
PROFESSIONAL SCIENTISTS EMPLOYMENT AND REMUNERATION REPORT

2020-21



ABOUT SCIENCE & TECHNOLOGY AUSTRALIA

Science & Technology Australia is the peak body representing more than 80,000 scientists and technologists across Australia.

Our mission is to advance the public good and strengthen civil society through education, outreach, and programs by bringing together scientists, technologists, governments, industry and the broader community.

We do so to advance the role and impact of science and technology to help solve some of humanity's greatest challenges, including saving and improving lives.

The organisation contributes to discussions at the highest levels in policy-making in Australia and communicates with the highest level of Government.

To amplify the voices of STEM professionals, STA runs major events and programs including:

- **Science meets Parliament** - STA's annual flagship event, connects hundreds of scientists and technologists directly with Federal Parliamentarians each year;
- **Superstars of STEM** - A program that aims to smash society's gender assumptions about scientists and increase the public visibility of women in STEM. Designed to create a critical mass of visible role models for young women and girls, the program is helping achieve equal representation in the media of women and men working in all fields in STEM; and
- **STEM Ambassador Program** - Linking STEM professionals with their local Member of Parliament, participants act as a conduit between local STEM communities and the decisionmakers that represent them in Parliament.

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ABOUT PROFESSIONAL SCIENTISTS AUSTRALIA

Professional Scientists Australia represents several thousand professional scientists from a broad range of specialisations including health science, biomedical science, ecology, veterinary science, neuroscience, mental health, genetics and genomics, astronomy, biochemistry, mineral processing, environmental science, fertility science, defence research, synchrotron science, environmental science, immunology, water science and automotive design.

Professional Scientists Australia is a division of Professionals Australia (formerly the Association of Professional Engineers, Scientists and Managers, Australia) which is an organisation registered under the Fair Work Act 2009 representing over 25,000 Professional Engineers, Professional Scientists, Veterinarians, Architects, Pharmacists, Information Technology Professionals, Managers, Transport Industry Professionals and Translating and Interpreting Professionals throughout Australia. Professionals Australia is the only industrial association representing exclusively the industrial and professional interests of these groups.

Professional Scientists Australia has four key objectives:

- to ensure members' interests are protected when government policies, outsourcing and offshoring, management decisions, new technologies or large-scale social or health crises lead to workplace change;
- to provide a strong voice for professional scientists. This involves considering the kind of support, policies and practices at the enterprise and structural levels needed to create a sustainable and diverse science workforce capable of realising optimal levels of innovation and productivity;
- to play a leading role in encouraging dialogue between industry, government and the higher education sector. This means advocating for investment and structural reforms, building the platforms for cooperation and change and initiating and leading projects to foster collaboration; and
- to promote public understanding of science and the key role professional scientists play in ensuring Australia's future. This involves influencing public policy and resource allocation decisions and promoting the value of science to decision-makers and the wider community. We seek to highlight the critical role science plays in enabling productivity and innovation, promoting economic prosperity, protecting the environment, improving human welfare and quality of life, preventing, diagnosing and treating human disease and protecting national security. In doing so, we raise the status of the profession and the professionals who work in it.

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A NOTE ABOUT THIS SURVEY

This annual survey enables us to report on pay and work trends in the professional scientists' workforce. It is part of a longitudinal data series that spans 25 years. It gathers a strong evidence-base to understand the position and changes to the science workforce.

The data in this report was captured in May 2020 – as the economic downturn sparked by the COVID-19 began. As such, it is a benchmark of pay levels we want to return to - and build on - as we rebuild the economy.

The data from the 1,464 scientists who completed the survey this year reflect only the initial impact of the COVID-19 pandemic on wages. Wages for the majority of scientists had not yet experienced a stark downturn at the point this snapshot was taken. However we anticipate scientists' salaries in the coming 12 month period are unlikely to be immune from the effects of the health crisis and the economic impact of the pandemic.

In response to the COVID-19 crisis, the 2020-21 survey included questions asking about the work impact of COVID-19 on professional scientists. This data was published in a separate report published in August 2020. You can download a copy of that report on the initial employment impact of the COVID-19 pandemic on from the Professional Scientists Australia website:

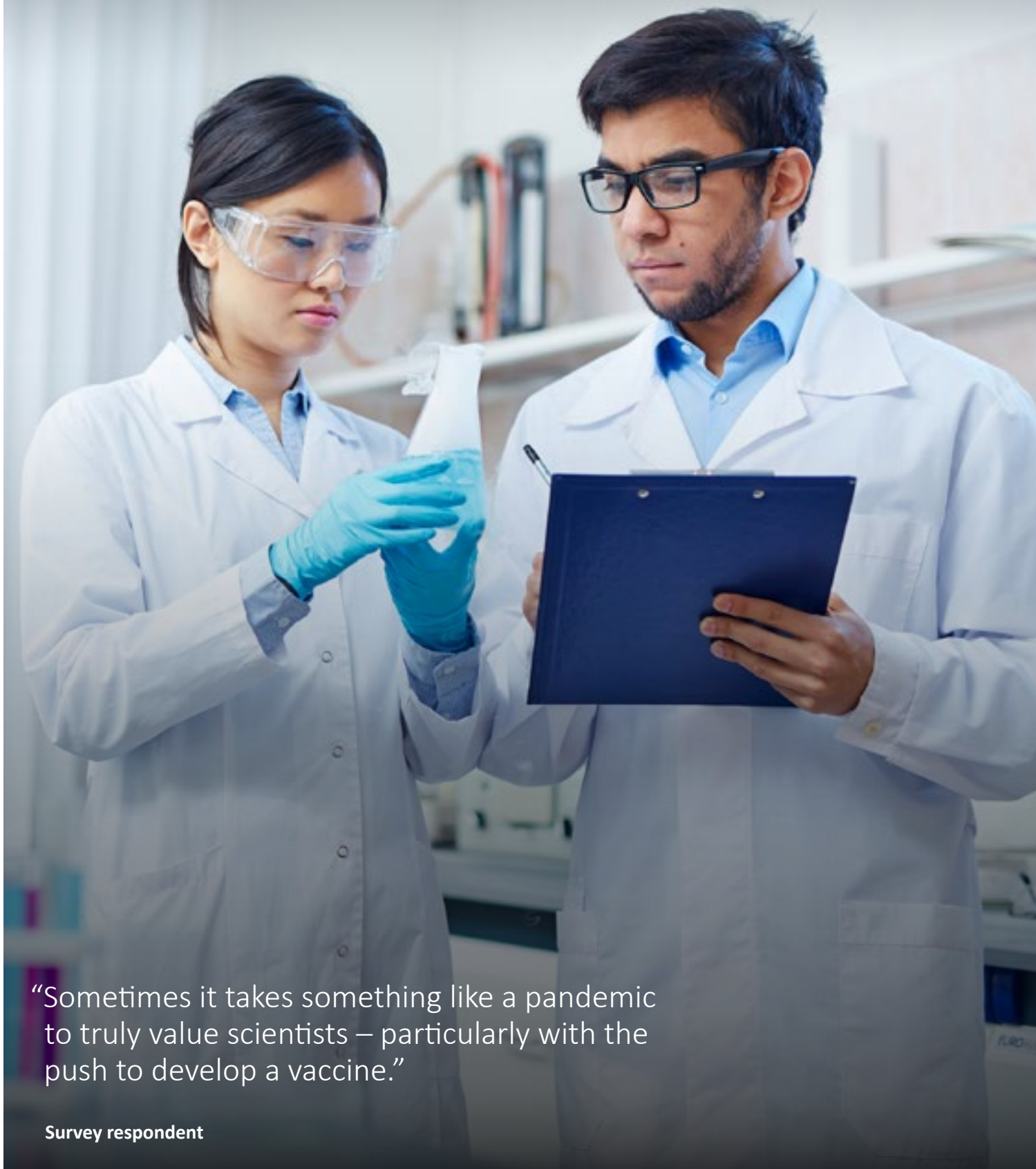
https://apesma.informz.net/apesma/pages/Initial_2020_SCI_Rem_Report



CONTENTS

FOREWORD	6
INTRODUCTION	8
KEY FINDINGS	10
REMUNERATION	12
1. EMPLOYMENT SECTOR	13
2. RESPONSIBILITY LEVEL	15
3. INDUSTRY	17
4. BRANCH OF SCIENCE	18
5. YEARS OF EXPERIENCE	20
6. JOB FUNCTION	21
7. STATE/TERRITORY	22
8. HIGHEST SCIENCE QUALIFICATION	23
9. GENDER	24
10. VARIABLE PAY	31
11. SATISFACTION WITH CURRENT LEVEL OF REMUNERATION	33
WORKPLACE ISSUES	35
12. COST-CUTTING, MISALLOCATION OF RESOURCES AND LESS INNOVATION	36
13. SKILLS DEVELOPMENT	37
14. DEPROFESSIONALISATION	38
15. DECLINE IN SERVICE QUALITY AND PROFESSIONAL STANDARDS	38
16. WORKPLACE AND STEM WORKFORCE PRIORITIES	39
17. WORKING HOURS AND OVERTIME	40
18. STAFF MORALE, WORKER FATIGUE AND PERCEPTIONS OF PRODUCTIVITY	42
19. PROFESSIONAL INTENTIONS	43
20. SCIENCE CAPABILITY AND INNOVATION	46
ABOUT THE SURVEY	47
HOW TO ORDER THE EXTENDED SCIENTISTS EMPLOYMENT AND REMUNERATION REPORT	56

FOREWORD



“Sometimes it takes something like a pandemic to truly value scientists – particularly with the push to develop a vaccine.”

Survey respondent

UNPRECEDENTED TIMES – IN WHICH THE WORK OF SCIENTISTS HAS BEEN CRUCIAL

As the COVID-19 crisis plays out, many things have become clear.

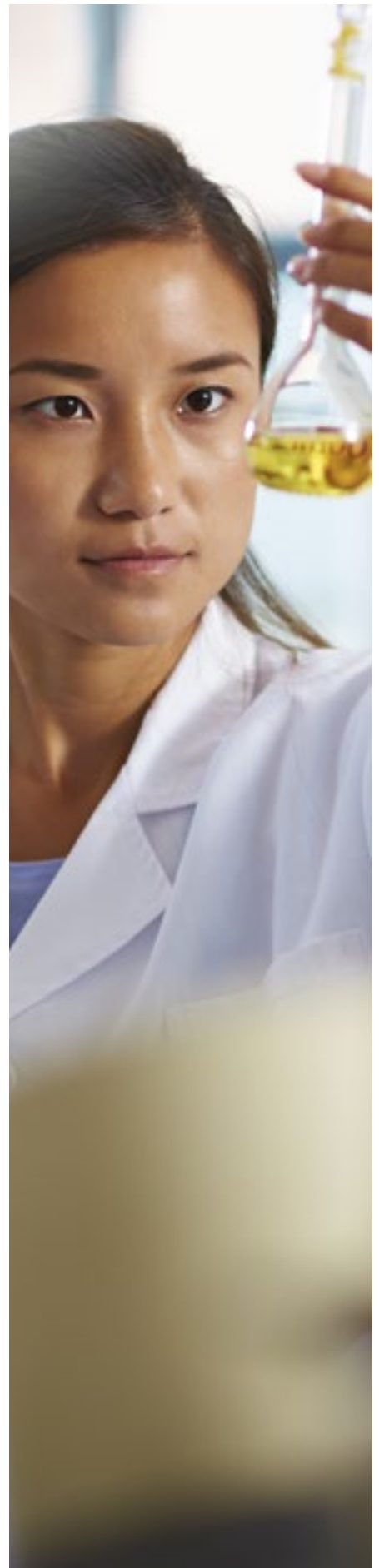
The integral role of scientific, technical and research expertise in the public health response to save lives has been front and centre in the COVID-19 pandemic. The health crisis has highlighted the critical role of scientists as trusted experts who have provided valuable evidence-based information to the community about the virus and its containment. The pandemic has reinforced the need for strong investment in science and R&D - in medical research in particular - and in public health capability and capacity. And as researchers work towards a safe and effective vaccine, their efforts highlight the need for ongoing funding across all the sciences to translate research discoveries into applied knowledge and solutions.

Our indebtedness to STEM professionals is profound. Scientists in diverse fields have worked hard to deliver high-quality services. Some have remained in their pre-pandemic roles. Others have been redeployed to other areas of urgent need amidst the crisis. Scientists on the frontline – including our medical scientists, medical physicists, pharmacists, veterinarians, computer scientists and many others managed day-to-day risks to deliver high-quality care and services, while trying to keep themselves, their colleagues and their families safe. We are grateful for your diligence, commitment, compassion and courage.

We have all been involved in public health measures to contain the spread of the virus. So, too, will we all be involved in the huge task of economic recovery as we rebuild capacity on the other side of the crisis. What the ‘new normal’ will look like – and what will be asked of us – is not yet known. But we know STEM professionals will be crucial to this recovery.

Professional Scientists Australia will ensure your interests are protected as we move into recovery and rebuilding. We will amplify your voice on issues that impact on your employment and we will advocate for policies and investment that recognise and reward scientists for the enormous contribution you make to our community and economy. We will also advocate to address the priority issues you have raised in this survey including wages and remuneration, discrimination and harassment, skills and professional development and workplace culture and conditions.

Science & Technology will ensure the interests of the scientific and research workforce are well-represented at the highest levels as Government and other decision-makers chart the course to rebuild the national economy beyond the pandemic. We are deeply committed to pursuing the conditions that will enable you to do your your best work as scientists.



**JILL
MCCABE**
CEO, Professional
Scientists Australia



**MISHA
SCHUBERT**
CEO, Science & Technology
Australia

INTRODUCTION



Welcome to the 2020-21 Professional Scientists Employment and Remuneration Report.

Most professional scientists don't opt for a career in science for the money. They see science as a vocation and a lifelong pursuit. Scientists have a deep and enduring passion for their work.

Yet it is important that current and comprehensive data on remuneration is available to ensure scientists are being paid what they are worth. This report provides an evidence-base to assist scientists to negotiate salaries at review time. It is a reference point for those considering a job offer and can assist to make an informed judgement about whether or not it's time to move on to another role.

It is vital that science and technology employers understand the value of attracting and retaining STEM professionals. This includes properly recognising the skills and the investment employees have made obtaining graduate and post-graduate qualifications. It also includes respecting the value of the work done by STEM professionals and paying them in line with relevant market salaries.

The COVID-19 crisis has exacerbated a cautious business environment and variable labour market. As we emerge from the pandemic, competitive salaries and benefits will help organisations to attract and retain the best talent to use scientific and technical innovation to drive recovery and growth.

Professional Scientists Australia and Science & Technology Australia conduct this thorough and broad-ranging annual survey to provide accurate and up-to-date salary information. The survey is a snapshot of remuneration including base salary and other benefits across sectors, responsibility levels, years of experience, job functions, industries and branches of science.

For the 1,464 professional scientists who completed the 2020-21 survey, the report analyses:

- current base salaries and total remuneration packages;
- annual salary movements;
- employment intentions;
- variable pay;
- the general morale of scientists;
- the difference in reported male and female earnings; and
- working hours and how additional hours are compensated.

This is comprehensive, detailed and independent research you won't find elsewhere.

“Only now do I think the government and the public are developing an appreciation for how much we are needed.”

Survey respondent

KEY FINDINGS



Wages growth

- Base salaries for full-time professional scientists surveyed grew by 2.2 per cent on average over the 12 months to May 2020.
- Around one in four respondents (27.8 per cent) had not had a pay increase in the previous 12 months.



Satisfaction with remuneration

- Over half the scientists surveyed (53.4 per cent) reported being satisfied with their current level of remuneration and more than one in four (28.7 per cent) were dissatisfied.
- 37.3 per cent of respondents perceived their remuneration as falling behind market rates, down on 44.6 per cent last year. 36.3 per cent said their remuneration did not reflect their level of responsibility - down on 41.2 per cent in last year's survey.



Gender pay gap

- Women scientists in the survey earned on average 82.9 per cent of male respondents' earnings – a gender pay gap of 17.1 per cent.
- The gender pay gap appears attributable to a combination of factors including women's concentration in roles that are less senior and having fewer women than men over the age of 40 in the science workforce.



Discrimination and sexual harassment

- Two in five female respondents (40.9 per cent) said they had experienced gender bias or discrimination on the basis of gender in the previous three years.
- One in five women (20.1 per cent) had experienced sexual harassment at least once in their careers compared to around one in 14 men (7.0 per cent).



Leaving the profession

- Almost one in five respondents (18.3 per cent) indicated they intended to leave the profession permanently.
- One in five (21.7 per cent) of the women surveyed said they were planning to leave the science workforce permanently compared to one in six (15.7 per cent) of the men surveyed.
- Female respondents more commonly cited lack of recognition or opportunities, lack of career advancements and parenthood as reasons for considering permanently leaving the profession than their male counterparts.



