



The Association of  
Professional Engineers,  
Scientists and Managers,  
Australia



**WOMEN IN THE PROFESSIONS:**

# The State of Play 2009-10

Executive Summary of the  
APESMA Women in the Professions Survey Report

# WOMEN IN THE PROFESSIONS: The State of Play 2009-10

“When I was in high school, it was always talked up that women could do science, engineering and technical [work] too. While we are just as capable as men, when we get into these industries, we face other challenges. There have been brave women who have done their bit to overcome these challenges, but it also requires brave men to challenge the attitudes of these industries to women participating in their workplaces.”

**The Association of Professional Engineers, Scientists and Managers, Australia (APESMA)** is a union representing over 25,000 professional engineers, scientists, veterinarians, surveyors, architects, pharmacists, information technology professionals, managers and transport professionals.

APESMA has produced its flagship *Women in the Professions Survey Report* regularly for over a decade. The reports provide valuable insights into the workforce experience of female technical professionals and, over time, useful time series data.

## About the Survey.....

The *Women in the Professions Survey* is a project of the APESMA National Women's Reference Group. It focuses on the experiences and perceptions of female technical professionals and is derived from a survey of around 1,100 women respondents conducted online in late 2009.

The survey was aimed at technical professionals and was distributed by email to APESMA women members. It was also sent to members of FASTS (Federation of Australian Scientific and Technological Societies), Consult Australia and the National Tertiary Education Union (NTEU). As such, the findings represent the views of women across a range of Australian professions.

## About the Respondents.....

**58.6%** had tertiary qualifications in science and **30.0%** in engineering

**72.0%** worked full-time, **15.5%** worked part-time

**64.3%** of respondents worked for large employers that employed over 500 employees

Industries that respondents worked in included; Research (**25.7%**), Consultancy and technical services (**19.2%**), Education (**14.8%**), Water, electricity and gas (**11.5%**)

**77.9%** of respondents worked in a male-dominated industry

**62.7%** worked in the public sector

The average age of respondents was **38.3**

**43.5%** of respondents had children; of those, **77.3%** had carer responsibility for at least one of their children

## HEADLINE RESULTS

- **47.4%** of respondents stated that their career progression had been affected by workplace culture.
- **67.3%** of respondents to the survey (and **71.6%** of engineers) said that taking maternity/parental leave (including unpaid leave) was likely to be detrimental to their career.
- Nearly **40%** of respondents had been bullied and **38%** discriminated against in the course of their professional employment. Nearly **20%** reported that they had been sexually harassed. Figures for sexual harassment and discrimination were higher in male-dominated industries.
- **50%** of respondents said that their career had affected their planning for parenthood. Of those that answered it had, **37.4%** responded it affected whether to have any children, **73.7%** the timing of children, **43.8%** the number of children.
- **55.5%** of respondents said that balancing work/life had impeded their career development.
- **43.5%** of respondents had children. **71%** of those with carer responsibilities said that this had affected their career progression.
- **74.8%** of all respondents believed that working part-time has or would have an impact on their career.
- Nearly one quarter of respondents (**23.9%**) expected to have left their profession in five years' time. This figure was higher for private sector respondents (**29%**).
- **48.3%** of all respondents, and nearly **60%** of engineers, agreed that in their occupation, women have to prove themselves where men are assumed capable.

APESMA engineering members



## Summary Analysis.....

The results provide a dramatic insight into factors affecting female progression within male-dominated professions, revealing systemic problems with workplace culture around workplace flexibility issues that disproportionately affect women members with caring responsibilities in their prime working years. Cultural issues around part-time work, parental leave and discrimination dominate the findings, with 67% reporting their belief that taking maternity leave would be detrimental to their career, and 71% of members with carer responsibilities reporting a negative impact on their progression. 55.5% stated that maintaining a work/life balance had impeded their career development. Comments showed that even where positive workplace policies existed around work-life balance issues, cultural issues within workplaces meant that accessing these provisions was difficult.

