

2025 Survey of New Zealand Scientists & Technologists

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The results of the 2025 New Zealand Association of Scientists and Technologists add a wealth of information, and an update, to the information already provided by the 1995 and 2008 surveys in exploring the demographics, attitudes, accomplishments and concerns of the science and technology workforce in New Zealand in 2025. This information is designed to help inform and measure science related policy in New Zealand, to provide information that will enhance public understanding of science and technology, and to serve as a voice for the scientific community. This report closes with some candid free-form comments from survey participants.

Some key findings from the survey are described below.

1. The greatest concern for scientists, in this and all previous surveys, has been interruptions in research funding. The second and third greatest concerns in 2025, are the overpoliticisation of research and lack of public understanding of science & technology.
Section 4.1.
2. Job security varies significantly across sectors with the following proportions feeling their job was secure; government (71.7%), industry (66.7%), universities (36.8%) and CRIs (30.3%). A similar pattern is observed with job satisfaction.
Sections 4.3.1 and 4.3.2.
3. Scientists are also concerned about dis- and misinformation (89.4%), and a lack of accurate and unbiased reporting of science in the media (50.9%).
Sections 4.6.6 and 4.6.8.
4. Scientists' confidence in the government is low with only 12.8% believing that New Zealand is heading in the right direction and only 15.1% believing that the government should define the research agenda.
Sections 4.4.1 and 4.5.2.1.
5. Scientists belief that government science strategy is open and inclusive has decreased from 13.6% in 2008 to 5.6%.
Section 4.5.3.7.
6. A slight majority of scientists (52.5%) disagree that scientists should be neutral and not engage in political debates.
Section 4.5.1.3.
7. A vast majority of scientists agree that fundamental scientific research is important (94.8%), and that it is difficult to guarantee the result of research in advance (87.7%).
Sections 4.5.2.3 and 4.5.2.4
8. A majority of scientists (62.6%) also agree that New Zealand should be the primary beneficiary of scientific advances funded by New Zealand.
Sections 4.5.2.3, 4.5.2.4 and 4.5.1.2.
9. Three quarters of scientists (74.8%) do not support the removal of funding for the humanities & social sciences from the Marsden fund.
Section 4.5.3.3.
10. The percentage of women represented has increased with each survey. In 1996 22.8% of respondents identified as female, compared with 28.8% in 2008 and 47.6% in 2025.
Section 3.2.2.
11. Māori participation has also increased across time from 0.7% in 1996 and 1.7% in 2008 to 4.1% in 2025.
Section 3.2.3.
12. Overall, scientists support many of the initiatives introduced during the Covid pandemic (vaccinations, masks) as appropriate and informed by science.
Section 4.6.9.
13. A small proportion (3.3%) did not agree that increasing levels of human induced atmospheric carbon dioxide is the main cause of climate change.
Section 4.6.1.
14. A majority of scientists support the use of genetic modifications (GM) outside of laboratories (59.7%) with a smaller proportion (16.1%) in disagreement.
Section 4.6.3.

1 Introduction

1.1 Origins of the survey

The 2025 Survey of Scientists and Technologists is a continuation and evolution of previous surveys carried out in 1994, 1996 and 2008. The first survey was developed by the New Zealand Association of Scientists (NZAS) and carried out in 1994, with the results published the following year in the New Zealand Science Review (Sissons and Berridge, 1995). This survey stimulated interest within the Royal Society of New Zealand (RSNZ) to develop the first comprehensive survey of the science community in New Zealand under the direction of Dr (now Distinguished Professor) Jack Sommer, a Senior Fulbright Scholar and science policy research scientist at the University of North Carolina at Charlotte. Dr Sommer had extensive experience in the survey of scientists as Chief Advisor of a major survey in 1986 for Sigma Xi, The Scientific Research Society (Sommer, 1987) and then as Director of their 1988 Survey (Hively 1989; Sommer and Seltzer 1988, see also Sommer 1991, 1995). This survey was carried out in 1996.

Information and results from the 1996 survey are reported in the RSNZ document, Profile: a survey of New Zealand scientists and technologists (Sommer and Sommer, 1997). Respondents in the 1996 survey were asked if they would be willing to be re-surveyed after the passage of several years, and about one-third indicated their agreement. This group, with inevitable attrition, formed a panel that was re-surveyed in 2000 and again in 2007. Unpublished reports of results for the 2000 and 2007 panellist surveys are on file at the RSNZ and with the NZAS. This longitudinal inquiry of the same scientists at different stages of their careers provides a valuable source of information on the effect of changing conditions and policies. The serial application of the survey also allowed refinement of the survey instrument; some questions were abandoned, some new questions were added, while many of the original survey questions were retained for ongoing comparative purposes. The 2007 panellist survey served as a test run for the instrument used for the 2008 Survey of Scientists and Technologists. At all stages of the development of these survey instruments, the advice and recommendations of New Zealand scientists and technologists were valuable. Qualitative responses sought from respondents to each survey, comments from focus groups, and test runs of the instrument before each survey have been crucial to the refinement of our inquiry (Sommer, 2010).

For the 2007 and 2008 Surveys, a select Advisory Group of prominent New Zealand research scientists and science managers was constituted. Their critique of the survey instruments and feedback on test runs contributed greatly to the entire survey process, as did the support of RSNZ, NZAS, and the Ministry of Research, Science and Technology (MoRST). The steadfast contribution of Mr Ross Moore, former CEO of RSNZ, was also critical to the support and development of these surveys. Information and results from the 2008 survey were published in the New Zealand Science Review (Sommer, 2010).

After a hiatus of ~17 years, the 2025 survey was

initiated, with support from the New Zealand Association of Scientists (NZAS), by Dr Michael Edmonds, manager of the Biomolecular Interaction Centre (BIC) at the University of Canterbury. This survey updated some of the content and structure, while trying to maintain consistency with much of the content of the previous surveys. The delivery of the survey was also modernised with respondents completing the survey via an email link to Qualtrics which allowed relatively straightforward analysis of the data using SPSS.

The 2025 survey participants were recruited by asking a broad range of scientific organisations and universities in New Zealand to circulate an email to their members inviting them to take part in the survey. The email included a link to the survey. The changes in the survey content and process were carried out with advice and support from Distinguished Professor Jack Sommer and members of the NZAS Council.

During the development of the 2025 NZAS survey, some survey items were developed in collaboration with the authors of a similar survey, the Scientific Mind, being developed in the US (Schalin, 2025). This survey was an update of the 1988 survey Sketches of the American Scientist (Sommer and Seltzer, 1988) and provided the opportunity to compare survey results between the two countries as part of this report.

1.2 Four functions of the survey

1.2.1 A source of information for the development of science policy

The information provided by this survey can inform science policy in many ways. For example, by providing a measure of the scientific community's level of support for new or potentially controversial technologies, such as genetic engineering, AI, and use of nuclear power. The survey also provides a measure of the morale of the scientific community.