Employment intentions

- 1 in 10 respondents (9.8 per cent) had changed jobs in the previous 12 months. Of those, one in three (37.7 per cent) had moved for a pay increase, two in five (40.6 per cent) said they had moved due to an unhealthy workplace culture and one in two (52.2 per cent) had moved for greater professional development opportunities (respondents could name more than one contributing factor).



Workplace morale and fatigue

- Almost half of those surveyed (45.8 per cent) said staff morale had declined in their organisation over the previous 12 months.
- Over half (54.6 per cent) said worker fatigue had increased.



Value of post-graduate qualifications

- Having a post-graduate qualification - Graduate Diploma, Masters and PhD - delivered earnings premiums on median total package figures of 7.7 per cent, 5.3 per cent and 24.6 per cent respectively over holding a Bachelor degree alone.



Working hours

- Respondents worked on average 43.8 hours per week including 6.1 hours of overtime.
- More than half (63.3 per cent) said they received no remuneration either financially or in time off. 6.6 per cent said they received extra pay for their additional hours, 8.6 per cent reported compensation for additional hours was already built into their base salary and 21.6 per cent received time off in lieu of payment.



Skills development

- One in three respondents (32.7 per cent) said there was insufficient opportunity (or support) for skills development in their workplace over the previous 12 months.



Deprofessionalisation and cost-cutting

- More than a quarter of the scientists who completed the survey (28.6 per cent) reported a reduction in the number of scientists in decision-maker roles over the previous 12 months.
- 6 in 10 of the scientists surveyed (61.0 per cent) said cost-cutting was an issue in their organisation.



Decline in service quality and professional standards

- 11.2 and 18.6 per cent of respondents respectively said reduced adherence to professional standards and reduced service quality were evident in their organisation over the last 12 months.



Science capability and innovation

- 15.5 per cent said scientific capability was not seen as a source of innovation in their organisation.



Average salaries

- Across all sectors employing scientists, a full-time professional scientist took home a median annual base salary of \$115,000 and received a total package worth \$131,488.

REMUNERATION



01 EMPLOYMENT SECTOR

Base salaries for full-time professional scientists in the survey grew by 2.2 per cent on average over the 12 months to May 2020.

Inflation in the cost of living rose by 2.2 per cent over the 12 months to March 2020, recorded by the ABS Consumer Price Index (6401.0). This is the same as the growth in wages for the average professional scientist, leaving them on par with the pay levels they were on at the same time last year.

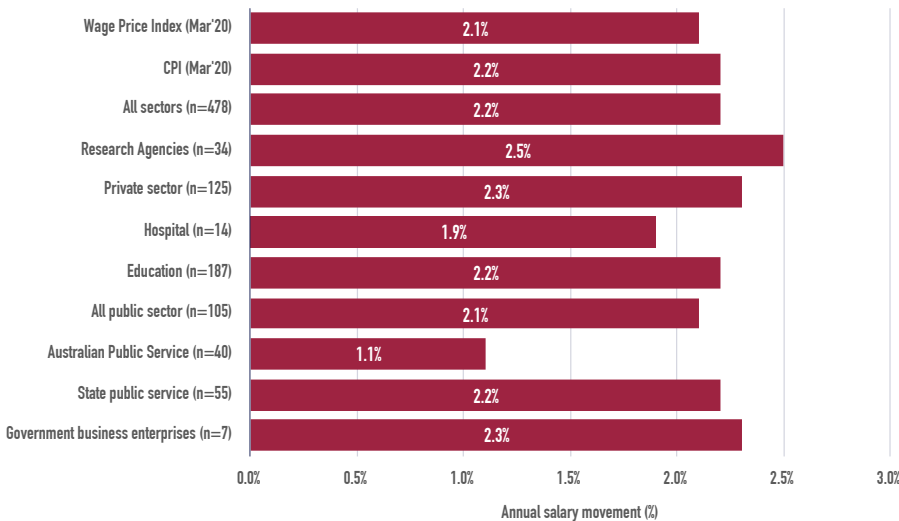
Wages for all Australian workers grew by 2.1 per cent for the 12 months to March 2020, as measured by the ABS Wage Price Index (6345.0).

Professional scientists in the private sector slightly outperformed the CPI, with median increases of 2.3 per cent leading to a slight real increase in earnings. Those employed across the public sector fell slightly behind with growth of 2.1 per cent, in line with the trend across the whole Australian workforce.

The highest average increase by sector was in research agencies – where scientists reported wages growth of 2.5 per cent, recovering from the weak result in 2019 of 1.6 per cent.

The lowest reported average growth was in the Australian Public Service at 1.1 per cent.

Figure 1 - Average (median) annual percentage base salary movements by employment sector¹



Note: All public sector figure combines Australian Public Service, State Public Service, Local Government and Government Business Enterprises.

“It is a rewarding career intellectually however work pressures and expectations of your professional standards are far higher than the remuneration.”

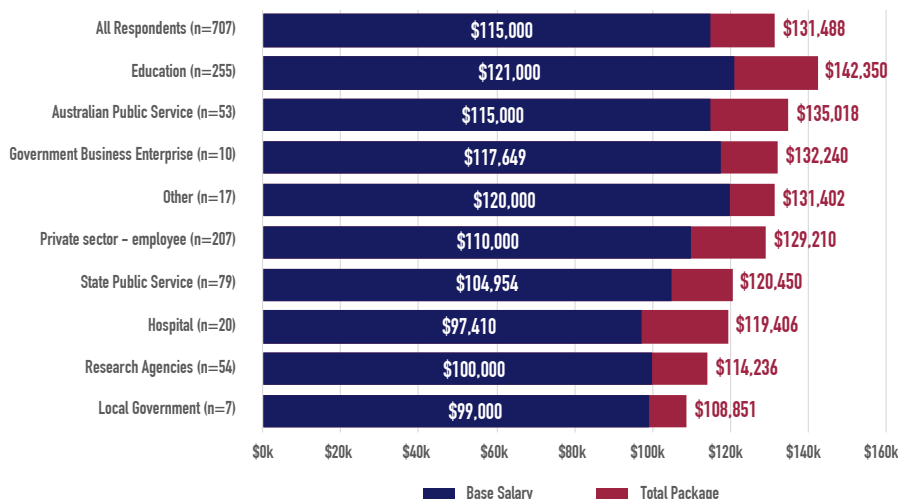
Survey respondent



Across all sectors employing scientists, a full-time professional scientist took home an average annual base salary of \$115,000 and received a total package worth an average \$131,488.

Excluding those who answered 'other', the median annual base salary was greatest in the Education sector at \$121,000, compared with \$117,649 in Government business enterprises and \$115,000 in the Australian Public Service. The highest median total package was in the Education sector at \$142,350, compared with \$135,018 in the APS and \$132,240 in Government business enterprises.

Figure 2 - Average (median) base salaries and total package by employment sector



Incidence of zero pay increase by sector

Around 1 in 4 (27.8 per cent) scientists in the survey reported they had received no pay increase in the previous 12 months. This figure was 35.2 per cent for the private sector, 28.6 per cent for the public sector and 23.0 per cent in education.

Table 1 - Incidence of zero pay increase by sector

SECTOR	PERCENTAGE
Private (n=125)	35.2
Public (n=105)	28.6
Education (n=187)	23.0
Other sectors (n=57)	26.3
All (n=478)	27.8

02 RESPONSIBILITY LEVEL²

The median annual base salary reported in the survey for a Level 1 scientist was \$76,000 with a median total package of \$83,220.

Average total packages not surprisingly were greatest at Level 5 and above – where median packages ranged from \$207,186 to \$301,006. Average annual movements in base salary ranged from 4.1 to 1.3 per cent for scientists between Levels 1 and above Level 5. Pay rises were greatest for those at the lowest level of responsibility. Higher increases for employees at lower levels of responsibility are common as graduates quickly transition from a position of little experience to being competent in their role and pay moves to reflect this. They are also often common for those employed above Level 5, where pay becomes closely tied to the performance of an organisation.

“It is not a profession that is well paid for the responsibility and effort required to succeed.”

Survey respondent

Figure 3 - Average (median) annual base salaries and total package by responsibility level

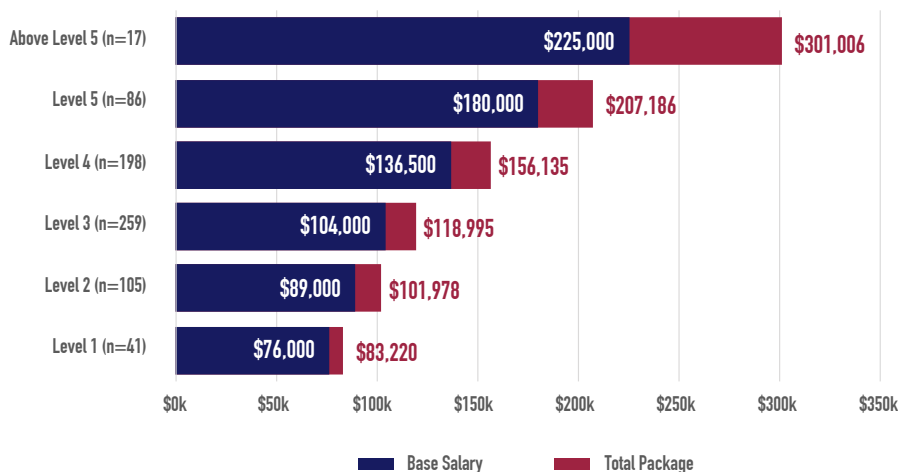


Figure 4 - Median annual percentage base salary movements by responsibility level

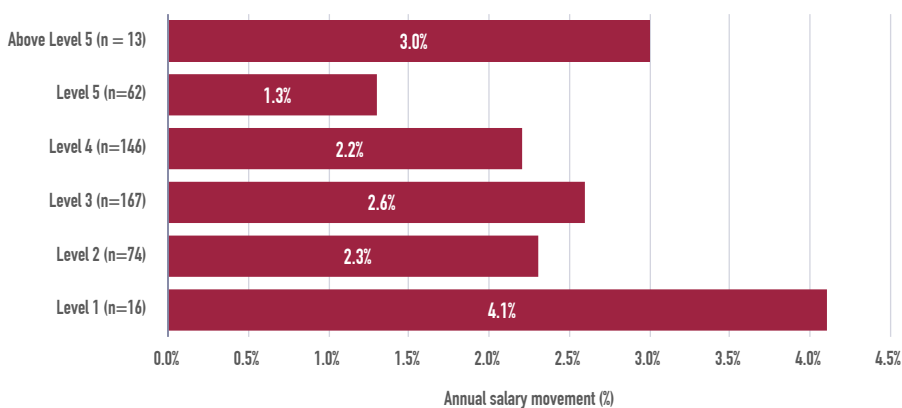




Table 2 - Base salary and total package by responsibility level

	BASE SALARY					TOTAL PACKAGE			
	N	LOWER QUANTILE	MEDIAN	UPPER QUANTILE	MEAN	LOWER QUANTILE	MEDIAN	UPPER QUANTILE	MEAN
LEVEL 1	41	\$65,000	\$76,000	\$85,000	\$76,663	\$72,050	\$83,220	\$96,432	\$85,724
LEVEL 2	105	\$78,000	\$89,000	\$96,000	\$87,339	\$87,827	\$101,978	\$109,500	\$99,735
LEVEL 3	259	\$93,000	\$104,000	\$118,639	\$108,831	\$107,310	\$118,995	\$138,897	\$126,056
LEVEL 4	198	\$121,000	\$136,500	\$160,000	\$144,020	\$138,808	\$156,135	\$187,569	\$167,560
LEVEL 5	86	\$142,000	\$180,000	\$199,246	\$178,150	\$164,700	\$207,186	\$234,000	\$212,349
BEYOND LEVEL 5	17	\$200,000	\$225,000	\$270,000	\$248,010	\$241,900	\$301,006	\$371,665	\$313,918
ALL RESPONDENTS	706	\$93,000	\$115,000	\$143,000	\$125,430	\$106,215	\$131,644	\$167,461	\$146,474

03 INDUSTRY

Amongst industries with good representation in the survey the highest base salaries were in the Mining, Education and training and Defence industries. Median base salaries were \$127,854, \$120,940 and \$122,500 respectively. Results were similar for median total packages.

Excluding responses from the Information media and telecommunications industry, which had low response levels in the survey, the highest median salary movements were recorded in Medical research institutes, at 2.8 per cent, followed by Manufacturing and Agriculture at 2.6 per cent each.

Figure 5 - Average (median) annual base salaries and total packages by industry

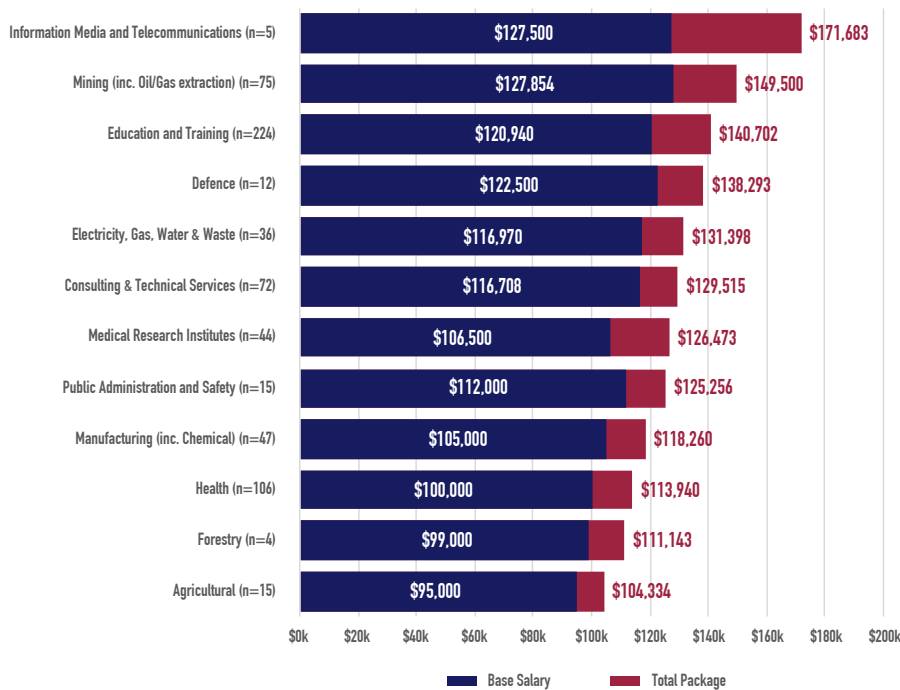
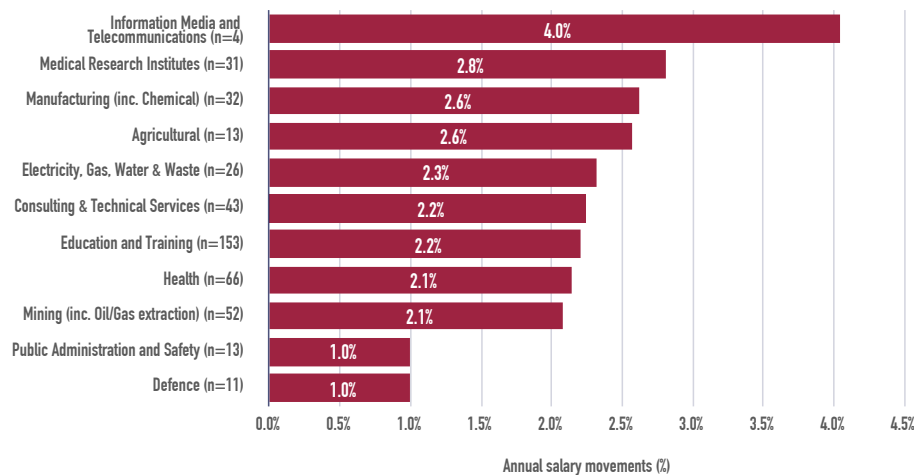


Figure 6 - Median annual percentage base salary movements by industry



“We need better government support across the industry reflecting our positive impact on both Australian society and the economy. We are at grave risk of losing a generation of potential scientists through a lack of investment, a situation that does not bode well for the future of science in this country.”

Survey respondent

“I would not have wanted any other career. It has been extremely satisfying. I was able to live and work overseas for 30 years and have had an amazing life!”

Survey respondent

04 BRANCH OF SCIENCE

In branches of science with more than ten respondents, median annual base salaries were highest for Engineering, Geology and Physics at \$134,000, \$128,927, and \$126,000 respectively.

Median annual salary movements were greatest in the Food science/technology field at 4.5 per cent. Materials/metallurgy and Chemistry were next, each at 2.8 per cent growth on the previous 12 months.

In the sciences with reasonable representation, movements were lowest in Agriculture and Marine science with movements of 1.1 and 1.4 per cent respectively. Notably, base salary and salary movement were modest in the Biological science discipline (2.0 per cent) where there is a high output of annual graduates but limited demand from employers³.