This phenomenon can be linked to the nature of workplace culture in male-dominated industries, where 77.9% of respondents indicated that they worked. 47.4% of respondents said that their career progression had been affected by this workplace culture. Tellingly, 48.3% of all respondents, and nearly 60% of engineers, agreed that in their occupation, women are required to prove themselves where men are assumed capable. 30.6% of all respondents agreed that in their workplace, advice or information of a technical nature was less likely to be listened to if provided by a woman than a man.

37.0% of all respondents, and 48% of engineers, agreed with the statement *'I feel like I have to become one of the boys if I want to fit into my workplace'*

Shockingly, nearly 40% of respondents stated that they had been bullied and 38% discriminated against in the course of their professional employment. 19.3% reported that they had been sexually harassed, although it is unclear whether this harassment had been reported or dealt with through official channels. Figures for sexual harassment and discrimination were higher where respondents were from male-dominated industries. Only around one in five of those who reported they had experienced discrimination or sexual harassment had sought advice.

**Respondents were asked to prioritise three issues to be addressed by governments and industry. These were:**

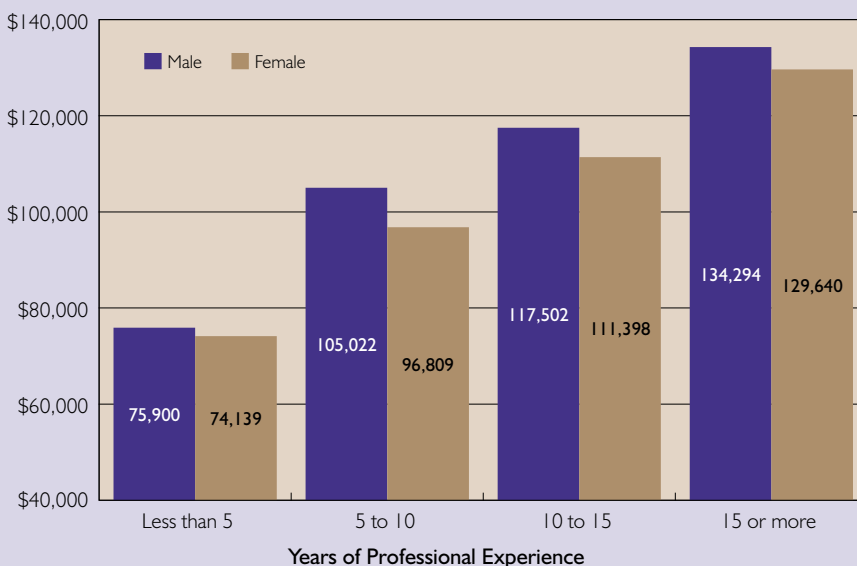
- Flexible working arrangements and work/life balance (62.0%);
- Equal pay (40.7%); and
- Career development and training (37.7%).

It is unsurprising that pay equity is a top priority for respondents. Data from APESMA's 2010 Professional Engineer Remuneration Survey shows that across the board, and from the beginning of their careers, women in the engineering profession typically earn less than men of equivalent experience<sup>1</sup>. The graph

(left) shows median salary packages by years of experience for women engineers; in the first five years of their career, women earned 2.4% less than equivalent men, rising to 8.5% between 5 and 10 years, around the time that many tertiary-qualified women are beginning to have their families. The gap narrows somewhat at later levels of qualification, perhaps reflecting the far smaller number of respondents at this level as women drop out of the profession.

