inequity, as 29.7% respondents from Western Australia, where skills shortages appear most acute, indicated their belief that they did not receive equal pay.

Those born overseas were also more likely to perceive unequal pay (30.8%).



Table 7.1 – How confident are you that you are equipped to negotiate good remuneration and working conditions?

	Very confident	Confident	Neutral	Not very confident	Not confident
	%	%	%	%	%
Engineering	3.3	27.4	30.5	30.7	8.0
Science	5.7	20.1	22.9	34.2	17.0
Computing	3.2	16.1	21.5	40.9	18.3
Pharmacy	8.1	30.6	12.9	35.5	12.9
Business	8.5	22.1	28.6	25.6	15.1
Other	3.8	17.4	23.0	33.3	22.6

50.3% of respondents reported they were ‘not very confident’ or ‘not confident’ at all in negotiating good remuneration and working conditions with their employer. IT and science stand out as professions where more than half the respondents were not confident in these negotiations.

This indicates that policies that rely upon individuals advocating their own needs to address salaries, conditions or work and family needs may not necessarily succeed. It is notable that these results emerged in the context of a widely recognised skills shortage of technology-based professionals.

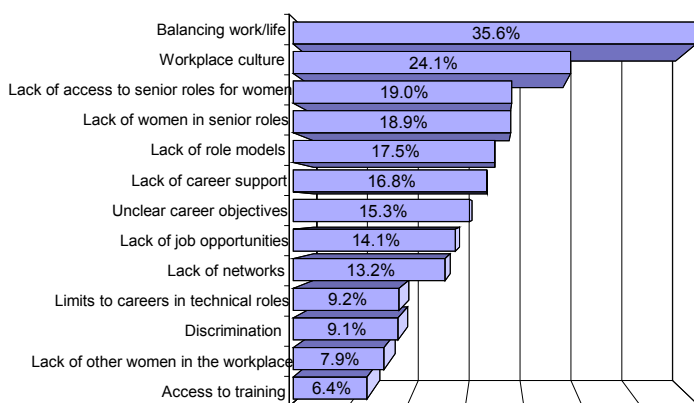
SECTION 8 - CAREER PATHS

When asked to identify the factors that had most affected career advancement, 35.6% of respondents indicated that ‘balancing work and life’ had had a significant effect, and 27.9% a moderate effect.

Whilst this reflects some of the pressures facing working families, the scale of this finding reflects considerable significance for respondents who do not have children.

The second most significant factor affecting career advancement was ‘workplace culture’ which had had a significant effect on 24.1% of respondents.

Graph 8.1 – Have the following factors significantly affected your career advancement?



High levels of potential mobility of professional female employees were reported in this survey. 39.3% of respondents expected to change employers within the next three years.

Reflective of all professionals, the respondents to the survey said that the three main factors which will most influence their next career move were more interesting challenging work (42.7%), increase in salary (39.9%) and opportunity for promotion (34.2%).

The median length of employment of respondents with their current employer was 5 years, with 2 years in their current position. Nearly one quarter (23.5%) had received a promotion within the last twelve months.

CONCLUSION

Professional women continue to face particular and additional obstacles in their careers, in their participation in their chosen professions and in gaining workplace equality. These relate to, but also extend beyond, balancing work and family.

This report sends a clear message to policy makers and employers that there is considerable scope for improvement in enabling women to have satisfying work and lives. Areas for attention range from hours of work, access to part-time work, flexible hours of work, workplace culture and the conditions and services that support working parents.

These results also highlight areas where current laws appear to be falling short of their policy objectives – such as equal pay and maternity leave.

The number of women who participated in this survey, the predominance of technology professionals and the potential dividends to be gained by addressing their needs in the context of a skills shortage makes these results highly significant.

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