Figure 7 - Median annual base salaries and total package by branch of science

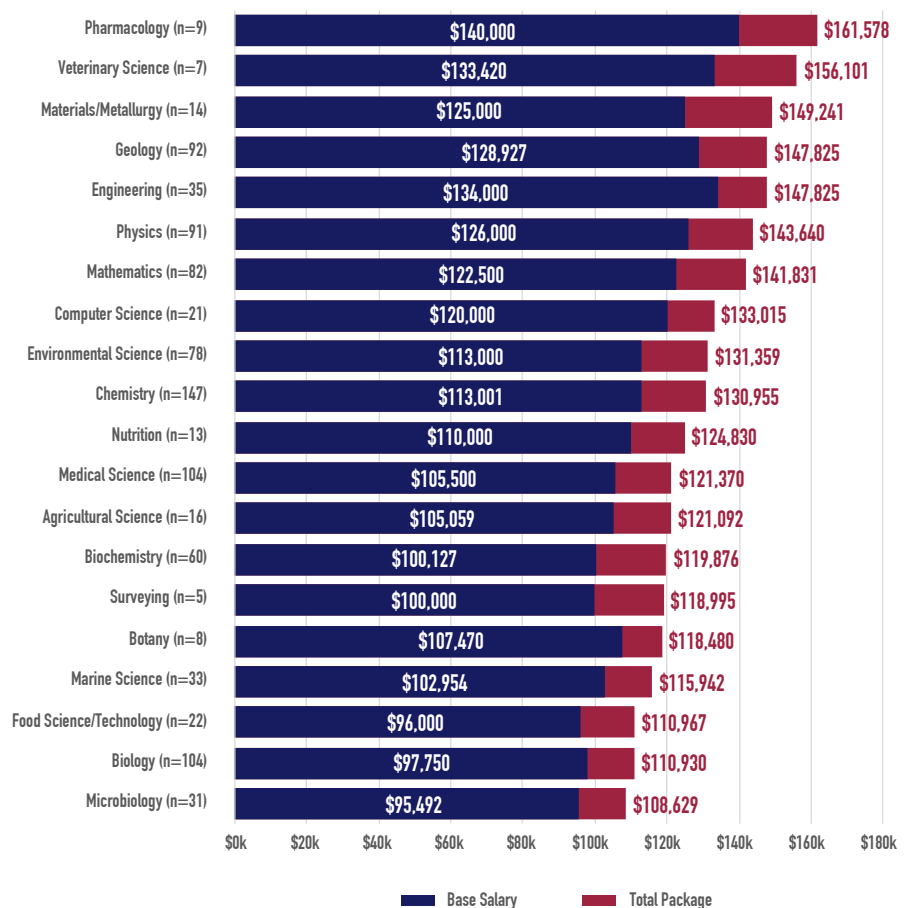
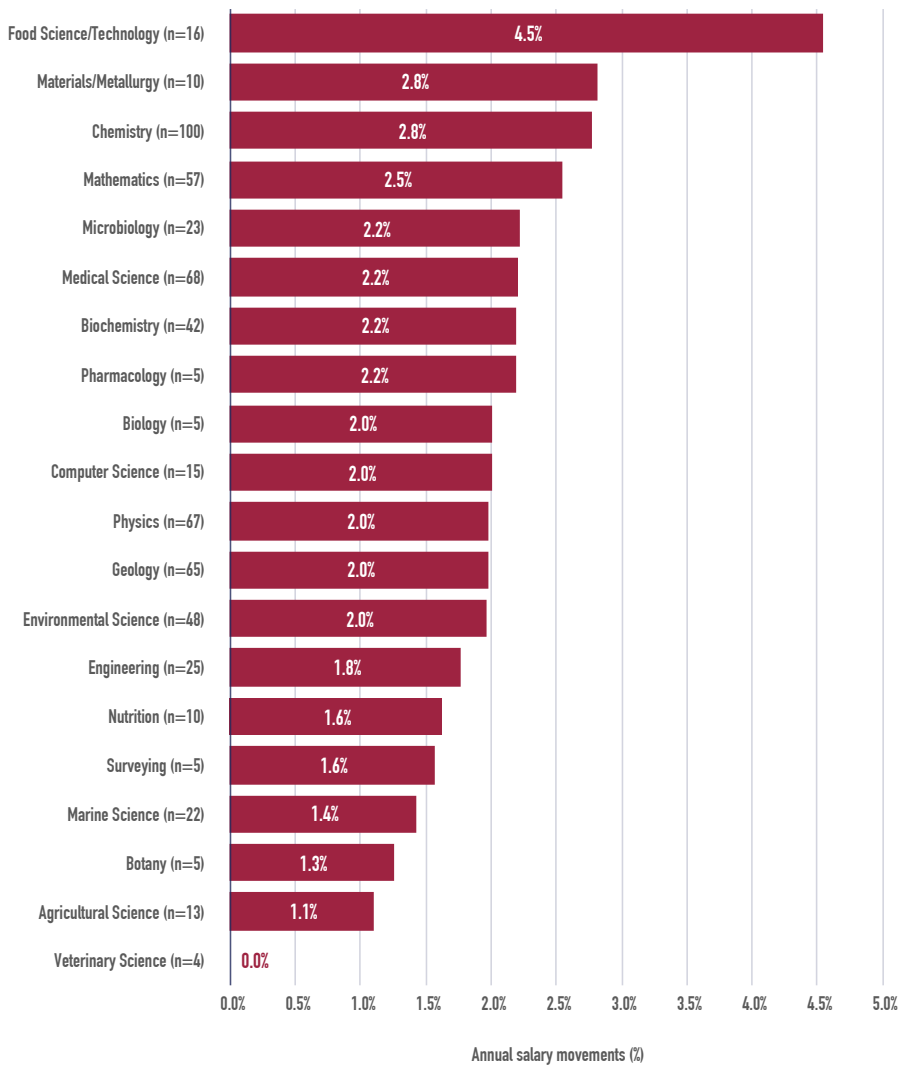


Figure 8 - Median annual percentage base salary movements by branch of science



“Many of the issues facing science professionals would be addressed by a society where science is valued much more highly than it is currently, and so much work is needed to really make science (and funding of science) a key part of the national agenda.”

Survey respondent

05 YEARS OF EXPERIENCE

Typically, scientists with more years of experience received larger remuneration packages. Median base salaries by years of experience ranged from \$88,312 to \$156,000. Salary movements were generally greatest for scientists with fewer years of experience, with median annual increases in their base salary between 1.4 and 3.5 per cent.

Figure 9 - Median base salary and total package by years of experience

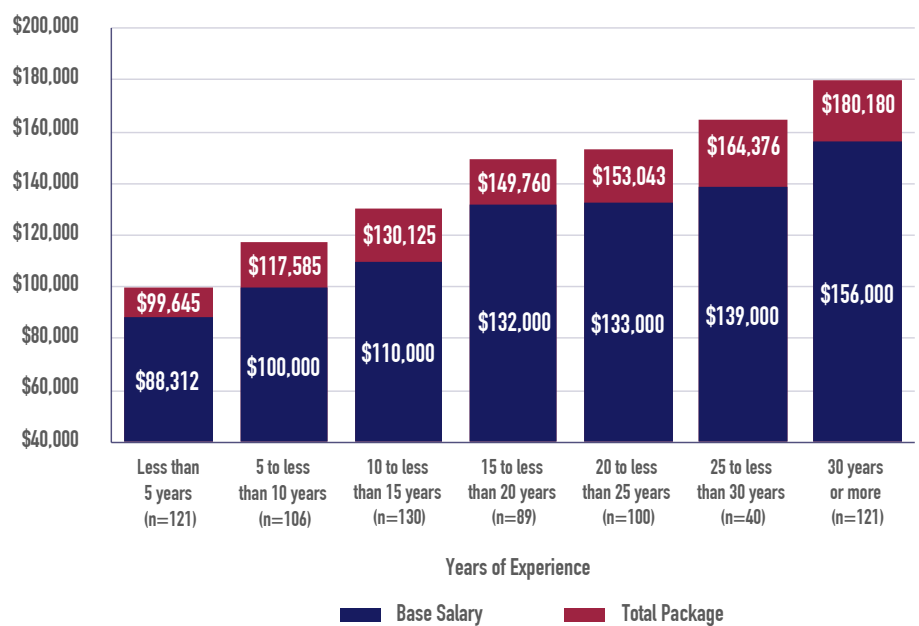
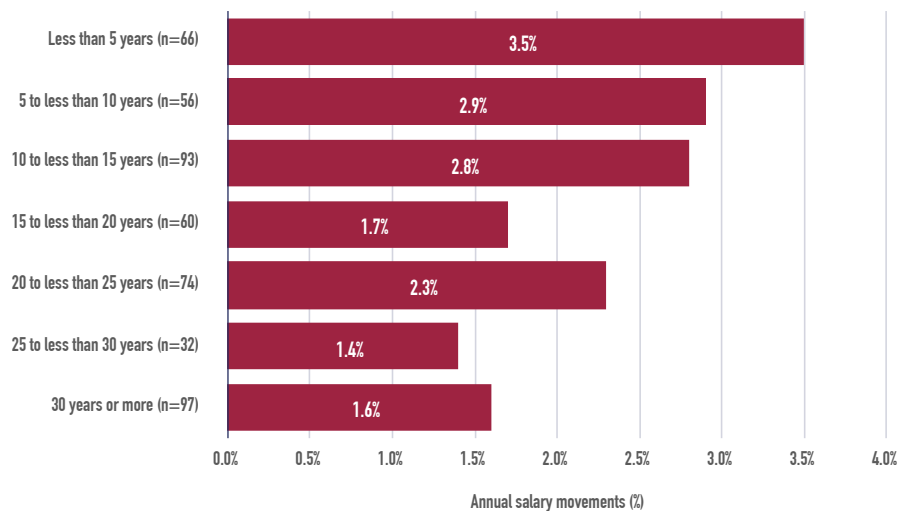


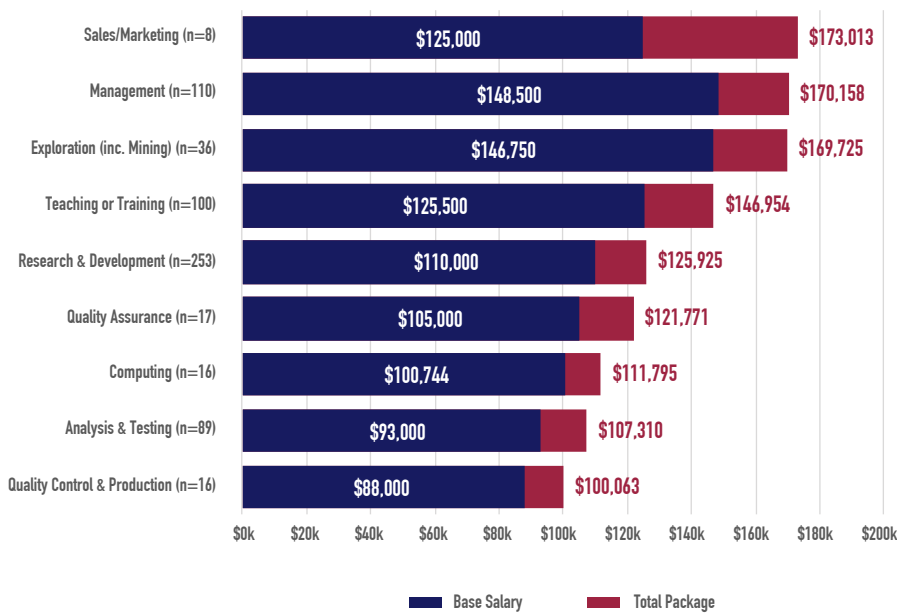
Figure 10 - Median annual percentage salary movements by years of professional experience



06 JOB FUNCTION

Excluding Sales and marketing which had low response levels, the highest base salaries by job function were in the Management and Exploration roles with median base salaries of \$148,500 and \$146,750 respectively. The highest total packages were amongst the same job functions.

Figure 11 - Median annual base salaries and total packages by job function

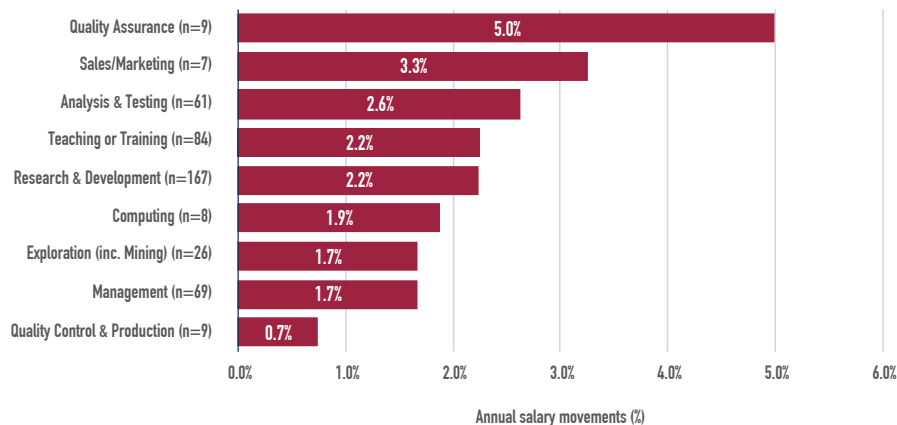


“Scientists in general are underappreciated and undervalued. The COVID-19 pandemic has at least highlighted the important role that scientists can and do play in our modern society.”

Survey respondent

Jobs in Quality assurance reported the highest median annual salary movement at 5.0 per cent. Conversely, respondents identifying themselves as employed in Quality control and production roles reported the lowest median annual salary movement at 0.7 per cent.

Figure 12 - Median annual percentage base salary movements by job function



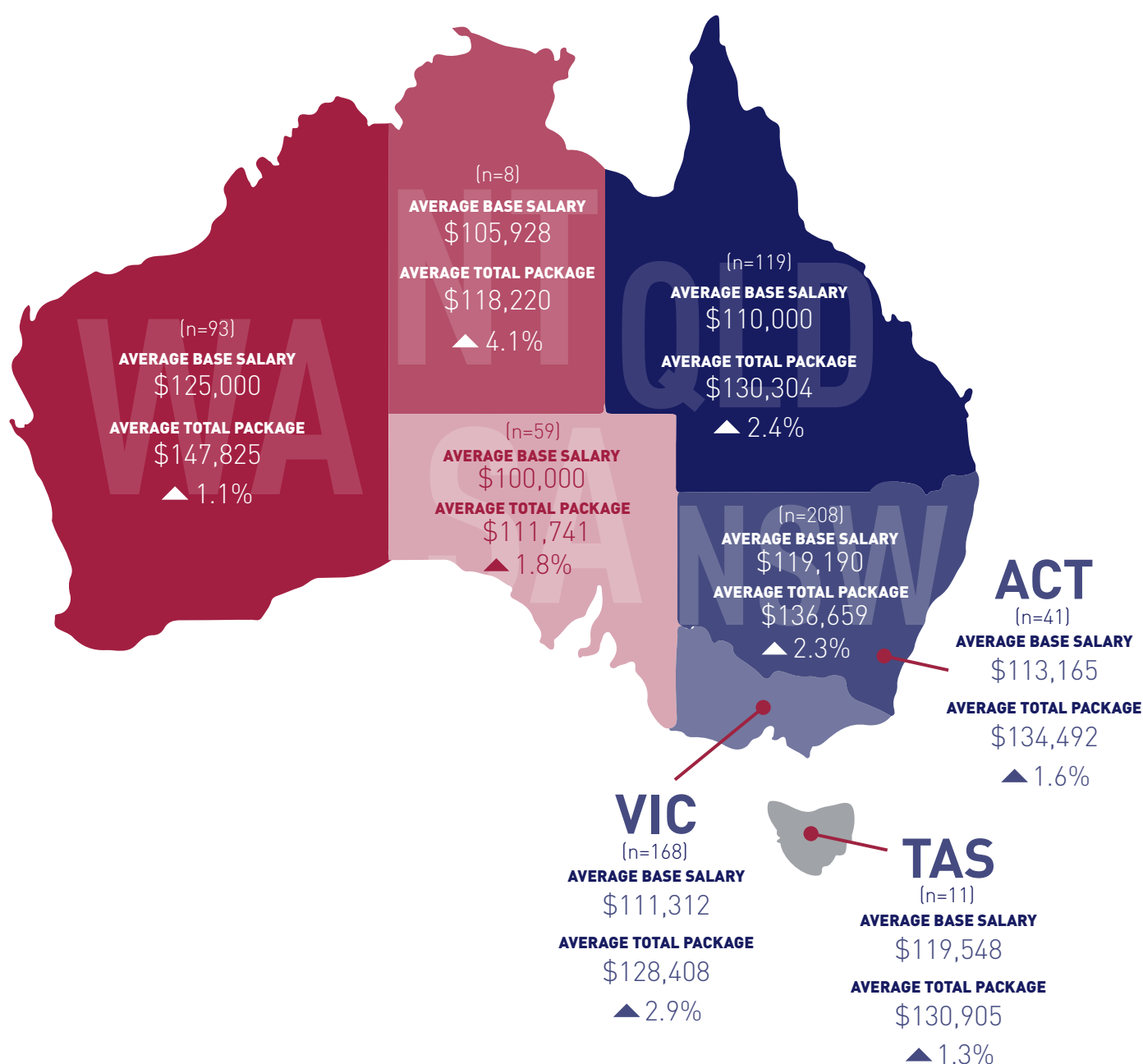
“It is a passion for science that attracted me and keeps me working in this field.”