The chronic cultural issues raised in these results may be useful in pinpointing part of the reason for our chronic skills shortages in particular

**MEDIAN TOTAL PACKAGE BY YEARS OF EXPERIENCE BY GENDER – ENGINEERS**



<sup>1</sup> APESMA Professional Engineer Remuneration Survey 2010, unpublished data.

professions. In engineering for instance, the profession has been designated a national priority occupation by Skills Australia, and a national CEO skills survey by AiGroup revealed that engineering was an occupation in short supply<sup>2</sup>. With women making up just 9.5% of the workforce with tertiary qualifications in engineering working in engineering or related occupations<sup>3</sup>, encouraging women to train for and enter engineering should be a priority for both employers and government. However, employers are struggling to retain women across the professions. One quarter of respondents to the Women's Survey indicated that they would leave their profession within five years, an issue linked to workplace and cultural issues. At a time when industry is struggling to attract professionals in engineering and science-based professions, with employers reporting chronic skills shortages affecting their ability to innovate and deliver quality infrastructure, these results should be viewed with alarm.

## Retention of Technical Professional Women.....

“Early in my career I was told by a senior male engineer that as a woman I would undoubtedly leave the profession within 7 years. Admittedly I almost did mainly because of the male-dominated nature of engineering and the large age gap between graduate employees and management i.e. few engineers between the ages of 30-45 leading to fewer mentoring opportunities (or no mentor in my case). I worry that as I begin to plan a family, there will be an impact on my career (or I will have to put it on hold and will thus unlikely reach the levels I could if I choose not to have children)...”

Nearly one quarter of respondents (23.9%) expected to have left their profession in five years' time. This figure was higher for private sector respondents (29%).

3.0% of respondents expected to be working in their current profession less than 1 year, 10.8% 1 to less than 3 years, 10.1% 3 to less than 5 years and 55.5% 10 years or more.

<sup>2</sup> AiGroup and Deloitte Skills Shortages: A High-Risk Business, National CEO Survey, AiGroup 2010

<sup>3</sup> Cited in Engineers Australia (2008) The Engineering Profession: A Statistical Overview Fifth Edition



Karen Chew

Of those who did not expect to be working in their profession in five years, factors nominated as influencing that expectation included:

- Better work and life balance; selected by 44.2% of all respondents, 52.8% of private sector employees;
- Change and/or gain experience (35.0%); and
- Career advancement (33.5%).

When asked how long they expected to continue working with their current employer, 26.9% answered less than 3 years. At the other end of the spectrum, 19.9% expected to still be working for their current employer in 10 years or more.

Of those that did not expect to be working in their employer in five years, factors nominated as influencing that expectation included:

- Career advancement (48.2%);
- Change and/or gain experience (43.0%); and
- Increased challenges and excitement (40.5%).

## Career Advancement, Equal Opportunity & Job Satisfaction...

“When news of my pregnancy began to filter through the scientific community, I received an email of condolence from an international senior scientist. *‘I am so sorry to hear of your pregnancy. You had so much potential, you would have been a great scientist.’* I may be hanging on in the profession by the skin of my teeth, but I think he may be right. I took it as a personal affront when I received it, not understanding why such a kind man would say such a thing. Now I believe he was commenting on the way he knew the academic science industry worked, and the effect it has on most mothers in the end.”



While the majority of respondents (64.7%) were satisfied or very satisfied with their current job, a majority of respondents (55.5%) answered that balancing work/life had detrimentally impeded their career development.

Respondents indicated that their career advancement had been affected by:

- Workplace culture (47.4%);
- Lack of women in senior roles (47.4%);
- Lack of job opportunities (46.8%);
- Lack of access to senior roles for women (46.5%); and
- Lack of role models (46.4%).

When asked whether their employer was proactive in ensuring that men and women have equal opportunity to progress:

- 25.6% of those working in a male-dominated industry answered ‘always’ as compared to 39.6% not working in a male dominated industry;
- 12.7% of those working in a male-dominated industry answered ‘rarely’ or ‘never’ as compared to 6.2% of those not working in a male dominated industry.