The previous survey report (Sommer, 2010) described how the morale of the scientific community was one of the goals of previous government reports including the RS&T 2010 document (Ministry of Research, Science and Technology, 1996), Science for New Zealand (Ministry of Research, Science and Technology, 2006*b*), Research and Development in New Zealand (Ministry of Research, Science and Technology, 2006*a*), and From Strength to Strength (Ministry of Research, Science and Technology, 2008). Understanding the morale of the scientific community can identify issues (and potential policy solutions) with funding priorities and allocation, attraction and retention of talent within the scientific community, science communication and other factors important to a healthy and productive scientific community.

Every survey involves some degree of bias, a fact acknowledged by the previous surveys and which is also acknowledged for the 2025 survey. This survey particularly focused on engaging with respondents who hold advanced degrees in sciences and engineering, many of whom are actively involved in research or the support of research. Circulation of the survey was reliant on senior leadership

in scientific organisations and universities circulating the invitation, and while most responses were positive, the anonymous nature of the survey means it is impossible to know how well the survey was disseminated. The invitation to take part was circulated to leaders in all relevant science, engineering and health departments/faculties in New Zealand universities, and a broad range of science organisations. There was no direct dissemination into polytechnics as it was unclear who the appropriate contacts would be in the wake of the major changes which have taken place as part of Te Pukenga.

That said, the range of workplaces listed by respondents, 345 in Crown Research Institutes, 389 in universities, 77 in government, 50 in industry, 23 self-employed, 14 in startup companies, 4 in museums, 2 in polytechnics and 65 in other organisations suggests broad coverage and representation of respondents.

It is difficult to accurately assess the level of representation provided by the current survey. This is in part due to varying interpretations of what it means to be a “scientist”, “researcher”, or “technologist”. The 1996 and 2008 NZAS surveys estimated the population of New Zealand scientists to be 4,341 and 5,966 respectively, which even assuming some growth in the population over the past 15 years would suggest that the 997 respondents in 2025 represents a reasonable sample of the scientific community (~14%). A 2024 research & development survey produced by Stat NZ (Stats NZ, 2024) estimates there are approximately 31,000 researchers across higher education, government and the business sector of which 997 respondents would represent 3.2%, however, if we compare the total number of PhD graduates in this survey ($N = 715$) with the total number of PhDs reported involved in research & development ($N = 5,200$) (Stats NZ 2024) representation is higher (13.8%).

This survey not only provides a “snapshot” of the demographics, opinions and concerns of scientists in 2025, by comparing the results of the 2025 survey with those from previous surveys we can see what has changed, (e.g., increased participation by women in science), and what has not (e.g., concerns over consistent funding for science) over time. The results are all the more valuable and important because the survey was carried out in the early stages of a substantial restructuring of the New Zealand science system, including the transition of Crown Research Institutions (CRIs) into Public Research Organisations (PROs).

1.2.2 Performance measures for science policy

The survey not only provides a “snapshot” of the demographics, opinions and concerns of scientists in 2025, but by comparing these results with previous surveys the survey demonstrates how science policies are affecting different measures. For example, the 2025 survey shows increased participation of women in science, a slight increase in Māori participation, and increasing concerns over science funding compared to previous surveys.

The survey also indicates significant concerns from scientists regarding policy and changes in the science system such as removal of funding for the humanities and social

sciences (Section 4.5.3.3), and a notably decreased sense of job security and satisfaction, particularly for those working in Crown Research Institutes (CRIs) which have undergone substantial restructuring over the past year (Section 4.3.1). Survey respondents were also generally supportive of the governments’ responses to Covid (Section 4.6.9).

1.2.3 A source for enhanced public understanding of science and technology

The surveys provide a source of information which can be used in editorials, commentary and other forums to inform the public about science and research. In previous surveys New Zealand scientists have expressed concern over diminished public understanding of science and technology. The 2025 survey shows these concerns have become even greater over the past decade. However, the 2025 survey also shows that scientists consider it important to share their research with the public and have described the different ways they do so. Another positive sign is that many scientists are positive in encouraging young people into STEM careers.

Survey information may also serve to humanise scientists to the public, at a time when there is a growing mistrust in scientists and science (Cologna et al., 2025). Understanding that many scientists are motivated by meaning (making the world a better place, and a search for truth) and not money, and that many scientists think it is important to communicate their research to the public (>95%) may be reassuring to those who are concerned with the increasing amount of mis- and disinformation. The author hopes that this report may also encourage more scientists to engage in activities to support public understanding of science, and to encourage their organisations to recognise and reward such activities.

1.2.4 A voice for the scientific community

The surveys (1994, 1996, 2008 and 2025) have provided the opportunity to measure the science community’s collective views on a range of topics important to the community, including the perceived responsibilities of government and scientists, concerns of scientists, funding, and views on issues of public interest. Feedback has been gathered using survey items specific to important topics and through the opportunity for respondents to make more general comments using open comment fields in the survey.

Demographic information including age, gender, field of science, and workplace were gathered. This information was not only valuable in and of itself, but it was also useful in examining how opinions on some survey items might vary across different demographic subgroups.

As the concerns of scientists evolve over time, new items were added to the 2025 survey while others were removed. For example, in 2025, items were added to explore the scientific community’s views on responses to the Covid pandemic and engagement with industry, while other items exploring the perceived “weaknesses” of young scientists seemed unproductive and were removed.

Results from the 1996 survey, published in Profiles: a Survey of New Zealand Scientists and Technologists

by RSNZ (Sommer and Sommer, 1997) stimulated policy discussion and many citations in the decade to follow (Campbell et al., 2005; Royal Society of New Zealand, 2008; Sommer, 2001; Sommer and Sutherland, 1998). Indeed, it was the valuable nature of this information which encouraged the current author to revive the survey to explore what has changed for the scientific community in the intervening years. It is anticipated that the current survey will also contribute to policy discussions in the years to come.

The results of the 2025 survey provide a refreshed voice for the scientific community at a time when significant changes are occurring in science and society, many of which are raising concerns within the scientific community.

2 The Research Plan

2.1 The survey instrument

The “survey instrument” for 2025 evolved from the previous survey (Sommer, 2010). Previous survey items were retained as much as possible to maintain comparability, however, some items which no longer seemed relevant were removed and new items were added to explore new developments in science and technology (e.g., Artificial Intelligence and Covid responses).

Items that were removed included those asking about secondary employment, length of time employed in New Zealand, overseas work experience, perceptions of the weaknesses of younger scientists, and whether the respondent had sought employment outside of New Zealand, as it was decided these questions added very little useful information in the modern environment.

The 2025 survey largely follows the structure of the 2008 survey beginning with demographic questions to provide information such as the age, gender, ethnicity, employment status and current fields of highest qualification and field of work.