Survey respondent

07 STATE/TERRITORY

Growth in salaries in the national science labour market was restrained but some states performed quite well. The picture is varied amid each state and territory’s particular economic and labour market conditions. Excluding the Northern Territory, which had recorded high annual salary movements but had low levels of survey responses, Victoria led with the highest average salary movement of 2.9 per cent followed by Queensland and New South Wales with median increases of 2.4 and 2.3 per cent respectively.

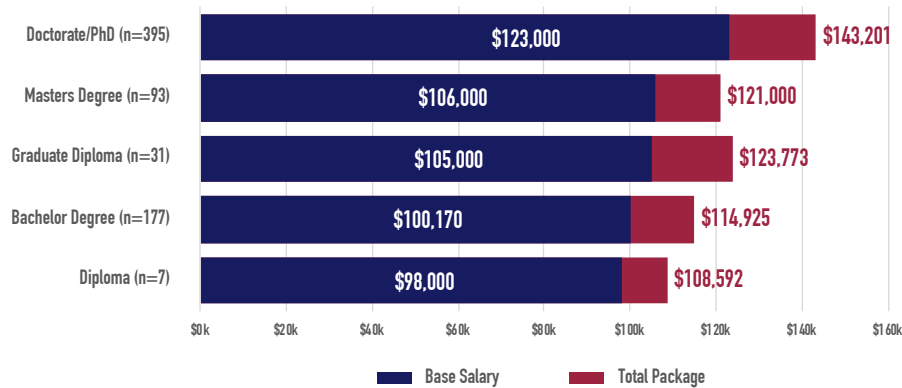
Figure 13 - Median annual base salaries, total packages and annual percentage base salary movements by state/territory



08 HIGHEST SCIENCE QUALIFICATION

Median annual base salaries by highest qualification ranged from \$123,000 for those with a PhD, down to \$100,170 for those with a Bachelor degree. Salary movements were greatest for those with a Masters degree with median base salary movement of 3.7 per cent. The completion of post-graduate qualifications - Graduate Diploma, Masters and PhD - delivered average earnings premiums based on total package figures of 7.7, 5.3 and 24.6 per cent respectively over holding a Bachelor degree alone.

Figure 14 - Median annual base salaries by highest science qualification



“There is a ceiling for technical specialists to get promoted. I was in a management role for five years but felt I was becoming technically deskilled. So I had to choose between management and technical. I took a science role to refocus on technical skills but at a cost in income. There needs to be career paths for technical specialists.”

Survey respondent

Figure 15 - Median annual base salary percentage movement by highest qualification

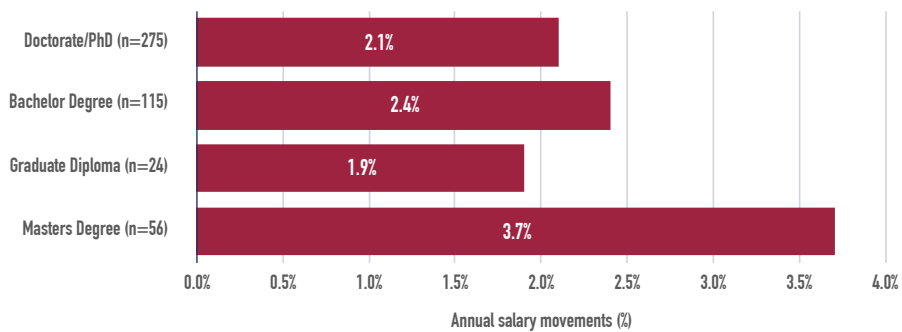


Table 3 - Earnings premiums by post-graduate qualification

QUALIFICATION	MEDIAN TOTAL PACKAGE	EARNINGS PREMIUM (%)
BACHELOR DEGREE	\$114,925	-
GRADUATE DIPLOMA	\$123,773	7.7
MASTERS DEGREE	\$121,000	5.3
DOCTORATE/PHD	\$143,201	24.6

“I do like seeing how much discussion there is in the media on the benefits of women working in STEM. This gives a sense of empowerment at least on some level.”

Survey respondent

09 GENDER

The greater our understanding of gender inequity and the characteristics of pay gaps that exist in the science disciplines, the better placed we are to address them. Strategies are required to address the complex range of factors that contribute to the gender pay gap. Doing so will ensure employers have access to a diverse, high-quality pool of science talent.

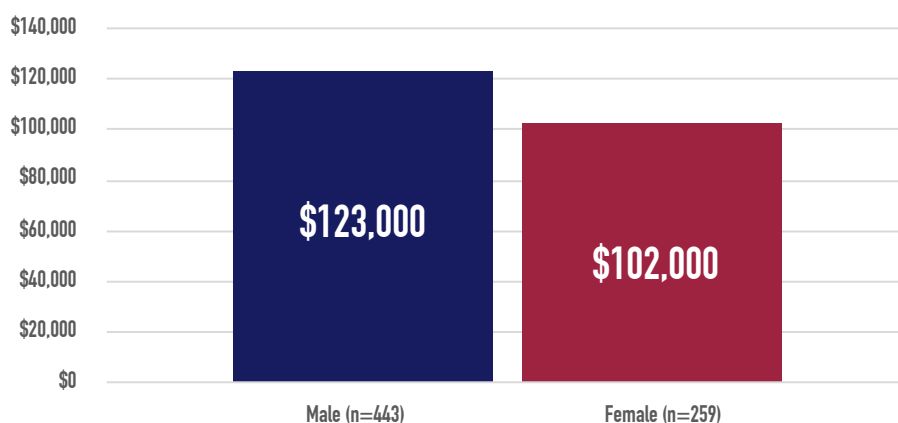
Gender pay gap

The survey found a pay differential for the total survey sample with a median base salary of \$102,000 for women professional scientists compared to \$123,000 for men.

Women in the survey earned on average 82.9 per cent of the salaries reported by men in the survey – a gender pay gap of 17.1 per cent.

In the analysis to follow, the survey looked at salary levels by a range of criteria including responsibility level, age, qualification and job function to deepen understanding of the gender pay gap in science. While there was some evidence of differences in pay by responsibility level, age and experience, these differences should be treated with caution given the size of the differences relative to the size of the sample.

Figure 16 - Median male and female base salary for all respondents across survey sample



Salaries by responsibility level and gender

Average base salaries were lower for female respondents than their male counterparts at all levels beyond Level 2, and total packages lower at all levels beyond level 1. The data suggested a level of pay disparity in like-for-like roles across these responsibility levels (n values are specified in brackets: male n, female n).

Figure 17 - Median annual base salary by responsibility level and gender

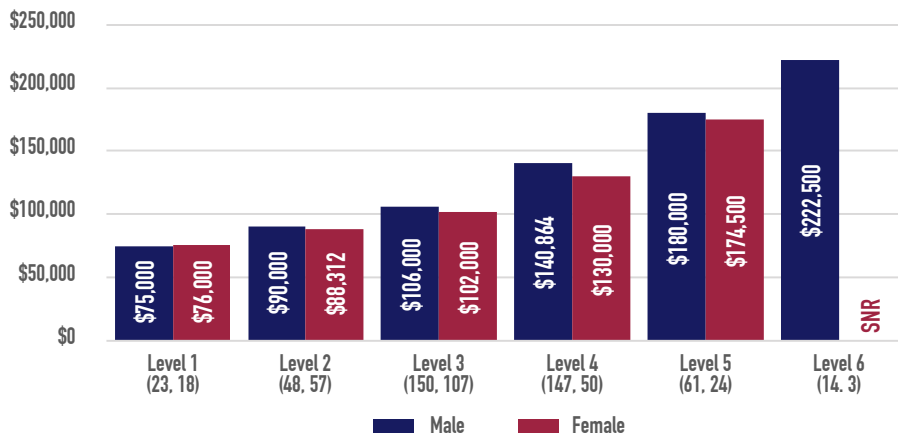


Figure 18 - Median annual total package by responsibility level and gender

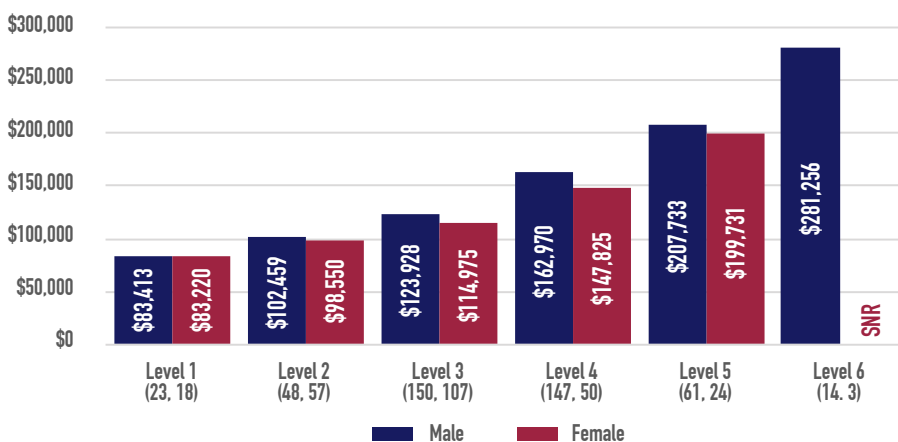
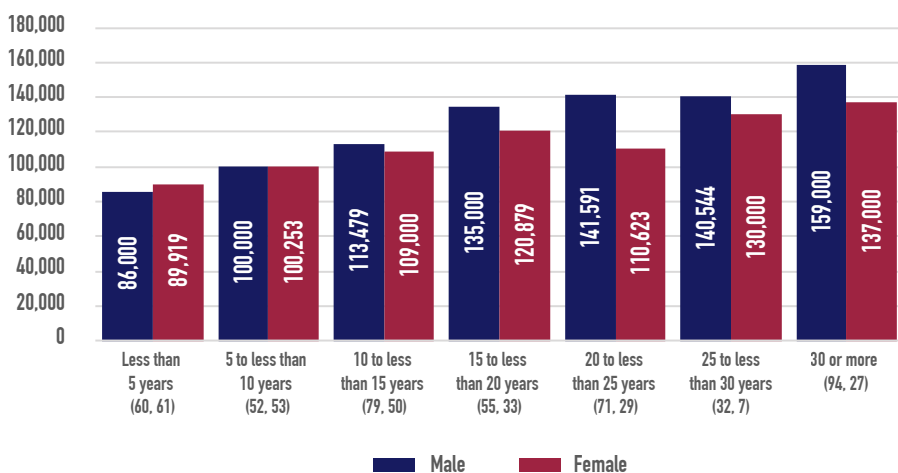


Figure 19 - Median annual base salary by years of experience and gender



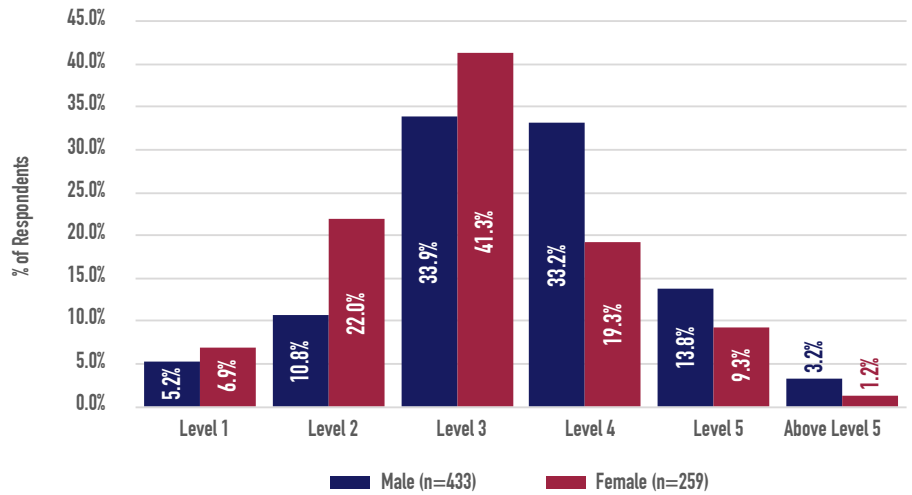
“Science is really insecure and stressful with low capacity to develop when you start having kids. I will advise my kids to avoid this profession.”

Survey respondent

Workforce distribution by gender

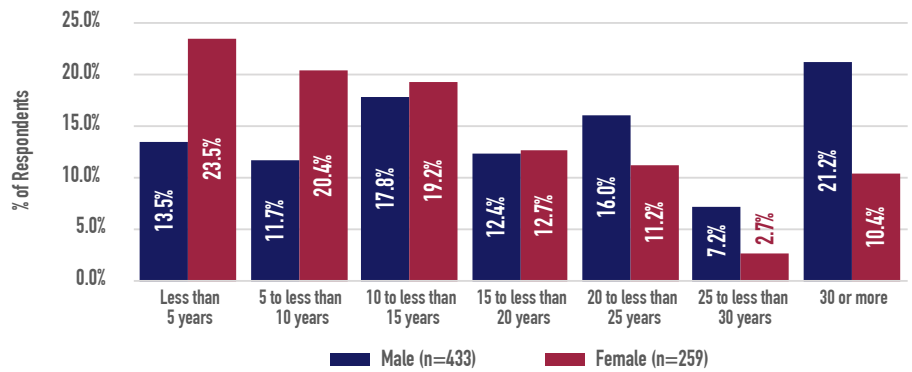
The analysis considered the distribution of respondents across responsibility level, years of experience and age to assess any concentration of women in roles with less responsibility, in roles with fewer years of experience and/or attrition of women at any key points.

Figure 20 - Workforce distribution by responsibility level and gender



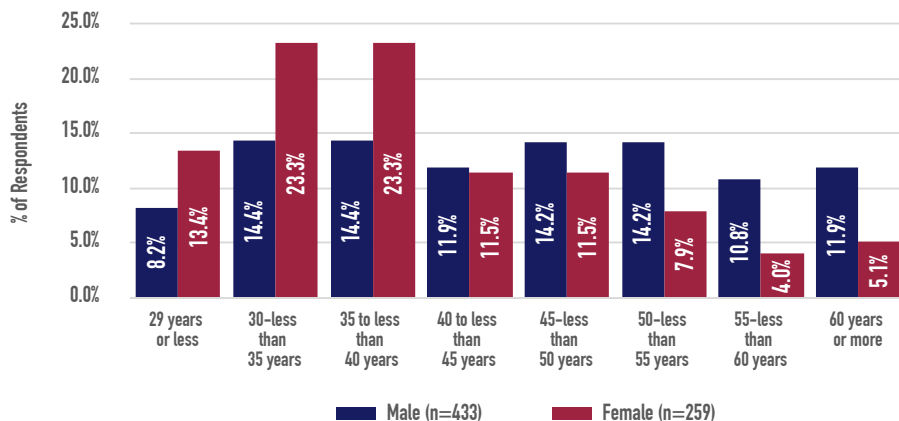
Women scientists who completed the survey were at Levels 1 to 3 in greater proportions than men who completed the survey, and in comparatively lower proportions at Levels 4 to above Level 5. This suggests women are over-represented at Levels 1, 2 and 3, and under-represented at Levels 4, 5 and beyond.

Figure 21 - Workforce distribution by years of experience and gender



Women scientists who completed the survey were more likely to have fewer than 20 years' experience than men in the survey. One in four women in the survey said they had been working as a scientist for more than 20 years, compared to almost one in two men in the survey.

Figure 22 - Workforce distribution by age and gender



The survey analysis considered the age profile of respondents by gender to assess whether there was any evidence of the attrition of women from the science workforce by age. The survey found a difference in the age profiles of female and male respondents. After peaking at 21.2 per cent in the 35 to 40 years age bracket, the age profile of women surveyed fell markedly. In contrast, the age profile of male respondents was much more evenly distributed across the age brackets, with male respondents are well represented across years of experience up to retirement age. 40.0 per cent of female respondents compared with 63.0 percent of male respondents were 40 years of age or older. 17.0 per cent of female respondents were aged 50 and over compared with 36.9 per cent of male respondents.

Taking into account workforce distribution by responsibility level, years of experience and age, much of the gender pay gap can be attributed to a combination of factors including concentration of female respondents in less senior roles, in roles requiring fewer years of experience and fewer females in the science workforce beyond age 40.





Benefits, promotion and salary negotiations

Overall, 13.0 per cent of the median male total salary package (n=443) was comprised of benefits in addition to base salary, while the figure for female respondents (n=260) was 12.3 per cent - suggesting no clear difference between the structures of packages by gender.