## Bullying, Discrimination and Sexual Harassment.....

“There have been significant improvements at my organisation for equality for women and a lot more flexibility [but] I can’t believe that there are still a few sexist, racist, bullying men still in the organisation with all the initiatives and no blame culture that has been introduced into the organisation. There are more women recognised for their achievements but they have to put in more hours than the men in this organisation. The older women that are respected in this organisation have had a hard slog/struggle to get where they are now, and they feel a bit resentful when the young ones come into the organisation and progress at a much faster rate through their career path. But what can you do!”

*Karina Bader, scientist and APESMA National Treasurer*

Participants were asked whether they agreed or disagreed with a number of statements in regards to workplace, industry and occupational culture.

- 48.3% of all respondents, and nearly 60% of engineers, agreed that in their occupation, women have to prove themselves where men are assumed capable;
- 29% of all respondents disagreed that clients respect the professional opinion or advice of men and women equally;
- 30.6% of all respondents agreed that in their workplace, advice or information of a technical nature is less likely to be listened to if provided by a woman than a man;
- 37.0% of all respondents, rising to 48% of engineers, agreed or agreed strongly with the statement 'I feel like I have to become one of the boys if I want to fit into my workplace'.

Staggeringly, nearly 40% of respondents had been bullied and 38% discriminated against in the course of their professional employment. Nearly 20% reported that they had been sexually harassed. Figures for sexual harassment and discrimination were higher in male-dominated industries.

Respondents who believed they had been discriminated against were less likely to seek advice, deal with the matter informally, use a complaints process or leave the workplace and more likely to not take any action than those that responded they had been bullied. Only around one in five of those that reported they had experienced discrimination or sexual harassment sought advice.

## Children, Carer Responsibilities and Career .....

“I work in a female-dominated science company with a male CEO/owner. I have no children but am getting married soon. I feel worried for my future with regards to planning a family as I have seen how hard it is for women in my company in particular (because of the views of management) and industry to return to work as a scientist/science professional. I am mentally preparing myself to accept that I may not be able to return to the workforce as a scientist/science professional after children.”

43.5% of respondents had children. 71% of those with carer responsibilities said that this had affected their career progression.

50% of respondents said that their career had affected their planning for parenthood. Of those that answered it had, 37.4% responded it affected whether to have any children, 73.7% the timing of children, 43.8% the number of children and 7.5% other.

### *Parental leave and extended breaks*

- 55.4% of respondents indicated that their employer provided paid parental/maternity leave, but
- 67.3% of respondents to the survey (and 71.6% of engineers) answered that they believed taking maternity/parental leave (including unpaid leave) was likely to be detrimental to their career.

## Culture of the Workplace, Occupation and Industry.....

“Part of the culture at my workplace is that male senior staff members work up to 60 hours per week. I have got a family and I can't (and do not want to) work such long hours. In a discussion with my mentor, he told me that I wouldn't have a career if I am not willing to invest more hours.”

### *Workplace culture and long work hours*

- 48.4% agreed that their employer has good work/life policies but the culture does not support it; and
- 48.5% disagreed that in their workplace, managers and senior staff model good work/life balance.

“In my organisation there are only 3/35 managers and no executive managers that are female. Of these three, two don't have children. There are few role models of females in senior management.”

Related to this; many respondents indicated that working long hours is part of their workplace culture:

- 61.0% agreed that in their workplace showing dedication equals long hours; and
- 38.4% agreed that the number of hours they have to work limits their capacity to balance work and life.

### For scientists, there were specific issues:

- Nearly one quarter (24.6%) of scientist respondents answered that their employment was 'conditional' upon fixed term grants and/or publication of papers;
- 80.4% of those whose employment was 'conditional' agreed or strongly agreed that in their profession, taking an extended break is likely to have a long term career impact as compared to 53.9% of other scientist respondents;
- 72.2% of those whose employment was 'conditional' agreed with the statement 'In my workplace, showing dedication equals long hours' as compared to 58.0% of other scientist respondents.