The options for identifying one’s highest qualification or field of work were the same as those used in the 2008 survey, except an additional option, chemical sciences, was added to the list of options. Thus, the list of options was as follows:

- Agricultural & soil sciences
- Biological sciences
- Chemical sciences (newly added in 2025 survey)
- Engineering & applied sciences & technologies
- Earth & environmental sciences, & natural resources
- Medical & health sciences
- Mathematical & computer sciences
- Physical sciences
- Social & behavioural sciences
- Other

Demographic information in 2025 was updated to include expanded definitions regarding identification of gender in line with guidelines from Stats NZ (2021a) and an opportunity to identify membership of the LGBTIQ+/Rainbow community.

Following the demographic information, respondents were then given the opportunity to provide their attitudes and opinions on a range of topics related to the practice of science. While many of the survey item statements were kept as similar as possible to those in the 2008 survey the measure of these items was updated in two ways in 2025.

2008 survey items which asked respondents to identify their top two reasons or beliefs regarding a particular topic (e.g. reasons for becoming a scientist) were replaced with items that asked participants to score all options using a

Likert scale, as it was anticipated that this would provide richer information.

While the 2008 survey utilised a five-point Likert scale (*Disagree emphatically, disagree in substance, neither agree nor disagree, agree in substance, agree emphatically*), the 2025 survey used two eight-point Likert scales, as follows:

Strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree, I do not feel sufficiently informed to comment.

Strongly disagree, disagree, slightly disagree, neither agree nor disagree, slightly agree, agree, strongly agree, not applicable to my role.

Increasing the number of disagree/agree options from five to seven provided the opportunity for a more nuanced measure of the intensity to which respondents were responding to an item, while the introduction of the “I do not feel sufficiently informed to comment” and “not applicable to my role” allowed an additional option for respondents who did not feel in a position to provide a disagree/agree response.

Most of the analyses carried out in the survey involved adding together the three different agree responses and three different disagree responses to allow a comparison of the percentage of respondents who disagreed with the item statement with those who agreed, those who neither disagreed nor agreed, and those who either did not feel sufficiently informed to comment or where it was not applicable to their role. This collation of the different agreed and disagreed responses allowed direct comparison with the 2008 survey where the results were reported in the same way.

New sections added to the survey in 2025 included ten Big Five personality items (Costa Mastrascusa et al., 2023), and items requesting information on the high school respondents attended, books/TV series/movies that influenced them to pursue a science/technology profession, and ORCID numbers. The aim of these questions is to explore in more detail some of the factors which influence a pathway into and through a career in science. The results of these responses will not be discussed here, as this report is focused primarily on items comparable with the 2008 survey, however, they may contribute to a separate report in the future.

2.2 Survey population and sample

The 2008 survey involved the re-establishment of a database of scientists and technologists from the previous survey which required a significant effort by NZAS leadership, RSNZ staff and the Survey Director working with different organisations including universities, CRIs, polytechnics, research organisations and museums. This afforded a survey population of 5,966 individuals. A random sample of 1,046 was drawn from this population, although subsequent issues during pre-circulation testing reduced the effective survey sample to 930 potential respondents. Following the distribution of the survey to the 930 viable respondents, 361 complete and valid records were received and utilised in the survey, a 38.6% response rate.

The 2025 survey took a much simpler approach, circulating the updated version of the survey to

senior leadership in universities, CRIs and professional organisations, asking them to circulate the survey link to their relevant teams asking them to participate in the survey. There was no need to use a sample approach given the survey platform, Qualtrics, can readily compile and analyse thousands of responses if needed. As discussed in Section 1.2.1 it is difficult to accurately estimate the exact population of scientists and technologists in New Zealand. However, based on the number of PhDs represented in our respondents and the population of PhD-qualified scientists estimated in previous surveys it would be reasonable to estimate that the 997 respondents in this survey represent approximately 14% of the scientific community in New Zealand.

3 Survey Results

3.1 Overview of survey results reported and unreported

Results are reported for 76 survey items from the survey. Some items from the survey are not reported here. This includes survey responses which, if published, would potentially identify individual respondents. Such responses, if present, are described in general terms to maintain the confidential/anonymous commitment to respondents.

This section of the report begins with an analysis of the responses from scientists and technologists in terms of demographics. This includes general demographics (age, gender, ethnicity, LGBTIQ+ identification, citizenship) and work-related information (employment status, income, productivity and work environment).

Section 4 of this report explores the scientists and technologists' attitudes and opinions on a broad range of issues including what concerns them the most, perceived responsibilities, views regarding government policies, and issues of public interest, including Covid, genetic engineering and climate change. Section 4 also explores scientists' views and experiences of science funding in New Zealand, including feedback on three funds, Marsden, Health Research Council (HRC) and MBIE Smart Ideas and Endeavour funding.

Section 5 provides a summary of the survey while Section 6 includes anonymised individual commentary from survey respondents providing illustrative comments and concerns.

3.2 Demographics

3.2.1 Qualifications, fields of work and workplace

2025: Q1, Q2, Q7
2008: Q1, Q2, Q10
1996: Q59, Q60, Q75

Respondents provided information on their current field of work, highest qualification and the type of organisation they work for. In 2025, chemical sciences were added as field of work/qualification distinct from physical sciences.

Survey respondents represent a wide range of scientific specialisations regarding their field of work and field of their highest qualification (Figure 1).

Table 1 describes the percentage of survey respondents working in different fields for the 1996, 2008, and 2025 surveys. Biological sciences have had the strongest representation across all surveys while representation from other fields has varied between 3.7% and 18.9%. Variations in representation may be related to the use of different methodologies for distribution of each survey, while the decrease in the percentage of those working in physical sciences is likely due to the addition of the chemical sciences field in 2025.

A comparison of respondents' field of work and their highest qualification demonstrated that scientists and technologists do not always work in the same field as their qualification (Figure 1). In some fields such as

biological sciences, the percentage of those with a biological qualification (1996, 26.3%; 2008, 28.3%; 2025, 28.2%) is higher than the number of respondents working in the biological field of work (1996, 20.6%; 2008, 24.4%; 2025, 21.2%). Such fields can be considered **source** fields as their broad applicability means graduates find roles in other fields. Chemical, physical, and mathematical & computer sciences are also source fields.

There are also fields which have a higher percentage of those working in a field than there are those with the corresponding qualifications. These **attractor** fields include agricultural & soil sciences where the percentage of those working in the field (1996, 12.6%; 2008, 8.6%; 2025, 9.3%) is higher than those with their highest qualification in agricultural & soil science (1996, 7.0%; 2008, 6.6%; 2025, 4.9%). Other attractor fields include Earth & environmental sciences and medical & health sciences.