17.7 per cent of respondents (n=806) had been promoted in the previous 12 months.

Around one in two women scientists surveyed - 49.3 per cent (n=69) said they were encouraged to apply for the promotion by their employer/manager compared with around 6 in 10 - 61.6 per cent - of male respondents (n=73) (see also section on variable pay for further analysis).

The survey also found that around one in four - 23.7 per cent - of male scientists surveyed (n=482) had negotiated their own salary, compared with one in seven - 15.6 per cent - of female scientists surveyed (n=315). Of those respondents, 80.0 per cent of male respondents (n=115) felt comfortable negotiating their salary compared with 44.9 per cent of their female counterparts (n=49).

Gender discrimination

Women were much more likely to report having experienced discrimination in the workplace of any type than their male counterparts over the previous three years. Discrimination based on gender was most commonly reported. 40.9 per cent of female respondents said they had experienced bias or discrimination based on gender compared with 11.4 per cent of male respondents. Women were also more likely to report age-based discrimination. 20.8 per cent of female respondents and 13.7 per cent of male respondents had experienced age-based discrimination. The next most common form of discrimination reported was based on race, reported by 6.2 per cent of respondents.

“I think there is discrimination due to being a parent, whether male or female, and opting to work part-time.”

Survey respondent

Table 4 - Forms of discrimination experienced in the workplace over the last 3 years

	AGE	DISABILITY	GENDER	RACE	RELIGION	SEXUAL IDENTITY	NONE OF THE ABOVE
MALE (N=430)	13.7%	0.5%	11.4%	5.6%	2.3%	0.9%	77.0%
FEMALE (N=279)	20.8%	1.4%	40.9%	7.2%	1.8%	1.1%	52.3%
ALL RESPONDENTS (N=709)	16.5%	0.8%	22.9%	6.2%	2.3%	1.0%	67.2%

Diversity and discrimination policy and implementation

Amongst respondents, 70.1 per cent reported their employer had formal policies in place to promote diversity and 74.5 per cent had policies to deal with discrimination (n=724). 17.4 per cent of respondents said their employer did not have strategies in place to actually implement policies on diversity and discrimination (n=734).

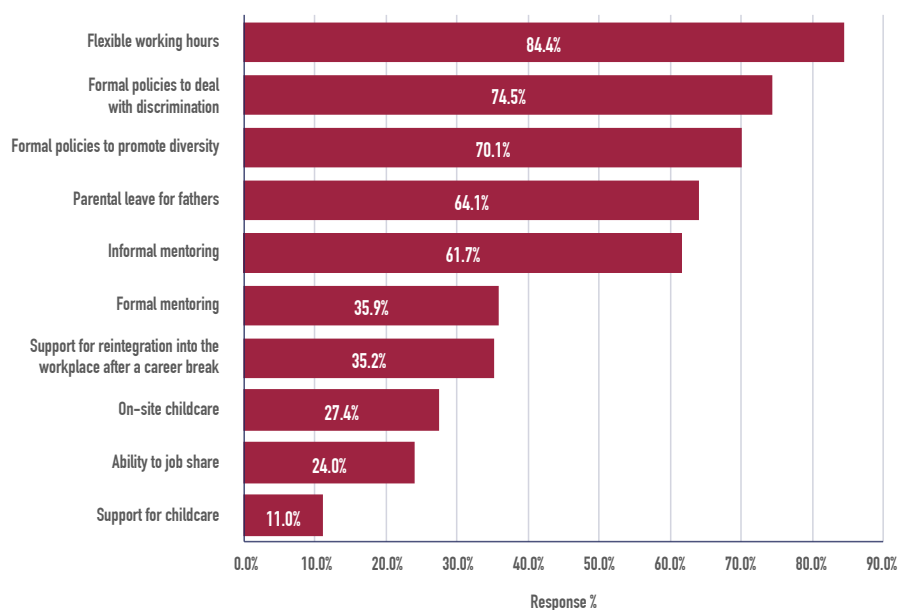
“I work part-time after coming back from maternity leave and I find many colleagues don’t think you can work properly part-time or do not grasp what flexibility really is. I think managers don’t always enjoy having someone work part-time under them as it requires them to remember when that person is physically at work.”

Survey respondent

Support and conditions

35.9 per cent of respondents (n=724) had access to formal mentoring in their workplace and 61.7 per cent had access to informal mentoring. 84.4 per cent had access to flexible working hours, 24.0 per cent had access to job-sharing arrangements and 64.1 per cent worked for an employer offering parental leave for fathers. Only 35.2 per cent reported that their employer provided support for reintegration into the workplace after a career break, 27.4 per cent offered on-site childcare and 11.0 per cent offered support for childcare.

Figure 23 - Employer-provided support and conditions (n=724)



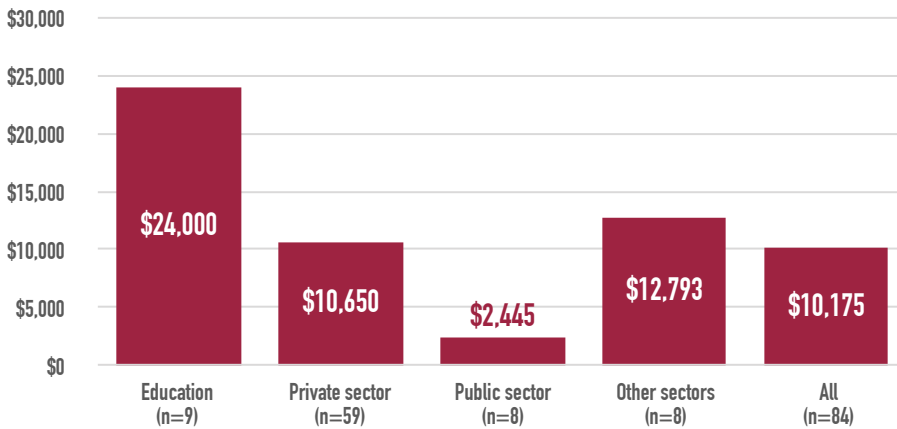
Sexual harassment

One in five women scientists surveyed - 20.1 per cent (n=289) - said they had been subjected to sexual harassment in the course of their career compared to 7.0 per cent of male respondents (n=460).

10 VARIABLE PAY

Professionals often receive additional benefits as parts of their remuneration package beyond their regular salary and superannuation, including cars and variable pay or bonuses. 15.4 per cent of scientists surveyed across all sectors (n=545) were paid performance bonuses in the previous year with the highest average bonuses in the Education sector.

Figure 24 - Median bonus by employment sector (\$)



Of fields with more than ten respondents, Materials/metallurgy, Physics, Mathematics and Chemistry had the highest median benefits as a proportion of the average total package with additional benefits comprising 14.5, 14.5, 13.3 and 13.3 per cent of total packages respectively.

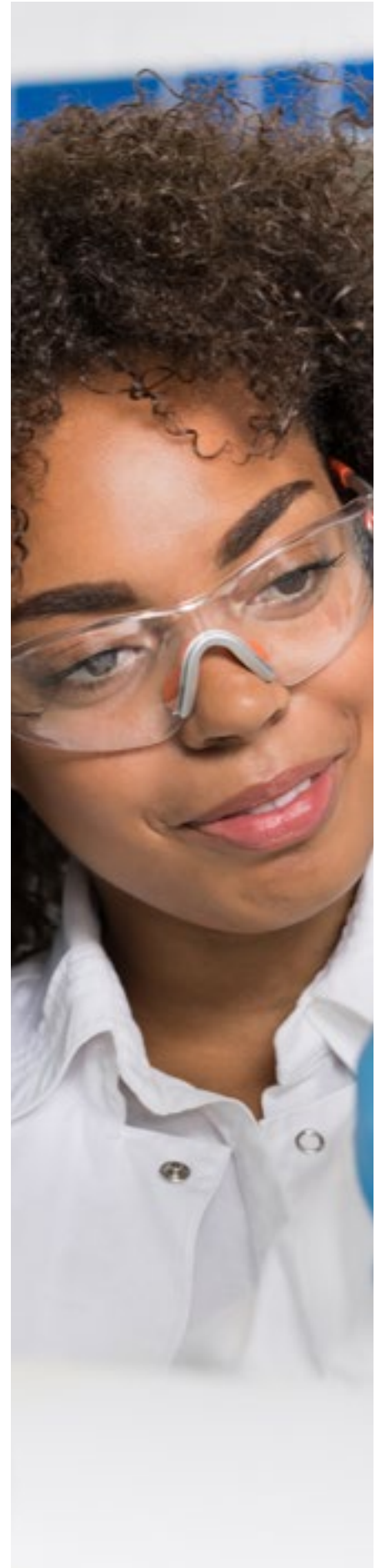
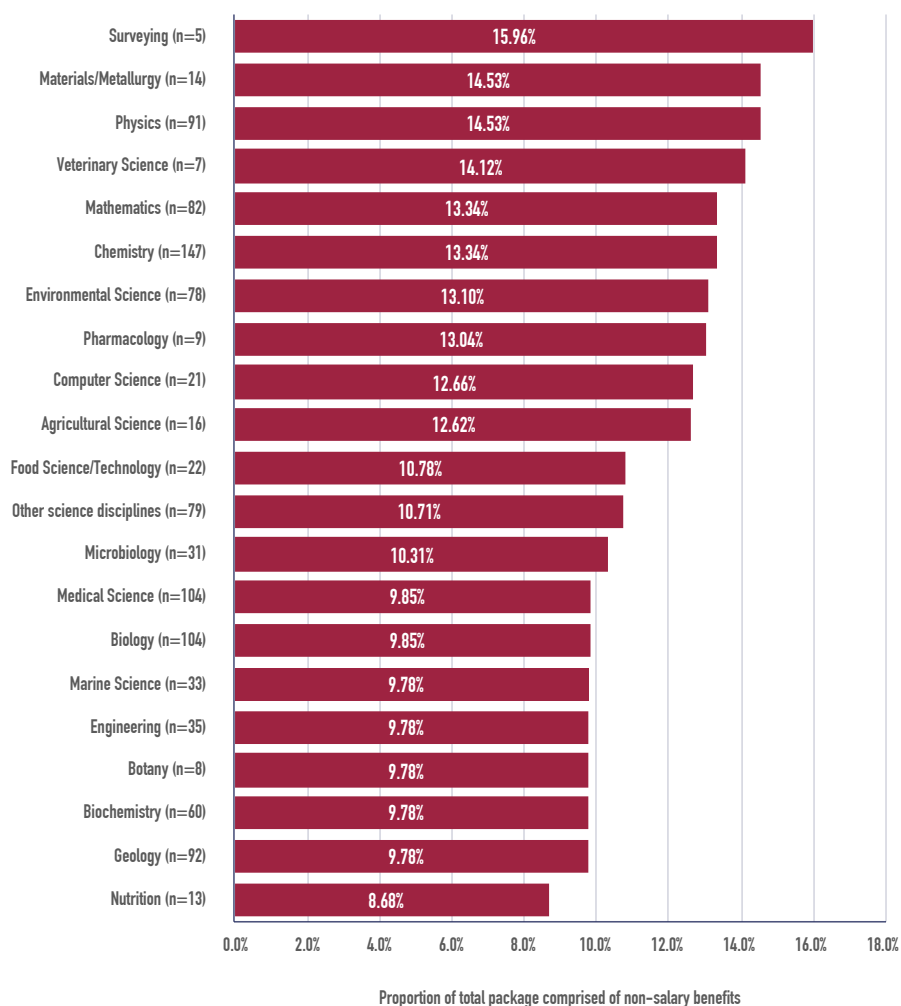




Figure 25 - Median benefits by branch of science as a proportion of total package



Salary package - cars

8.7 per cent of respondents (n=759) received a motor vehicle as part of their package.

11

SATISFACTION WITH CURRENT LEVEL OF REMUNERATION

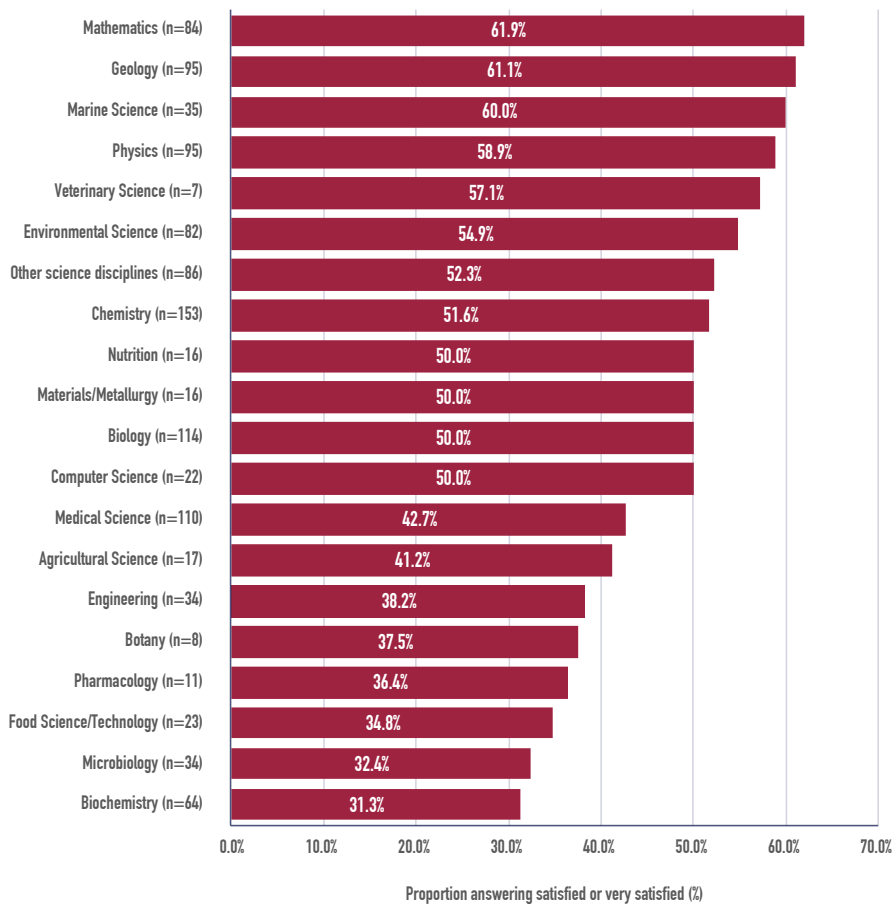
“Scientists should be paid better if the country wants to create more innovation.”

Survey respondent

Overall satisfaction levels improved slightly in this year’s survey. 53.4 per cent of scientists surveyed (n=745) reported being satisfied or very satisfied with their current level of remuneration - up on last year’s figure of 46.9 per cent. More than one in four scientists in the survey - 28.7 per cent - were dissatisfied or very dissatisfied with their current pay level down from 35.2 per cent in 2019.

The highest levels of satisfaction with remuneration were found in the Mathematics, Geology and Marine Science fields.

Figure 26 - Reported levels of satisfaction with current remuneration by branch of science





37.3 per cent of respondents (n=737) perceived their remuneration as falling behind market rates, down on 44.6 per cent last year. 36.3 per cent disagreed their remuneration did not reflect their level of responsibility (n=736) - down on 41.2 per cent in last year's survey.