“Grant-based science is a competitive industry. If you do not maintain a position in the top 20% in the country, you lose your job... I am an excellent scientist. I compete on that level. I lose out on the productivity as my choice not to work beyond normal hours due to family commitments precludes me from maintaining an overall competitive edge.”

## Work/Life Balance.....

“I have missed out on job opportunities because of my family and family commitments but these were decisions I made because of my values and the trade-offs required to advance my career in a particular direction... Men can suffer similar issues to women in the other direction. We found that it was easier for me to negotiate flexibility for carer responsibilities than it was for my husband. There was an expectation from my husband's employer that I would be the one to assume these duties and I had to compromise my return to full-time work to avoid stress to my husband's employment.”

### Experiences of work and life balance

- 51% agreed that they feel they currently have work and life balance; 34.2% disagreed.
- 46.4% agreed or strongly agreed that the organisation that they work for genuinely encourages work and life/family balance.

### Part-time work

- 74.8% of all respondents (and 78.5% of those working in a male-dominated industry) answered that they believe that working part-time has or would have an impact on their career.



Jane Waldock, Chair, APESMA Professional Women's Network

- 43.9% of those working part-time responded that they were unnecessarily prevented from undertaking development opportunities or certain types of work because they work part-time.

### Seeking change

- 48.4% of respondents answered that they would like to use conditions of employment that may assist in balancing work and life that they do not currently access; and
- 49.3% indicated they would like to work fewer hours each week;
- Of these respondents, only 25.3% had broached this issue with their manager;
- Of those that had broached the issue with their manager, 39.6% were dissatisfied with the result.



## Conclusion .....

The findings of the 2009-10 *Women in the Professions Survey* highlight how far we have still to go to ensure that professional workplace culture is equitable, family-friendly and safe. Despite widespread reports of skills shortages in key professions and the difficulty that employers face in retaining key professional staff, the survey findings reveal that strategies to attract, retain and promote women professionals may be hampered by cultural barriers and inflexible working practices. While women have made considerable inroads into the professions over the past three decades in particular, workplace culture has been slow to catch up, especially in male-dominated professions.

The problems raised by respondents to the survey are core workplace, cultural and industrial issues which must be addressed to ensure that all employees are able to reach their professional potential. Flexibility in hours, carer's and parental leave provisions are core conditions that in practice are particularly important for female professionals, with women continuing to undertake the majority of carer responsibility within their families. While flexibility and work-life balance issues continue to be characterised as less central and important than other workplace conditions, and while workplace culture affects employees' ability to access and improve these core working conditions, the types of cultural problems highlighted by respondents to this survey will continue to undermine the professions.

In highlighting these issues, the APESMA Women's Network aims to contribute to the bubbling national discussion around the status of women in the workforce. In 2010 according to the Australian Bureau of Statistics, the gender pay gap has again widened, with equivalent average full-time women's earnings now 18% lower than the male equivalent<sup>4</sup>. Data from APESMA's 2010 *Professional Engineer Remuneration Survey Report* reveals that these highly educated professional women continue to earn less than their male counterparts at all levels, and the responses to this survey suggest that women are also frustrated by a functional lack of access to core conditions that may be instrumental in promoting female retention and advancement.

The ability to access these conditions in a supportive workplace culture must be a priority issue for all parties. When APESMA asked respondents to nominate the three professional issues that were most in need of addressing by governments and industry, women said that flexible working arrangements, pay equity and career development were of utmost concern. Addressing workplace culture to ensure that all employees are able to access these conditions should form the basis of a priority agenda for employers, promoting the attraction and retention of qualified professionals, removing barriers to career development and progression for women and ensuring best practice. These are issues requiring urgent attention; for until our professions are better representative of the broader community, we will miss out on the important professional contribution brought by varied experience, background and perspective.

<sup>4</sup> ABS Cat. 6302.0, *Average Weekly Earnings, Australia May 2010*.





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