

**Professionals  
Australia**

# WOMEN STAYING IN THE STEM WORKFORCE

## AN ECONOMIC IMPERATIVE FOR AUSTRALIA

WOMEN IN THE STEM PROFESSIONS REPORT

# ABOUT PROFESSIONALS AUSTRALIA

Professionals Australia (formerly the Association of Professional Engineers, Scientists and Managers, Australia) represents over 23,000 professionals from across the STEM professions including engineers, scientists, managers, veterinarians, surveyors, information technology professionals and pharmacists throughout Australia.

Professionals Australia members are employed across all sectors of the Australian economy. This includes all tiers of government and in a diverse range of industries throughout the private and public sectors including Roads, Rail, Water, Electricity, Information Technology, Telecommunications, Consulting Services, Laboratories, Research, Surveying, Construction, Retail Pharmacy, Mining, Oil, Collieries and Manufacturing.

## **Professionals Australia**

GPO Box 1272, Melbourne VIC 8060

t: 1300 273 762

e: [genderanddiversity@professionalsaustralia.org.au](mailto:genderanddiversity@professionalsaustralia.org.au)

w: [www.professionalsaustralia.org.au/professional-women/](http://www.professionalsaustralia.org.au/professional-women/)

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*“ It shouldn’t need saying that we are more likely to succeed if we use our full human potential. Simply put, diversity of ideas and experience equals better results.”*

**Dr Cathy Foley, Australia’s Chief Scientist**

# FOREWORD

**The COVID-19 pandemic has renewed the ongoing discussion about diversity in STEM (Science, Technology, Engineering and Mathematics). There is widespread concern that the health crisis may lead to higher levels of attrition of women from the STEM professions, widen the gender pay gap and further entrench women’s under-representation in STEM fields.**

The World Economic Forum’s [Global Gender Gap Report 2021](#) found that the pandemic has pushed back gender parity by an entire generation. The report calls for gender-sensitive recovery strategies noting that as the COVID-19 pandemic continues, the gender pay gap across various professional sectors will take 135.6 years to close, rather than the previously expected 99.5 years.<sup>1</sup> The latest figures show it will take at least 25 years to close the gap in Australia.<sup>2</sup>

Diversity and gender equity are crucial to the capacity of STEM to drive productivity growth and economic recovery - and as Chief Scientist Dr Cathy Foley said: “It shouldn’t need saying that we are more likely to succeed if we use our full human potential. Simply put, diversity of ideas and experience equals better results.”<sup>3</sup>

To ensure the pandemic does not deepen the structural inequalities already faced by women and lead to a further loss of expertise and talent, we need to look at how the crisis has impacted women’s employment. We also need to address the issues that previously created disadvantage for women in the STEM workforce to ensure that we “build back better”. On top of the barriers that were already there, there are now new pandemic-related obstacles that are negatively impacting women in STEM.

We need to look at the full range of factors that contribute to women leaving STEM. Our report shows these factors include not only difficulty accessing flexible work arrangements at senior levels and the career penalty attached to part-time work but also not being equally compensated, working in hostile or discriminatory workplace cultures, not receiving proper recognition or opportunities for development and advancement, high levels of sexual harassment in STEM workplaces and women being regarded as less technically competent or professional than their STEM male counterparts.

To bring about women’s real long-term engagement and participation in STEM fields, we must go beyond simply increasing the participation of women and girls in STEM education. While the number of women with tertiary qualifications in STEM has increased, this is not sufficient to bring about comprehensive, long-term, sustainable change. The key to real change is not only addressing COVID-related barriers but understanding the longstanding drivers of attrition and addressing the systemic and structural barriers women face when they work in STEM.

In looking toward effective responses to the pandemic, we believe seeking the views of women STEM professionals themselves is critical. Professional women working in STEM have a first-hand understanding of the issues that need to be addressed in response to COVID-19 and of the changes that would help retain women in the STEM professions. We are committed to ensuring the recovery is informed by their expertise and experiences. As we move beyond the pandemic, diversity and gender equity in STEM become not only core social justice issues but also fundamental to recovery and an economic imperative for Australia. This report gives decision-makers and employers a basis for taking action to ensure women start and stay in the STEM professions.



**Jill McCabe**  
Professionals Australia CEO





# INTRODUCTION

*Welcome to the latest Professionals Australia Women in STEM Professions Survey Report.*

The report is set out in three parts.

## PART 1

The first part of the report looks at the current status of women in STEM in relation to:

- the low participation rates of women in the STEM workforce generally and in some STEM fields in particular;
- the low levels of women with post-secondary qualifications in STEM;
- the low representation of women at management and executive levels in STEM;
- some of the reasons for the attrition of women from the STEM workforce;
- the gender pay gap in STEM;
- the gap in retirement savings for women generally and in STEM; and
- the gendered impact of the COVID-19 pandemic.

This part of the report references data from a range of sources including the Chief Scientist's Office<sup>4</sup> and the Workplace Gender Equality Agency (WGEA).<sup>5</sup>

The information on the pandemic aims to provide a basis for understanding the significant impact of COVID-19 on women and their employment. It is a summary of some of the effects of the pandemic shown by both external research and Professionals Australia's surveys. Whether the effects are temporary disruptions that will reverse when the pandemic recedes or whether they involve longer-term structural change will become evident over a longer timeframe.

## PART 2

With strong concerns about responses to the pandemic having the potential to entrench existing inequality, it is important that we have a detailed understanding of those inequalities.

To that end, the second part of this report looks at the complex range of factors at the workplace level that contribute to the current status of women in STEM. This part of the report aims to identify the persistent and ongoing drivers of under-representation based on the Women in STEM Survey results, including:

- attrition from the STEM workforce;
- lack of flexible work options at senior, management and executive levels;
- bias in career-building activities;
- the career penalty attached to working part-time;
- the impact of career disruption;
- workplace culture including long working hours and exclusionary behaviours;
- biases in decision-making and recruitment;
- discrimination and sexual harassment; and
- gender stereotyping.

## PART 3

While there is no-one-size-fits all approach, the third part of this report sets out a model action plan based on our survey findings that follow from which organisations can draw on as needed to address the factors that contribute to women leaving the STEM professions. This includes addressing the key drivers of attrition pre-COVID-19 and those that were exacerbated during the health crisis.

We have included comments from our survey respondents across the report to help illustrate first-hand the experiences of professional women in the STEM workforce.





# PART 1 - THE CURRENT STATUS OF WOMEN IN STEM

# THE UNDER-REPRESENTATION OF WOMEN IN STEM

*The Office of the Chief Scientist's 2020 report Australia's STEM Workforce shows that women are under-represented as a proportion of the university-qualified STEM population, as a proportion of the university-qualified STEM workforce, as a proportion of STEM employees in higher-paid positions, as a proportion of STEM over 55s and as a proportion of those in management and executive roles. These key findings are included in this report to document the extent and nature of the under-representation of women in STEM.*

## KEY FINDINGS FROM THE OFFICE OF THE CHIEF SCIENTIST'S AUSTRALIA'S STEM WORKFORCE:



### THE STEM WORKFORCE

- Women represent only 29 per cent of the university-qualified STEM workforce.<sup>6</sup>
- The most common broad field of qualification for females was Science representing 45 per cent of the female STEM-qualified labour force. The next most common field of education was Information Technology (21 per cent), followed by Engineering (20 per cent), Agriculture and Environmental Science (10 per cent) and Mathematics (4 per cent).
- Gender distribution also differs greatly based on industry. Women account for only 12 per cent of the STEM workforce in Construction, 15 per cent in Transport, postal and warehousing, 17 per cent in Mining, 20 per cent in IT and 22 per cent of Professional, scientific and technical services. However, women are better represented in Health care at 60 per cent and Education and training at 41 per cent.<sup>7</sup> Across all of the 19 industry divisions, only one - Healthcare and Social Assistance - employed more female than male STEM graduates.<sup>8</sup>



### IN MANAGEMENT AND EXECUTIVE ROLES

- While females made up 28 per cent of the total employed population, only 22 per cent of STEM university-qualified managers and 13 per cent of executives were female.
- The greatest discrepancy across STEM fields occurred in Science, where females made up almost half (49 per cent) of the total employed population, but only 39 per cent of managers and 24 per cent of executives.<sup>9</sup>
- In IT, while females made up 22 per cent of the total employed population, only 19 per cent were managers and 12 per cent of executives were female.<sup>10</sup>
- The Engineering profession had the lowest representation of university qualified females in senior occupations. While 15 per cent of the total employed population were female, only 11 per cent of managers and 6 per cent of executives were female.<sup>11</sup>



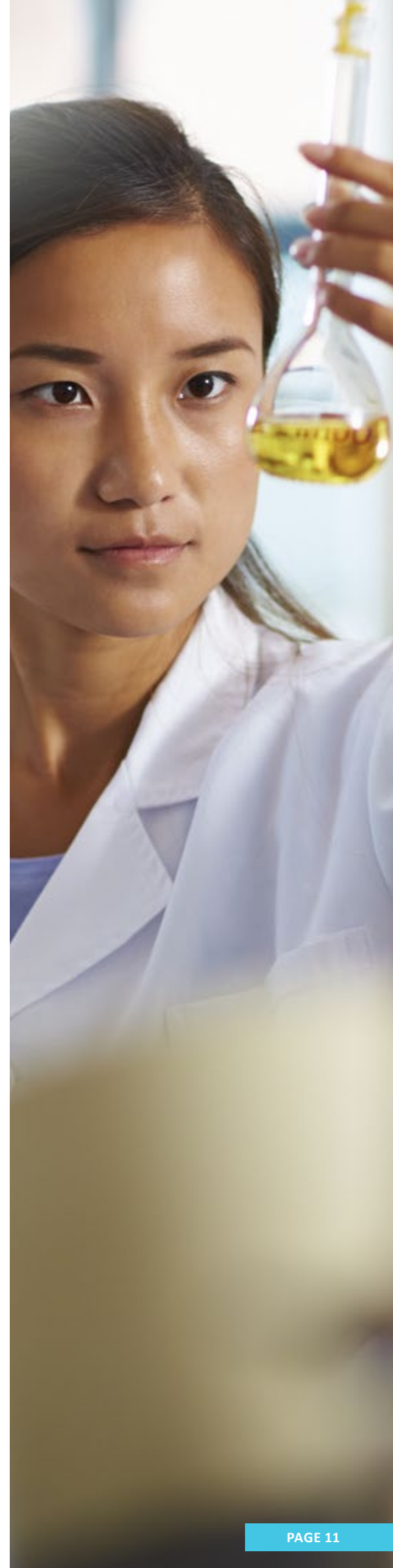
## ATTRITION FROM THE STEM WORKFORCE

- Carer responsibilities is one of the factors linked with attrition from the STEM workforce. STEM-qualified females who had a child between 2011 and 2016 were significantly less likely to remain employed than females who did not have a child.<sup>12</sup> Nearly one-fifth (19 per cent) of university qualified females who had a STEM qualification and worked full-time in 2011 left the labour force after having a child. The Australia's STEM Workforce Report found that "Having children is associated with decreased labour force participation ... for STEM-qualified females. Conversely, the labour force participation of STEM-qualified males appears to remain largely unaffected by the birth of a child ..."<sup>13</sup>
- Barriers beyond having children that can limit women's participation in STEM education and careers include stereotypes and bias that deter girls from studying STEM subjects at school, lack of job security in workplaces, the impact of career disruptions, social and cultural barriers and gender discrimination and sexual harassment in STEM workplaces.<sup>14</sup>
- 9 per cent of STEM-qualified females in the labour force were aged 55 or over, compared to 15 per cent of males.<sup>15</sup>



## QUALIFICATIONS

- The number of women with tertiary qualifications in STEM is increasing, rising by 34 per cent between 2011 and 2016. The number of women with tertiary qualifications outside of STEM increased by 30 per cent over the same period, suggesting that the increase in the supply of STEM-qualified female professionals is catching up on non-STEM fields.<sup>16</sup>
- The gender distribution of those with tertiary qualifications differs significantly by field. Women account for 50 per cent of the qualified population in science, 40 per cent in mathematics and 43 per cent in agricultural and environmental science. Conversely, women comprise only 26 per cent of those with post-secondary IT qualifications and 16 per cent of those with engineering qualifications.<sup>17</sup>







## THE GENDER PAY GAP IN STEM

*WGEA's Gender Equality data shows a gender pay gap of 22.0 per cent in the Professional, scientific and technical services industry.*

The Workplace Gender Equality Agency's (WGEA) Gender Equality data show a gender pay gap of 22.0 per cent in the Professional, scientific and technical services industry (including engineering) and a gap of 20.8 per cent in the Information media and telecommunications industry compared to an average pay gap of 14.0 per cent across all industries.<sup>18</sup>

Former Chief Scientist Alan Finkel AO said of the gender pay gap in STEM: "The pay gap between men and women revealed in [the STEM workforce] is significant, it is longstanding and it is unacceptable."<sup>19</sup>

The Office of the Chief Scientist's Australia's STEM Workforce report found that STEM-qualified females working full-time had lower incomes than males working full-time across the board.<sup>20</sup>

"Among those women who are both qualified and employed in STEM roles, representation in higher-paid roles remains low. Only 26 per cent of women in STEM fall into the top income bracket (above \$104,000), while 45% of males are employed in this bracket."<sup>21</sup>

This figure is however up on the 12 per cent of women in the top income bracket (compared with 32 per cent of males).<sup>22</sup>

The report also found that "Having children is associated with ... lower average incomes for STEM-qualified females. Conversely ... males with children tend to earn more than males without children."<sup>23</sup>



# DIFFERENTIAL RETIREMENT SAVINGS FOR WOMEN

## THE DIFFERENTIAL FOR WOMEN GENERALLY

WGEA data show comparatively lower retirement savings for females than their male counterparts. The median retirement balances at time of retirement age (64 years) in 2016-17 were \$154,453 for men and \$122,848 for women. The Agency's most recent scorecard report found that 23 per cent of women have no superannuation at retirement age compared to 13 per cent of men. WGEA figures also show that women's superannuation savings are around 30 per cent lower for women than their male counterparts.<sup>24</sup> They found that the factors contributing to lower annual superannuation contributions are industrial and occupational segregation (defined as the overrepresentation of women in less senior roles and underrepresentation at senior, management and leadership levels), the gender pay gap, unpaid carer responsibilities that impact workforce participation and mean women are more likely to take time out of the paid workforce to care for family, women being more likely to work in part-time or casual employment and therefore more likely to not qualify for compulsory superannuation.<sup>25</sup>

*23 per cent of women have no superannuation at retirement age compared to 13 per cent of men.*

**WGEA 2020 SCORECARD**

## THE DIFFERENTIAL FOR WOMEN IN STEM

Because the Australian superannuation system is linked to paid work, there is a serious and persistent gap between the superannuation savings of not only Australian men and women in the general workforce but a gendered gap in the retirement savings of men and women in the STEM professions.

Women earn substantially less than men both from an industry standpoint but also from an occupational standpoint within industries creating a gap in earnings that directly contributes to the inequality of retirement savings (and wealth) between men and women

The superannuation system also disadvantages women in STEM due to career breaks with women with carer responsibilities moving in and out of paid work, women in STEM working part-time and women being under-represented at senior levels in STEM fields.

The following section of this report outlining the impacts of the pandemic includes a brief overview of the ways in which the pandemic policy response measures impacted the retirement savings of men and women.

# THE IMPACTS OF THE COVID-19 PANDEMIC

*Recovery policies will need to be gender inclusive, to trigger business innovation, confidence and investment and to provide a base for changes at the enterprise level that will create a diverse, resilient and sustainable workforce.*

There is widespread concern about the potential for the pandemic to exacerbate existing gender inequalities with evidence to date suggesting a range of detrimental impacts related to women's employment. It will become clear over the longer-term whether the effects in each of the areas are temporary disruptions that will reverse when the pandemic recedes or whether they involve longer-term structural change.

Recovery policies will need to be gender inclusive, to trigger business innovation, confidence and investment and to provide a base for changes at the enterprise level that will create a diverse, resilient and sustainable workforce.

Ideally, we need measures to address inequalities that have arisen out of the COVID-19 pandemic as well as action to address the persistent factors that contributed to the attrition and under-representation of women in STEM pre-COVID.

External research shows the following impacts.

## JOB LOSSES

Initial data suggested that women were affected by job losses to a greater extent than their male counterparts. This differential arose from the fact that women were represented in higher numbers in the industries worst affected by shutdowns (in STEM, predominantly the Higher education and Health services fields but also Food and accommodation services, Retail, Tourism and Arts and recreation) and were over-represented in more at-risk types of employment such as casual and contract work.

A Grattan Institute report found that women's jobs overall were hit harder than men's during the COVID lockdowns. At the peak in April 2020, almost 8 per cent of Australian women had lost their jobs compared with 4 per cent of men.<sup>26</sup> Australia's Professional, scientific and technical services industry recorded job losses of 5.6 per cent from mid-March to mid-April 2020, with jobs down 6.3 per cent for women compared to 4.8 per cent for men.<sup>27</sup>

## REDUCED CAPACITY TO PARTICIPATE IN PAID WORK

Initial data suggested that labour force participation impact has been greater on women with an extra 2.9 per cent of women out of the labour force compared to an extra 2.1 per cent of men.<sup>28</sup> Increased responsibility for childcare and other unpaid work was a factor in reducing women's capacity to participate in paid work.<sup>29</sup>

## UNDEREMPLOYMENT/LOSS OF HOURS

Figures suggest that in the initial stages of the pandemic, women were impacted more than men in terms of working hours. An Australia Institute report found that at March 2020, women had lost 11.5 per cent of hours worked compared to men who lost 7.5 per cent.<sup>30</sup> A Grattan Institute report found that women's total hours worked were down 12 per cent compared with 7 per cent for men.<sup>31</sup> More recent data suggests that the gender differential in underemployment has narrowed with the gender gap in the underemployment rate narrowing by 17 points in the June quarter of 2020.<sup>32</sup>



## INCREASED LEVELS OF JOB INSECURITY

Lack of job security was part of the pandemic for many. Job insecurity arose from redundancies, the possibility of future redundancies, fixed-term employment contracts not being extended, those in casual roles being laid off and COVID-induced hiring freezes. While a Deloitte report found that all workers are increasingly looking for job and financial security post-COVID, the gender dimension to job insecurity arises out of the higher rate of job losses, greater loss of hours and greater impact on capacity to take on paid work for women.<sup>33</sup>

## INSTITUTIONAL CLOSURES

Those with babies and young children in childcare and with school-aged children were particularly impacted by school and childcare centre closures and restrictions in turn affecting some women's capacity to participate in paid work.<sup>34</sup>

## INCREASED RESPONSIBILITY FOR UNPAID CARER WORK

There is evidence that the lockdowns, restrictions and move to home schooling saw female unpaid work/caring time increase in absolute terms and also relative to that of males.<sup>35</sup>

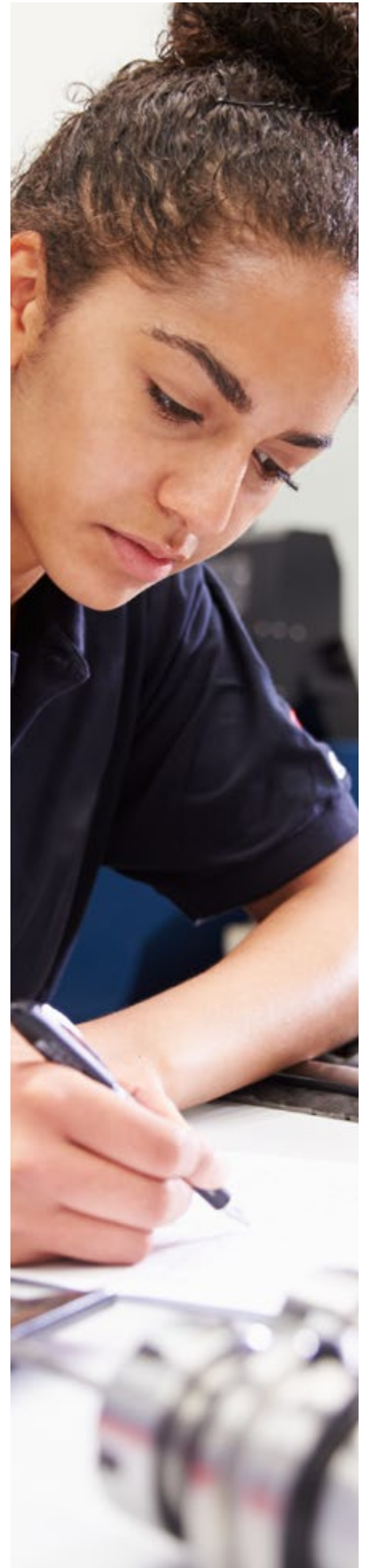
Despite some early indications that the balance of work - paid and unpaid - might have been changing due to the social and economic disruptions caused by COVID-19, including how men and women managed paid work, home-schooling, housework and caring responsibilities for children, older people and other family members. Later research however suggests that the rearrangement of workloads at home are conforming with historic gendered patterns with a greater proportion of these activities being undertaken by women. Provisional results in a study of male/female nuclear families suggests that of the extra six hours additional work generated by the pandemic, four hours were being done by women and two by male partners.<sup>36</sup>

## RESPONSIBILITY FOR HOME SCHOOLING

There is evidence to suggest that home-schooling impacted women to a greater extent than their male counterparts. The WGEA found that women were more likely to "take on education-related responsibilities while children [were] home from school" in response to the pandemic and closure of schools.<sup>37</sup>

## MORE LIMITED ACCESS TO FAMILY SUPPORTS

Parental access to family support and childcare was impacted due to household restrictions and physical/social distancing policies.<sup>38</sup> WGEA's study of the impact of COVID-19 also suggests that the impact of the pandemic on single parents - 80.0 per cent of whom are women<sup>39</sup> - arising from more limited access to family supports particularly impacted their capacity to undertake paid work.<sup>40</sup>



## WORKING FROM HOME

The pandemic has had a significant impact on recognition and acceptance of remote working, in many contexts normalising working from home practices. Working from home is a flexible arrangement that can help both males and females balance their work/life responsibilities.