Figure 27 - Responses to statement "My remuneration package is falling behind market rates" (n=737)

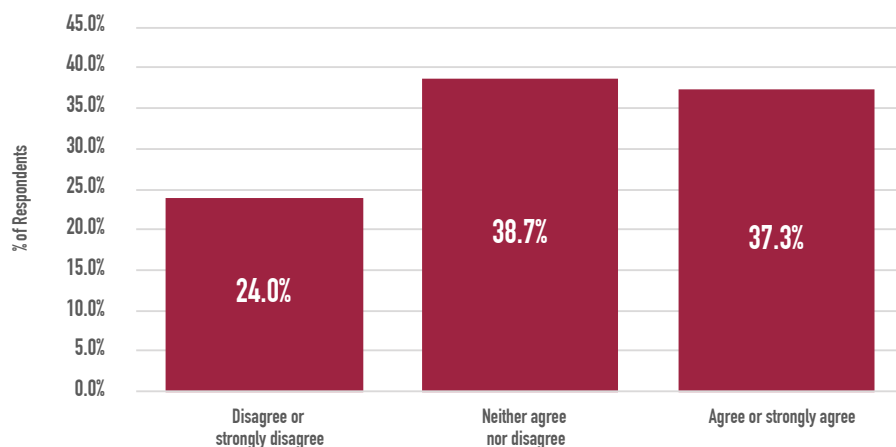
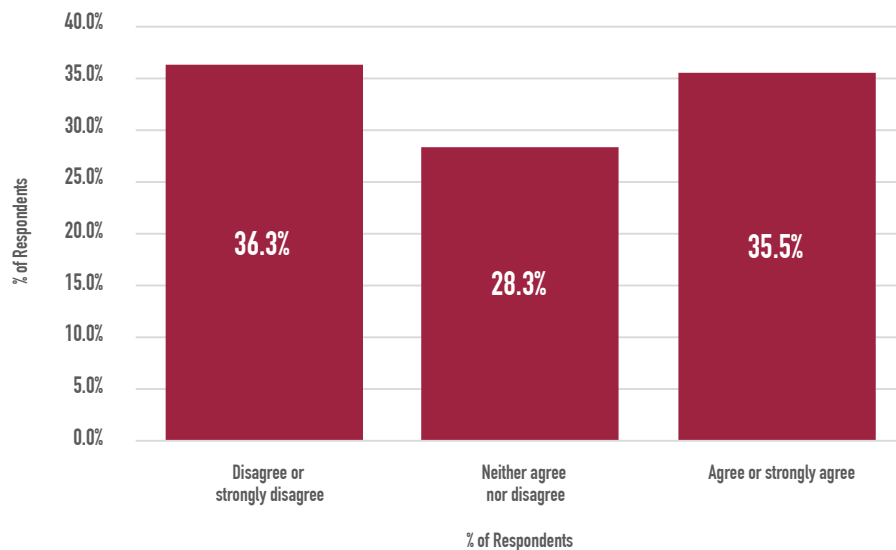


Figure 28 - Responses to statement "My remuneration package appropriately reflects my level of responsibility" (n=736)



WORKPLACE ISSUES



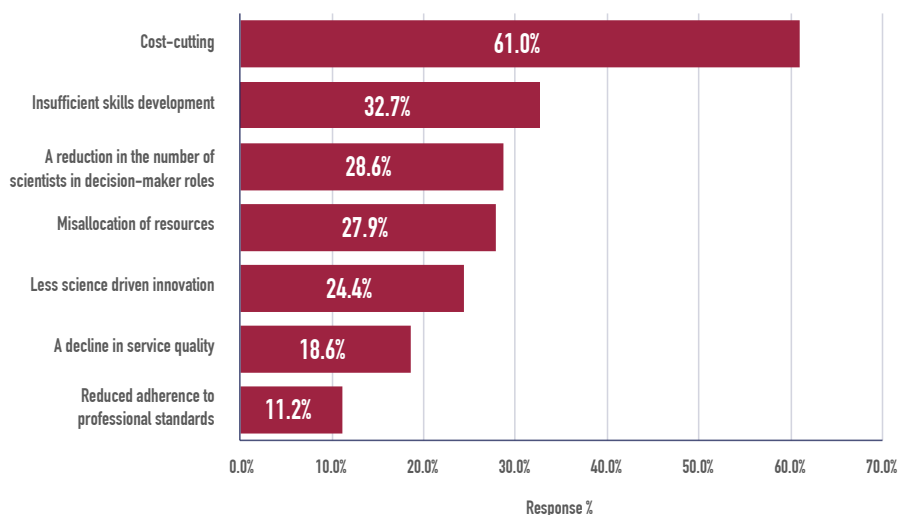
“I am still, despite deteriorating conditions and skewed priorities, wonderfully fortunate to be able to engage every day in basic research.”

Survey respondent

Workplace issues

The survey asked respondents whether they had seen any of the following changes or challenges in their workplace over the previous 12 months.

Figure 29 - Issues evident in the workplace over the last 12 months (n=780)



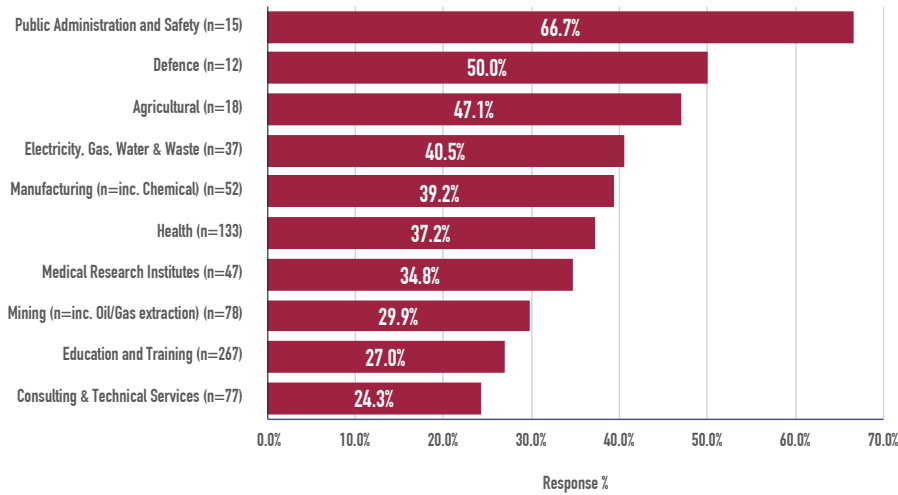
12 COST-CUTTING, MISALLOCATION OF RESOURCES AND LESS INNOVATION

Cost-cutting was by far the most common challenge - nominated by 61.0 per cent of scientists surveyed.

13 SKILLS DEVELOPMENT

32.7 per cent of respondents said there was insufficient skills development in their workplace over the previous 12 months. Concerns were most commonly reported by professional scientists employed in Public administration and safety and Defence.

Figure 30 - Incidence of concern about insufficient skills development by industry



“Companies are not honouring their commitments to foster professional development, leaving that responsibility to each individual, which is difficult in the present economic climate.”

Survey respondent



14 DEPROFESSIONALISATION

Deprofessionalisation - defined as the diminution of science capability across responsibility levels, industries and/or job functions - was reported by scientists. More than a quarter of the scientists who completed the survey - 28.6 per cent - reported a drop in the number of scientists in decision-maker roles over the previous 12 months. This was greatest in the Public administration and safety and Agricultural industries with 53.3 and 41.2 per cent of respondents respectively reporting fewer scientists in such roles.

15 DECLINE IN SERVICE QUALITY AND PROFESSIONAL STANDARDS

11.2 and 18.6 per cent of respondents respectively said reduced adherence to professional standards and reduced service quality were evident in their organisation over the last 12 months.

16 WORKPLACE AND STEM WORKFORCE PRIORITIES

Workplace priorities

Survey participants were asked to rank the list of work priorities below in order from most important to least important (n=710). On average, job satisfaction ranked highest in respondents' work priorities, followed by job security and remuneration. Respondents ranked their concerns as follows:

1. Job satisfaction;
2. Job security;
3. Remuneration;
- 4/5. Work/life balance;
- 4/5. Positive workplace culture;
6. Career progression;
7. Flexible work arrangements;
8. Continuing professional development;
9. A challenging workload; and
10. Occupational health and safety.

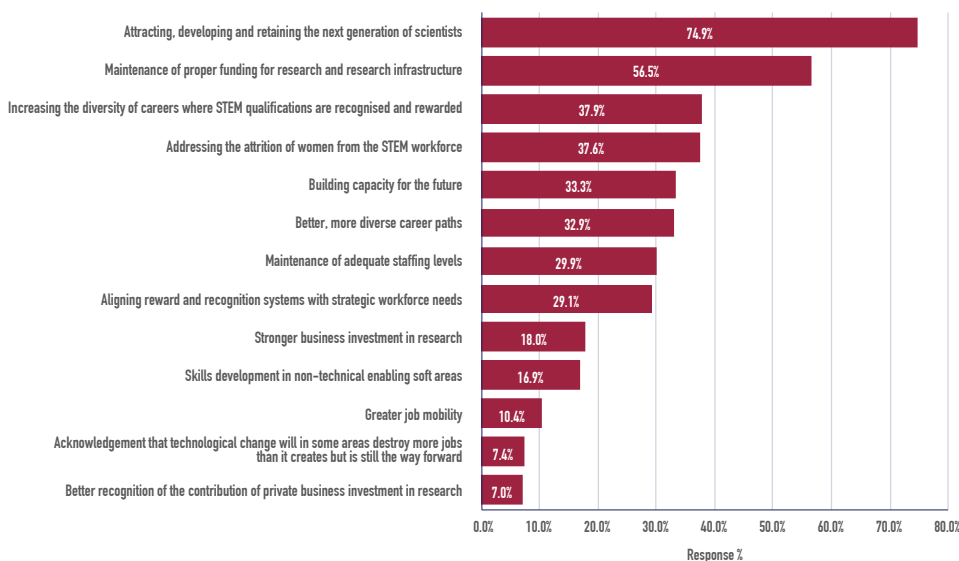
STEM workforce priorities

Attracting, developing and retaining the next generation of scientists was seen as the top priority for developing a sustainable STEM workforce by 71.4 per cent of respondents. This was followed by the maintenance of proper funding for research and research infrastructure (50.6 per cent). Maintenance of adequate staffing levels, increasing the diversity of careers where STEM qualifications are recognised and building capacity for the future were also nominated as high priorities.

“It is not sustainable to continue on 12-month contracts. I have been employed on contracts of maximum 12 months’ duration for the last 6 years and am consequently looking to change to a career with more stability, even if I don’t enjoy the work as much.”

Survey respondent

Figure 31 - Most important approaches to developing a sustainable STEM workforce (n=729)



“Employers are taking advantage of loopholes in this award in order to pay the least amount possible. The review recently done has not corrected these loopholes surrounding overtime payment and minimum hourly rates.”

Survey respondent

17 WORKING HOURS AND OVERTIME

Respondents worked on average 43.8 hours per week including 6.1 hours of overtime. Only 6.4 per cent received monetary payment in recognition of their additional hours, a significant issue in view of the 12.4 per cent of respondents reporting that they were expected to work longer hours in the past year compared to the previous one. The average number of hours worked per week was greatest for those working in Teaching or training and Exploration roles.

Figure 32 - Mean number of hours worked per week plus additional hours by job function

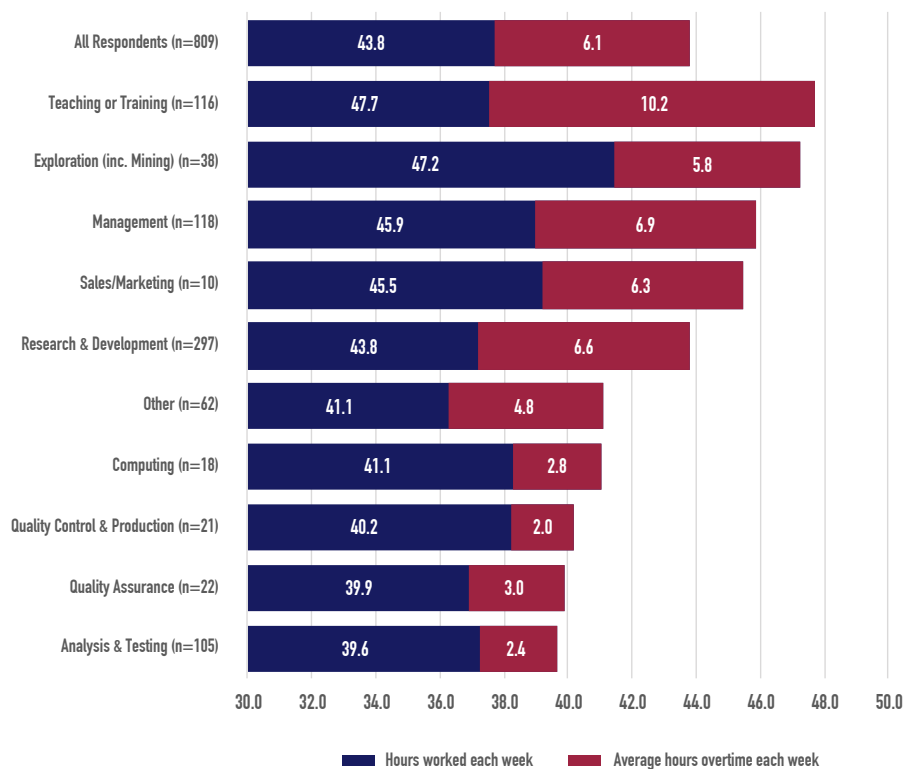
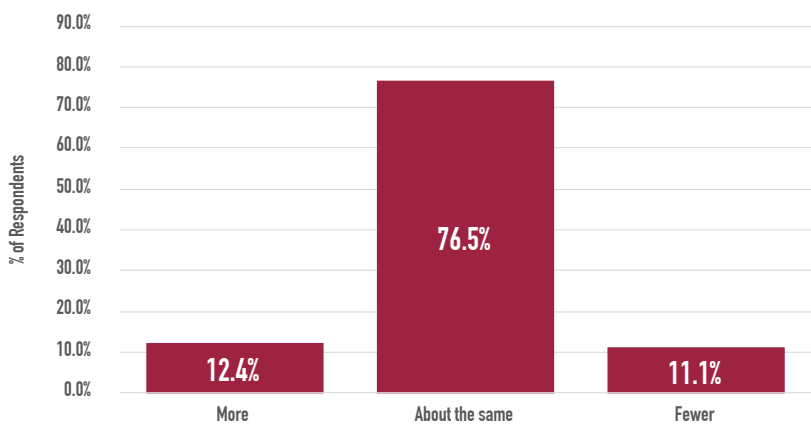


Figure 33 - Change in hours worked per week compared to 12 months ago (n=614)



Compensation for additional hours

Overall 63.3 per cent of respondents (n=840) received no compensation for additional hours worked. Of those that received compensation, an average 6.6 per cent were paid extra at an hourly rate, 8.6 per cent reported having compensation for additional hours worked was built into their base salary and 21.6 per cent had received time off in lieu of payment. Compensation for additional hours worked was greatest in the State Public Service and Hospital sector. 89.5 per cent of those engaged in the Education sector reported receiving no compensation for additional hours worked.

Figure 34 - Method of compensation for additional hours (n=840)

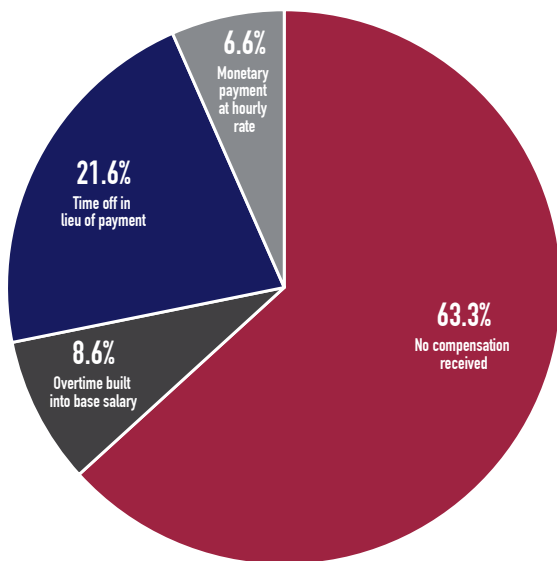
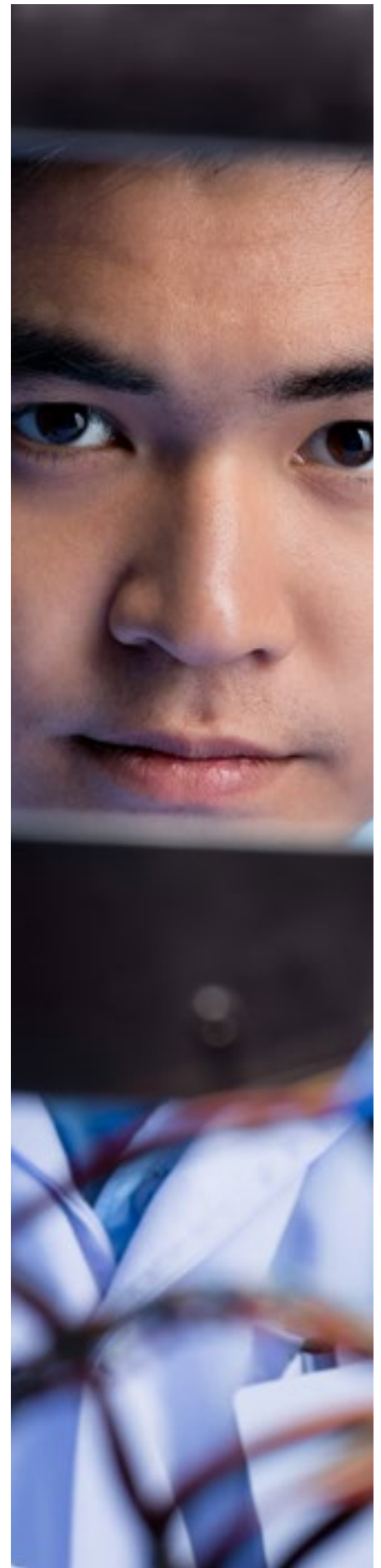
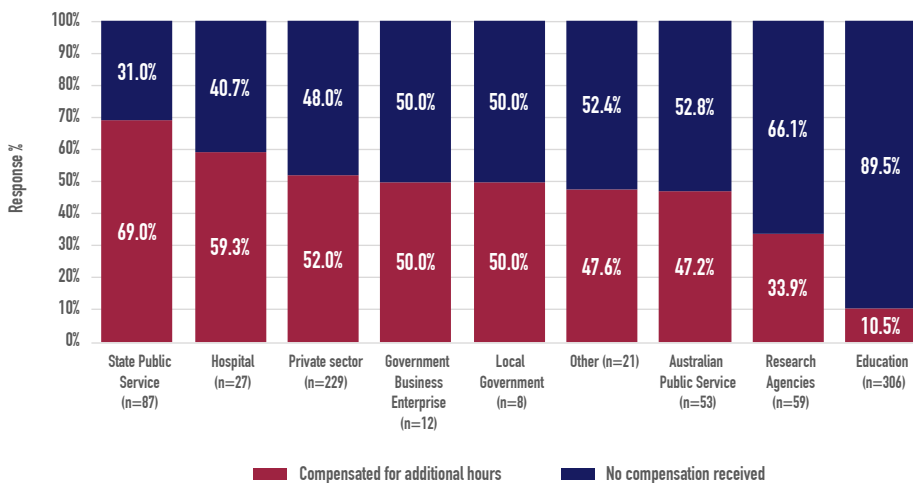


Figure 35 – Prevalence of compensation for additional hours by employment sector



“I have seen many science professionals burnout and leave their careers due to stress. Often it is due to high work ethic combined with production pressures and limited staffing.”