Most of the survey respondents worked for either a university (40.1%) or a CRI (35.6%). Other workplaces included working for national or local government (7.9%), industry (5.2%), startups (1.4%), museums (0.4%), or polytechnics (0.2%). Self-employed respondents made up 2.4% of respondents. The remaining 6.7% of respondents who selected "Other" workplaces described various employment including roles which were split across multiple organisations, working for independent or private research organisations, consultancies, or being in study.

An analysis of respondents' current field of work and their type of organisations demonstrated that a high percentage of those working in the agricultural & soil, earth & environmental and biological fields were employed by CRI, while most other fields were more likely to be employed by universities (Figure 2). These results are similar to those observed in the previous surveys. Those working in engineering were the most likely to be working with industry.

The highest qualification for most correspondents was a PhD (71.8%) followed by Masters (14.5%), BSc/BA (5.1%), BSc/BA with honours (3.5%) and BEng or BEngTech (0.3%) degrees. Other qualifications (4.7%) identified included certificates in science, medical and health science degrees and DSc's (Doctor of Science).

3.2.2 Gender, age, LGBTQIA+ identification

2025: Q11, Q10, Q16
2008: Q13, 14
1996: Q64, Q65

The percentage of survey respondents identifying as female has increased significantly compared to previous surveys, with an almost equal number of female (48.1%) and male respondents (49.1%) in 2025. In 1996 and 2008, the percentages of female respondents were 22.8% and 28.8% respectively. In 2025, in adherence with best practice from Statistics New Zealand, the gender survey item also included options for respondents to identify as other gender or to prefer not to state their gender. Responses to these options were 0.7% and 2.1%, respectively. Due to the

Survey Year	1996	2008	2025
Field of work	Survey respondents in field (%)		
Biological sciences	21.9	24.4	21.2
Agricultural & soil sciences	12.6	8.6	9.3
Engineering & applied sciences	9.9	10.5	8.6
Earth & environmental sciences	9.2	7.8	15.3
Medical & health sciences	13.5	9.7	18.9
Mathematical & computer sciences	7.4	7.2	4.2
Physical sciences	13.5	7.8	3.7
Chemical sciences	†	†	6.5
Social & behavioural sciences	10.3	16.1	5.6
Other	1.7	7.9	6.7

Table 1: Percentage of respondents working in different fields of research for the 1996, 2008, and 2025 surveys

† The field of chemical sciences was only used in the 2025 survey

low percentages of respondents in these two categories, discussions of different gender responses to different items later in this survey will primarily focus on the male and female responses.

The age distribution differed between male and female respondents with higher numbers of female respondents in

the younger age groups (Figure 3), a pattern also observed in previous surveys. While it might be tempting to interpret this result as meaning there is increased interest in science from more young women, an alternative and more sobering explanation is that the number of women in science reduces over time due to systemic, cultural, and societal barriers, an

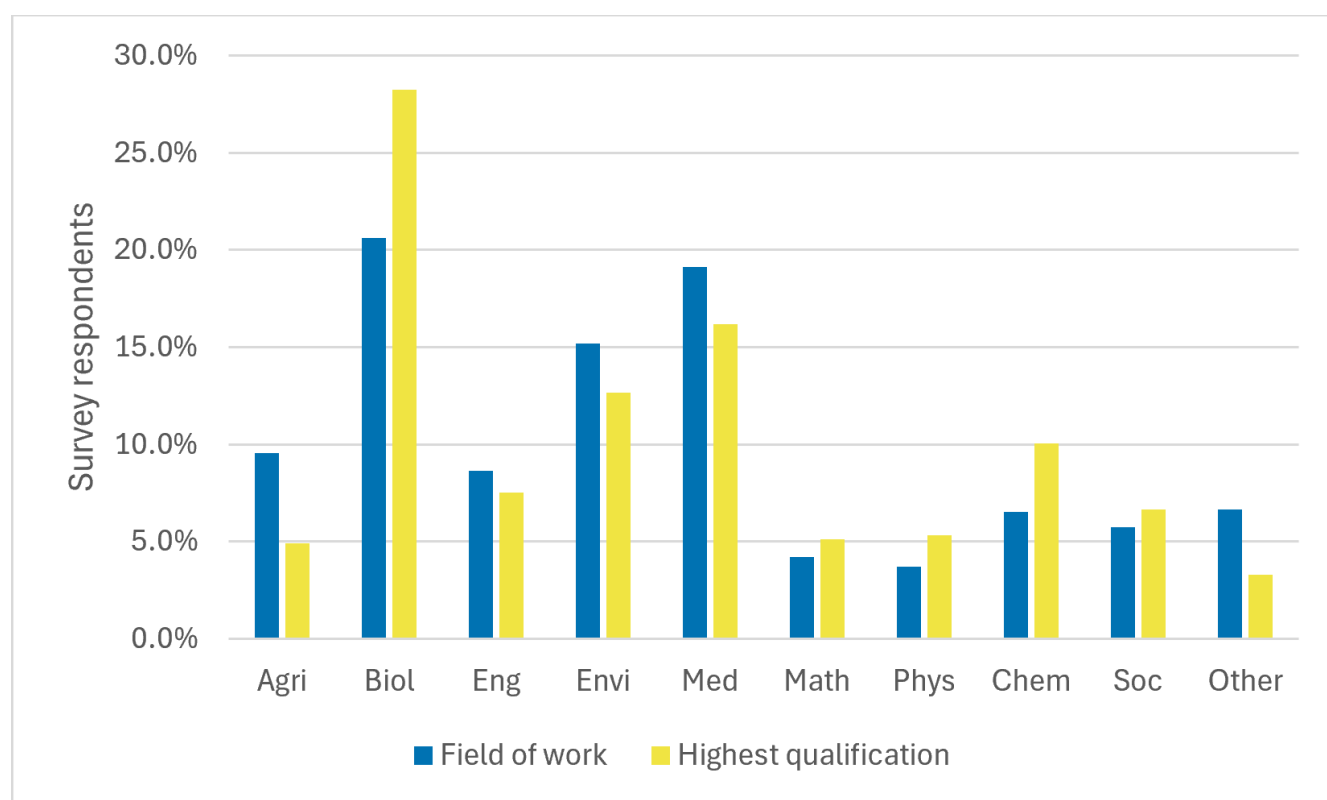


Figure 1: Comparison of current field of work and highest qualification

Agri = Agricultural & soil sciences; Bio = Biological sciences; Chem = Chemical sciences; Eng = Engineering & applied sciences/technologies; Env = Earth & environmental sciences; Med = Medical & health sciences; Maths = Mathematical & computer sciences; Phys = Physical Sciences; Soc = Social & behavioural sciences.