ABS figures show that at February 2021, the number of Australians working from home remains almost double the pre-COVID 19 figure and that women are more likely want to expand the arrangement,<sup>41</sup> however it should be noted that it is not available to all workers including those in roles that necessitate them working at a specific location such as work involving site visits or laboratory work.<sup>42</sup>

There is a concern that working from home in some circumstances may entrench existing inequality where it is seen as a solution for women with carer responsibilities rather than being part of a broader program to provide flexibility in workplaces for all. There is also some evidence that there is a negative stigma attached to working from home<sup>43</sup> with those working from home seen as less committed or hard-working. This is similar in nature to the stigma attached to those utilising flexible or part-time work to meet carer responsibilities being seen as less professional or less committed to their careers.

## INCREASED WORKLOAD

Increased workload arising from higher levels of interaction online with teams and managing colleagues, implementing COVID-safe practices and plans, the volume of emails needed to complete work and the number and length of virtual meetings characterised work during the pandemic for many.<sup>44</sup> The gender dimension becomes relevant when an increased workload in paid work is accompanied by increased time carrying out unpaid work.

## LACK OF ACCESS TO INFORMAL NETWORKING WITH COLLEAGUES

While informal networking was already difficult for women with carer responsibilities working part-time, it became increasingly difficult during the pandemic with lockdowns and physical/social distancing rules.

## WORK-RELATED TRAVEL

While constraints on travel for those with carer responsibilities can negatively affect development and promotion opportunities for those with carer responsibilities, the pandemic meant that those constraints were imposed across the board rather than just on those unable to travel due to carer responsibilities. The pandemic also demonstrated that online alternatives to face-to-face meetings requiring travel can be effective.

## EXCLUSION OF THE CASUAL WORKFORCE FROM JOBKEEPER

Particular STEM fields can be characterised by short-term contract and casualised work such as short-term teaching staff, university researchers and some health fields – many STEM professionals engaged in these roles were excluded from the JobKeeper support package during the pandemic resulting in job/financial insecurity.

## ACCESS TO TRAINING AND FURTHER EDUCATION OPPORTUNITIES– DISADVANTAGES AND OPPORTUNITIES

One of the most common barriers to career advancement in STEM is that it requires ongoing education, skills development and training – so much of the work is highly- specialised and relies on being up-to-date with new technologies.

Ensuring access to professional development (PD) opportunities for women in STEM will be vital to preventing the pandemic entrenching the differential access to development opportunities that many women working in STEM experienced prior to the pandemic. Interestingly, our survey showed that while lack of access to PD opportunities was an ongoing problem, in some cases the increased availability of online PD further to shutdowns and physical distancing rules actually increased access to training for some women.

## IMPACT ON RETIREMENT SAVINGS AND THE GENDER SUPERANNUATION PAY GAP

As part of its economic policy response to the COVID-19 pandemic, the federal government allowed workers to withdraw up to \$10,000 from their superannuation accounts during the June quarter of 2020 and to withdraw a further \$10,000 during the September quarter of 2020.

According to preliminary data, women have eroded their superannuation balances more than men, a factor that will seriously undermine their retirement savings in the decades ahead. Initial research shows that women were withdrawing 21 per cent of their starting superannuation balances compared to 17 per cent of men. 14 per cent of women had emptied their total super savings compared with 12 per cent of men.

Women already faced a significant disadvantage in the superannuation system due to lower lifetime earnings, more frequent career interruptions and lower superannuation accumulations due to greater participation in casual and part-time work. The Government's policy response of making superannuation savings available for withdrawal will entrench women's greater financial insecurity in retirement over the longer-term.

## HIGH LEVELS OF STRESS AND FATIGUE

All the above factors increased stress levels and fatigue for many professionals working in STEM fields including women.

# PROFESSIONALS AUSTRALIA'S FINDINGS ON THE IMPACT OF THE PANDEMIC ON WOMEN

Professionals Australia surveyed female members and non-member contacts during November 2020 about their experiences working in STEM fields. A special focus was placed on how the pandemic had impacted on their work and well-being.

When asked about the most significant changes to work arising from the pandemic, respondents reported an increase in weekly hours worked (42.6 per cent), an increase in workload (52.4 per cent) and an increase in the work-related expenses they were covering (20.5 per cent).

The most significant impacts reported by respondents were the replacement of face-to-face meetings with online meetings (64.0 per cent), working from home (61.8 per cent) and increased stress and anxiety levels (46.1 per cent).

The responses are summarised in Figures 1 and 2.

FIGURE 1 - CHANGES TO WORK DURING THE PANDEMIC

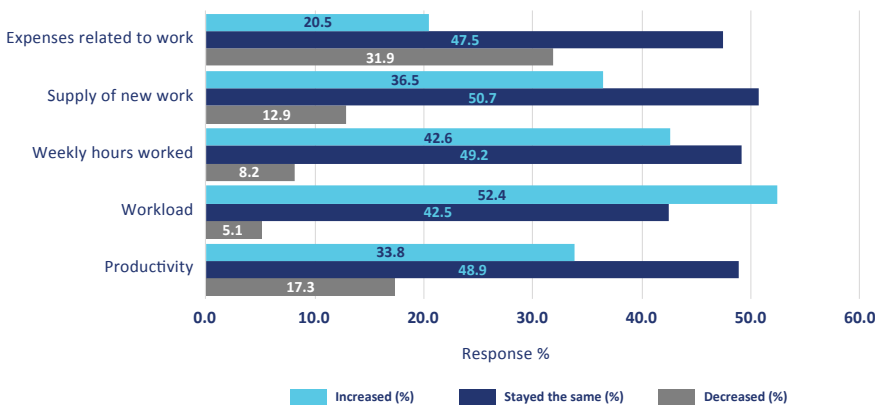
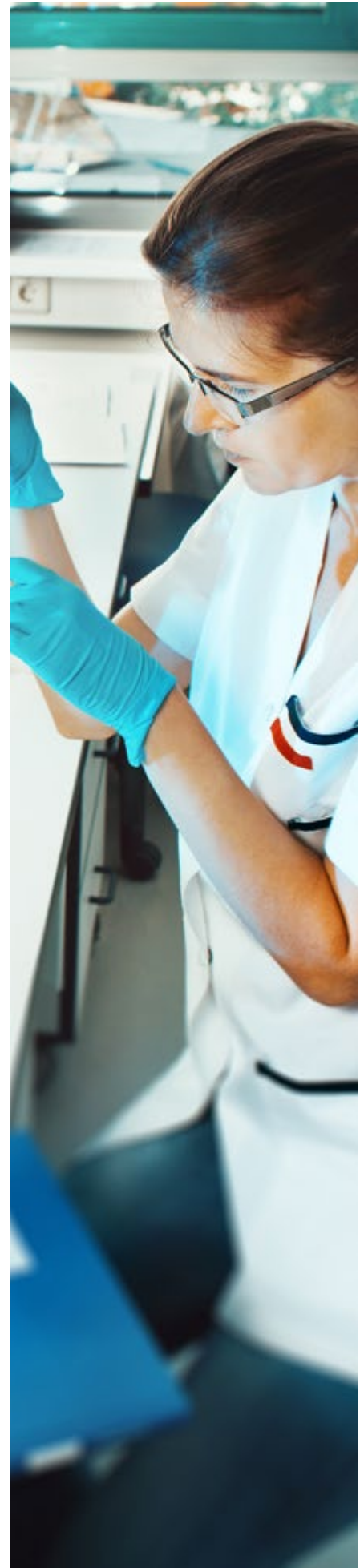
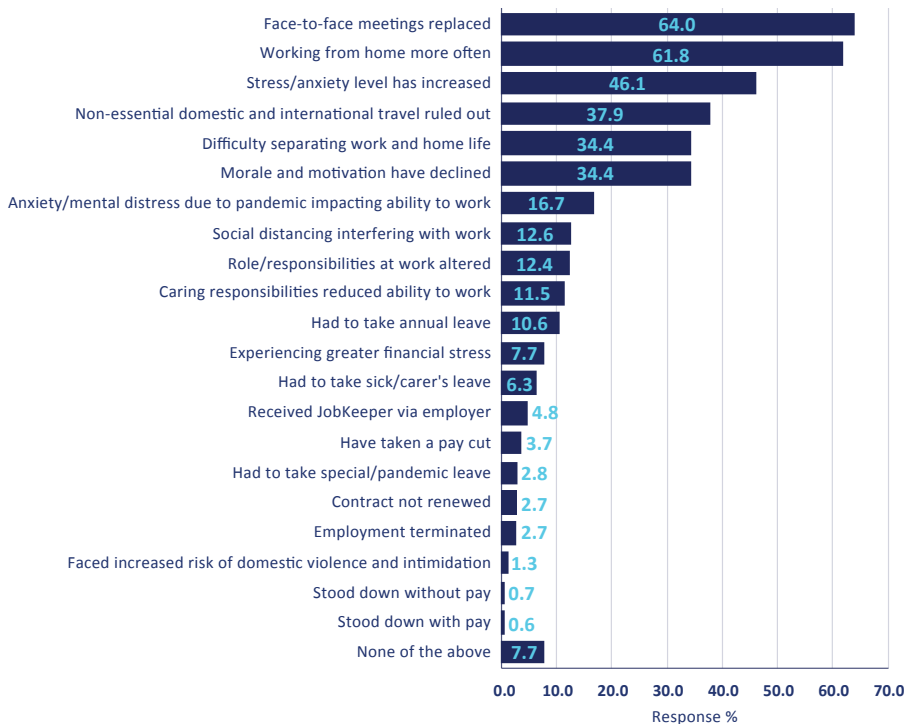


FIGURE 2 - IMPACTS OF THE COVID-19 PANDEMIC







# PART 2 - CONTRIBUTORY FACTORS IN THE WORKPLACE

*The second part of this report sets out the findings from our survey on the complex and interrelated systemic and structural factors that contribute to the under-representation of women in senior STEM roles, the over-representation of women in roles of lower status and responsibility level, the attrition of women from STEM fields and the gender pay gap in earnings and retirement savings.*

We have included a selection of qualitative data alongside quantitative data from the survey to illustrate women's actual experiences in their workplaces.

## LACK OF EQUAL PAY

Lack of equal pay arises from a range of factors including different pay levels for those in like-for-like roles, career path choices arising from stereotyping or essentialist myths about women and men's suitability for different types of work, the under-valuing of work in female-dominated fields and professions and occupational segregation.

Equal pay was nominated by Women in STEM Survey respondents as the highest priority for government and industry to address with 37.1 per cent of respondents saying they did not believe they received equal compensation for work of equal value.

### COMMENTS

- I would just like to be valued for my hard work, not to have to work so hard to prove myself equal to my equally-competent male or older counterparts, and to have some genuine support and leadership from my manager about managing work, getting recognition and being valued for my work, without others being threatened, taking credit for my work or actively undermining me because of their own insecurities.*
- It was identified in a yearly review that I was being paid less than my less experienced male counterpart. Even after presenting a case that included all the work I did above and beyond my role that the male didn't do, I was not deemed worthy of receiving equal pay.*
- I became privy to pay scales for same team and as the only female I am paid roughly \$30K less than my male counterparts.*
- HR offered a higher package to a male graduate than the female graduate of same level and experience because they perceived he 'sounded better'.*

*I would just like to be valued for my hard work, not to have to work so hard to prove myself equal to my equally-competent male or older counterparts, and to have some genuine support and leadership from my manager about managing work, getting recognition and being valued for my work, without others being threatened, taking credit for my work or actively undermining me because of their own insecurities.*

SURVEY RESPONDENT





## THE UNDER-REPRESENTATION OF WOMEN IN SENIOR, MANAGEMENT AND LEADERSHIP ROLES

The lack of role models, lack of presence or visibility of women in senior roles, lack of access to senior roles for women, lack of access to flexible or part-time work for women at senior levels and workplace cultures that link availability to work long hours with competency and seniority were reported by many respondents as detrimentally impacting their career advancement into senior, management and leadership roles.

Survey respondents also reported being demoted on their return to work from parental leave as a way of accommodating their carer responsibilities - an example of the sometimes blunt systemic bias against the advancement of women with carer responsibilities. Survey responses showed that women can also self-select out of senior, management or leadership roles as a way of balancing their work and family commitments.

These factors operate to reinforce gendered historic work and pay patterns whereby females are concentrated in lower-paid roles with less responsibility working part-time, and males in full-time senior roles with greater responsibility and higher pay.

*There are very few women in technical roles let alone senior technical roles.*

SURVEY RESPONDENT

*Promotions are often made via tap on the shoulder for those in the boys' club. Those working part-time are discouraged from applying for senior roles. As a result, women are not represented in higher roles in the organisation.*

SURVEY RESPONDENT



*Before I told him I was pregnant he offered me a promotion, which turned into a demotion when I took maternity leave and returned at 3 days a week when baby was 6 months old.*

SURVEY RESPONDENT

*The lack of senior women as well as women in general has made it difficult to see how it is possible to advance career as well as manage family life. It also creates raised eyebrows at “special” working arrangements (i.e. part-time or flexible work arrangements). Such arrangements are career-limiting and seen by others as “slacking off” or not being interested in your career.*

SURVEY RESPONDENT

63.0 per cent said there were fewer female than male STEM professionals in senior management roles in their workplace.

59.2 per cent of respondents said that the lack of role models had significantly or moderately impeded their career advancement.

61.0 per cent said the lack of women in senior roles had negatively impacted their progress.

## COMMENTS

- *Promotions are often made via tap on the shoulder for those in the boys’ club. Those working part-time are discouraged from applying for senior roles. As a result, women are not represented in higher roles in the organisation.*
- *I worked for a corporatised government enterprise with flexible working arrangements available within limits that I wanted to exceed. They were not willing to be more flexible largely due to the level and responsibility I held in my role.*
- *Before I told him I was pregnant he offered me a promotion, which turned into a demotion when I took maternity leave and returned at 3 days a week when baby was 6 months old.*
- *When I returned from my first maternity leave to a position in a consulting company, I asked to work part-time. I was told if I was good enough to work for this company, I was good enough to work full-time.*
- *The unwillingness to offer good roles in a 0.8 fraction significantly impacted my career progression as someone with caring responsibilities.*
- *A senior position requires working full-time and often more than full-time. This is impossible with small children.*
- *Because I have chosen to work part-time to balance life and work all senior job opportunities are unavailable.*
- *I probably didn’t push for promotion as I felt fortunate to have a part-time, flexible position.*
- *The lack of senior women as well as women in general has made it difficult to see how it is possible to advance career as well as manage family life. It also creates raised eyebrows at “special” working arrangements (i.e. part-time or flexible work arrangements). Such arrangements are career-limiting and seen by others as “slacking off” or not being interested in your career.*
- *Business is not supportive of flexible workplace arrangements to accommodate working mothers especially in senior roles.*
- *There are very few women in technical roles let alone senior technical roles.*

## OCCUPATIONAL SEGREGATION

Occupational segregation is a key issue for women in STEM because it shows how systemic biases can create differential labour participation patterns for males and females and how these patterns can operate to disadvantage women in the STEM workforce. It is a key factor in the STEM gender pay gap.

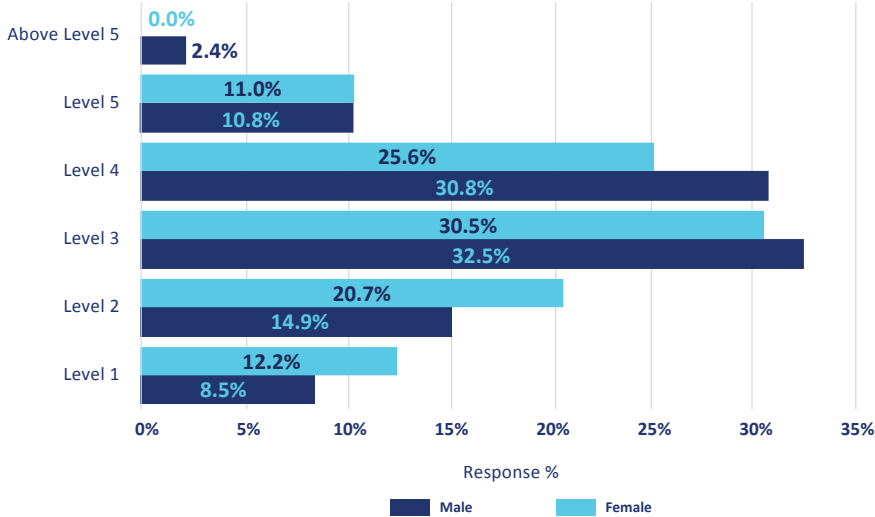
36.8 per cent in the Women in STEM survey said there was a concentration of female STEM professionals in roles of less responsibility in their workplace.

43.8 per cent said there were more female than male STEM professionals in lower paid roles or sections in their workplace.

## ENGINEERING

The 2020/21 Professional Engineers Employment and Remuneration Report<sup>45</sup> found that male respondents were more likely to be employed at higher levels of responsibility, and females more likely to be employed at less senior responsibility levels. 63.4 per cent of female respondents were employed at Level 3 or below, and only 36.6 per cent were employed at Level 4 or above. By comparison, 56.0 per cent of males were employed at Level 3 or below, while 44.0 per cent were employed at Level 4 and above.

FIGURE 3 - GENDER-BASED WORKFORCE DISTRIBUTION ACROSS RESPONSIBILITY LEVELS (%) - ENGINEERING

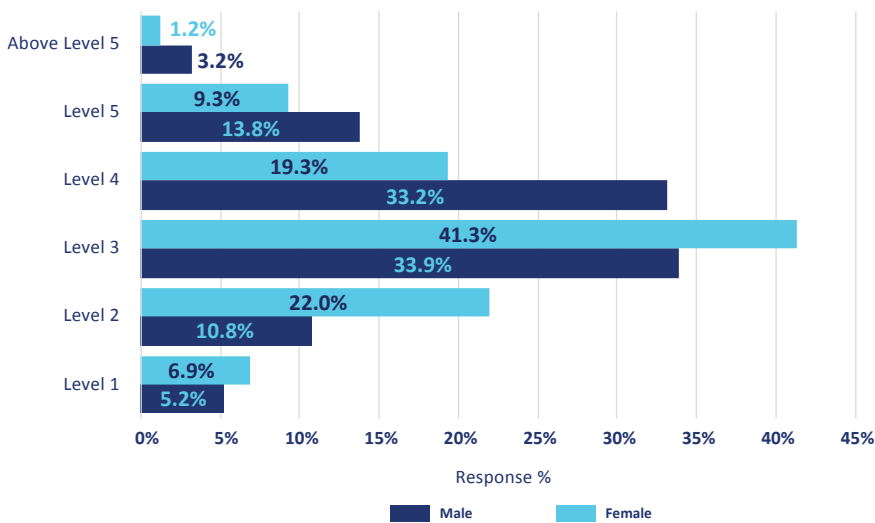


Source: 2020-21 Professional Engineers Employment and Remuneration Report

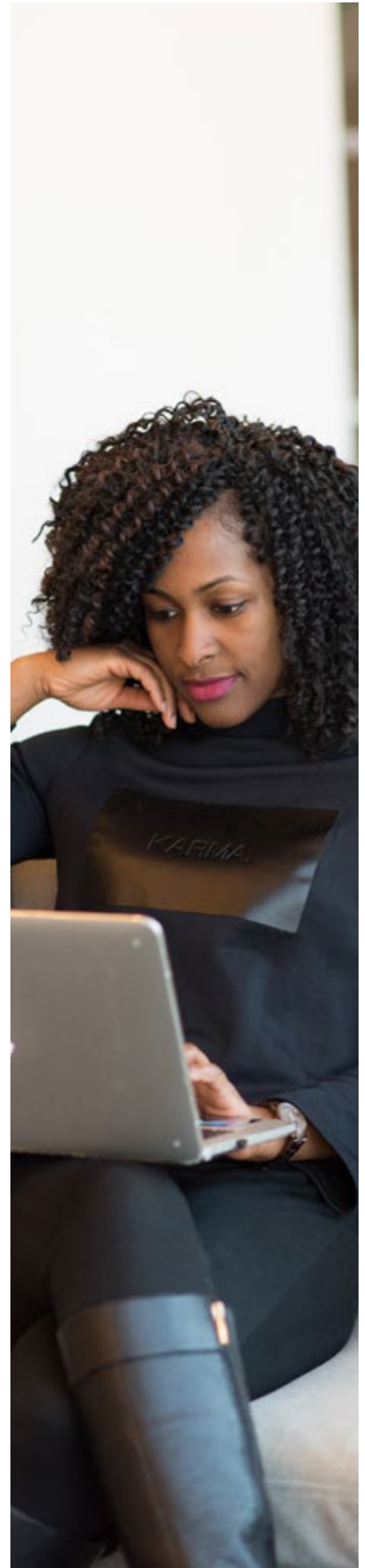
## SCIENCE

Women scientists who completed the 2020/21 Professional Scientists Australia Employment and Remuneration Survey<sup>46</sup> were at Levels 1 to 3 in greater proportions than men who completed the survey, and in comparatively lower proportions at Levels 4 to above Level 5. This suggests women are over-represented at Levels 1, 2 and 3, and under-represented at Levels 4, 5 and beyond.

FIGURE 4 - GENDER-BASED WORKFORCE DISTRIBUTION ACROSS RESPONSIBILITY LEVELS (%) - SCIENCE



Source: 2020-21 Professional Scientists Employment and Remuneration Report



*Not having role models was a big constraint that I only recognise now looking back at a ~30 year career. Not only do women have the same technical challenges as men throughout their career, but to do it without a female role model is difficult. I had nobody that could demonstrate how to deal with subtle prejudice, how I might achieve a work life balance when children arrived and how diversity of thought/action/behaviour when compared to men is OK.*

SURVEY RESPONDENT

## LACK OF ACCESS TO ROLE MODELS

Survey respondents noted that a lack of role models and the lack of technical women both in the workplace and in senior roles were issues that impacted their career advancement. Respondents also noted that women in senior roles were not necessarily always positive role models and that in male-dominated workplaces and professions, career support and advancement for women could often depend on positive male role models.