Survey respondent

18 STAFF MORALE, WORKER FATIGUE AND PERCEPTIONS OF PRODUCTIVITY

45.8 per cent of respondents said staff morale had declined in their organisation over the previous 12 months and 54.6 per cent reported that worker fatigue had increased. 23.0 per cent said overall productivity in their workplace had declined over the previous 12 months.

Table 5 - Perception of changes in workforce and organisation over previous 12 months (n=777)

	DECREASED	STAYED THE SAME	INCREASED
	% RESPONSE	% RESPONSE	% RESPONSE
WORKER FATIGUE	2.3%	43.1%	54.6%
OVERALL PRODUCTIVITY	23.0%	60.2%	16.7%
STAFF MORALE	45.8%	47.0%	7.2%

19 PROFESSIONAL INTENTIONS

Changing jobs

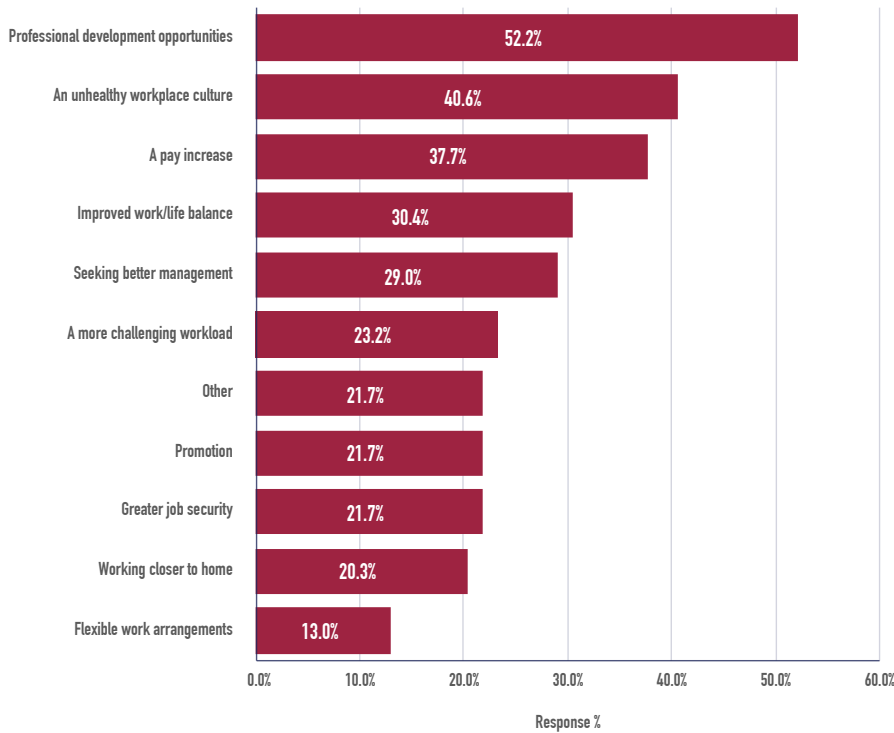
One in ten respondents (9.8 per cent) had changed jobs in the previous 12 months (n=806).

Of those, 37.7 per cent had moved for a pay increase, 21.7 per cent had moved for greater job security and 52.2 per cent had moved for greater professional development opportunities (respondents could choose more than one option). 21.7 per cent had moved for promotion and 40.6 per cent had moved to get away from an unhealthy workplace culture. 29.0 per cent had moved seeking better management. 29.0 per cent had moved seeking better management. 29.0 per cent had moved seeking better management.

“I have experienced age and gender-based discrimination for 15+ years of my career, and I am almost at the point of leaving STEM for that reason.”

Survey respondent

Figure 36 - Reasons for changing jobs (n=79)



“The male-dominated nature of research and lack of recognition for women to achieve positive outcomes drives my plans to leave research and science generally.”

Survey respondent

Leaving the profession

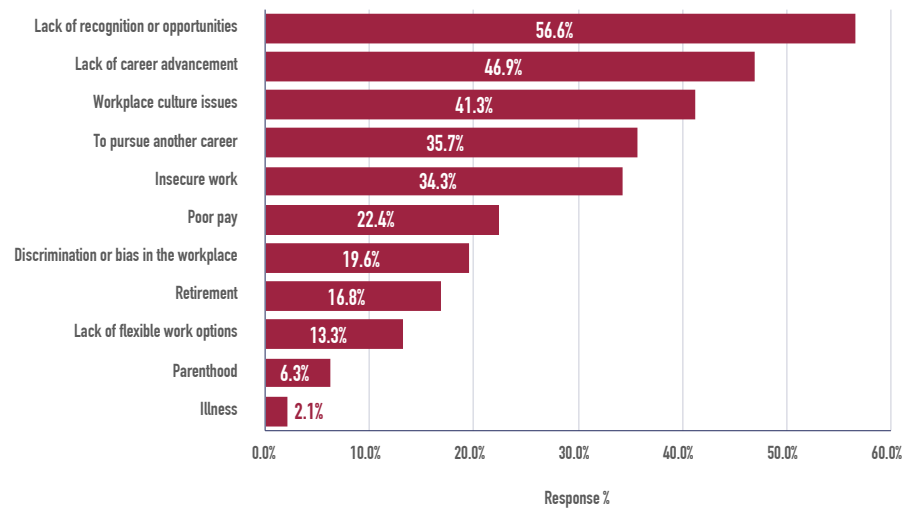
Participants were asked whether they intended to leave their chosen scientific profession (n=796).

Almost one in five respondents (18.3 per cent) indicated they intended to leave the profession permanently, and 6.2 per cent indicated they intended to leave temporarily.

Those leaving permanently were asked when they intended to leave the profession, and what factors were contributing to that intention. Most intended to leave either within 12 months' time (35.4 per cent) or between one and three years from now (38.9 per cent).

The biggest factors influencing their intention to leave the profession was a lack of recognition or opportunities (cited by 56.6 per cent of respondents), and a lack of career advancement (cited by 46.9 per cent).

Figure 37 - Factors influencing intention to leave scientific profession permanently (n=146)



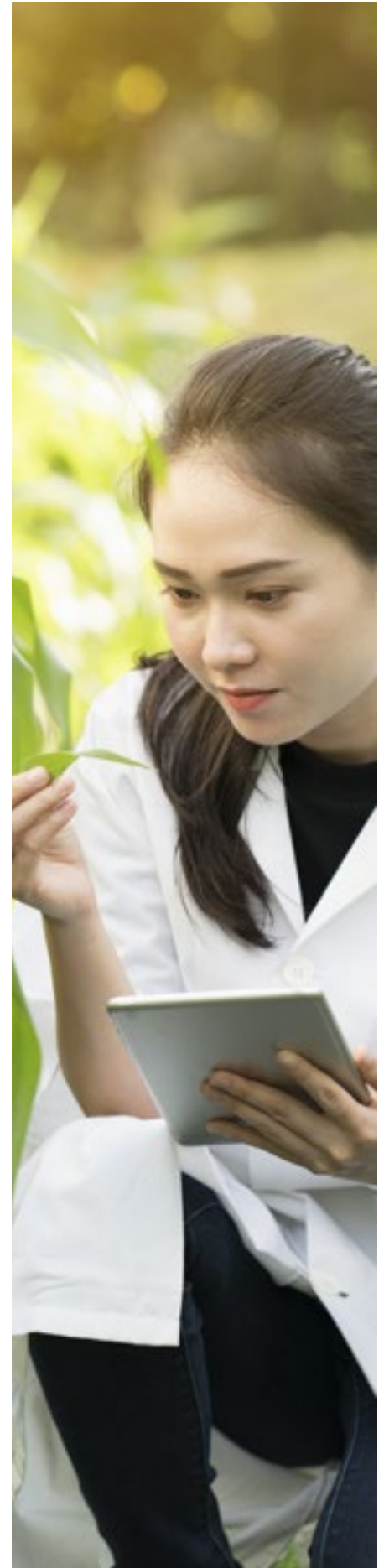
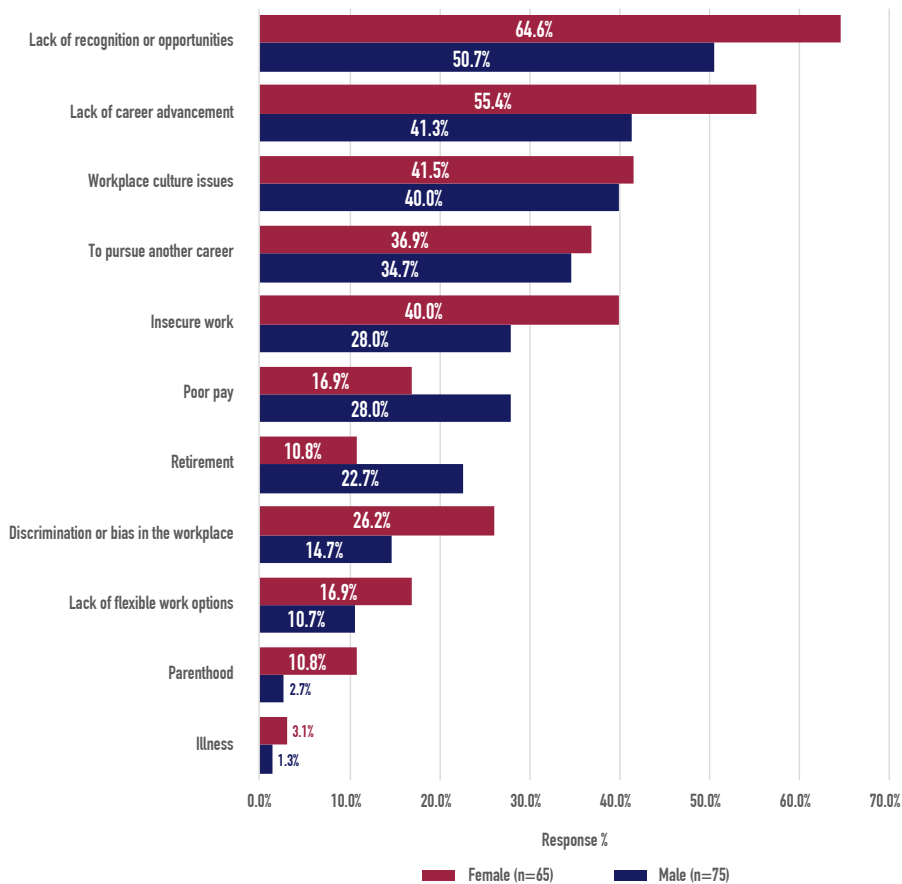
Professional intentions by gender

One in five (21.7 per cent) of the women surveyed said they were planning to leave the science workforce permanently compared to one in six (15.7 per cent) of the men surveyed. One in 13 (7.3 per cent) of women surveyed said they were planning to leave temporarily compared to one in 20 (5.4 per cent) of the men surveyed.

Table 6 – Professional intentions by gender (n=792)

CONSIDERING LEAVING	MALE (N=479)	FEMALE (N=313)
Yes, permanently	15.7%	21.7%
Yes, temporarily	5.4%	7.3%
No	78.9%	70.9%

Figure 38 - Factors influencing intention to leave scientific profession permanently by gender (n=146)



“There is too much emphasis placed on bureaucracy and management practices which stifle innovation.”

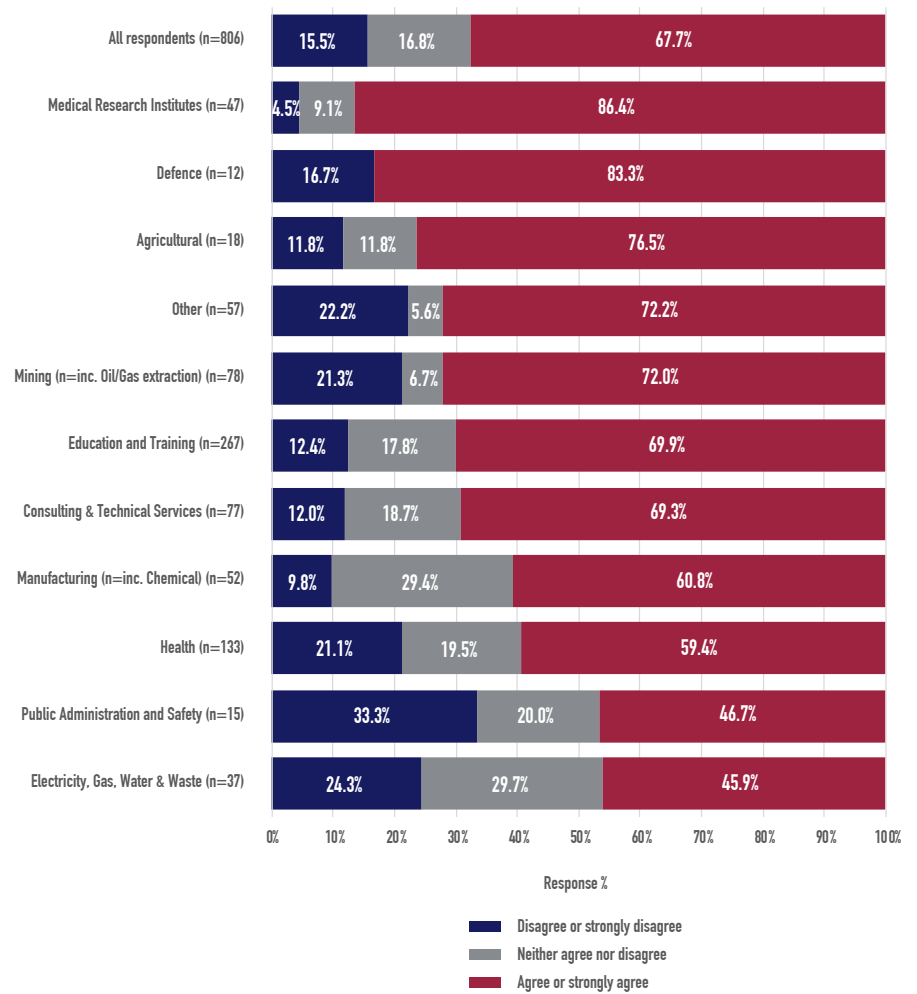
Survey respondent

20 SCIENCE CAPABILITY AND INNOVATION

Science capability as a source of innovation

67.7 per cent of respondents reported that scientific capability was seen as a source of innovation in their workplace (n=806). The highest reported levels were in Medical research institutes (86.4 per cent agreed or strongly agreed that scientific capability was seen as a source of innovation in the workplace) and the lowest reported levels were in Public administration and safety, and the Electricity, gas, water and waste industry (33.3 and 24.3 per cent respectively disagreed or strongly disagreed that scientific capability was seen as a source of innovation in their workplace). 24.4 per cent of respondents reported less science-driven innovation in their organisation over the previous 12 months (n=780).

Figure 39- Perception of whether scientific capability can be seen as source of innovation in the workplace by industry



ABOUT THE SURVEY





Methodology

The Professional Scientists Remuneration Survey tracks annual changes in compensation for full-time professional scientist employees in Australia. In addition to presenting national trends, it includes analysis by separate indices including branches of science, levels of responsibility, years of experience, job function and science qualification.

The survey was conducted online during April/May 2020. Invitations to participate were forwarded to member societies of Science & Technology Australia and scientist members of Professionals Australia (formerly APESMA). The member societies represent in excess of 80,000 scientific and technical professionals. In addition, non-member professional scientists Professionals Australia had prior contact with were invited to participate through direct e-mail and social media. A number of scientific associations not affiliated with Science & Technology Australia were also asked to invite their members to participate in the survey. Those associations were identified from past participants memberships.

To avoid duplication of data arising from a participant starting multiple survey sessions due to technical difficulties, incomplete questionnaires were discarded where multiple responses had been submitted from a single IP address and responses to the incomplete questionnaires mirrored responses in a completed survey. Duplicates were also discarded where a participant provided identifying details such as e-mails or membership numbers.