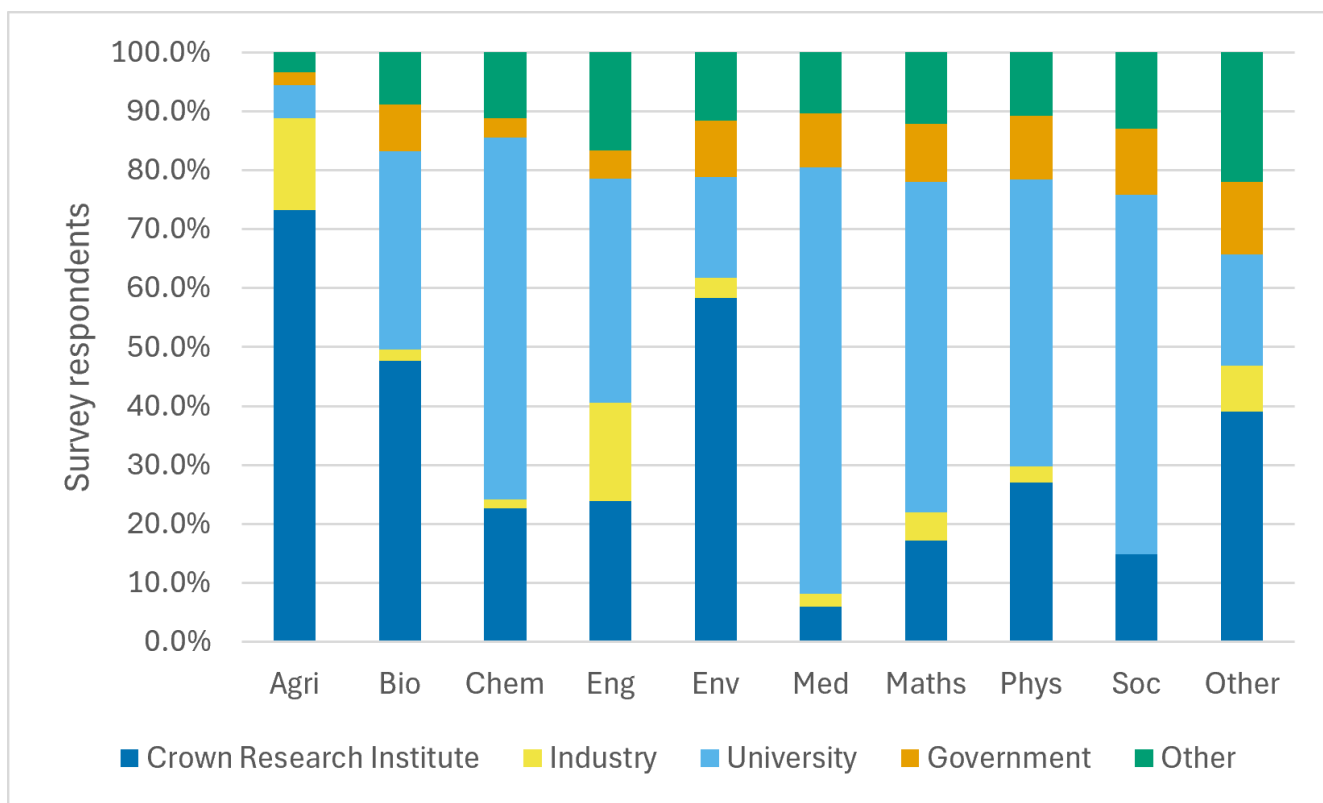


Figure 2: Proportion of each field by workplace

Agri = Agricultural & soil sciences; Bio = Biological sciences; Chem = Chemical sciences; Eng = Engineering & applied sciences/technologies; Env = Earth & environmental sciences; Med = Medical & health sciences; Maths = Mathematical & computer sciences; Phys = Physical Sciences; Soc = Social & behavioural sciences.

explanation described as the “scissor-shaped curve” (Joyce et al., 2024).

In the 2008 survey, the age structure of various fields was reviewed for its importance to those who manage science in New Zealand and for those curious about the impact of policy on the pipeline of scientists. In 2008, biological and engineering and applied sciences were identified as having a relatively young population (30.7% and 52.6%, respectively, under the age of 35) and physical, earth & environmental, and social & behavioural scientists having an older population of respondents (14.3%, 14.3%, and 6.9%, respectively, over the age of 65). In 2025, similar patterns persist with engineering & applied and biological scientists having relatively young cohorts (53.5% and 46.6%, respectively, below the age of 45) while physical, and agricultural & soil scientists are older (34.0%, and 19.6% respectively, below the age of 45 and 8.8% and 14.6% over the age of 65). There has been a notable shift for social & behavioural scientists who now have a relatively young cohort (52.5% below the age of 45 and 5.6% over the age of 65).

The ratio of male and female respondents in most types of organisations (universities, CRIs, and universities) is almost equal, although more female respondents (9.3%) were working in government roles compared to male (6.8%) respondents.

Differences in female and male participation in different fields of research largely persist both in terms of highest

qualifications and the field of work, as shown in Table 2. Although it should be noted that biological and earth & environmental sciences which had a higher percent of male respondents in 2008 now has a higher percentage of female respondents in 2025. The mathematical & computer, physical, chemical, and engineering & applied sciences are represented by a higher proportion of male respondents while the reverse is true in the biological, earth & environmental, medical & health and social & behavioural sciences.

In 2025, an item was added asking respondents if they identify with the LGBTIQ+/Rainbow community. 9.2% of respondent replied “yes” to this question, 87.6% replied “no”, while the remaining 3.3% selected the “prefer not to say” option. The percentage of those identifying with the LGBTIQ+/Rainbow community was highest in the 25 to 29 age group (25.9%) with the percentage progressively decreasing across the older age groups to less than 5% in the groups over 65.

According to Stats NZ, 4.4% of New Zealand’s adult population identify as being part of the rainbow community (Stats NZ, 2023). However, LGBTIQ+ people are more likely to hold a postgraduate qualification (19.3%) than their non-LGBTIQ+ counterparts (12.2%) which may in part explain the higher percentages in this survey (Stats NZ, 2021b). LGBTIQ+ identification also decreases with age (Stats NZ, 2023) which aligns with the pattern observed in the survey.

Field	# Highest Qualification	% Male	% Female	% Other	# Field of Work	% Male	% Female	% Other
Agri	46	60.9	34.8	4.3	89	60.7	36.0	3.4
Biol	279	43.7	55.2	1.1	204	45.6	52.9	1.5
Eng	72	76.4	23.6	0.0	83	73.5	25.3	1.2
Envi	123	45.5	52.0	2.4	147	46.9	51.0	2.0
Med	150	32.0	64.7	3.3	182	33.5	62.6	3.8
Math	49	55.1	36.7	8.2	40	55.0	35.0	10.0
Phys	52	73.1	21.2	5.8	36	75.0	22.2	2.8
Chem	97	67.0	28.9	4.1	63	61.9	33.3	4.8
Soc	61	34.4	60.7	4.9	54	33.3	63.0	3.7
Other	33	39.4	60.6	0.0	64	45.3	54.7	0.0

Table 2: Number of male and female respondents across highest qualifications and field of work

Agri = Agricultural & soil sciences; Bio = Biological sciences; Chem = Chemical sciences; Eng = Engineering & applied sciences/technologies; Env = Earth & environmental sciences; Med = Medical & health sciences; Maths = Mathematical & computer sciences; Phys = Physical Sciences; Soc = Social & behavioural sciences.