59.1 per cent of respondents said a lack of role models was a significant or moderate obstacle to their career advancement.

44.2 per cent said a lack of other women in the workplace was an obstacle to their career advancement.

60.1 per cent said a lack of women in senior roles was an obstacle to their career advancement.

59.7 per cent said women within their occupation supported and inspired each other to participate and progress.

37.0 per cent said men within their occupation supported and inspired each other to participate and progress.

## COMMENTS ON ROLE MODELS

- *My degree was only 3 years back in 1991. I wish there were more role models to encourage further study and help to set career objectives, rather than fully self-directed learning and career aspirations or lack thereof.*
- *When I was a student there were no female lecturers in my discipline. I did not have any role models and therefore did not know if I, as a female, could become a successful uni lecturer let alone a professor.*
- *I am about to move into a CEO role in the coming years and I am finding role models and support for this difficult as a woman in the sector.*
- *Whilst there were several women in key senior roles (CEO, research supervisors), these women were terrible role models as they were of the opinion that work should come above all else and discriminated against people who valued their family life as much as their job.*
- *Having no senior women as role models and mentors make it harder to map out a career path and gain the networks required for advancement.*
- *There are plenty of role models who do not need to be females just because I am a female.*
- *There are few role models to share experiences with and be supported by.*
- *Not having role models was a big constraint that I only recognise now looking back at a ~30 year career. Not only do women have the same technical challenges as men throughout their career, but to do it without a female role model is difficult. I had nobody that could demonstrate how to deal with subtle prejudice, how I might achieve a work life balance when children arrive and how diversity of thought/action/behaviour when compared to men is OK.*



## BEING THE ONLY WOMAN

Many respondents noted that the absence of any other women in the technical area in which they worked or at meetings at their level was a feature of their working lives.

### COMMENTS ON BEING THE ONLY WOMAN

- *Nothing has changed . It has been 20 + years. Often I go to meetings and I am the only woman there. It can be very intimidating to be the only female in a meeting of 50+.*
- *After 30 years of being a professional, I still feel more comfortable and find it easier to speak in a meeting if there is at least one other women.*
- *Mostly it's just lack of women co-workers, mentors and aspirational role models.*
- *I feel there are significant opportunities for me to advance within a technical career, however there are often few or no other women in these senior technical roles.*
- *[Re sexual harassment] it was difficult to resolve the issue as there were no other females to talk to and I was new to the team so didn't feel comfortable speaking to my male manager or male HR staff.*
- *The last few years have seen more women moving into senior roles, and it's great to see; however the senior technical and engineering roles are definitely predominantly filled by men.*
- *I did not think about it at the time, but there were no women in senior engineering roles in the late 80s through to the 90s.*
- *Most of the time I am the only female software engineer.*
- *The lack of other women in senior engineering roles meant that I have not have the career I would have had, were I a man.*
- *There has been significant unconscious bias within my organisation - especially in male-dominated engineering teams. There are no senior women role models that are engineers.*
- *Although I work 4 days, I'm the only part-timer in my company of all men (only other females are admin staff).*
- *I was one of only a handful of women and all the others were in administrative roles.*
- *In my early career I was always the first woman in a role or the only woman. It was significantly harder in the early nineties and 2000s to advance in my career.*
- *In nearly all my roles in the last 20 years most have had very few women in top positions. In most roles I have been one of the only women in the team. No role models or guidance yet encouraged to be a role model for junior women myself.*





## CULTURE OF LONG HOURS

A culture of long hours, recruiting and promoting from a pool of professionals that are available to do long hours and the conflation of a lack of professionalism or commitment with leaving work on time creates significant disadvantage for women with carer responsibilities. They are examples of workplace practices that create a culture which puts a handbrake on the advancement into senior roles of women with carer responsibilities.

34.6 per cent of respondents said they were seen as less professional because they could not work long hours.

### COMMENTS – CULTURE OF LONG HOURS

- *Personally I have no desire to work excessive hours or receive after hours emergency calls. The culture of having to work long hours to get the job done does not assist in balancing work life and as a result you are seen as “slack” or “not committed” to job.*
- *I have worked in organisations or divisions that are 95% male. Men were given more opportunities than women and rewarded for behaviours e.g. long hours that women with caring responsibilities cannot possibly replicate.*
- *The culture of having to work long hours to get the job done does not assist in balancing work life and as a result you are seen as “slack” or “not committed”.*
- *[We have} a culture that expects full-time “in the office” presence and lack of flexibility or willingness to “trial” arrangements to demonstrate they work or adjust to correct.*

## STEM CAPABILITY AT LEADERSHIP AND MANAGEMENT LEVELS

An effective, sustainable STEM workforce will rely on the maintenance of STEM capability at management/decision-maker levels. Decision-making in STEM-related fields requires a balance of financial, strategic and technical skills - qualified, experienced, trained STEM professionals can provide this expertise.

A number of respondents commented that a strong STEM capability at management level was lacking as well as an absence of women in these technical management roles. Respondents highlighted the need to maintain STEM capability at leadership and management levels and to ensure women are represented at those levels.

### COMMENTS

- *Moving up the ladder is extremely difficult in the public service given the lack of acknowledgement for the need for technical management. Engineering roles need engineering managers with expertise in a given area. They also need career opportunities. None of this is available in the public service. Instead we have non-technical managers who do not understand the work, the importance of it or what liability exists with poor decision-making for the agency.*
- *There are no technical managerial roles in state government. Leaders do not understand subject matter they are responsible for. In addition, these leaders are chosen for their lack of technical expertise. There are poor, uninformed decisions being made across the different sectors which are a public safety risk. There is no single direct line of responsibility for each of the disciplines and confusion re responsibilities. Being informed doesn't get our experts a role in management.*
- *I am concerned that my organisation is slowly getting rid of technical roles especially engineering roles.*
- *[My workplace] has no females in technical areas that are in management or director level roles, there have been numerous women who have sought out opportunities in leadership elsewhere after being passed over for these roles, there is therefore no precedents or understanding of changes that might accommodate women with families in these roles and the cycle continues...*





*In my organisation, there is no such thing as a part-time manager. I have been a “software engineer” with my current employer for 11 years and they won’t even consider promoting me to “senior software engineer”.*

SURVEY RESPONDENT

*When I asked to go part-time, I was told “we can’t have part-time project managers”.*

SURVEY RESPONDENT

*The company I work for, whilst allowing me flexible working arrangements, will not allow team leaders to work flexibly.*

SURVEY RESPONDENT

## OVER-REPRESENTATION OF WOMEN PROFESSIONALS IN ROLES WITH LESS RESPONSIBILITY AND STATUS

The under-representation of women in senior, management and leadership roles in STEM and the over-representation of women STEM professionals in roles with less responsibility and status are in many ways just different sides of the same coin. Both involve systemic and structural practices that entrench enduring disadvantage for women and reinforce gender role segregation and the gender pay gap.

### WOMEN IN LESS SENIOR FIELDS AND ROLES ON THE BASIS OF THEIR PART-TIME HOURS AND CARER STATUS

The concentration of women who work part-time in less senior roles and the underutilisation of the skills of those opting for part-time work or accessing flexible work arrangements were significant issues for respondents to the Women in STEM Survey. Many commented that part-time or flexible work arrangements were only available in lower-paid less senior roles.

56.0 per cent of respondents said that professional women in their workplace often took up less challenging work roles so they could accommodate family/carer responsibilities.

45.5 per cent said underemployment - defined as engagement in roles which underutilise their professional skills and judgement - was a problem in their workplace.

### COMMENTS

- *I would like more workplace flexibility to work from home regularly without having to take a pay cut to do so.*
- *There is a complete lack of flexible working arrangements – it’s work full-time or no job at all in consultancy and mining. At 15 years’ experience I should be an associate or principal but I’m struggling to get a senior role.*
- *I work in a sector where the majority of the workforce is female (about 60%) but senior and leadership roles are still predominantly male (about 90%).*
- *The company I work for, whilst allowing me flexible working arrangements, will not allow team leaders to work flexibly.*
- *When I asked to go part-time, I was told “we can’t have part-time project managers”.*
- *[The impact of working part-time is] being relegated to handle all the left-over projects as full-time staff get first pick of the projects and being told I am not suitable for client-facing roles because I am not available 24/7.*
- *Working part-time was a choice I made, and I am grateful for the flexibility it affords. However, it makes progression to leadership roles much more difficult.*
- *Workplaces understand and accommodate flexibility, however it seems to be a trade-off between flexibility and project opportunities and career development.*
- *In my organisation, there is no such thing as a part-time manager. I have been a “software engineer” with my current employer for 11 years and they won’t even consider promoting me to “senior software engineer”.*

## WOMEN IN LESS SENIOR FIELDS AND ROLES ON THE BASIS OF POSSIBLE FUTURE CARER RESPONSIBILITIES

Respondents also reported possible future part-time status and/or carer responsibilities as the basis for being refused a role or assigned to a role of lower status or responsibility level.

14.8 per cent of respondents said they had been discriminated against on the basis of pregnancy.

### COMMENTS

- *I was told by a client that I would not be a good fit for a technical role on a project because "I might get pregnant and leave mid-project" My (male) boss handled the matter very capably and supportively and insisted on me taking on the role as a condition of the company's involvement.*
- *I was told someone in a meeting had suggested I should not be part of a succession plan because I "might get pregnant". I was over 50 years old at the time! While my supervisor reportedly told this person it was not a relevant consideration, it makes me think this kind of discrimination must happen a lot.*
- *I was asked about my family plans at a job interview.*



*I started in a testing role on a project that had not commenced... All females were testers in the group – I was appointed to a testing role despite being a proficient software developer, and not desiring to be a tester.*

SURVEY RESPONDENT

*My male manager at the time queried why I would want to get my hands dirty on such a course.*

SURVEY RESPONDENT

## WOMEN IN LESS SENIOR FIELDS AND ROLES FOR OTHER REASONS

Women being channelled into less senior fields and roles for reasons other than their employment and carer status was also widely reported by respondents.

While part-time status and/or carer responsibilities was the basis for many women being assigned to roles of lower status and responsibility level, it should be noted that failure to promote and women's over-representation in roles of lower status and responsibility level also arose from stereotypes, biases or essentialist myths about the types of work more appropriately undertaken by women.

### COMMENTS

- *I began as graduate in same role, at the same company, in the same group as my husband (we were in a relationship prior to employment). I graduated with highest honour degree and grades also higher than husbands and one of top for year. Despite same role at work, he began as a software developer on a project, and I started in a testing role on a project that had not commenced ... All females were testers in the group, despite being a proficient software developer, and not desiring to be a tester. Also had more work experience (than husband) as well as University tutor prior to graduate role.*
- *I was often left out of technical tasks in group projects during my education, often delegated "soft" tasks (i.e. writing documentation) by male group members, or expected to fill these roles in addition to contributing in a technical capacity. This led to some underdeveloped technical project skills in group settings.*
- *Career-wise, I am a graduate engineer but I am older and feel like there is a glass ceiling even entering the industry. I am trying to get drafting jobs. I feel a bit intimidated.*
- *Very early before I graduated I did work experience and my boss told others he would not waste time on me because I was a girl.*
- *Early in my career I had a review meeting with the Engineering Manager during which I told him I needed more site experience, and he replied "you don't want to become a site-jock love". In that same company, all the male graduates were given site placements before any of the female grads.*
- *My previous boss is open to hiring women but does not appear to be willing to place them in leadership roles and referred to me as over-eager in applying for a promotion after 3 years when he himself was promoted into his current role after 8 months. There is a double standard.*
- *My male manager at the time queried why I would want to get my hands dirty on such a course.*



# ATTRITION OF WOMEN FROM THE STEM PROFESSIONS

Encouraging greater numbers of women and girls to take on STEM subjects at school and driving greater participation is absolutely critical to developing a sustainable STEM workforce and building capacity for the future, but numerical equality is not a solution in itself - the second half of the equation is addressing the reasons women leave the STEM workforce once they get there.

Women are generally under-represented in STEM fields and attrition at mid-career stage means that the sector is losing valuable female talent off an already low base. The global pandemic has created a further “push” factor that is likely to contribute to a greater number of women leaving STEM.

The greater our understanding of the multiple and complex factors that contribute to women considering leaving their profession and the impacts of women leaving STEM, the better placed we are to take an evidence-based approach to addressing the “leaky pipeline” and to developing strategies, policy settings and effective intervention measures that will ensure employers have access to the broadest pool of high-quality STEM talent. To that end, our survey looked at factors contributing to women considering leaving the profession and the costs to an organisation when women leave a STEM workplace.

33.9 per cent of women surveyed expected to have left their profession within five years. The figure was slightly lower in the public sector (29.7 per cent) than for the private sector (34.7 per cent).

34.3 per cent of the female STEM workforce surveyed aged between 25 and 35 intended to leave their profession within five years.

## ATTRITION BY AGE AND SECTOR

As shown in Figure 5, over one-third (34.3%) of the female STEM workforce surveyed who were aged 25 to 35 intended to leave their profession within five years. As set out in Figure 6, 33.9 per cent of women surveyed expected to have left their profession within five years – 6.1 per cent within one year, 15.9 per cent in one to less than three years and 11.9 per cent in three to less than five years. The figure was slightly lower in the public sector (29.7 per cent) than for the private sector (34.7 per cent).

This attrition is a factor that contributes significantly to the under-representation of women in STEM overall, to the under-representation of women in senior roles and is a critical factor in the gender pay gap in earnings and retirement savings. In terms of sustainability of the STEM workforce, it is a serious problem that must be addressed.

*I have given up fighting the good fight and as a result in the next 3 years I will be leaving the engineering profession permanently.*

SURVEY RESPONDENT

*The inability of executive male managers to allow female engineering project managers to have flexible work arrangements with children under school age has consequences. There are literally no women left.*

SURVEY RESPONDENT



FIGURE 5 - TIME EXPECTED TO REMAIN IN CURRENT PROFESSION BY AGE (%)

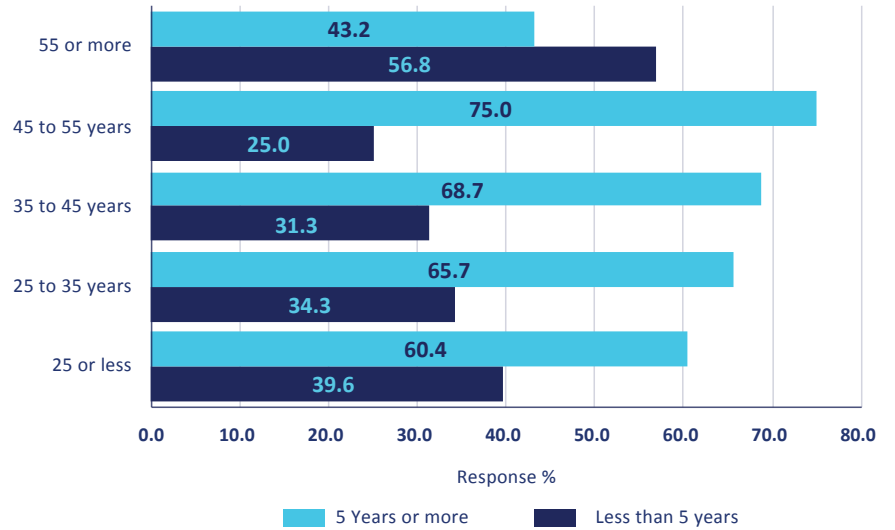
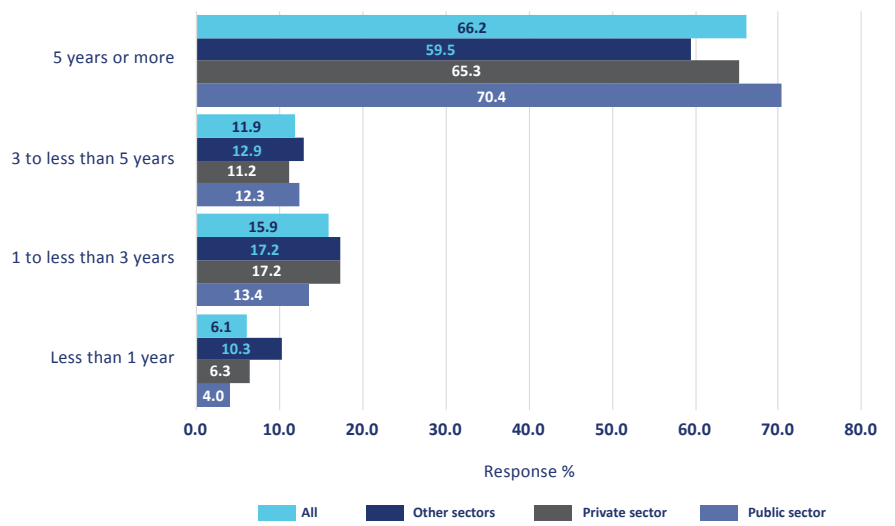


FIGURE 6 - TIME EXPECTED TO REMAIN IN CURRENT PROFESSION BY SECTOR (%)



## REASONS FOR LEAVING PROFESSION

Dissatisfaction and frustration with a range of workplace practices including lack of career advancement, pay and conditions, lack of professional recognition and lack of opportunity to gain experience or undertake increased challenges were factors contributing to women considering leaving their profession for women both with and without children.

Of those who expected to leave their profession in the next five years, the top six reasons overall were:

- for better pay and conditions - selected by 28.0 per cent of respondents;
- lack of career advancement - selected by 27.6 per cent of all respondents;
- for better work/life balance - selected by 25.7 per cent of respondents;
- for increased challenges - selected by 19.9 per cent of respondents;
- for a change or to gain experience - selected by 19.2 per cent of respondents; and
- for greater professional recognition or status - selected by 12.6 per cent of respondents.<sup>47</sup>

## CAREGIVER RESPONSIBILITIES AS A FACTOR IN WOMEN LEAVING STEM

The top six factors contributing to women considering leaving their profession were the same for women with and without children though the extent to which they were a factor varied. Better pay and conditions was the top factor contributing to women without children intending to leave the profession; seeking increased challenges came second. Lack of career advancement was the top factor contributing to women with children intending to leave the profession, followed by workplace, occupation or industry culture.

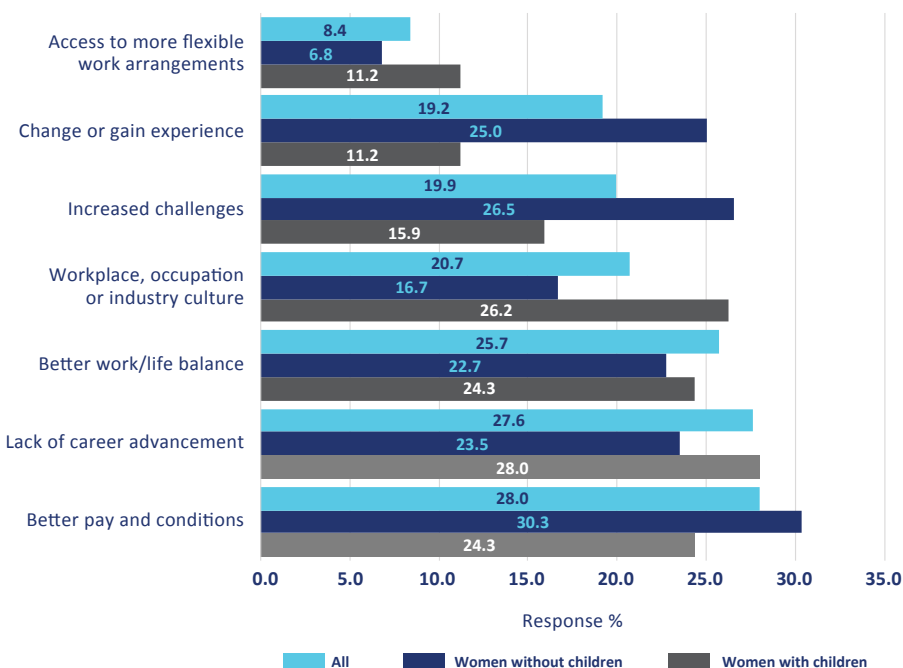
While it was not one of the top reasons for leaving the profession, access to more flexible work arrangements was a factor of greater importance for women with children than for those without children.

These findings are significant because quite clearly a range of factors beyond work/life balance and access to flexible work arrangements are contributing to women considering leaving the profession. The importance of seeking greater challenges and career advancement are key factors for women both with and without children and the lack of either or both were key contributors to women considering leaving the STEM professions.

*I was once asked by a male professor if I could participate in a paper that he was invited to write. I ended up contributing more to the paper than the other men who were listed prior to me. There are multiple occasions where male scientists have been invited to lead projects and papers or have received funds that I could have done myself if I had the same level of recognition. I am beginning to feel like I can see why women leave at mid-career and it is not related to children.*

SURVEY RESPONDENT

FIGURE 7 - FACTORS INFLUENCING EXPECTATION TO LEAVE PROFESSION FOR WOMEN WITH AND WITHOUT CHILDREN (%)





## LACK OF ACCESS TO CHILDCARE

Respondents reported that lack of access to childcare was a significant barrier to making their working lives sustainable and balancing work and carer responsibilities. They commented on the cost of childcare especially when they were working part-time or casual hours, difficulty finding childcare at non-standard times, for example when they were required to work late, the lack of availability of places and the importance of childcare as a participation enabler particularly for single parents and those without other family supports.