Incomplete surveys were included in the analysis for any item where respondents provided enough information for that item to be assessed in full.

Completed valid questionnaires were returned by 1,464 respondents and have been used as the basis for the analysis contained in this report.

Whilst the survey represents the responses of scientists from a large array of scientific disciplines, industries, sectors and job functions, the report largely represents the responses volunteered by members of organisations under the peak body of Science & Technology Australia, or who were contacted directly to participate in the survey and should always be viewed as representative of their membership and the disciplines in which the respondents qualified.

The task of describing the remuneration of scientists is made more complex by the diverse roles performed by those who have qualified in a scientific discipline. Traditionally, some may consider the role of a scientist to be strictly defined – to be involved in technical roles. It is clear however that large numbers of respondents are involved in supervisory and management roles and indeed some are engaged in positions that might not seem related to traditional concepts of science at all.

For the purpose of this survey, the decision was made to leave the respondent to decide this issue. All respondents were asked to supply details relevant to their position if they considered the position they held was one best described as being filled by a science professional.

Terms used

Base salary

Base salary refers to the annual salary component of the contract of employment exclusive of any additional allowances, payments or non-cash benefits.

Total package

The total remuneration package refers to the package received by a participant, including the value of all components of remuneration. Total package includes the following:

- Base salary;
- Annual leave loading;
- Overtime;
- Award allowances;
- Employer superannuation contributions;
- Motor vehicle;
- Parking;
- Performance pay;
- Fringe Benefits Tax (FBT);
- Other items eligible for FBT; and
- Other items not eligible for FBT.

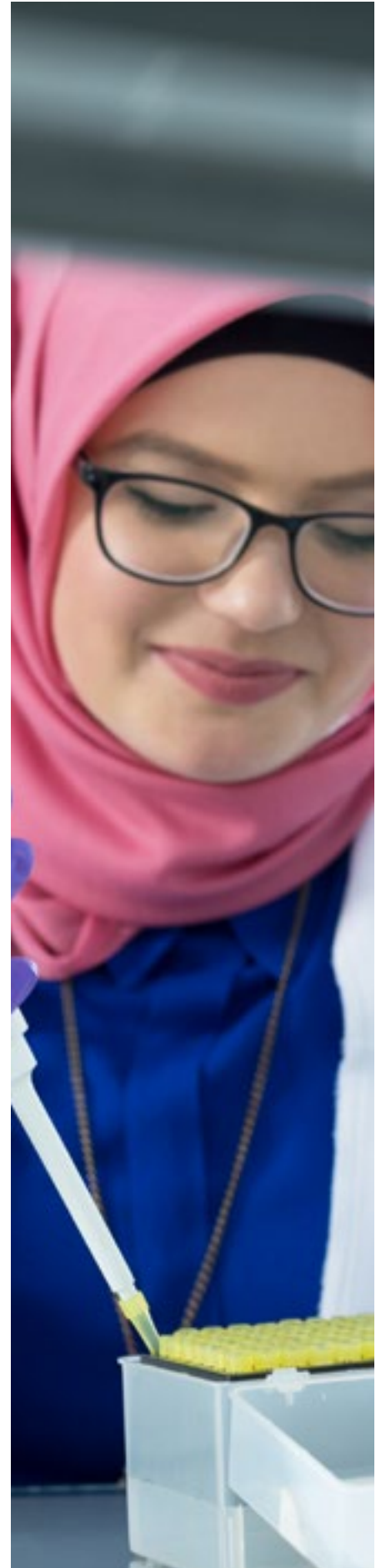
Where a non-cash benefit such as a motor vehicle is provided, an estimate is made of the salary equivalent value of the benefit.

Annual salary movement

The calculation of percentage increases in annual salary is based on a comparison of current base salary to that of twelve months earlier as supplied by the respondent at the time of the survey.

Minimum sample reported

Where the number of respondents in any given category is less than three, the results have not been reported for that single category in order to ensure the anonymity of the respondents are preserved, however the amounts are included in any calculation of the total for the broader category. Similarly, medians are only reported for categories with a minimum of four respondents, and quartiles for categories that have a minimum of five. Response % for a category is typically only reported where there are ten or more respondents, except where otherwise stated.





Valuation of motor vehicle

The value of capital and running costs given to a motor vehicle provided as part of a salary package has been determined based on the formula:

$$0.225 \times \text{Cost of Vehicle} + 25 \text{ cents per km.}$$

Cost of vehicle is the original cost of the car inclusive of government taxes and charges and dealer delivery fees. Capital costs within the formula are based on 22.5% straight-line depreciation over 4 years. Vehicle running costs are based on an average derived from the Royal Automobile Club of Victoria annual survey of car running costs. These costs include registration, insurance, fuel and servicing. The Fringe Benefits Tax liability has been calculated using the following formula: $\text{FBT} = \text{Purchase price} \times \text{statutory fraction} \times 1.8868 \times 0.47$ using the statutory fraction of 20%.

Statistical terms

For the purposes of salary analysis, the following statistical terms were used:

- N - the number of observations recorded for each category. A result of SNR (Sample Not Representative) is given for categories below the reporting threshold.
- Lower quartile - the value below which 25% of observations were recorded.
- Median - the value below which 50% of observations were recorded.
- Upper quartile - the value below which 75% of observations were recorded.
- Mean - the sum of individual salary values divided by the number of observations.
- Response % - the proportion of the survey sample represented by number of observations in the given category.

The calculations for base salary, total cash, total remuneration, total employment cost, total package, annual salary movements and other remuneration components are made separately for each of the sample respondents and then ranked. The median is not therefore a reflection of the middle ranked respondent across all categories, but rather the middle value of the particular component when all values of that component are ranked. As a consequence, the component statistics will not add up to the value given by the overall statistic.

A significant difference between the value of the mean and the median will indicate the following:

- where the mean is higher than the median, a number of high values were recorded, sufficient to skew the mean upwards away from the median;
- conversely, if the mean is lower than the median, a number of low values were recorded, sufficient to skew the mean downwards, away from the median;
- if the mean and median are relatively close, the distribution was symmetric.

Sample size

Not all respondents answered all questions, nor were all respondents in a given discipline employed as full-time employees. As a consequence, some discrepancies may appear to exist in the total number in a given category. In all cases, the sample size will correspond to the number of respondents who fulfilled the criteria described in the relevant heading and who made relevant data available for reporting purposes. This is of particular importance in relation to salary data as this has been restricted to only those respondents who were engaged on a full-time basis and who provided sufficient details of their income for reporting purposes.

Also, as would be expected, results based on smaller sample sizes need to be treated with greater caution. Nevertheless, where the number of responses exceeded three, the information has been reported. (Whilst not statistically reliable, small sample sizes are reported in order to satisfy the demand that some users have for any information that might have been gathered for a particular factor or combination of factors.)

In interpreting the results, the user should take as much care to look at the factors used for analysis as in looking at the statistical data itself. The conclusions drawn rely on the correct interpretation of both.

Sample characteristics

This report presents data collected in the 2020 Professional Scientists Employment and Remuneration Survey. The survey was conducted during May 2020. Participants were recruited from Professional Scientists Australia and Science & Technology Australia's contacts by email and social media with a small incentive offered to complete the survey. Overall, the survey had 1,467 respondents. Participants were slightly more likely to be male (56.2 per cent) and employed in the education and training industry (32.4 per cent). New South Wales was the state with the highest proportion of respondents (28.8 per cent), followed by Victoria (24.0 per cent) and Queensland (14.5 per cent). Participants were most likely to be qualified in chemistry (21.7 per cent), biology (16.2 per cent) and/or medical science (14.8 per cent). In the graphs presented in this report, the sample size (n-value) is included in brackets alongside the category labels to indicate how many responses are included in the analysis.



Demographic information

Gender	Male	776	56.2%
	Female	606	43.8%
Age	Less than 30	204	15.1%
	30 - 39yrs	434	32.1%
	40 - 49yrs	311	23.0%
	50 - 59yrs	227	16.8%
	60yrs or more	178	13.1%
State	NSW	410	29.5%
	VIC	342	24.6%
	QLD	207	14.9%
	SA	126	9.1%
	WA	175	12.6%
	TAS	33	2.4%
	NT	12	0.9%
	ACT	87	6.3%
Location	Capital city/suburb	1164	83.6%
	Rural/Regional	228	16.4%
Status	Full-time salaried	893	81.3%
	Part-time salaried	137	12.5%
	Self-employed	29	2.6%
	Hourly contract employee	40	3.6%
Job Function	Analysis & Testing	134	14.3%
	Quality Control & Production	24	2.6%
	Research & Development	371	39.5%
	Management	146	15.5%
	Sales/Marketing	13	1.4%
	Teaching or Training	142	15.1%
	Exploration (inc. Mining)	62	6.6%
	Quality Assurance	28	3.0%
Computing	19	2.0%	

Industry	Consulting & Technical Services	109	11.0%
	Medical Research Institutes	61	6.1%
	Mining (inc. Oil/Gas extraction)	99	9.9%
	Electricity, Gas, Water & Waste	45	4.5%
	Defence	13	1.3%
	Public Administration and Safety	18	1.8%
	Health	173	17.4%
	Education and Training	326	32.8%
	Manufacturing (inc. Chemical)	65	6.5%
	Agricultural	22	2.2%
	Other	64	6.4%

Sector	Private sector	327	32.1%
	Public sector	182	17.8%
	Education sector	376	36.9%
	Other sectors	135	13.2%

Employees at organisation	Fewer than 19	85	8.5%
	20 to 199	139	13.9%
	Over 200	779	77.7%

Discipline	Agricultural Science	29	2.1%
	Biology	224	16.4%
	Biochemistry	116	8.5%
	Botany	15	1.1%
	Chemistry	291	21.3%
	Computer Science	42	3.1%
	Engineering	73	5.3%
	Environmental Science	153	11.2%
	Food Science/Technology	66	4.8%
	Geology	177	12.8%
	Marine Science	65	4.8%
	Materials/Metallurgy	30	2.2%
	Microbiology	65	4.8%
	Medical Science	201	14.7%
	Pharmacology	18	1.3%
	Physics	146	10.7%
	Mathematics	155	11.4%
	Veterinary Science	11	0.8%
	Nutrition	42	3.1%



RESPONSIBILITY LEVEL DEFINITIONS

The responsibility level definitions used in this survey reflect those set out in the Professional Employees Award 2010 (available at <http://awardviewer.fwo.gov.au/award/show/MA000065>). The following is a summary of the definitions.

Level 1 - The professional primarily completes tasks of limited scope & flexibility which form part of larger projects under supervision from higher level professionals. Draws on knowledge gained during undergraduate studies and uses various standard procedures to perform responsibilities. Decisions are largely restricted to tasks at hand and work is regularly reviewed by higher levels. May be required to check the work of technical staff.

Level 2 - Following from Level 1, the experienced professional plans and conducts professional work without detailed supervision but with guidance on unusual features and is usually engaged on more responsible assignments requiring substantial professional experience.

Level 3 - The professional is involved in co-ordination of difficult assignments and resolving problems by modifying established guidelines and devising new approaches. May make novel contributions to the design of equipment, products and procedures. Decisions made at this level are subject to limited review, primarily checked for conformity with broader objectives and priorities. The professional may supervise other technical and professional staff and cooperate with other divisions.

Level 4 - Largely independent with duties assigned in terms of broad objectives, the professional has detailed technical responsibility for products, systems, facilities or functions. A professional at this level will apply ingenuity, originality and knowledge from more than one field to influence long range planning; providing technical advice to management and acting as an organisations authority in a given field. Often supervises a group including other professionals and exercises authority over a large sum.

Level 5 - The professional independently conceives programs, responsible for reaching objectives in the most economical manner. Frequently responsible for scientific administrative functions, a scientist at this level directs several professional groups or acts as a scientific consultant. Makes responsible decisions on all matters, including selection, training, rating and remuneration of staff, subject only to overall policy and financial controls.

Report preparation

This report is a collaboration between Professional Scientists Australia and Science & Technology Australia. It was compiled by Professional Scientists Australia's Kim Rickard and Alex Crowther with assistance from STA's Misha Schubert and Peter Derbyshire.

Acknowledgements

Professional Scientists Australia would like to thank the scientists who took part in the research and to acknowledge the assistance of Science & Technology Australia and their member organisations in conducting this survey.

EMPLOYMENT FRAMEWORK

Individual employment contracts

The market rates information in this survey report provides a snapshot of remuneration for scientists and the current science employment market. The information contained in this report is a good starting point for those looking to negotiate or renegotiate their package and understand their position in the market. Where individuals are engaged under an individual employment contract, the remuneration information contained in this report can provide a basis for negotiating a base salary and total remuneration package to be included in the contract. The rates set out in the report are a reliable snapshot of market rates and salary movements across the profession over the previous 12 months. For more detailed information suitable for benchmarking, the full report is available for purchase from Professionals Australia. This report contains comprehensive tables analysing remuneration by all demographics discussed in this report.

Employment conditions

Employment conditions to be included and referred to in a contract can be negotiated and agreed so long as employers observe the National Employment Standards (NES) or the relevant underpinning Award which must apply (see below). Some enterprise agreements also provide for employees to enter into individual agreement/contracts in relation to some aspects of their employment so in these cases the employment conditions set out in the enterprise agreement underpin the employment conditions set out in the employment contract.

National Employment Standards

The NES are 10 minimum employment entitlements that must be provided to all employees. The national minimum wage and the NES make up the minimum entitlements for employees in Australia. An Award, employment contract, enterprise agreement or other registered agreement can't provide for conditions that are less than the national minimum wage or the NES. They cannot exclude the NES.

The 10 minimum entitlements of the NES are:

- maximum weekly hours;
- requests for flexible working arrangements;
- parental leave and related entitlements;
- annual leave;

- personal/carer's leave, compassionate leave and unpaid family and domestic violence leave;
- community service leave;
- long service leave;
- public holidays;
- notice of termination and redundancy pay; and
- Fair Work Information Statement.

All full-time and part-time employees in the national workplace relations system are covered by the NES regardless of the award, registered agreement or employment contract that applies. For further information on the National Employment Standards and their application, visit the Employee entitlements section of the Fair Work Ombudsman's website at <https://www.fairwork.gov.au/employee-entitlements/national-employment-standards>

Modern Awards

Professional employees are covered by a range of Modern Awards and particular Awards underpin Enterprise Agreements. The major Award covering Professional Engineers in the Private sector is the Professional Employees Award 2010.

The major provisions of a modern award will most commonly relate to:

- rates of pay;
- classification levels;
- working hours and public holidays;
- overtime and penalty rates;
- allowances;
- annual leave;
- personal leave;
- rest breaks;
- engagement and termination of employment;
- superannuation; and
- dispute settlement procedures.

For a list of relevant Awards and links to the Awards, visit the Modern Awards section on the Professionals Australia website at <https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/minimum-workplace-entitlements>



HOW TO ORDER THE EXTENDED SCIENTISTS EMPLOYMENT AND REMUNERATION REPORT

If you're an employer, you can gain access to more detailed data to benchmark remuneration for your science workforce for only \$330 (inc. GST).

Professionals Australia has been conducting regular surveys of professional scientists' remuneration for over 20 years. Our reports are the most detailed source of information available when it comes to pay and conditions for Australia's science workforce.

The extended version of the Professionals Scientists Employment & Remuneration Report gives you access to detailed breakdowns for scientists pay across industry, discipline, levels of experience and more.

Professional Scientists Australia members can purchase the report for the discounted price of \$99.00 (inc. GST). You will need to log-in to purchase the report on the following page:

https://scientists.professionalsaustralia.org.au/Scientists/What_we_do/Our_Services/Remuneration/Scientists/Content/Services_Content/Pay.aspx

By purchasing the full report you get access to our scientists salary calculator. This tool allows you to perform custom analysis of scientist remuneration by filtering for various key demographics. Professionals Australia members have immediate access to the calculator through the member portal:

https://members.professionalsaustralia.org.au/PSA/Calculator_Page.aspx

Not a member? Look at the benefits of joining here!

https://scientists.professionalsaustralia.org.au/Scientists/Content/why_join.aspx

Other remuneration and employment reports

Professionals Australia conducts a range of salary surveys and has available reports for Engineers, Pharmacists and ICT Professionals.

[Download here](#)

ENDNOTES

1. Annual base salary movements for scientists were determined by comparing the reported current salary of the individual with that reported as having been received 12 months earlier by the same incumbent performing the same job.
2. The responsibility level definitions used in this survey reflect those in the Professional Employees Award 2010 (available at <http://awardviewer.fwo.gov.au/award/show/MA000065>). For a summary of Responsibility Level Definitions, refer to the About the Survey section.
3. Patty, A. Not enough jobs for science graduates challenges STEM hype. Available at <https://www.smh.com.au/business/workplace/glut-in-demand-for-science-graduates-challenges-stem-hype-20190327-p517zj.html>.



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