3.2.3 Ethnicity

2025: Q12
2008: Q6
1996: Q63

Previous surveys have shown that the scientists and technologists in New Zealand are predominantly

European/Pakeha, although there has been a slight decrease from 80.9% in 2008 to 77.4% in 2025. The most notable increase was in Māori respondents, increasing from 1.7% in 2008 to 4.1% in 2025 and Asian respondents, increasing from 4.4% in 2008 to 8.4% in 2025. There has been little change participation by Pasifika peoples, 0.7% in 2025 compared to 0.6% in 2008.

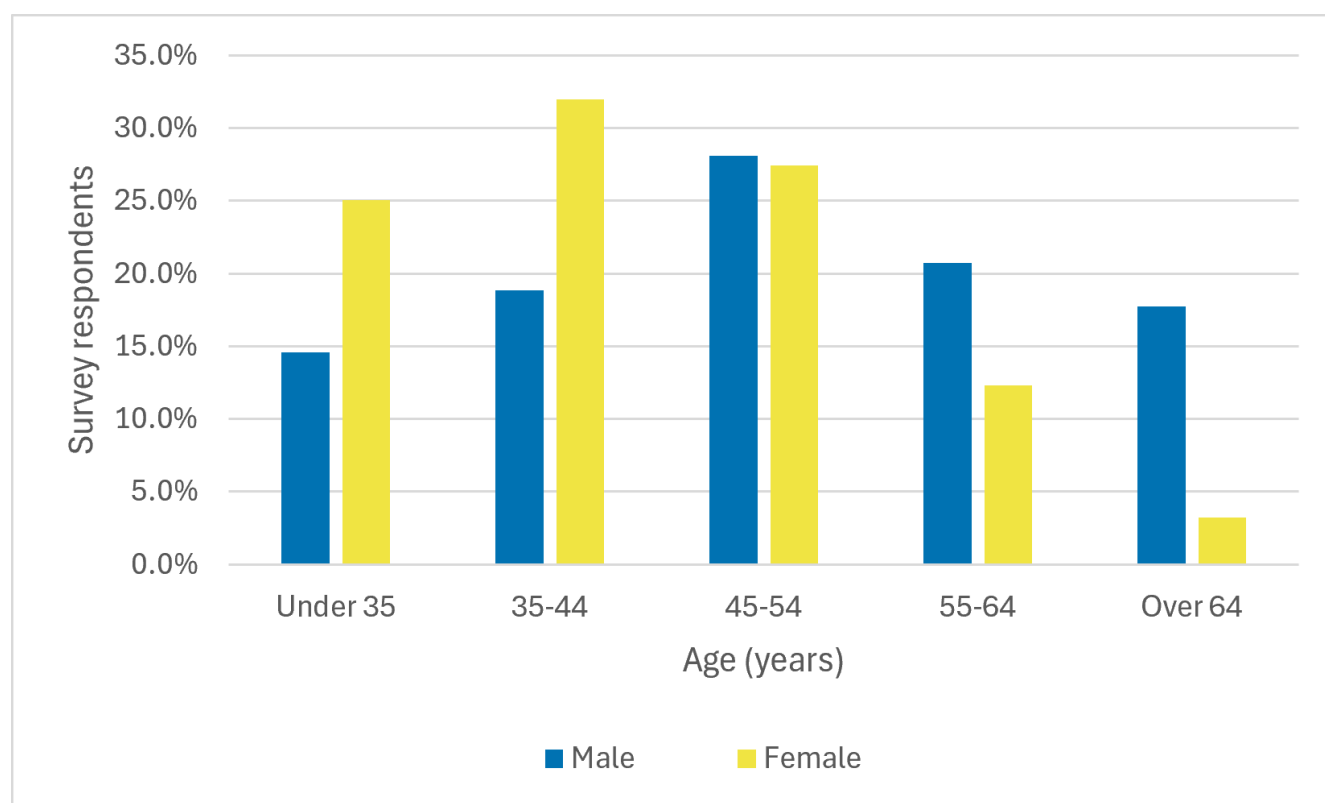


Figure 3: Age and gender of scientists. Each age category shows the proportion of each gender relative to their total population.

3.2.4 Citizenship

2025: Q15
2008: Q7
1996: Q66

Over three quarters (78.6%) of respondents identified themselves as New Zealand citizens, 19.5% as resident non-citizens, and 0.8% as being on temporary work permits. The remaining 1.1% identified themselves as dual citizens, Samoan, Australian or American citizens or having a student visa. These results are very similar to those recorded in the 2008 survey with 75.6% of respondents being New Zealand citizens, 20.8% resident non-citizens and 1.9% on a temporary work permit or other arrangement.

There were no notable gender differences within the different citizen groups – however, most of the resident non-citizens appeared to be mid-career (30 to 44 age groups).

3.2.5 Employment status

2025: Q5
2008: Q9
1996: Q74

Over three quarters of survey respondents (77.8%) were employed for 35 or more hours a week, while 10.5% were employed between 20 to 34 hours a week and 3.1% employed between 1 to 19 hours a week. A small number of respondents were retired (3.4%) or unemployed (1.6%). The remaining 3.4% were engaged in various forms of work including casual or ad hoc work, emeritus roles, and studying. More male respondents were retired (6.1%) or working full-time (79.2%) compared to their female contemporaries (0.4% and 76.1%, respectively), while twice as many female respondents were working part-time (18.8%) than male respondents (9.9%).

In the 2008 survey, 89.5% of respondents were working full-time, however this was defined as working over 30 hours a week which differs from the 35 or more hours category used in the 2025 survey making comparison difficult. Less than 1% of respondents in 2008 were retired.

3.2.6 Personal income

2025, Q9
2008: Q20
1996: Q78

An analysis of the personal income for respondents who were working full-time (35 or more hours a week) showed most (74.5%) were being paid between \$80,000 to \$159,999, with smaller percentages earning more (20%) or less (5.5%). As might be expected, salaries tended to increase with the age of respondents.

Personal income varied between the scientific disciplines. Overall, those whose highest qualification was in the physical, agricultural & soil or chemical sciences had the highest average salary (13%, 8%, and 7% higher than the average salary of \$118,600, respectively) while the biological and earth & environmental sciences had the lowest average

salaries (both 6% lower than the average salary). Similar patterns were observed in terms of the field of work, with physical, chemical and engineering & applied sciences having the highest average salaries (26%, 23%, and 8% higher than the average salary of \$118,600, respectively) and earth & environmental and biological sciences having the lowest average salaries (7% and 5% lower than the average salary, respectively).