Childcare that is affordable and accessible to all parents via direct subsidies to childcare centres and making more places available in the cities and in regional centres would support an increase in female workforce participation and with that, narrow the gender pay gap, contribute to women's lifelong economic security and make a positive impact on the Australian economy - a 4 per cent increase in the participation rate of women over the next decade would add \$25 billion dollars to the Australian economy.<sup>48</sup>

Access to high-quality affordable childcare was nominated as a top priority for Government by 22.0 per cent of respondents.

4.1 per cent of respondents said they were unable to access quality childcare when needed before the pandemic.

### COMMENTS

- *Childcare costs were the number one barrier.*
- *Lack of childcare caused me to have to give up a permanent position. I have been casual ever since. Now I have an ageing parent to care for.*
- *Unfortunately the length of hours and pay scale in Community Pharmacy makes it financially difficult to afford childcare and maintain work commitments*
- *Financial assistance for childcare: working as a casual barely covered the cost of childcare, but I needed to work in my field to stay current.*
- *I had no family support or childcare arrangements - I basically had to choose between my job, my husband's job and my children.*
- *[The Government should] significantly subsidise childcare such that it makes more sense for both partners to be gainfully employed (rather than the women typically stepping out of their industry to become primary carer due to wage disparity).*
- *Men in similar positions to me generally have partners who take on the bulk of the household/ childcare work and therefore advance quicker.*
- *The primary issue has always been access to child care.*
- *The difficulty and hours of childcare meant that often I couldn't attend training etc.*
- *The main factor affecting my career was lack of suitable childcare arrangements as I'm in a single parent situation and have carer commitments.*

### COVID-19

The extreme conditions of the COVID-19 crisis saw the government offer free childcare for a period of around three months, with this scheme ending on 12 July 2020.

Respondents noted positive and negative effects of the pandemic on their working lives in relation to childcare.

### COMMENTS

- *The COVID-19 pandemic was awesome for my career. Working from home allowed me to work at a time that suited me and I could finally put the time into my career that I always wanted to, but couldn't because of limited childcare opening hours.*
- *Most challenging was I was unable to get childcare because it was all booked out, so had to work with my child at home.*
- *During shutdown having both kids home and my husband and I both working from home was a big challenge*

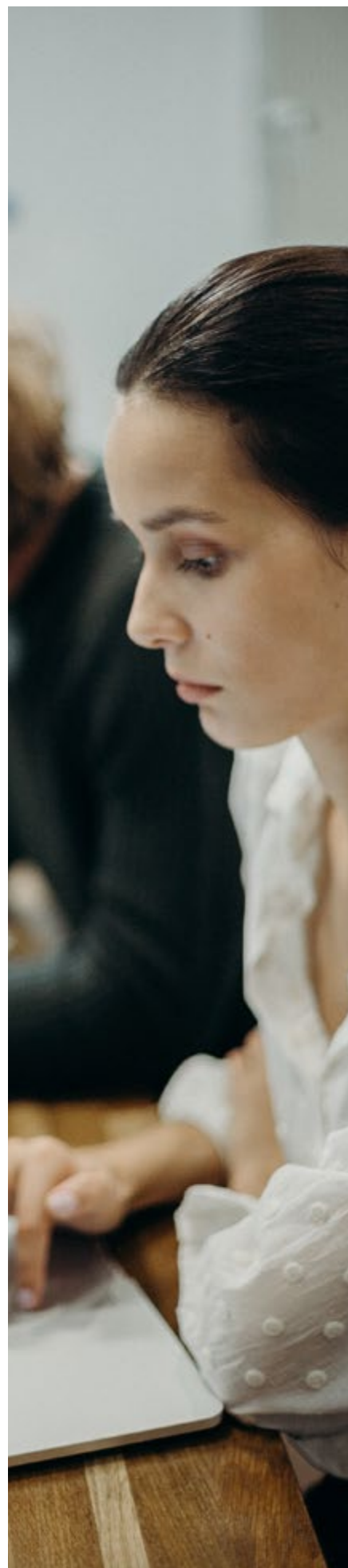


## LACK OF JOB SECURITY

Lack of job security was a factor for 22.0 per cent of respondents considering leaving their employer and for 18.4 per cent of those considering leaving the profession. 4.8 per cent of respondents received JobKeeper payments as a result of the pandemic. Comments from the survey suggested that finding work and job insecurity were significant issues for respondents, particularly in the post-COVID environment.

### COMMENTS

- *I'm grateful that I'm still employed as many have lost their jobs but workload has increased/changed.*
- *I applied for a job and I was advised that they wanted to hire me, but that the COVID-induced hiring freeze prevented it (they said they'd get back to me next January - for a job I applied for last March!)*
- *I was made redundant, so am in a career shift.*
- *My contract may not be extended.*
- *Was due for contract renegotiation of a completely new position with a global company in July. Due to COVID hiring freezes, the contract was simply not renewed. Spent 6 weeks unemployed before being offered a temporary project role.*
- *All contract reviews, promotions, salary increases have been significantly delayed.*
- *Anxiety around job security has made me work more.*
- *The pandemic will impact my chances of being able to find work and compete with others unemployed who are looking for work. I am above 35 (and have been out of the work force for 3 years) and have no references so my prospects of finding a suitable job are low in this current climate.*
- *I graduated at the end of 2019 with a job. That job was terminated before I started. It took me 10 months to find alternative employment in STEM.*
- *I was once asked by a male professor if I could participate in a paper that he was invited to write. I ended up contributing more to the paper than the other men who were listed prior to me. There are multiple occasions where male scientists have been invited to lead projects and papers or have received funds that I could have done myself if I had the same level of recognition. I am beginning to feel like I can see why women leave at mid-career and it is not related to children.*



*The difficulty and hours of childcare meant that often I couldn't attend training etc. If the training finished at 5pm, it was hard to get to pick up by 6pm.*

SURVEY RESPONDENT

*Thanks to COVID, more webinars are online and during the day, and this enables me to attend. Even if the webinars are on when I am at home, I can be preparing dinner and listening in.*

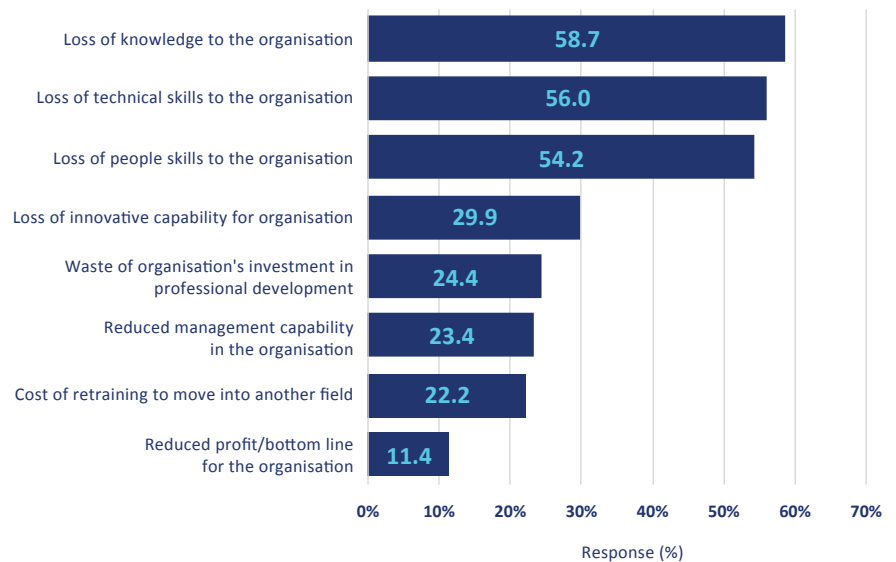
SURVEY RESPONDENT

## IMPACT ON ORGANISATION

While women leaving the STEM workforce is in general terms widely accepted as a waste of talent, the survey asked respondents to identify the particular types of loss to their organisation were they to leave their current employer.

Respondents selected loss of knowledge, loss of people skills and loss of technical skills to the organisation as the top three costs to their employer if they chose to leave. The results were ranked as set out in Figure 8 below.

FIGURE 8 - OUTCOMES EXPECTED WHEN FEMALE STEM PROFESSIONALS LEAVE EMPLOYER



Note: Respondents could nominate more than one option.



# BIAS IN CAREER-BUILDING ACTIVITIES

While research shows that women are no less committed to their careers than men, that women are just as likely to have a career plan as men and that women are just as eager to attain seniority as men,<sup>49</sup> bias in career-building activities was reported as widespread by survey respondents.

## LACK OF ENCOURAGEMENT TO APPLY FOR PROMOTION

Of those who had been promoted in the previous 12 months, only half were actively encouraged by their manager to apply for promotion.

17.9 per cent of survey respondents said their employer was rarely or never proactive in ensuring that men and women had equal opportunity to career advancement.

FIGURE 9 - PERCENTAGE OF RESPONDENTS ENCOURAGED/NOT ENCOURAGED TO APPLY FOR PROMOTION (%)

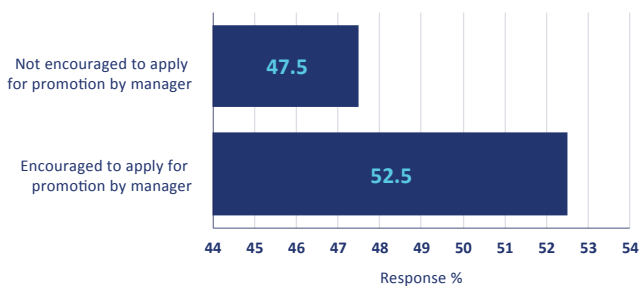
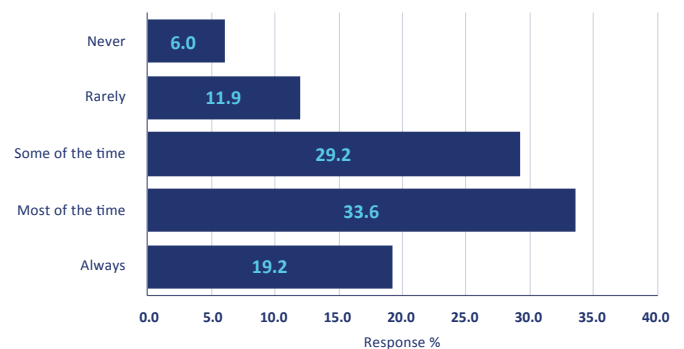
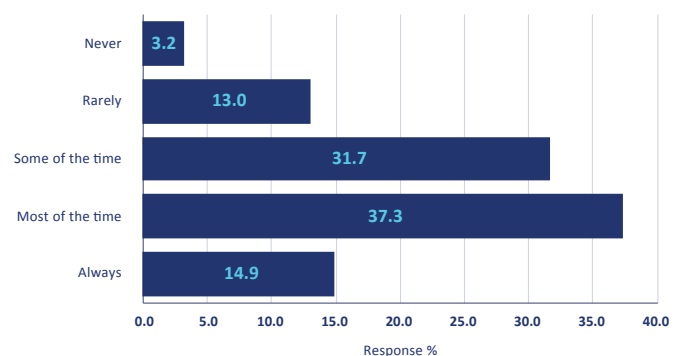


FIGURE 10 - HOW OFTEN EMPLOYER IS PROACTIVE IN ENSURING EQUAL OPPORTUNITIES FOR PROGRESS (%)



16.2 per cent of survey respondents said their employer rarely or never ensured that career-building opportunities were allocated based on merit.

FIGURE 11 - HOW OFTEN CAREER-BUILDING OPPORTUNITIES WERE ALLOCATED BASED ON MERIT (%)





## LACK OF ACCESS TO PROFESSIONAL DEVELOPMENT

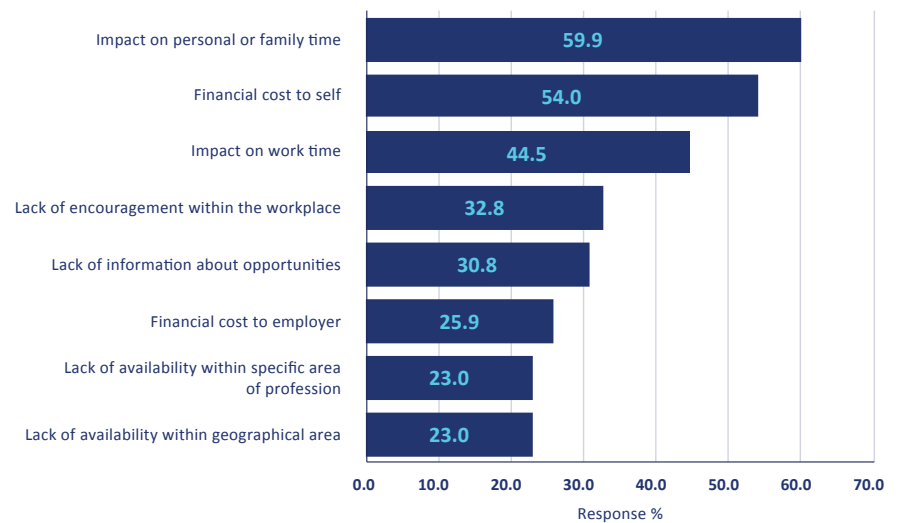
41.2 per cent of respondents said limited access to training had significantly or moderately impeded their career advancement.

23.8 per cent said they were unnecessarily prevented from undertaking training and professional development due to working part-time.

59.9 per cent said the impact on personal or family time prevented them from commencing or completing professional development.

Respondents noted the following as the main barriers to professional development - all based on lack of time, the cost of undertaking training and availability of accessible options.

FIGURE 12 - BARRIERS TO PROFESSIONAL DEVELOPMENT FOR WOMEN IN STEM



Note: Respondents could nominate more than one option.

Some respondents said that professional development being available online as a result of the pandemic had been helpful and the issue of lack of training available in regional areas was also noted.

## COMMENTS

- *Opportunities for training and advancement go to staff that are “more committed”, e.g. men not taking maternity leave or sharing in parental role.*
- *The difficulty and hours of childcare meant that often I couldn’t attend training etc. If the training finished at 5pm, it was hard to get to pick up by 6pm.*
- *I don’t get asked if I would like to participate in extra learning ... it’s not even offered to me as an option. Current workplace has never paid for any conferences, events or seminars for me.*
- *Thanks to COVID, more webinars are online and during the day, and this enables me to attend. Even if the webinars are on when I am at home, I can be preparing dinner and listening in.*
- *Sometimes it is still expected to get the same amount of work done as a full-timer. I found completing CPD was difficult before COVID as you had to attend in person. Online CPD is awesome since COVID.*
- *Regarding training and professional development, I have never been “prevented” from doing it (in fact, most supervisors have encouraged it), however I just don’t have time to do it along with my work and therefore I have missed out on training and professional development compared to my full-time peers.*
- *There is a lack of continuing education, training and networking in regional areas.*
- *Once I moved to the capital and started to work in the federal government sector, it was much easier to find good work and training opportunities.*



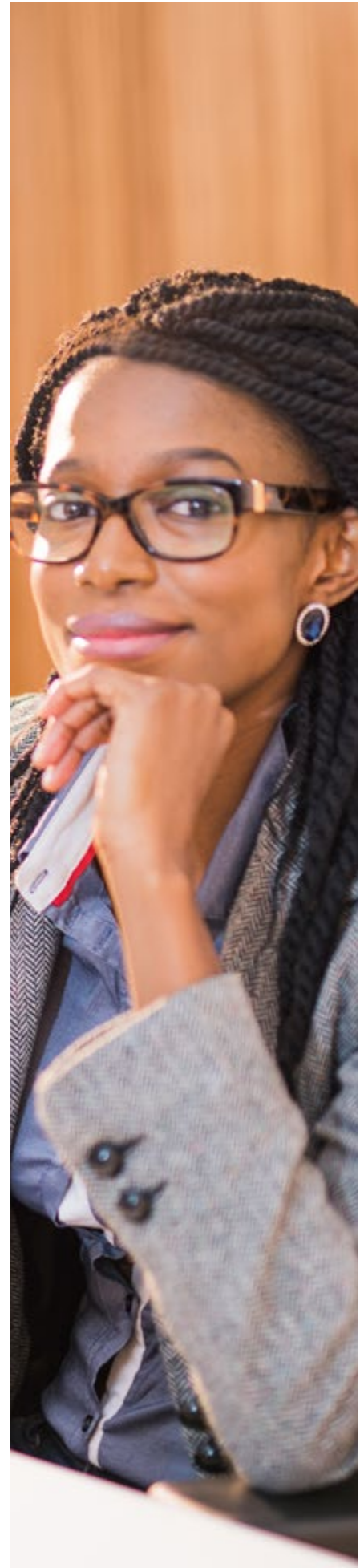
## LACK OF ACCESS TO EXTENSION AND DEVELOPMENT WORK

Access to extension work that provides an opportunity to learn new or upgrade existing skills is essential for career advancement but there can be barriers to women being offered this type of work. Extension work includes doing higher duties, performing in an acting role for a period of time, secondment opportunities and being part of high-level project teams that provide learning opportunities.

Respondents reported acting in a more senior role or doing higher duties but not being paid for it, not being appointed to a role when it was formally advertised even when they had been acting in the role for a long period of time, being appointed to an acting up role without an end date and extension work being offered on the basis of friendship with the manager.

### COMMENTS

- *My manager was sacked and I was asked to just continue on in my role as I had been. After 9 months the manager role was advertised, so I applied for the job as I had been filling the role the whole time and was told my qualifications were not suitable. The job was not filled. When my contract came up for renewal, I requested a promotion (which I had been promised on three occasions) but was not offered one. When I complained, HR offered me 2 months higher duties pay (at this stage, I had been without a manager - and filling that role myself for 14 months). It was at this stage I decided to not sign a new contract and left the job.*
- *I am not considered for acting opportunities due to my part-time hours.*
- *The Team Leader position in our team has been vacant for almost 2 years. Working part-time has prevented me from acting in this position. I have acted as Team Leader in the past when I was working full-time.*
- *I was put into an 'acting' role with no end date.*
- *I would like fair distribution of projects so special projects are not given to a select few who are friends with the manager.*
- *[I'm] not given access to any new or opportunity projects.*
- *Working part-time is my only option (young children and single parent), whilst my employer is supportive of part-time positions in general, in actual practice it's been pretty awful. Over a period of years I have essentially been demoted (without loss of pay), had my title changed, have had no opportunities for training or development, am given no project work that is seen as time critical and get invited to barely any meetings. I've gone from feeling like a technical specialist/professional in my field to feeling like I am merely doing admin type work.*
- *I was given project work with longer timeframes which suited that work arrangement perfectly. My workplace has great access to flexible work arrangements, however, by taking these up for caring responsibilities access to alternate jobs (even within the same company), career progression, secondment opportunities, acting up etc all become non-existent. No one wants to take on a part-time employee, even for a secondment, when they can get a full-time person in the role. This severely limits career growth once you have children.*



*Mentorship in how to progress in a desired career path has been limited. It has been easier to 'go with the flow' and have others dictate where your career should be developed.*

SURVEY RESPONDENT

*I found that lack of mentors and a network to call upon has cast me adrift especially now when I want to get back into the workforce.*

SURVEY RESPONDENT

*I have had some terrible experiences (left the company because of it) and fantastic experiences with female managers; I've also had the same with male managers.*

SURVEY RESPONDENT

## LACK OF ACCESS TO MENTORSHIP OPPORTUNITIES AND CAREER PLANNING DISCUSSIONS

Many survey respondents noted that both male and female mentors could provide valuable career support. Some observed that mentoring could be used by mentors to either replicate or challenge embedded practices and culture and that this did not necessarily hold across gender lines - that is, female mentors did not necessarily challenge negative or gendered workplace practices, and conversely, male mentors could be very supportive of women's career advancement. Some respondents noted that career path planning discussions did not necessarily occur if they were not encouraged to plan by a mentor.

Only 17.8 per cent said they had engaged in formal mentoring activities in the previous 12 months.

38.4 per cent said they had engaged in informal mentoring activities in the previous 12 months.

44.5 per cent said mentoring in their workplace was informal and often after hours making it less accessible for them.

55.5 per cent said unclear career objectives had significantly impeded their career advancement.

## COMMENTS ON MENTORING AND CAREER PATH PLANNING

- *Mentorship in how to progress in a desired career path has been limited. It has been easier to 'go with the flow' and have others dictate where your career should be developed.*
- *I have had some terrible experiences (left the company because of it) and fantastic experiences with female managers; I've also had the same with male managers.*
- *I found that lack of mentors and a network to call upon has cast me adrift especially now when I want to get back into the workforce.*
- *The phrase "You can't be what you can't see" or more "You don't realise what you could be if you don't see" rings very true.*
- *A lack of mentoring and career support has really had an impact on my development. It is 20 years since I finished my PhD, and only in the last 2 years have I had a serious conversation about career direction.*
- *Lack of consultation on directed career path early in my career. This became a barrier when seeking other opportunities within the business as it was deemed I was fixed along a particular pathway which I had little knowledge and no buy in. This had been agreed by others as a succession plan which I had no part or agreement in. I was also advised to avoid making application for roles due to my lack of experience.*
- *I've been really fortunate to have a manager who is a male champion and has really supported my career within my organisation. However I know that other women in my organisation are not as lucky and that there is still considerable bias at senior levels.*
- *I found that senior male leaders still had the primary role in helping my career advancement. There are very few senior women in my field in Australia. For career advancement, networks and support from male supervisors was critical.*
- *Whilst there were several women in key senior roles (CEO, research supervisors), these women were terrible role models as they were of the opinion that work should come above all else.*
- *Having no senior women as role models and mentors make it harder to map out a career path and gain the networks required for advancement.*

## LACK OF ACCESS TO NETWORKING

Many survey respondents noted that part-time work or a break from work can impact networking and informal socialising with colleagues.

51.7 per cent of respondents said lack of networks significantly or moderately impacted their career advancement.

### COMMENTS

- *I've only recently started back at work part-time after maternity leave. It is a very difficult adjustment and I do ultimately feel as though my career will be negatively affected as I cannot be involved in everyday hallway discussions.*
- *I work part-time being primary carer to my kids. This makes it very difficult to attend networking events.*
- *Males generally gain assistance through workplace networking however this is not the same for females.*
- *A lack of female peers has resulted in me experiencing very limited social interaction with my colleagues. Many of my male colleagues meet socially outside of work and in these social events a lot of networking and job opportunities are discussed and created.*

## BARRIERS TO REGISTRATION, CERTIFICATION OR ACCREDITATION

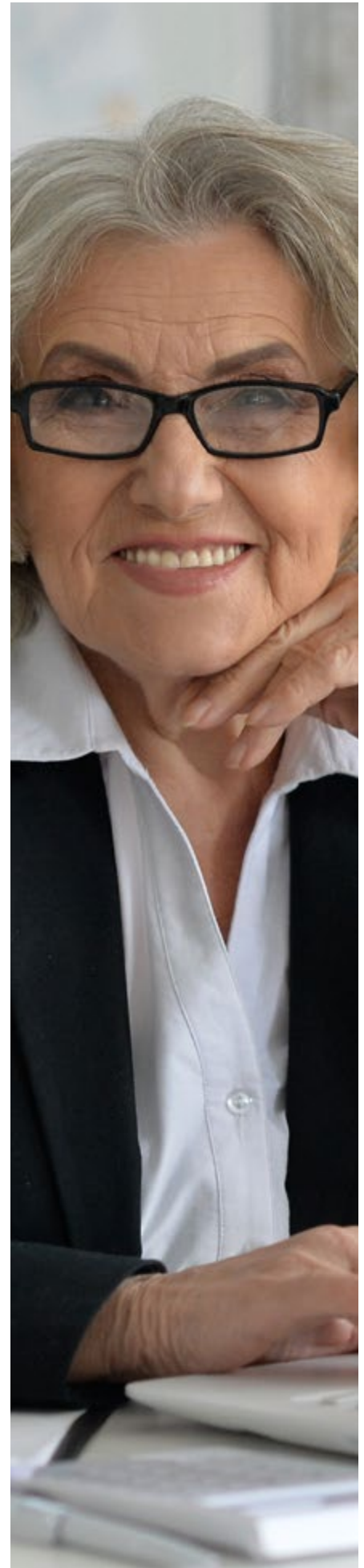
Registration in the STEM professions ensures those certified or accredited meet minimum codes of practice, standards or levels of competence. National accreditation supports the dispersal of STEM talent across state jurisdictions, ensures currency in skills and knowledge, provides protection for the community from unqualified STEM professionals carrying out work that should be undertaken by qualified, accredited professionals and provides legal recourse against those who deliver sub-standard work.

Addressing barriers to women professionals undertaking the relevant registration, certification or accreditation processes is critical to providing equal access to career-building activities. As well as playing a key role in maintaining high standards of professionalism, competent practice, compliance with relevant professional standards, ethical conduct and the safety of the community, registration provides an externally-recognised career stepping-stone to support career pathways for technical professionals in STEM, including women.

A number of survey respondents noted barriers to registration including lack of access to registration opportunities on return to work after a career break and the cost of CPD (required to maintain registration) as a proportion of a part-time or casual income. Clearly the barriers to undertaking professional development set out in the Lack of access to professional development section above are critical as a means of addressing what can be a key obstacle to gaining and maintaining registration.

### COMMENTS

- *I was completely set back in my role upon returning [from a career break] while new male employees were trained more than me and given projects as required to fast track their Surveyor Licence/Registration.*
- *Part-time role - therefore costs to attend any pd is significant.*
- *Training sessions at my workplace are optional, but attendance is often heavily factored into performance reviews. Most of these sessions are held after work hours or during lunch breaks and as such are unpaid time. Certifications are paid for by the company on a "if you pass we pay" which can be a barrier for more expensive qualifications.*



*I still see women having to make the same sacrifices - go part-time and lose career opportunities or go full-time and lose family time*

SURVEY RESPONDENT

*Although I work 4 days being the only part-timer in my company of all men (only other females are admin staff) I have definitely been forgotten regarding meeting invites and training, not invested in with company car and other benefits and I'm given all the 'left-over' work.*

SURVEY RESPONDENT

*Career pathways and most positions are structured around a "full-time" role and progression in that. Overall, being a part-time professional can be a series of slightly awkward fits.*

SURVEY RESPONDENT

## THE CAREER PENALTY ATTACHED TO FLEXIBLE OR PART-TIME WORK AND CARER RESPONSIBILITIES

### PART-TIME AND FLEXIBLE WORK ARRANGEMENTS CAN ENTRENCH DISCRIMINATORY WORK PRACTICES

After equal pay, flexible work arrangements and work/life balance were nominated by Women in STEM Survey respondents as the most important issues facing professional women.

While gaining access to part-time work and flexible work arrangements can help women balance their work and family responsibilities, the arrangements can also be a means of entrenching career disadvantage and limiting opportunities for those who have primary caregiver responsibilities.

65.6 per cent of respondents said balancing work/life responsibilities was a significant or moderate barrier to their career advancement.

62.1 per cent said they would like access to conditions to maintain work/life balance not currently available.

42.3 per cent had not approached their manager to request flexible arrangements for fear of being treated adversely by management while 18.6 per cent had not done so for fear of being treated adversely by peers. 39.7 per cent said they had not approached their manager because they were likely to decline the request.

46.9 per cent said they believed working part-time had negatively impacted their career.

26.9 per cent said they were unnecessarily prevented from undertaking certain types of work because they worked part-time.

31.5 per cent said they had been sidelined for promotion because they worked part-time.

29.4 per cent said their employer did not currently provide flexible working hours.

41.0 per cent said lack of access to flexible work arrangements was a significant or moderate obstacle to career advancement.

42.3 per cent said they had not approached their manager regarding working fewer hours for fear of being treated adversely.

71.7 per cent agreed or strongly agreed promotions in their workplace were generally drawn from those working full-time.

40.7 per cent said they were seen as not pulling their weight because they used flexible work arrangements.

18.2 per cent of respondents said that management in their workplace thinks that work/life balance is only relevant for women with children.



## PART-TIME WORK AND CARER RESPONSIBILITIES CAN LIMIT CAREER PROGRESSION

The survey showed how utilising flexible or part-time work arrangements could result in a narrowing of career choice, limiting of opportunities and the reinforcement of work patterns such as the concentration of women in roles and fields with less responsibility and seniority.

The constraints on women's advancement as a result of working part-time or flexibly were sometimes blunt but also sometimes indirect. Some accepted the career penalty attached to working part-time without question while others were critical of the disadvantage which followed. Respondents commented on the unsupported assumption sometimes made that those who work part-time or flexibly are less professional or less committed to their careers. Survey responses also showed that women can self-select out of senior, management or leadership roles or promotion opportunities because flexible work arrangements are not available at those levels.

### COMMENTS

- *Career pathways and most positions are structured around a "full-time" role and progression in that. Overall, being a part-time professional can be a series of slightly awkward fits.*
- *I still see women having to make the same sacrifices - go part-time and lose career opportunities or go full-time and lose family time.*
- *I was told I received a poor performance ranking because I had been on maternity leave.*
- *I was 12 weeks pregnant when my manager told me that I would not be considered for the promotional opportunities however I should still apply as the recruitment would be a good experience to go through.*
- *Finding part-time positions is more difficult than full-time as there are fewer offered, so career progression is pretty fragmented.*
- *[It is] perceived that I am not as committed to my job even though I work 32 hours per week - where a full-time employee is 37.5 hours a week.*
- *[There's a] lack of communication, even when there's a change with daily procedures.*
- *Working part-time has its own challenges. I do miss 20% of the week, every week and this can and does leave me having to play catch up. I feel the quantity of my work suffers as a result which undoubtedly has reputational disadvantages for me going forward.*
- *Have to do more work in less hours to "keep up" with full-timers.*
- *Although I work 4 days being the only part-timer in my company of all men (only other females are admin staff) I have definitely been forgotten regarding meeting invites and training, not invested in with company car and other benefits. I'm given all the 'left-over' work.*
- *There is still a culture within industry that flexible work arrangements mean you aren't dedicated or serious about your job. My last workplace had terrible workplace culture. I was one of only a handful of women and all the others were in administrative roles. The hours were set and any deviation was met with accusations and snide remarks from the male workers.*
- *I would say I have had the same/similar opportunities to men in my career, however I have not been able to take advantage of them due to caring (parenting) responsibilities. Men in similar positions to me generally have partners who take on the bulk of the household/childcare work and therefore advance more quickly.*
- *Repeatedly missing out on working on the best projects because of my part-time status has had the biggest impact on my resume and career.*
- *I was advised not to apply for or did not get several more senior roles where those roles were given to lesser qualified, lesser experienced male candidates. It was wrongly assumed by many senior managers that I would not be working full-time when my children were young and some were surprised that I was continuing to work at all.*
- *The fact that I don't always feel supported as a female leader has prevented me from wanting to apply for other leadership roles and hence is preventing me from further advancing in my career.*
- *I have made deliberate decisions to put my mum hat first for now and not apply for promotional opportunities when they come up.*

*I was told I received a poor performance ranking because I had been on maternity leave.*

SURVEY RESPONDENT

*I was 12 weeks pregnant when my manager told me that I would not be considered for the promotional opportunities however I should still apply as the recruitment would be a good experience to go through.*

SURVEY RESPONDENT



## THE TRIPLE WHAMMY – SAME WORKLOAD, SAME HOURS, LESS PAY

A number of respondents commented that they had a full-time workload and felt they had to keep up with full-time key performance indicators in spite of being paid for part-time hours, highlighting the triple penalty they paid in taking a pay-cut to work part-time but their workload not being adjusted accordingly.

### COMMENTS

- *Everyone just assumes I'm working full-time, including my line manager. There was no discussion around what duties I could transfer to others, or not do, when I went part-time after maternity leave. So, as a teaching and research academic, it's been the research that has fallen off. This puts me in a death spiral promotion-wise and has been so hard to try and claw back.*
- *I went from full-time to four days per week in a previous role. I took a 20% pay cut to do so but was expected to do the same workload and be available by phone when not at work.*
- *Working part-time is my only option (young children and single parent), whilst my employer is supportive of part-time positions in general, in actual practice it's been pretty awful. Over a period of years I have essentially been demoted (without loss of pay), had my title changed, have had no opportunities for training or development, am given no project work that is seen as time critical and get invited to barely any meetings. I've gone from feeling like a technical specialist/professional in my field to feeling like I am merely doing admin type work.*
- *Although I work part-time, I am expected to attend all meetings, publish as many papers, teach as much as and be available every day like a full-time employee. I am unable to participate in certain roles at my work because I am part-time. I was forced back two pay steps in order to get ongoing work part-time; I am now working my way back up the ladder and penalised for being a part-time employee because I don't do as much administrative work, publish as many papers, have as many students as a full-time employee.*

## WORKING FROM HOME

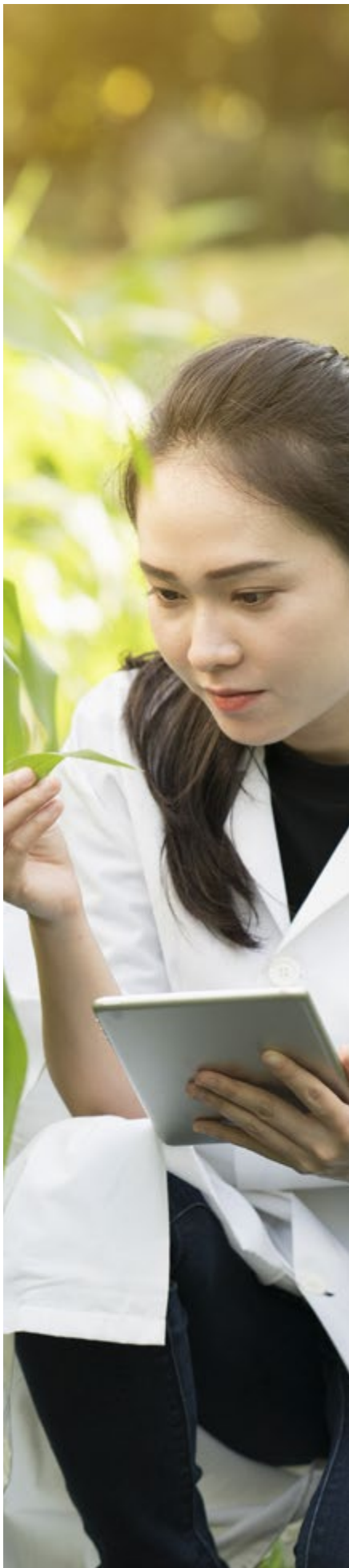
The survey showed there is some concern that while the pandemic has to an extent normalised working remotely, this form of arrangement also has the potential to entrench career disadvantage because it can suffer the same stigma as working flexibly or part-time – that is, it can be incorrectly associated with being less committed or less professional about your career. Respondents also noted the fact that working from home arrangements have been shown to be successful only after employers were forced into allowing it with the pandemic.

### COMMENTS

- *I work 4 to 5 days a week with 2 days (minimum) from working from home. This has always been a limitation to my promotion to a leadership position.*
- *Upper management attitude toward working from home [is a problem]. [They] would attract many more women to the field yet there is such a negative stigma attached to it.*
- *I much prefer working from home - better productivity and less unnecessary interruptions. I also save a lot of time and money commuting to work. There does appear to be a bias that anyone working from home however is "slacking off".*
- *In some ways the pandemic has been a positive as it has made working from home more 'acceptable'.*
- *Even though there are [work from home] arrangements available, these are held over my head as if I should be grateful for this beneficent concession that I am receiving. It's never acknowledged that this is just standard practice in a lot of workplaces these days. It is often used to justify poor treatment received in other aspects of work/life such as unpaid overtime and high workloads.*
- *In STEM, things haven't changed to suit female participation - females have to change to fit in... it just plainly sucks work from home arrangements have only occurred because of the pandemic and [employers] have been forced into it ... I will fight to keep my WFH arrangements.*

*In STEM, things haven't changed to suit female participation - females have to change to fit in... it just plainly sucks work from home arrangements have only occurred because of the pandemic and [employers] have been forced into it ... I will fight to keep my WFH arrangements.*

SURVEY RESPONDENT



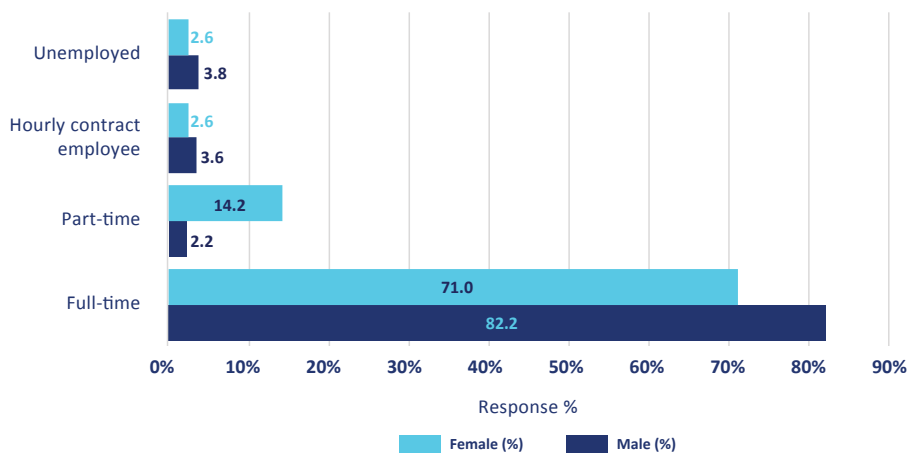
## WOMEN MORE LIKELY TO BE EMPLOYED PART-TIME

ABS figures confirm that for those aged 20-74 years, employed women are almost three times more likely than men to be working part-time in 2019–20, and that for parents whose youngest dependent child was under six, three in five employed mothers worked part-time compared to less than one in ten employed fathers.<sup>50</sup>

The Professionals Australia 2020-21 Employment and Remuneration Reports in engineering, science and IT confirmed a clear difference in the distribution of males and females by employment status with female respondents significantly more likely to be employed part-time than male respondents.

Figures 13, 14 and 15 set out the breakdown of respondents by employment status and gender in each of the Professionals Australia surveys with each table followed by the numbers of respondents.<sup>51</sup>

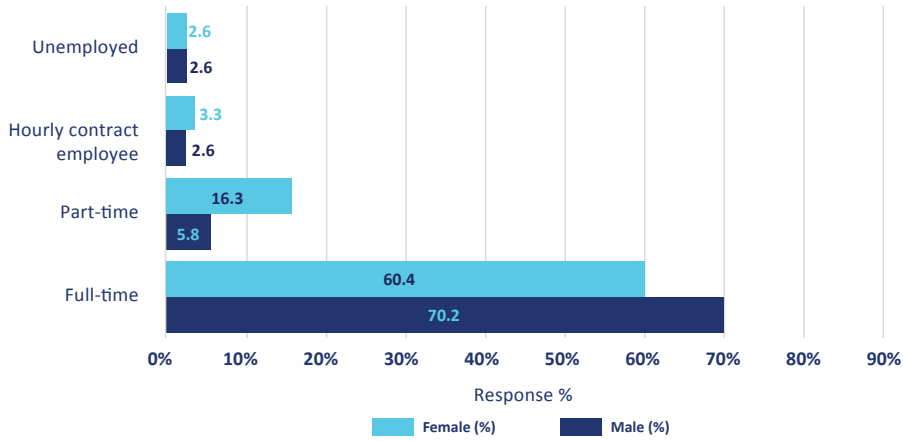
FIGURE 13 - EMPLOYMENT STATUS BY GENDER - PROFESSIONAL ENGINEERS



	Male N	Female N
<b>Full-time salaried</b>	1023	110
<b>Part-time salaried</b>	27	22
<b>Hourly contract employee</b>	45	4
<b>Unemployed</b>	47	4

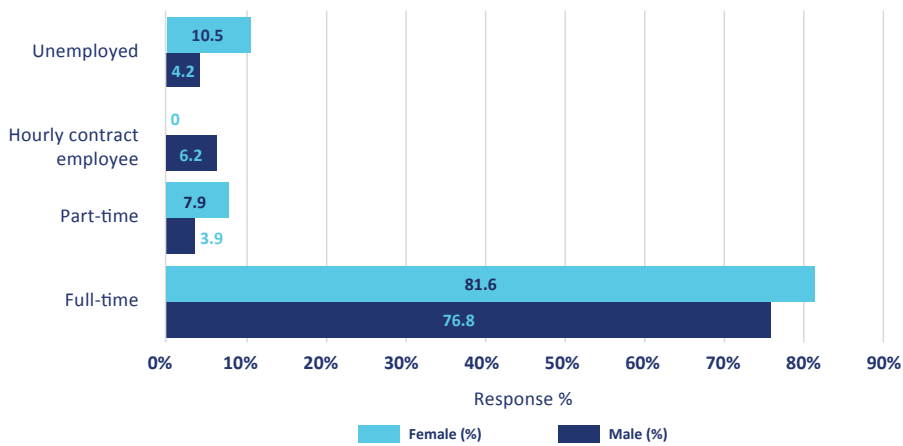


FIGURE 14 – EMPLOYMENT STATUS BY GENDER - PROFESSIONAL SCIENTISTS

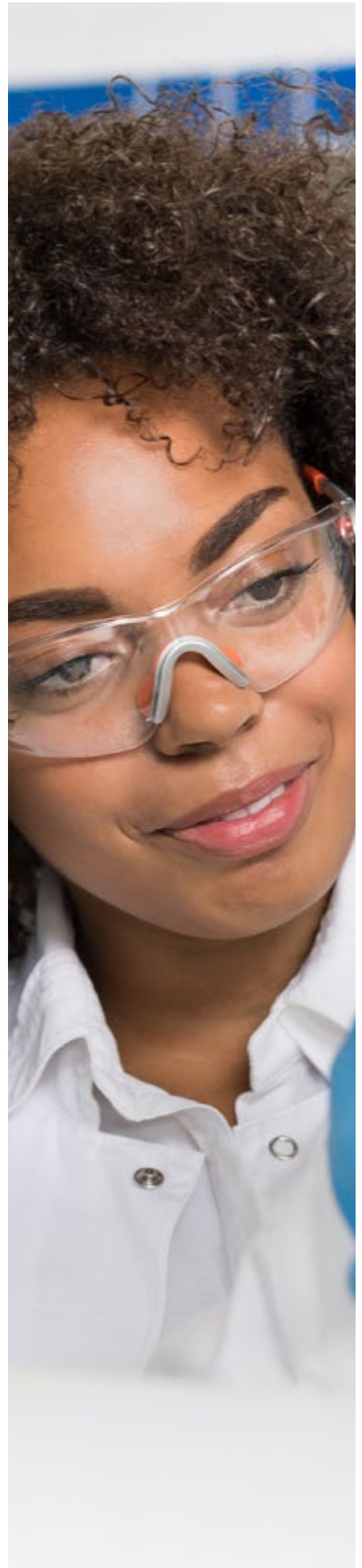


	Male N	Female N
Full-time salaried	533	349
Part-time salaried	44	94
Hourly contract employee	20	19
Unemployed	20	15

FIGURE 15 - EMPLOYMENT STATUS BY GENDER - ICT PROFESSIONALS



	Male N	Female N
Full-time salaried	199	31
Part-time salaried	10	3
Hourly contract employee	16	0
Unemployed	11	4



*My employer did everything by the book while I was away. The issue was when I returned. They didn't have any systems in place to deal with their employee who had fundamentally different constraints (care, health, etc.) from the employee they had before. So the progression as female in STEM was not too bad before kids, was on-hold while off (which is fine), but then tanked as soon as returning to work. So in short, it's not about being ABSENT, it's about what happens when you return from absence.*

SURVEY RESPONDENT

## CAREER DISRUPTION AND RETURN TO WORK

Research confirms that traditional approaches to career advancement which value a full-time uninterrupted career trajectory can disadvantage women because they are more likely to work part-time and take career breaks to accommodate carer responsibilities.<sup>52</sup> The survey confirmed these findings with respondents reporting that career breaks can have a significant negative impact on advancement opportunities. The complexity and seniority of the projects women were allocated on return to work after a career break were often significantly less/lower than the type of work they were undertaking prior to the career break and the project work they were offered was often more menial and did not provide opportunities for development. Very often flexible work arrangements were only available in roles with less seniority, and some women self-selected out of senior roles as a way of balancing their work/life responsibilities.