Noting that the different age distributions within each discipline may be influencing these results, an analysis of income was carried out for three different age categories. In the 30 to 34 age group those with qualifications in the mathematical & computer, physical, and medical & health sciences had the highest salaries, while those in agricultural & soil, and biological sciences had the lowest income. In the 45 to 49-year age group those with engineering & applied sciences qualifications had a notably higher income (18% above the average) followed by the physical and chemical sciences (8%) while those in the biological sciences had the lowest income (8% lower than the average salary). In the 60 to 64 age group those with agricultural & soil, and chemical and physical sciences had the highest income (34.9%, 39.8% and 29.3% higher than the average income, respectively), while mathematical & computer (15.6% below the average) and engineering & applied sciences (6.1% higher than the average income) had the lowest income. The results for field of work were very similar. These results indicate that while some disciplines such as physical science appear to consistently attract higher income than others, for others it may be influenced by age/experience.

Overall, those working in universities earned the highest average salaries (9% higher than the average salary of \$118,600), followed by those in industry (3% higher), government (9% lower), and CRIs (9% lower). These results are not easily comparable to the 2008 survey results where CRI scientists were described as being “much better paid than university scientists in all wage brackets up to \$80,000 at which point university scientists capture the remaining part of the wage spectrum, nearly doubling the percentage of CRI scientists in each bracket over \$80,000” (Sommer, 2010).

The 1996 and 2008 surveys identified mathematical & computer and medical & health scientists as being the highest paid fields.

3.2.7 Gender pay gap

A comparison of the personal income of male and female respondents across different ages demonstrated that, apart from the 30 to 34 age group where income was the same for both genders, female respondents were typically paid less than male respondents. The pay gap is relatively narrow between the ages of 25 to 50 (average annual difference of \$2,650) however, is much more significant over the age of 50 (average annual difference of \$16,050) and for respondents below the age of 25 (average annual difference \$12,200), see Figure 4.

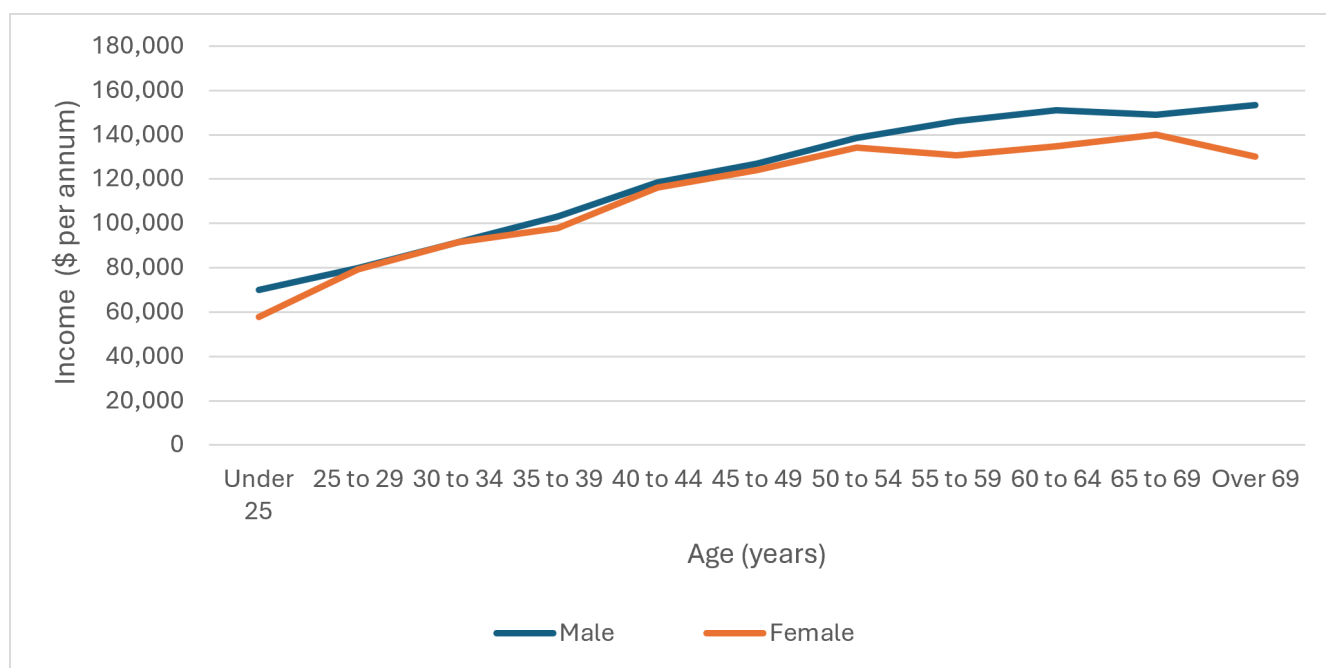


Figure 4: Per annum mean income of male and female scientists

3.2.8 Work tasks

2025: Q18
2008: Q69

A question to assess the amount of time respondents participated in administrative and compliance tasks was introduced into the 2008 survey with respondents indicating how much time they spent on these tasks to the nearest 10%. The results are shown in Figure 5, where the distribution peaks with approximately one quarter of respondents spending between 20% to 30% of their time on administration and compliance.

In 2025, the question was expanded using a Likert scale to allow respondents to score how much time they spend on different activities on a scale of 1 to 5 (1 = never, 2 = some of the time, 3 = about half of the time, 4 = most of the time, 5 = all of the time). The results showed that 91.6% indicated that their role involved carrying out research, with 57.6% spending over half of their time on research. 47.5% spent at least some time involved in policy analysis and development although only 6.9% spent half or more of their time on this task.

57.5% were involved in professional practice or consultancy, however only 16.0% spent half or more of their time doing so. Administrative and compliance tasks were pervasive; only 5.2% of respondents indicated that such tasks were not part of their role, while 26.7% spent half or more of their time on administrative and compliance tasks.

Most respondents were involved in aspects of research management (86.4%) with 34.0% spending half or more of their time on research management. Studying was not part of the role for 47.1% of respondents, while 10.4% spent half

or more of their time studying. Teaching was part of the role for 65.3% of respondents but only 21.4% spent half or more of their time teaching.

Technical support was part of the role for 63.1% of respondents but only 17.7% spent half or more of their time in this role. Over half (54.6%) of respondents indicated they were involved in technology development, although only 15.5% estimated they spent half or more of their time doing so.

Overall, most respondents (91.6%) were research active and involved in administrative and compliance tasks (94.6%). Fewer respondents spent a significant amount of time on technology development (15.6%), technical support (17.7%), and policy analysis and development (7.0%).