Some respondents found that the problem was not the career break itself but that return to work meant starting their career again from scratch rather than resuming employment at their previous level of seniority. Loss of skills and confidence was mentioned by many who had returned to work after a break. Respondents also reported widely held misconceptions that women with carer responsibilities don't want senior, management and leadership roles and that women with children don't want a career.

66.0 per cent of survey respondents said taking maternity leave had been detrimental to their career.

42.4 per cent said that those taking career breaks in their workplace are generally sidelined for promotions.

Only 12.2 per cent said their employer currently provided support for reintegration into the workplace after a career break.

## COMMENTS ON RETURN TO WORK

- *Return to work was the greatest challenge as the workplace had no structure to transition back to work*
- *My employer did everything by the book while I was away. The issue was when I returned. They didn't have any systems in place to deal with their employee who had fundamentally different constraints (care, health, etc.) from the employee they had before. So the progression as female in STEM was not too bad before kids, was on-hold while off (which is fine), but then tanked as soon as returning to work. So in short, it's not about being ABSENT, it's about what happens when you return from absence.*
- *On return from maternity leave I was treated like a new hire and was one of the first to be made redundant when the office was under financial pressure.*
- *One of the most significant impacts to my career was the break I took to have and raise my family. It was important to me to take this time away from work, however, it also meant that I had to start my career again, virtually from square one.*
- *I was out of the workforce for 4 years when I was 32-36 years old. This should have been the prime of my career but it has proven instead to be a significant obstacle to advancement and as a result I'm a lot older than I expected to be and still be essentially in the same situation now than I was at 30.*
- *I will return to work always being at the bottom of the ladder in order to prioritise my family*
- *Going on maternity leave when you work as a Project Manager - inevitably your project finishes while you are gone, so when you return you need to take whatever is on offer if your return date doesn't line up with opportunities. Same has happened for friends (male and female) on expat assignments - you return to a role which isn't ideal, and then wait for an opportunity to present itself.*

**[My career break] meant that I had to start my career again, virtually from square one.**

SURVEY RESPONDENT

**On return from maternity leave I was treated like a new hire.**

SURVEY RESPONDENT

## COMMENTS ON LOSS OF CONFIDENCE

- *The biggest challenge has been losing confidence while away and regaining it upon return to work.*
- *Loss of confidence due to being out of the workplace for extended time.*
- *Reduced confidence in ability when returning to workforce.*

## COMMENTS ON LOSS OF SKILLS

- *After taking 8 months off work twice for 2 children, I found that I lost a lot of ground technically. I have never recovered from this lost ground and my career has been impacted.*
- *Previous employers have done their best but working in a profession where regulations and science change frequently, it was hard to keep my knowledge and skills up to date as most industry seminars were early in the morning or in the evening after work, when I didn't have any care available.*
- *I had to retrain - I forgot a lot of my skills and spent a significant amount of time upon return re-learning.*
- *I think a day a month to come in for a team brief, training and then just keeping skills current by looking over a project would be beneficial.*
- *[There was a] lack of training opportunities so knowledge was not current when I returned.*
- *I have noticed the advancement in technology and digital sciences during my career break.*



In addition to providing project work that offers extension opportunities rather than less responsible, less challenging work, and options such as flexible work arrangements at senior levels, a range of measures were suggested by respondents as ways to support those on parental leave and reintegration back into the workforce on return to work.

While on leave:

- providing for structured keep-in-touch arrangements;
- providing a work laptop;
- not deactivating email account;
- notifying of team and organisational changes plus the option to attend team briefings while on leave;
- notifying of key legislative and other relevant changes; and
- providing the option to undertake professional development activities to maintain skill levels.

On return to work:

- arranging for work-in-progress briefings/updates for those returning to work;
- providing for on-the-job and external training as need to bring skill levels and project knowledge up-to-speed;
- providing extension opportunities in a team environment;
- providing a handover period;
- emailing staff to advise of an individual's return to work including their work days and changed role scope if applicable and the need to keep them in the loop about meetings and training;
- providing for a gradual increase in hours where appropriate;
- providing a buddy system to assist with transition;
- allowing time and training to help get back up-to-speed; and
- providing access to professional development activities to restore skill levels ensuring training is available at times when childcare is available.



# WORKPLACE CULTURE

28.3 per cent of respondents said the culture at their organisation did not support work/life balance. Of those respondents considering leaving their current employer, poor workplace, occupation or industry, culture was a factor for 20.2 per cent.

55.9 per cent of respondents said poor workplace culture had significantly or moderately impeded their career advancement.

54.9 per cent of respondents said their employer had formal policies in place to deal with discrimination and 50.1 per cent said there were formal policies to promote diversity but 38.1 per cent said their employer did not have strategies in place to actually implement the policies.

58.8 per cent agreed that their immediate manager genuinely encouraged work and life/family balance while 20.7 per cent said their immediate manager did not.

*The perfect employee for management appears to be a white man educated at university in Australia and English as a first language. Whilst the office is very multicultural, management fits a very specific mould for men who put the company before their family or life. The result is a boys' club which is immune from corporate policy.*

SURVEY RESPONDENT

*Women are still being disadvantaged. We just now have nice policies that say it will not happen but it does and everybody knows it does.*

SURVEY RESPONDENT

*There are pockets of toxic culture in big organisations.*

SURVEY RESPONDENT

*They have flexible work arrangement policies but will not ever put them into practice. The line used is it doesn't fit the workplace's requirements and it will cost money in time and efficiencies when it's more of that they don't want the hassle of changing anything.*

SURVEY RESPONDENT

*I think there's a lot of token efforts and lip service about women in STEM. My department often shouts about being inclusive and that there are a few women in senior roles, but if you look at what it's really like, there are barriers at every turn, designed to keep women away from advancement.*

SURVEY RESPONDENT

## GAP BETWEEN ORGANISATION POLICY AND WORKPLACE CULTURE

Professionals Australia's survey work consistently shows that while many organisations have diversity policies in place, workplace culture can act as a significant constraint on their effective implementation.

54.9 per cent of respondents said their employer had formal policies in place to deal with discrimination and 50.1 per cent said there were formal policies to promote diversity but 38.1 per cent said their employer did not have strategies in place to actually implement the policies. Professionals Australia's survey work suggests the greatest gap between policy and practice is in IT workplaces:

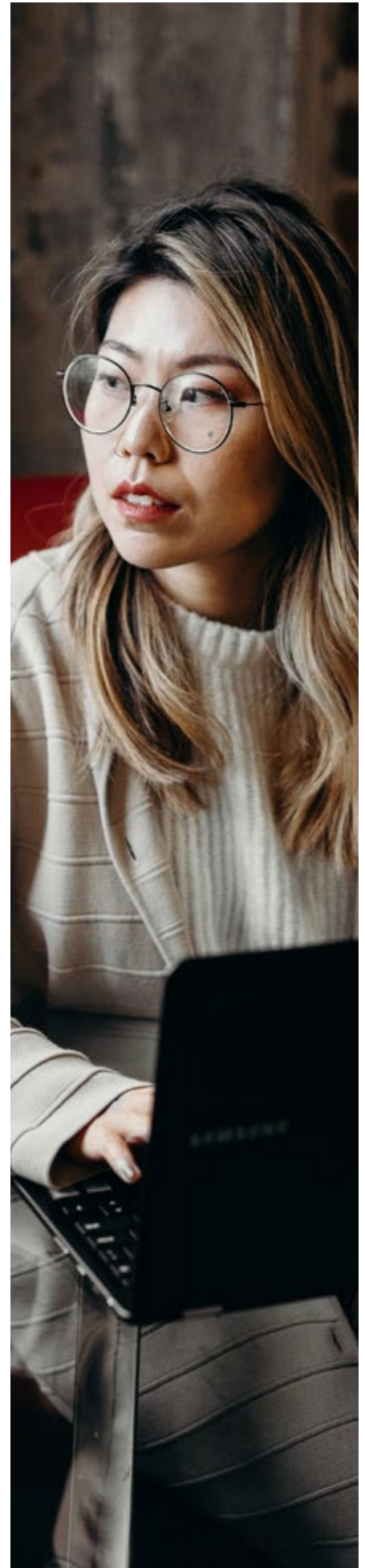
- The 2020/21 Professionals Engineers Employment and Remuneration Survey showed that while 81.7 per cent of respondents said their employer had in place formal policies to deal with discrimination and 75.3 per cent had formal policies to promote diversity, 12.8 per cent said their employer did not have strategies in place to actually implement the policies.
- The 2020/21 Professional Scientists Survey found that while 70.1 per cent of respondents reported their employer had formal policies in place to promote diversity and 74.5 per cent had policies to deal with discrimination, 17.4 per cent said their employer did not have strategies in place to actually implement policies on diversity and discrimination.
- The 2020/21 IT Professionals Survey found that while 63.9 per cent of respondents indicated their employer had formal policies in place to promote diversity and 76.2 per cent reported their employer had policies to deal with discrimination, 30.8 per cent of respondents said their employer did not have strategies in place to actually implement policies relating to diversity and discrimination.

The latest WGEA figures show that while there was an increase in organisations doing pay gap analyses (up to 46.4 per cent), there was a disappointing decrease in those taking action to close the gaps (down 6.1 per cent to 54.4 per cent).<sup>53</sup>

WGEA suggests that these figures may show a level of complacency, fatigue, apathy and indifference on the part of Australian employers. While not Professionals Australia agrees with this conclusion to an extent, we would also suggest that the complexity of the issues means employers may struggle to understand the broadranging factors that can contribute to the gender pay gap. It is hoped that this report identifies the contributory factors and the areas in which management accountabilities can be put in place to effectively reduce the gap between diversity policies and the implementation of those policies at the workplace level.

## COMMENTS ON WORKPLACE CULTURE

- *Workplace culture has continued to be dominated by males and male decision-makers and recruiters. Lack of recruiters that understand technical capabilities and rely on traditional information provided by males already established in the area. So even when principles and policies exist, the results are no different. Complacency to act, same excuses are being touted for 20 years 'there is just no women in the market' or 'she only got the job because she is a woman'.*
- *Bad culture is tolerated due to poor leadership. This has affected job advancement and career satisfaction.*
- *Although state government has good provisions for flexible working, to some extent it depends on immediate manager's support.*
- *I have returned to work part-time following maternity leave. I have been supported by my work as an organisation in this but not by some of my colleagues.*
- *Whilst senior management promote flexible working arrangements, individual managers refuse.*
- *Women are still being disadvantaged. We just now have nice policies that say it will not happen but it does and everybody knows it does.*
- *The workplace culture affecting work life balance has probably been the major factor affecting my career progression.*
- *There are pockets of toxic culture in big organisations.*
- *They have flexible work arrangement policies but will not ever put them into practice. The line used is it doesn't fit the workplace's requirements and it will cost money in time and efficiencies when it's more of that they don't want the hassle of changing anything.*





*It is exhausting having to tread this thin line between being ignored for being 'too nice' to take seriously and being dismissed as another angry irrational female. It's unsustainable.*

SURVEY RESPONDENT

*My complaints regarding gender discrimination, sexual harassment and men speaking over me in meetings are ignored. I am merely that vocal bitchy woman who does nothing but complain.*

SURVEY RESPONDENT

*I was seen as a troublemaker and my complaints weren't taken seriously, but rather held against me.*

SURVEY RESPONDENT

## CHALLENGING WORKPLACE CULTURE AND BIAS

One of the important issues highlighted by the survey was that individuals who challenge workplace culture can incur significant pushback. Women who challenged workplace culture were often demonised as angry, irrational, playing it up, being over-sensitive, bitchy, complainers or troublemakers (each of these terms was used by respondents in their comments).

This finding makes it clear why the solution to a lack of gender equity in the workplace is not simply a matter of women "stepping up" or calling out sexist behaviours. Changing workplace culture cannot be left up to the individuals affected because there can be serious career implications for those who challenge the status quo.

Changing biased or discriminatory workplace practices and systems that disadvantage women (collectively comprising gendered workplace culture) necessarily involves putting policies in place to positively impact gender inequality and diversity, reviewing the policies and practices already in place that might directly or indirectly discriminate against women, considering the strategies for actually implementing diversity in the organisation, looking at the biases that might underpin promotion opportunities and concepts of merit, realistically looking at the areas in which workplace culture might compromise implementation of diversity policy and embedding processes and a workplace culture that incentivises and rewards challenge and change that include managers being held accountable for policy implementation.





## COMMENTS ON WORKPLACE CULTURE

- *Complaining about perceived sexism or unfair treatment results in further discrimination, or a label as a troublemaker. People either agree but do nothing or disagree and make life difficult for you or treat you in a passive aggressive manner.*
- *I experienced discrimination as a woman in a department I worked in that had a large number of males - a large number of the men behaved like it was a boys' club, regularly going to lunch/coffees together, and not inviting the female staff members along. The male head of department did not support me when I complained about the behaviour. As a female leader in my current role, I am not respected by some of my male staff and have experienced bullying and threatening behaviour. When I told my manager at the time, he told me I was playing it up.*
- *Mostly came across general misogyny from peers (men talking over women and generally belittling opinions). People who get called on it run to HR the moment a woman pushes back.*
- *The glass ceiling for women is alive and well in engineering. It is difficult for women to progress to more senior roles, because the men with decision-making capability tend to favour other men - whether this is due to affinity bias or a certain perception about men's vs women's abilities, I'm not sure. I've been spoken over in meetings, I've been told "women have to have opinions about everything" when giving work-related advice, I've been flirted with by a senior male manager, I've been excluded from "boys" events, I've been discriminated against, sexually harassed and bullied. I left my previous job due to poor culture and lack of action from management. I was seen as a troublemaker and my complaints weren't taken seriously, but rather held against me.*
- *It is exhausting having to tread this thin line between being ignored for being 'too nice' to take seriously and being dismissed as another angry irrational female.*
- *As a woman, my complaints regarding gender discrimination, sexual harassment and men speaking over me in meetings are ignored. I am merely that vocal bitchy woman who does nothing but complain.*

*Mostly came across general misogyny from peers (men talking over women and generally belittling opinions). People who get called on it run to HR the moment a woman pushes back.*

SURVEY RESPONDENT

*When I told my manager at the time, he told me I was playing it up.*

SURVEY RESPONDENT



## HIGHER LEVELS OF ACCOUNTABILITY FOR WOMEN

Respondents noted that it was not uncommon for women who had sought flexibility through formal channels to be held to a higher level of accountability than male colleagues who also utilised flexible work arrangements but on an informal basis.

### COMMENTS – BEING HELD TO DIFFERENT STANDARDS

- *[There is a] perception that women working flexibly (through formal approval) is unproductive yet others working flexibly regularly but not through formal approvals [are seen as productive]. [I feel I am in a] constant state of justification /request for opportunities or flexibility- leads to an exhaustion of effort.*
- *Different standards/expectations being applied to women and men. Specifically having to prove myself in a role rather than being considered ready when male peers were given more chances.*
- *[There were] constant higher work expectations and standards to achieve for similar recognition.*
- *I've regularly had to "justify" my credentials whereas men are just assumed to be experts.*
- *Accountability is also needed for all not just for selected few.*

## EXCLUSIONARY ACTIONS AND PRACTICES AND THEIR IMPACT

Women being silenced in meetings, feeling isolated, feeling that they don't have backing or allies, not having their ideas taken seriously, being interrupted, talked over or not being listened to, assumed to be less committed to their career if they have carer responsibilities, being undermined, being sidelined, being outwardly or subtly questioned about their technical competency, being left out of what they perceive to be boys' clubs, assumed to be unavailable for travel if they have parenting responsibilities, being asked to take a disproportionate share of housekeeping, administrative or support duties like arranging meetings and taking minutes and not being invited to key meetings – all these practices are somewhere on the scale between blunt and subtle practices that exclude women in the workplace but they all marginalise, undermine and create disadvantage for women in the STEM workforce.

### COMMENTS

- *Boys' club culture creates obstacles to progressing my career and negatively impacts my job satisfaction. I have been told to "not speak" in a meeting I called by a male manager.*
- *A large number of the men behaved like it was a boys' club, regularly going to lunch/coffees together, and not inviting the female staff members along.*
- *I was basically just isolated and ignored by my boss and not provided with any work, while a mate he had recently brought in got preference.*
- *I've often considered walking away. I've had a lot of self-doubt. I'm tired of not being listened to - especially when they listen to a younger bloke with less experience who says the same thing. Some days it's exhausting.*
- *Regularly being 'talked over' in meetings, advice not being adopted with a negative consequence, men talking to my 'chest' not my face, regularly being refused to Acting roles.*
- *Being talked over or dismissed by male leaders is common among my fellow leadership peers, but because it's subtle - and doesn't involve overt harassment or abuse - that if I called it out, I'd be deemed a complainer and that I'm focusing on unimportant and unsubstantiated matters instead of getting on with core business.*
- *I'm ignored, talked over etc. I say things or present things in writing and it's passed over and ignored.*
- *There were times when I was not invited to private social events outside work by my male colleagues because I was not one of the boys.*
- *I was advised not to apply for and did not get several more senior roles where those roles were given to lesser qualified, lesser experienced male candidates.*
- *[I was told I was] overlooked for a role because I wouldn't be interested because there's a lot of travel and I have a child and [I was told I couldn't] travel offshore because women and men can't share a room, so having a woman offshore takes up not one bed but 6.*
- *Workplace culture/managers that volunteer women to do non-promotable but necessary busy work such as handling communications, organising meetings, writing documentation.*
- *I have definitely been forgotten regarding meeting invites and training.*
- *Exclusion from the team, as a sub-contractor I was still able to have contact with colleagues in the office but this has reduced to almost no contact under lockdown due to the manager excluding me from all digital methods of communication (Slack, emails lists, Teams etc., supposedly as a cost saving).*
- *A very senior CEO of a research organisation was taking my CEO out for lunch. I had been doing some work with them and the CEO of the research organisation asked my CEO if I was going to join them for lunch. I must admit I was quite flattered that he had asked but couldn't make the lunch. It turned out he wanted to take the CEO to an exclusive male-only lunch club - not a strip joint but a male-only club where high-level, large scale philanthropic deals were done. I still feel stupid for thinking he wanted me to come to lunch, embarrassed that I was flattered by what I thought was being invited to lunch and angry that I felt excluded when I was doing so much work in the space. He just wanted to take my CEO to the exclusive club and he knew he couldn't if I was coming. The weight of institutional exclusion on top of the exclusion from the networking*

*Boys' club culture creates obstacles to progressing my career and negatively impacts my job satisfaction. I have been told to "not speak" in a meeting I called by a male manager.*

SURVEY RESPONDENT

*I've often considered walking away. I've had a lot of self-doubt. I'm tired of not being listened to - especially when they listen to a younger bloke with less experience who says the same thing. Some days it's exhausting.*

SURVEY RESPONDENT

*It's hard to get past that "more years of experience is required" rather than merit when they're considering for promotion. It makes it hard to progress your career.*

SURVEY RESPONDENT

*Men in management employ and promote based on gut feelings - since they don't relate to women, their gut never feels good about women.*

SURVEY RESPONDENT

## UNCONSCIOUS BIAS IN PROMOTION DECISION-MAKING AND RECRUITMENT

Research indicates that women with the same qualifications as men are less likely to be called for an interview<sup>54</sup> and that resumes of women with the same attributes as males can be regarded less favourably in recruitment/selection processes.<sup>55</sup>

There is also evidence that the selection processes of recruitment agencies which incorporate artificial intelligence (AI) can lead to biases in recruitment with the characteristics of applicants who have been successful in the past privileged over applicants with different characteristics. This can lead to the reinforcement of existing biases and the status quo rather than challenging the selection criteria built into the algorithms of recruitment processes and, in turn, the lack of diversity in an existing workforce.

**The Ready, Willing and Able report says of AI in recruitment and selection:**

*".. an AI system trained to screen job applications will typically use datasets of previously successful and unsuccessful candidates, and will then attempt to determine particular shared characteristics between the two groups to determine who should be selected in future job searches. While the intention may be to ascertain those who will be capable of doing the job well, and fit within the company culture, past interviewers may have consciously or unconsciously weeded out candidates based on protected characteristics (such as age, sexual orientation, gender, or ethnicity) and socio-economic background, in a way which would be deeply unacceptable today."<sup>56</sup>*

Another example of the way systemic and structural recruitment practices can act as a barrier to advancement for women who have taken a career break is when recruiters consider years of experience rather than particular skills and capabilities when assessing candidates for senior roles. Such an approach can create disadvantage for women seeking promotion when women are more likely to have taken a career break for carer responsibilities. While they may have the requisite skills and capabilities, it is only where these are explicitly stated as selection criteria over years of experience that fair and unbiased recruitment and promotion decisions can be made.



The most widely experienced form of unconscious bias reported by respondents was in-group bias (which causes individuals to be more comfortable with and favour people like themselves) – 66.5 per cent of respondents said they had experienced this form of bias.

46.5 per cent said unconscious bias was embedded in their organisation's workplace culture.

44.2 per cent said unconscious bias was embedded in their organisation's decision-making processes.

45.6 per cent said unconscious bias was embedded in their organisation's recruitment practices.

62.9 per cent agreed or strongly agreed that in their occupation, women have to prove themselves where men are assumed to be capable.

41.6 per cent disagreed or strongly disagreed that clients respected the professional opinion or advice of men and women equally.

26.1 per cent of respondents said they had negotiated their own salaries. Over one-third (31.1 per cent) were not confident doing so.

*Having managers with internalised gender biases is a career killer. Having them tell you that you can't work from home 1 day a week when you come back from maternity leave because "a woman can't ignore her baby crying"; or being told you were overlooked for a role because you wouldn't be interested because there's a lot of travel and you have a child; or being told you can't travel offshore because women and men can't share a room, so having a woman offshore takes up not one bed but 6 is toxic. If you let it slide, you're a doormat ... These men control our career progression. When they are unaware of their internalised biases, if they are not in the right frame of mind to be receptive to change, pointing it out to them just reinforces their biases and results in the woman in question being further shut down. The culture and systems need to change drastically.*

SURVEY RESPONDENT

Our respondents made a range of comments that confirmed they experienced what they found to be bias in recruitment and promotion opportunities.

## COMMENTS

- *Having managers with internalised gender biases is a career killer. Having them tell you that you can't work from home 1 day a week when you come back from maternity leave because "a woman can't ignore her baby crying"; or being told you were overlooked for a role because you wouldn't be interested because there's a lot of travel and you have a child; or being told you can't travel offshore because women and men can't share a room, so having a woman offshore takes up not one bed but 6 is toxic. If you let it slide, you're a doormat. If you point it out, you're a bitch. I've been told, in the same performance review by the same manager, that I am simultaneously too aggressive and not assertive enough. These men control our career progression. When they are unaware of their internalised biases, if they are not in the right frame of mind to be receptive to change, pointing it out to them just reinforces their biases and results in the woman in question being further shut down. The culture and systems need to change drastically.*
- *The last few years have seen more women moving into senior roles, and it's great to see; however the senior technical and engineering roles are definitely predominantly filled by men.*
- *Biggest obstacle is strong undercurrent of sexism, gender bias and boys' club culture leading to white men preferential hiring of "people just like me".*

# WOMEN'S SAFETY IN THE WORKPLACE

*Two of my managers in my first 10 years of professional employment, asked me if I intended to get pregnant within 1-2 years as this would impede my development by preventing me from being allowed to take on certain projects with higher responsibility.*

SURVEY RESPONDENT

*I have been told outright previously that the only reason that I was promoted to a role was because I was female, and that the male was discriminated against.*

SURVEY RESPONDENT

## GENDER DISCRIMINATION

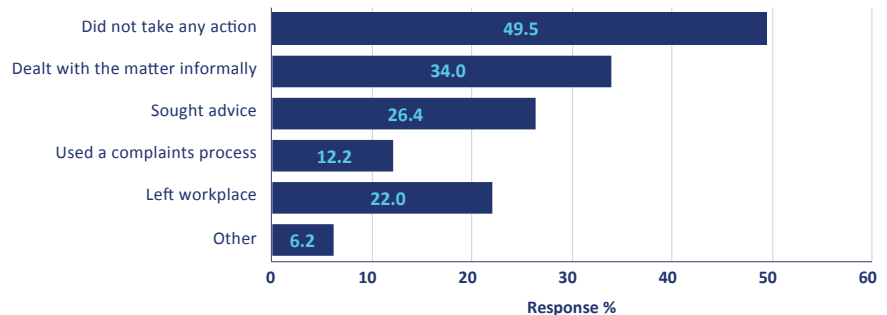
Over half of the respondents (56.7 per cent) reported having been directly discriminated against in the course of their employment on the basis of gender.

22.9 per cent said they had been discriminated against on the basis of their carer status.

14.8 per cent said they had been discriminated against on the basis of pregnancy.

Of those that reported they had experienced discrimination, only 26.4 per cent of respondents had sought advice on dealing with the matter. A disturbing 22.0 per cent left their workplace and 49.5 per cent took no action at all.

FIGURE 16 - RESPONSES TO DISCRIMINATION



Note: Respondents could select multiple responses.

## COMMENTS

- *Two of my managers in my first 10 years of professional employment, asked me if I intended to get pregnant within 1-2 years as this would impede my development by preventing me from being allowed to take on certain projects with higher responsibility.*
- *When starting a new role - being treated differently to others that start, where my technical competence was not believed, and I needed to prove myself. And, in many cases, the assumption being that I got the role because I was female and the company wanted to improve its stats for females. I have been told outright previously that the only reason that I was promoted to a role was because I was female, and that the male was discriminated against.*
- *As a transgender woman in the workplace almost in every role I face discrimination or bullying, often this presents through passive aggressive behaviours towards me which ultimately lead me to have no choice but to resign. This happened to me just this week.*
- *I was 56 when I left my last job and was convinced I would be able to get a good (challenging, full-time, public sector) job. I applied for many roles and had only a handful of interviews despite my extensive experience. I believe I was not considered at in part due to my age (which I was not specific about) as well as my gender.*
- *I also have disabilities that have become more visible in recent years - these have had a profound effect on my career. Where there were challenges before, there are now unassailable barriers. Where before, conversations about options were possible, now there is no option for conversation. Being both the wrong gender AND disabled was clearly the wrong move on my part in terms of my career choices.*

## SEXUAL HARASSMENT

Safety in the workplace is a critical issue for women working in the STEM professions. Survey respondents noted the prevalence of sexual harassment, violence and intimidation in their workplaces - this is a serious issue that requires urgent attention.

In April 2021, the Government released 'A Roadmap for Respect: Preventing and Addressing Sexual Harassment in Australian Workplaces'. While the roadmap included a range of positive initiatives, the The Government's response failed to:

1. deliver on stronger powers for the Sex Discrimination Commissioner to commence investigations into systemic unlawful discrimination;
2. enshrine in legislation a positive duty on employers to eliminate sexual harassment; or
3. change the Fair Work Act to explicitly prohibit sexual harassment.

These failures are a missed opportunity to provide legislated rights and obligations to protect women in the workplace. This report shows how widespread sexual harassment is, and how critical it is to ensure employers have a responsibility to provide a safe workplace and to prevent harassment.

Of greatest concern in the sexual harassment findings of the survey was the large proportion of women who took no action in response to harassment (45.7 per cent), the number of women who left the workplace (16.9 per cent) and as shown in the comments, how prevalent it is for the reason for taking no action being concern about the effect on women's career prospects.

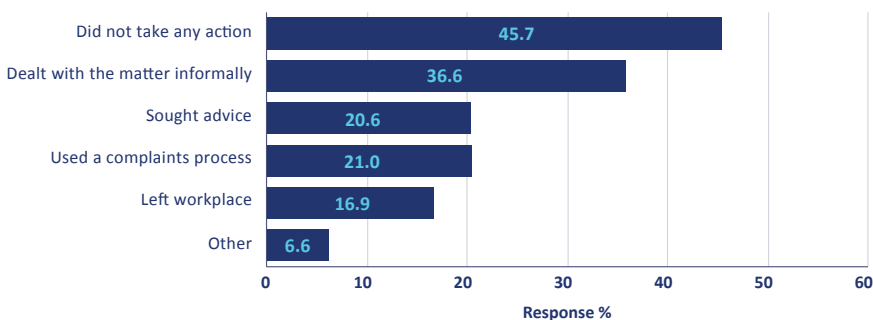
32.6 per cent of respondents reported that they had been sexually harassed in the course of their employment.

Of those that reported they had experienced sexual harassment, only 20.6 per cent of respondents had sought advice on dealing with the matter. A disturbing 16.9 per cent left their workplace and 45.7 per cent took no action at all.

Of those that had been sexually harassed at work, 81.2 per cent said they experienced the harassment in the early stage of their career.

11.8 per cent said they experienced sexual harassment at the established senior professional level.

FIGURE 17 - RESPONSES TO SEXUAL HARASSMENT



*Ten weeks into my first job, an auditor started massaging my neck. Another colleague witnessed it and told my manager who asked if I wanted to do anything, stating that he was sure the CEO “would be fine about foregoing the certification if I wanted to raise a complaint”. Needless to say I didn’t.*

SURVEY RESPONDENT

*I have been accused of having affairs with people reporting to me and of wanting to “shag” someone I was interviewing for a job because my opinion differed to the men on the panel.*

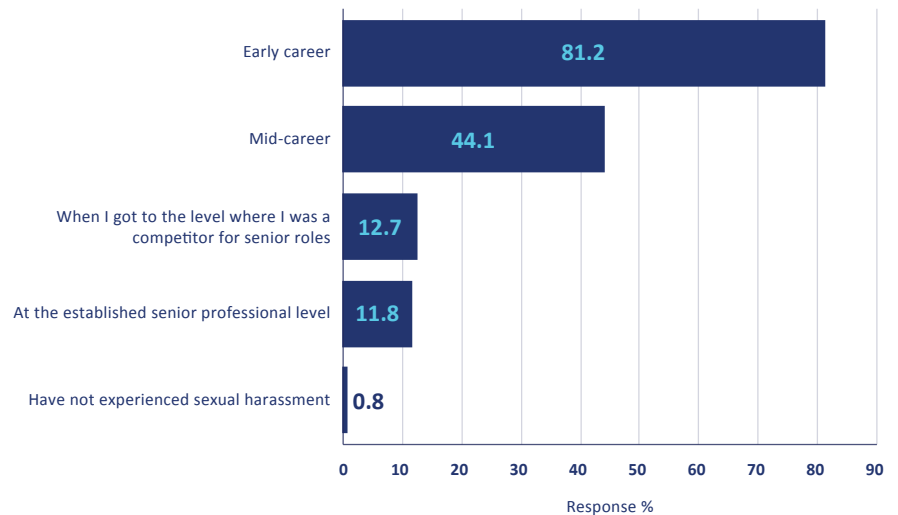
SURVEY RESPONDENT

*A colleague (knowing I was LGBT) told me if it were up to him, we would all be in prison.*

SURVEY RESPONDENT



FIGURE 18 - STAGE OF CAREER AT WHICH HARASSMENT OCCURRED



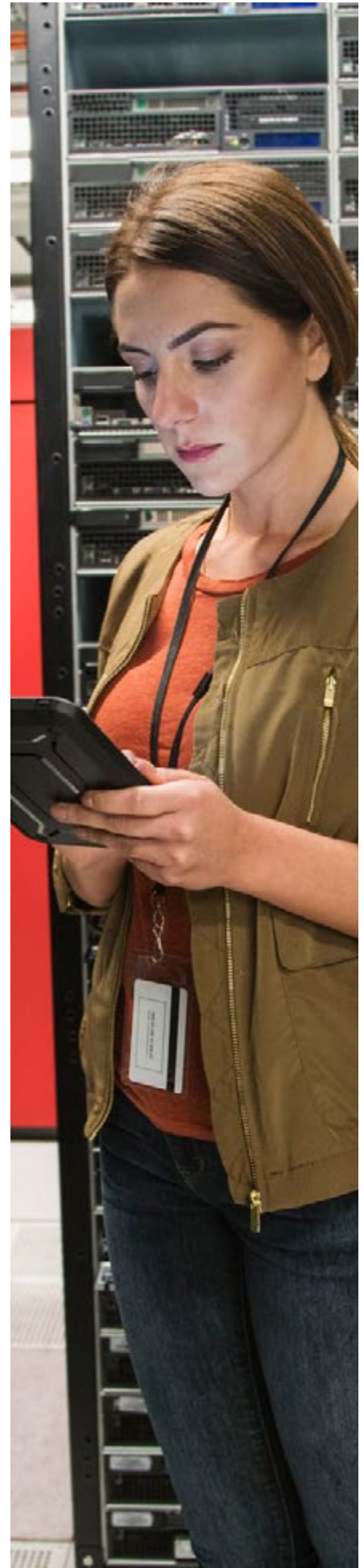
Note: Respondents could select multiple responses.

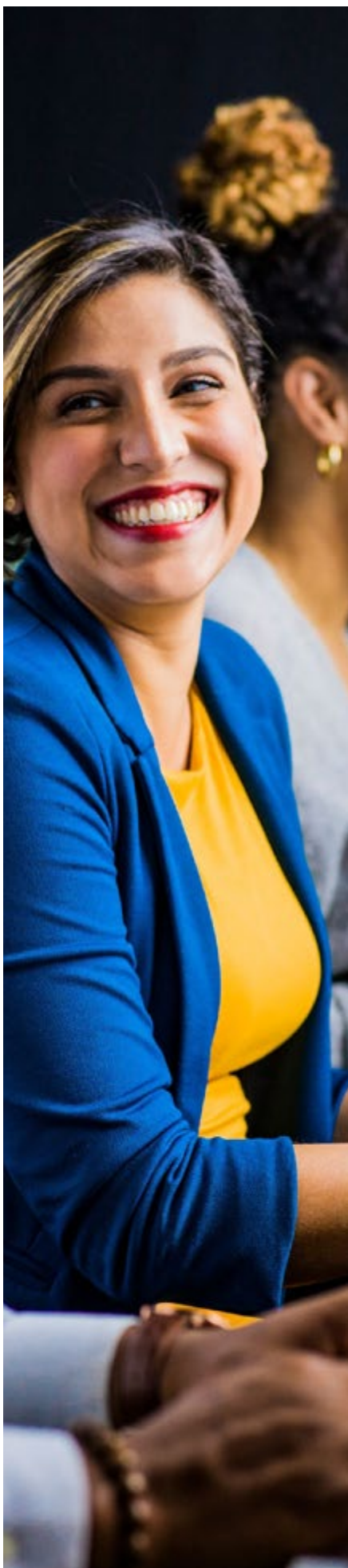
## COMMENTS

- *I was sexually harassed by a University lecturer in the early 1990s. I was too scared to do anything for I feared he would fail me. I was one of only two girls in the class. After I rejected his advances, he gave me a low mark, when I know I deserved more. At the time I did not know that it was sexual harassment. I thought it was just my bad luck.*
- *I experienced various instances of sexual harassment when I was younger. The attitudes were not as good as they are today with the support mechanisms (in terms of supporting legislation against this behaviour). I felt very much that I was fighting the battle alone with little or no support from any senior manager. Thankfully, this has changed over the years for me.*
- *A leader once told me I could take off my top and show my tits while in a group of all other men, including my team leader who said nothing.*
- *Younger women tend to be harassed more than older ones ... When I started work in the early 1990s it was normal for my male colleagues to hang up pornographic pictures, go to strip clubs at lunch and expect you to kiss them at work social events. Harassment has gone underground and is now unconscious bias.*
- *They thought I was a kid with boobs and an easy mark. Wrong. One event I followed company complaints process, only to find the investigating manager was going to be the person I was complaining about. That triggered me to look for another job elsewhere, which I did, with a pay rise.*
- *I was sexually harassed as a graduate by older senior engineers. In one instance another older female in a non-technical role overheard and told the person off. In my current company it was difficult to resolve the issue as there were no other females to talk to and I was new to the team so didn't feel comfortable speaking to my male manager or male HR staff.*
- *Lasted for 1 year with my direct manager. I had to leave the section while he stayed and went on to be promoted!*



- *I have experienced sexual harassment since I started in an internship position before graduating, and then throughout my career post-graduation. Typically, this took the form of commentary on my appearance and on my 'behaviour' with internal and external clients. I have also been sexually assaulted by three different colleagues (touched, kissed, groped) during my career. I did not report these incidences as I was worried about it being flagged on my employee record and then getting out into industry (further limiting my job prospects).*
- *I was only 17 when my boss used to put his arm around me, nothing too sinister but it made me feel uncomfortable. I was brought up to respect elders, bosses etc; I think I would speak up now - 40 years later.*
- *I would hear sexist and homophobic jokes daily around the office between the men and have heard sexist comments made about me and other women. None of these comments I ever reported as previous managers were all men who I feel would have laughed it off and told me to grow up working in a male-dominated industry.*
- *Ten weeks into my first job, an auditor started massaging my neck. Another colleague witnessed it and told my manager who asked if I wanted to do anything, stating that he was sure the CEO "would be fine about foregoing the certification if I wanted to raise a complaint". Needless to say I didn't. Then throughout my career (much less now than 15 years ago, and 25 years ago was even worse) casual touching, lewd jokes, people theorising about my sexuality, screen savers with topless women, etc.*
- *I have been accused of having affairs with people reporting to me and of wanting to "shag" someone I was interviewing for a job because my opinion differed to the men on the panel.*
- *A senior manager [asking about a work BBQ] thought it was perfectly OK to question the men in attendance as to whether 'the girls were hot', whether they 'rode bareback' (I later learned this was a veiled question as to them being lesbians), and "who would the guys do" - all of this in the open plan office, in front of the entire office staff and within earshot of new female employees.*





## WORKPLACE VIOLENCE/INTIMIDATION

What some of the comments from respondents make clear is the prevalence of totally unacceptable violence, aggression, threats and intimidation directed at women in STEM workplaces.

### COMMENTS

- *There was chance for my Manager to call out some improper/unacceptable behaviour recently. He said all the correct things initially, then when it came to actually doing something about it everything changed. I was told I would need to continue working with an individual because there was no one that could take his place. I continue to be blamed, used as a scapegoat and demeaned in front of my peers by this individual. I get told not to lower myself to his standard and keep all the emotion out of our interactions. It makes showing up for work a daily struggle.*
- *It was insidious and always small incidents or comments designed to sound petty or small if I complained, so that it was easy to dismiss my complaints. Things like standing too close to me with his groin stuck out at me in the kitchen while I made a coffee, but because he didn't touch me it was easy for the manager to say I had imagined it or was being too sensitive.*
- *I went out on site in my early career (after working on construction for a number of years without incident) and was followed by a large group of workers and cornered - I got out of there quickly and called the site manager and blasted him.*
- *I have had extremely crude comments made about me by very senior men in positions of power, had GM level individuals suggest that the company should buy me a special uniform with the company logo across the chest, been whistled at, had uniform ordering staff comment that they wanted to buy me a uniform a size down from what I ordered so they could see my body better, been forced to participate in promotional photoshoots and appear on company marketing material, and had colleagues pester me about dating them and become increasingly aggressive when I refused.*

### INTERSECTIONALITY

Intersectionality is a term used to describe how factors such as race, class, religion and gender intersect with one another to result in privilege or discrimination. What the comments throughout this report show is the diversity of women's experiences in the workplace and how important it is to acknowledge how the challenges women face can differ from other women's. This includes First Nations women, non-binary, Muslim women and trans women's experiences. It is also reflected in the intersection between types of discrimination in the survey. Our surveys of Professional Engineers, Scientists and IT Professionals show rates of discrimination are higher for female respondents compared with their male counterparts across all the possible bases of discrimination (with the exception of discrimination on the basis of religion) and that male respondents were much more likely to have not experienced discrimination on any of the bases listed.

Survey figures confirm not only a high rate of gender-based discrimination in STEM but also intersectionality as an important factor in discrimination - that is, that gender is a factor in other forms of discrimination such as age-based discrimination.

38.4 per cent of respondents had been discriminated on the basis of age.

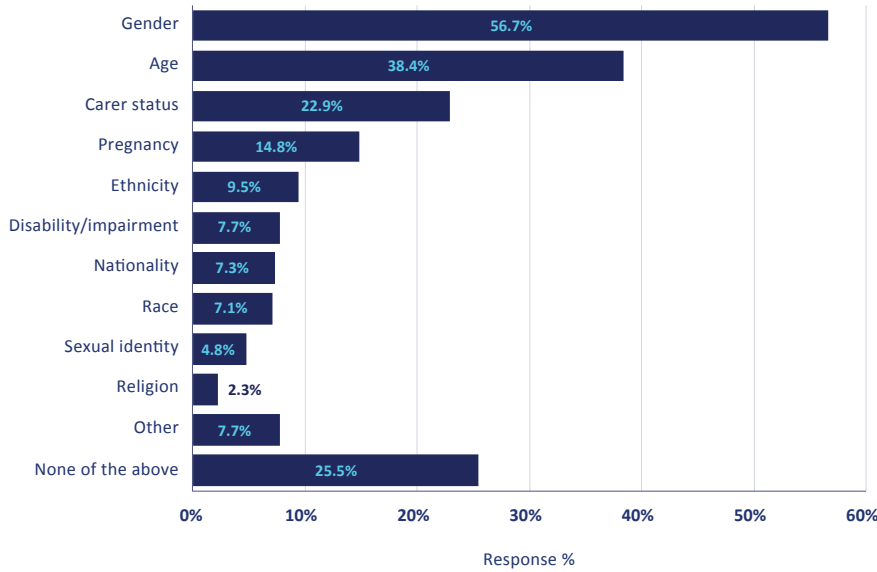
9.5 per cent had been discriminated against on the basis of their ethnicity, 7.1 per cent had been discriminated against on the basis of race and 7.3 per cent had been discriminated against on the basis of their nationality.

7.7 per cent had been discriminated against on the basis of disability/impairment.

4.8 per cent had been discriminated against on the basis of their sexual identity.

2.3 per cent had been discriminated against on the basis of their religion.

FIGURE 19 - FORMS OF DISCRIMINATION EXPERIENCED IN PROFESSION



### COMMENTS ON DISCRIMINATION AGAINST WOMEN ON THE BASIS OF FACTORS OTHER THAN/IN ADDITION TO GENDER DISCRIMINATION

- *A colleague (knowing I was LGBT) told me if it were up to him, we would all be in prison.*
- *I am a lesbian and experienced discrimination, bullying and harassment in the workplace due to this.*
- *Two years ago I was diagnosed with Autism Spectrum Disorder. I have also experienced discrimination and bullying in workplaces where I have revealed this diagnosis.*
- *[I experienced] male co-workers trying to find me a man at a team drinks. I am a lesbian.*
- *[I have had to] proactively take action in my team to minimise discrimination based in ethnicity, religion and nationality.*
- *It is impossible to prove discrimination on the bases of ethnicity, gender or age. One can feel it and there is nothing one can do about it but to move on.*
- *[I was] bullied as female/mother/carier/engineer/ethnic (in de-engineered workplace). I accepted a voluntary redundancy in 2010 but refused to sign deed claiming no bullying had occurred; they reworded so their claim stood, but that I disagreed with it. Non-disclosure. I settled on PA legal advice that even a maximum payout from court process was capped at less than the VR offer so not worth the time. Bullies continued and were promoted. I have not worked fulltime since.*
- *In my industry, it is common that people of ethnic minority (non Caucasian) get less opportunity to get a permanent role and/or get promoted. Promotion is not based on merit.*
- *My manager is a different ethnicity to me and male. He never confides in me and actively avoids spending time with me or talking to me. This is a very different relationship to that he has with my male counterparts where they will have lengthy meetings and discussions, he will listen to their ideas and action their suggestions.*
- *I experienced a lot in my early career from workmates because I was ethnic and they made fun of me not understanding Australian colloquialisms and for the characteristics of my race.*





*There are disadvantages based on logistics as well as those based on assumptions. For example, the logistics of having kids means I missed out on a project I wanted to do because it was a 12-month project and I was going on mat leave in 2 months. Also, I work school hours so can't do inspections at sites that are 4 hours away because I only work 5 or 6 hours a day. But the disadvantages based on assumption are the ones that bite hardest. I don't get offered exciting projects any more because work assumes that I won't want it or won't be able to do it part-time, without actually considering how something could be done.*

SURVEY RESPONDENT

## GENDER STEREOTYPES – LOGISTICS VERSUS ASSUMPTIONS

Respondents reported widespread gender stereotyping that negatively impacted their opportunities for advancement, undermined their credibility in the workplace and, contrary to research which has found otherwise,<sup>57</sup> suggested they were less professional, less committed, less capable of handling complex projects and less serious about their careers than male STEM professionals. While there was an acknowledgement that genuine logistical limitations can limit opportunity, respondents made it clear that very often opportunities to participate in high-level-projects, training or advancement opportunities were not offered due to assumptions made rather than being made on the basis of these genuine limitations.

46.6 per cent said 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.

18.4 per cent highlighted the historical stereotyping of STEM roles as better suited to males as one of their top three issues that needed to be addressed.

38.8 per cent of respondents said they felt like they had to “become one of the boys” if they wanted to “fit into” their workplace.

Only 29.3 per cent agreed or strongly agreed that clients respect the professional opinion or advice of men and women equally; 41.6 per cent disagreed.

35.5 per cent said they were seen as less professional as they had commitments outside work.

34.6 per cent said they were seen as less professional because they could not work long hours.

26.1 per cent said they were seen as less professional because they were not available to attend after hours meetings.



## COMMENTS ON WORK ALLOCATED TO WOMEN WITH CAREGIVER RESPONSIBILITIES LOGISTICS OR ASSUMPTIONS?

- *There are disadvantages based on logistics as well as those based on assumptions. For example the logistics of having kids means I missed out on a project I wanted to do because it was a 12-month project and I was going on mat leave in 2 months. Also, I work school hours so can't do inspections at sites that are 4 hours away because I only work 5 or 6 hours a day. But the disadvantages based on assumption are the ones that bite hardest. I don't get offered exciting projects any more because work assumes that I won't want it or won't be able to do it part-time, without actually considering how something could be done.*
- *When I announced I was going part-time the body language and tone of the response from some senior managers was "oh, so you aren't serious about your career" due to your family circumstances.*
- *Jobs that are provided to work on are only week to week rather than proper projects.*
- *Roles requiring higher levels of responsibility and that require extra out of hours work do not become available for those undertaking part-time work.*
- *Managers have assumed I can't cope with responsibility and am not interested in career progression.*
- *Working part-time has been seen as not being committed or not being able to perform certain jobs e.g. Project Manager of site investigations due to short hours in the office.*
- *I'm often left out of technical tasks in group projects during my education, often delegated "soft" tasks (i.e. writing documentation) by male group members, or expected to fill these roles in addition to contributing in a technical capacity.*
- *I had to hide my pregnancy from older male colleagues after they declared pregnant women got 'baby brain' and were therefore stupid.*

It should also be noted that not all the stereotyping issues reported arose from women's responsibilities as primary caregivers but also from assumptions about gender roles. This included being expected to undertake more non-technical tasks than male counterparts.

## COMMENTS ON GENDER STEREOTYPING IN STEM

- *[There is a] lack of respect for senior technical women. You can be a manager or in a governance/policy role but technical...the put-downs, condescension etc. is soul destroying.*
- *Managers volunteered women to do non-promotable but necessary busy work such as handling communications, organising meetings, writing documentation.*
- *[I was] made feel like I was overly emotional because I was a women caring about a cause.*
- *[There are] biased opinions that women are too emotional so therefore not good at managing people or leading groups.*
- *[Women are] framed as emotional and unstable compared to men.*

*[There is a] lack of respect for senior technical women. You can be a manager or in a governance/policy role but technical ... the put-downs, condescension etc. is soul destroying.*

SURVEY RESPONDENT

*I had to hide my pregnancy from older male colleagues after they declared pregnant women got 'baby brain' and were therefore stupid.*

SURVEY RESPONDENT

*My retirement savings have been negatively impacted by reduced opportunity for promotion. The men who started at the same time or after me were promoted but my skills and capabilities were not acknowledged until I had earned a PhD.*

SURVEY RESPONDENT

*Reduction to superannuation has been the biggest impact of mat leave and part-time work. My husband and I are same age, similar incomes, but his super is 50% higher than mine.*

SURVEY RESPONDENT

## WOMEN'S ECONOMIC SECURITY IN RETIREMENT

73.8 per cent of our Women in STEM Survey respondents said a career break had seriously reduced their retirement savings.

Of the women who had worked part-time at some point in their career, 76.8 per cent said working fewer hours had reduced their retirement savings.

65.9 per cent said access to more flexible work arrangements and therefore full-time work would have meant a reduced impact on their retirement savings.

Economic security for women in retirement was nominated as a key priority for Government by 11.3 per cent of respondents.

### COMMENTS ON GENDER STEREOTYPING IN STEM

- *The impact of the time off to have my children is still with me as my super is lower due to time off with zero contribution and my career was severely impacted as I had to restart it each time from the beginning.*
- *Issues faced resulting from being away from work are profound. Financial (underpayment or nil payment, no superannuation and salary reduction).*
- *My retirement savings have been negatively impacted by reduced opportunity for promotion. The men who started at the same time or after me were promoted but my skills and capabilities were not acknowledged until I had earned a PhD.*
- *I've got no long service leave and reduced super.*
- *My wage and leave are all pro-rata for working part-time and super contribution is therefore lower due to part-time work.*
- *Reduction to superannuation has been the biggest impact of mat leave and part-time work. My husband and I are same age, similar incomes, but his super is 50% higher than mine.*



# PART 3 - TAKING ACTION





*This report shows that as well as encouraging more women into the STEM professions, the challenge is to remove the obstacles and barriers which operate as disincentives to women remaining in the STEM workforce. This includes addressing the key drivers of attrition pre-COVID and those that were exacerbated during the COVID-19 crisis. It also includes making the most of positive practices that arose out of the disruption brought about by the pandemic such as access to online training and technology-assisted work from home arrangements.*

To be effective, there is a need to put proper diversity and anti-discrimination policies in place and then implement them at the systemic level. This necessarily involves ensuring management accountabilities are in place to incentivise change and to address workplace culture and practices that get in the way of making equitable, family-friendly and safe STEM workplaces a reality.

The 2021 Survey of Women in the STEM Professions found a complex set of interrelated factors which prevented respondents from being able to fully contribute in a valuable and meaningful way - even where an organisation had strong diversity and anti-discrimination policies in place. Effective implementation, workplace culture, stereotyping, and the lack of real incentive for change within the workplace were the key barriers.

While there is no-one-size-fits all approach, we provide below a model action plan based on our survey findings from which organisations can draw on as needed to address the factors that contribute to the attrition of women from the STEM professions. The actions outlined below would help organisations come to terms with the complexities of the changes needed, and to deal with complacency or fatigue that WGEA found could be an issue for employers in its latest Scorecard report.<sup>58</sup>

Only then, will employers have access to the broadest pool of high-quality STEM talent, the structures and systems in place to ensure a sustained increase in the participation of women in STEM and, in turn, for a diverse STEM workforce to play the critical role it should in rebuilding the Australian economy as we move into the post-COVID environment.



## HR AND ORGANISATION POLICY

1. ensure equal pay for equal work
2. ensure appropriate diversity, anti-discrimination and sexual harassment policies are in place that comply with relevant workplace and discrimination legislation and that existing policies are reviewed for potential direct and indirect discrimination
3. ensure diversity and inclusiveness policies are effectively promulgated as part of the organisation's core values - if diversity and anti-discrimination are not a priority at the policy level and prioritised by the leadership group, they won't be a priority for managers and staff
4. ensure diversity issues in the workplace are articulated and understood in terms of the removal of obstacles to merit-based advancement and recruiting and retaining the best talent
5. with research showing links between improved organisational performance and diverse boards, ensure women are represented at Board level

## STRATEGIC AND OPERATIONAL CHANGES

6. put in place the strategies and management accountabilities to give effect to diversity and anti-discrimination policies so workplace culture does not override policy intent with incentives and rewards aligned with these policies and part of managers' performance indicators
7. gather and monitor data on progress against gender equity policies including identifying over- and under-representation of women in particular areas or roles of the organisation that may indicate gendered occupational or role segregation
8. monitor and manage resistance to change that may range from passive resistance, denial, claiming the organisation is a meritocracy and doesn't need to change to more active forms of pushback
9. ensure internal reporting mechanisms to identify biases and discrimination and resources for changing procedures and ways of working are available as needed
10. conduct confidential exit interviews to better understand whether gendered workplace practices are a factor in staff attrition

## TO ADDRESS BIAS IN CAREER-BUILDING ACTIVITIES

11. review workplace practices for bias in career building activities for women and those not working full-time. This includes ensuring access to training and development opportunities including management training, access to 'stretch' projects, formal and informal mentoring, access to inclusive opportunities for networking and clear criteria for advancement that are not restricted to years of experience only. Track and measure outcomes in career development practices
12. ensure positive senior male and female role models and mentors are in place and inclusive
13. address barriers to training and ensure that training and development opportunities are linked to requirements for promotion and career pathways
14. consider potential obstacles to women undertaking relevant registration, certification or accreditation and barriers to women undertaking the CPD required to maintain registration

## TO ADDRESS THE CAREER PENALTIES THAT CAN APPLY WHEN WORKING PART-TIME OR WITH FLEXIBILITY

15. look to some of the changes in flexibility adopted during COVID-19 that have the potential to reduce systemic barriers historically faced by women in STEM at the enterprise level and consider how they could be embedded in permanent arrangements to create a more resilient and responsive workforce
16. develop options for part-time and flexible work at senior, management and leadership levels
17. provide a process for review of management approvals/refusals for women requesting part-time work or access to flexible work arrangements after a career break
18. ensure performance pay systems do not exclude incentives and rewards for those in part-time work
19. ensure workload and performance indicators are adjusted for part-time status
20. ensure there are socialising, interaction and formal and informal networking available to those who work flexibly including working from home
21. ensure promotion, recognition and reward are not solely linked with long/full-time working hours
22. ensure the leadership and management team 'model' good work/life balance practices
23. offer flexibility options broadly rather than just to women with carer responsibilities and ensure the culture of the organisation does not undermine respect and advancement options for those who use flexible arrangements
24. ensure the selection criteria for those being sponsored for registration, certification or accreditation are inclusive and that women are not under-represented in the number of professionals being provided with employer-provided support for undertaking the process

## TO ADDRESS THE DISADVANTAGE THAT CAN ARISE FROM TAKING A CAREER BREAK

25. ensure pay reviews do not create extended disadvantage for women taking a career break - that is, no recognition or reward in the year preceding and year following maternity leave
26. ensure compliance with return to work rights after a career break including the right to return to the same job and keep-in-touch arrangements and support for reintegration into the workforce on return
27. implement measures to support those on a career break including keep-in-touch arrangements, maintaining email accounts, providing a handover period and notification of team and organisational changes, and on return to work, training as needed and project work that provides challenges, debriefings where meetings occur on non-work days and time to get back up-to-speed on return
28. count paid and unpaid parental leave as service with no break in employment
29. utilise the enterprise bargaining process to include additional paid parental leave in enterprise agreements
30. offer paid parental leave to women and men and offer options to take parental leave concurrently
31. make wording on parental leave being neutral on who provides care (rather than primary and secondary carers)

## TO ADDRESS UNCONSCIOUS BIAS IN DECISION-MAKING AND RECRUITMENT

32. ensure inclusive recruitment, retention and promotion strategies by reviewing recruitment practices for unintended or unconscious bias. Work packages for senior, team leader and project manager roles, for example, should address work/life balance issues (such as role being available on a part-time basis and/or with flexible hours), use gender-neutral language and set out clear criteria for advancement
33. support women breaking into growth sectors and ensure accountability in recruitment processes and training in identifying unconscious biases where needed. Track and measure outcomes in hiring practices

## TO ADDRESS GENDER DISCRIMINATION AND SEXUAL HARASSMENT

34. ensure a clear policy on the right to work free from sexual harassment in the workplace
35. make it clear that sexual harassment is included the definition of serious misconduct and a basis for dismissal
36. ensure individuals are not expected to “call out” discrimination and sexist behaviours and practices - rather that a broader strategy for organisation-wide cultural change and a systemic approach are in place. The former approach encourages backlash against individuals and simply leads to women leaving the workplace
37. ensure the sexual harassment complaints procedure is transparent, objective and administered by trained personnel and protected by confidentiality and privacy arrangements
38. ensure psychosocial hazards and injuries such as sexual harassment are considered as being equally as important as physical health and safety hazards and injuries in the workplace
39. ensure removing the person being harassed from the area is not seen as a solution and that the individual investigating the complaint is at arms’ length from the subject of the complaint
40. in cases where a manager is the subject of a sexual harassment complaint, that they not appointed as the individual who will hear the complaint and decide the matter
41. ensure appropriate training and performance counselling for a perpetrator
42. ensure appropriate training including role plays and role reversals for all staff
43. ensure there is no penalty for an individual raising a complaint
44. ensure sexual harassment policies are working for the people they are meant to protect and monitor whether the reporting mechanisms are working

## TO ADDRESS GENDER STEREOTYPING

45. ensure stereotypical assumptions of women with and without caregiver responsibilities as less serious about their careers or less suited to work in STEM fields are called out/not condoned and do not impact advancement opportunities or create bias in recruitment, promotion and development
46. ensure women do not disproportionately undertake administration or support activities
47. ensure the technical expertise of women is respected at the leadership and management levels and not second-guessed at operational level

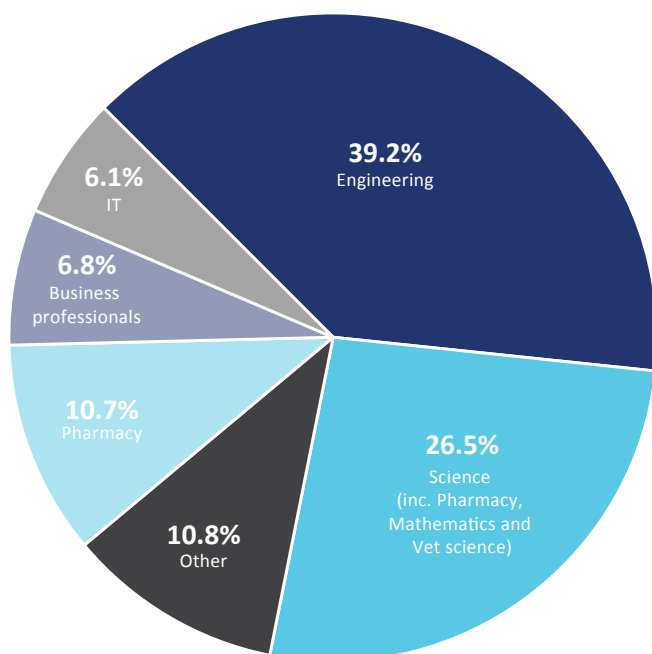
## TO ADDRESS THE RETIREMENT SAVINGS GAP

48. embed the superannuation guarantee increases into enterprise agreements wherever possible
49. include superannuation payments for paid and unpaid leave component of parental leave
50. encourage access to flexible work arrangements for those with carer responsibilities including those at senior level to encourage full-time flexible work options to maximise retirement savings

# ABOUT THE SURVEY

The 2021 Women in the STEM Professions Survey (formerly the Women in Professions Survey) has been produced since 2000. The survey provides valuable insight into the workforce experience of female technical professionals working in STEM fields. The purpose of the survey is to detail some of the factors which contribute to women's under-representation in the STEM professions, to explore professional women's career experiences as part of the STEM workforce and ensure the needs of women in the STEM professions can be recognised in the development of policy by government, industry and professional associations.

FIGURE 20 - PROFESSION BREAKDOWN



## SAMPLE CHARACTERISTICS

- Engineers were the biggest single profession to respond to the survey at 39.2% of respondents, followed by scientists at 26.5% (including those trained in mathematics and veterinary science). Pharmacists represented 10.7% of respondents, Business professionals comprised 6.8% of respondents, Computing/ICT professionals represented 6.1% of respondents, while 10.8% of respondents nominated other STEM professions.
- Respondents were most likely to hold a Bachelor degree, with or without Honours, as their highest qualification (47.6%). 23.9% of respondents held a Masters degree and 13.5% had a Doctorate/PhD.
- Most respondents were employed full-time as employees (58.1%) while 9.4% were engaged full-time on a fixed-term contract. 15.4% were employed as part-time employees. Only 5.8% were employed as casual employees and 1.8% were self-employed.

- The private sector accounted for 47.0% of respondents, while the public sector accounted for 29.3% of respondents. 5.4% worked in a government business enterprise and the remainder worked in other sectors, such as not-for-profits.
- Respondents were much more likely to work for a large employer (71.6%) classified as employing 200 or more people and 17.9% worked for small to medium enterprises classified as employing between 20 and 199 people.
- The industries represented in the survey included Health (16.6%), Consulting and technical services (14.0%), Education and training (8.1%), Water, sewerage and drainage (6.6%), Roads (6.1%), Electricity (6.2%) and Mining (including oil and gas extraction) (5.5%). 12.7% of respondents reported being employed in an industry not listed in the survey.
- The split between respondents with and without children was fairly even – 49.6% did not have children and 50.4% did have children.
- The median age of respondents was 39 years old, with a lower quartile of 30 years old and an upper quartile of 47 years old.

## SURVEY METHODOLOGY

During November 2020, Professionals Australia conducted a survey of female STEM professionals regarding their experiences in the workforce. Respondents were invited to participate in the 63-question survey using direct e-mails and social media. Participation was incentivised by offering respondents the option of entering a competition to win a cash prize of \$500. All female members of the association were invited to participate, as well as female STEM professionals the organisation had interacted with through various campaigns and promotions. Anyone connected with the association or related professional organisations through social media had an invitation to complete the survey sent to them explicitly indicating the survey's target was female STEM professionals.

A total of 957 usable responses were collected over the four-week period. All responses were screened to ensure no individual had submitted more than one response using a combination of data points provided while answering the questionnaire and competition entry. Participants were not required to answer all questions in the survey to be included in the analysis, and only questions used as logic gates for progression through the survey were treated as compulsory. Respondents are included in all analyses where they provided the minimum amount of data required. As a result, the number of respondents included in each analysis will differ.

The survey contained a range of questions with a mix of quantitative and qualitative responses required.

## REPORT PREPARATION

This report was compiled by Dr. Kim Rickard, BA, PhD and Mr. Alex Crowther, BSc (Hons), MSc.

# APPENDIX – SUMMARY OF KEY RESULTS FROM SURVEY

## **Career penalty attached to working part-time**

46.9 per cent said they believed working part-time had negatively impacted their career.

## **Career disruption**

66.0 per cent of survey respondents said taking maternity leave had been detrimental to their career.

## **Gender pay gap**

37.1 per cent of respondents did not believe they received equal compensation for work of equal value.

## **Attrition from the STEM workforce**

33.9 per cent of all respondents expected to have left their profession within five years.

34.3 per cent of respondents in the 25 to 35 age group said they were intending to leave their profession within 5 years.

## **Women's retirement savings and economic security**

73.8 per cent of our Women in STEM Survey respondents said a career break had seriously reduced their retirement savings.

Of the women who had worked part-time at some point in their career, 76.8 per cent said working fewer hours had reduced their retirement savings.

65.9 per cent said access to more flexible work arrangements and therefore full-time work would have meant a reduced impact on their retirement savings.

## **Bias in career-building activities**

23.8 per cent said they were unnecessarily prevented from undertaking training and professional development due to working part-time.

## **Gender-based discrimination**

56.7 per cent reported having been directly discriminated against on the basis of gender during the course of their employment.

## **Sexual harassment**

35.3 per cent reported that they had been sexually harassed in the course of their employment.

## **Unconscious bias in decision-making and recruitment**

44.2 per cent said unconscious bias was embedded in their organisation's decision-making processes.

45.6 per cent said unconscious bias was embedded in their organisation's recruitment practices.

## **Gender stereotyping and workplace culture**

46.6 per cent said 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.

35.5 per cent said they were seen as less professional as they had commitments outside work.

34.6% said they were seen as less professional because they could not work long hours.

## **Gap between policy and implementation**

38.1 per cent said they did not believe the employer had strategies in place to actually implement policies relating to diversity and discrimination.

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# WOMEN STAYING IN THE STEM WORKFORCE

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**STREET ADDRESS**

152 Miller Street , West Melbourne  
Victoria 3003, Australia

**POSTAL ADDRESS**

GPO Box 1272, Melbourne  
Victoria 3001, Australia

**TELEPHONE**

1300 273 762

**EMAIL**

[genderanddiversity@professionalsaustralia.org.au](mailto:genderanddiversity@professionalsaustralia.org.au)

**WEB**

[www.professionalsaustralia.org.au](http://www.professionalsaustralia.org.au)