3.2.9 Budget responsibilities

2025: Q23
2008: Q19
1996: Q58

Respondents were asked what annual research and development budget, including salaries, they are responsible for.

Over a third (38.0%) of respondents were not responsible for an annual research and development budget (including salaries). The remaining respondents managed budgets as follows; less than \$100,000 (20.2%), between \$100,000 and \$500,000 (23%), between \$500,000 and \$1,000,000 (8.3%), and more than \$1,000,000 (10.6%).

There was a clear correlation between age and budget responsibilities, with the percentage of respondents responsible for budgets steadily increasing from 13.3% of those aged under 25, increasing and then peaking at 77.5% of those aged between 50 to 54, then decreasing until only

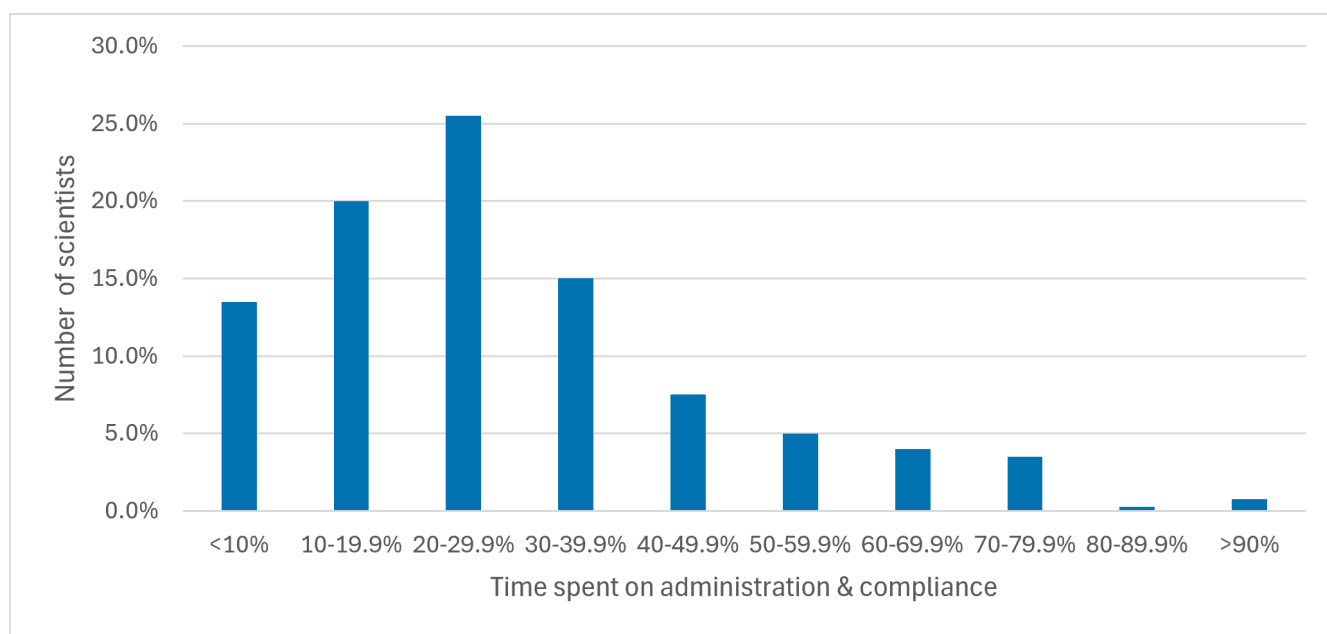


Figure 5: Time spent on administration and compliance (from 2008 survey, Sommer 2010)

42.9% of those over 69 years of age were responsible for a budget. The amount respondents were responsible for also increased with time, again peaking around the 50 to 54 age range. Note this information does not differentiate between those managing their own research grants and those in administrative/management roles managing department or organisation budgets.

These results were similar to those of the 2008 survey results where 35.2% of respondents had no budget responsibilities, while 24.6% were responsible for budgets less than \$100,000, 31.0% were responsible for budgets up to \$1,000,000, and 8.3% were responsible for budgets greater than \$1,000,000.

In the 2008 NZAS report (Sommer, 2010), it was noted that CRI scientists exhibited much greater experience with large research budgets than university scientists, likely due to the different nature of the organisations and roles. The same difference was demonstrated in the current 2025 survey where over one quarter of CRI scientists (27.6%) managed grants over \$500,000 while the same amount was managed, in decreasing amounts, by industry scientists (20.0%), university scientists (12.3%) and government scientists (6.5%).

3.2.10 Research grants

2025: Q21
2008: Q16
1996: Q79

Respondents were asked to indicate the sources of funding that they have received in the past five years, the results of which are shown in Table 3.

The funding environment has changed significantly since the previous 2008 survey when 51.9% of recipients cited receiving funding from the Foundation for Research,

Science and Technology (FoRST), 41.5% from New Zealand university sources, 37.8% from Crown Research Institutes and 15.9% from the Marsden fund. Table 3 shows in 2025, that while FoRST funding no longer exists, recipients are receiving funding from new sources such as Endeavour programmes (17.1%), Smart Ideas (11.1%) and National Science Challenges (11.1%). In 2025, a lower percentage of recipients reported receiving Marsden funding (15.0% in 2025 cf. 15.9% in 2008) while a higher percentage reported receiving HRC funding (11.2% in 2025 cf. 8.7% in 2008).

Analysis of the funding to respondents working at CRIs, in industry and in universities showed different funding patterns (see Table 4). CRI employees were the most likely to have received funding from the Bioresource Processing Alliance (5.8%), Catalyst funding (13.9%), through commercial contracts (56.5%), Endeavour programmes and Smart Ideas (18.0%, and 32.5% respectively), Horizon Europe (2.3%) and National Science Challenges (16.2%). Industry employees were the most likely to have received funding from Callaghan Innovation (28.0%), while university employees were most likely to have received funding from the Marsden fund (28.0%), Centres of Research Excellence (18.3%), and Lottery grants (4.1%). All three organisations received funding through consultancy fees. Government and CRI employees were the most likely to be funded by government departments (27.3% and 24.7% respectively).

A comparison of the funding sources which were available in both 2008 and 2025 shows that funding of researchers has decreased, with the exception of HRC and CoRE funding; Marsden (15.9% in 2008, 15.0% in 2025), Health Research Council (8.7% in 2008, 11.2% in 2025), Crown Research Institutes (37.8% in 2008, 30.6% in 2025), government departments (24.8% in 2008, 17.7% in 2025), Centres of Research Excellence (4.3% in 2008, 9.8% in 2025), New

Funding sources	# of recipients	% of recipients
Crown Research Institute(s)	305	30.6
Commercial contract(s)	290	29.1
Government department(s)	176	17.7
Endeavour Programme(s)	170	17.1
Marsden Fund	150	15.0
Consultancy fees	149	14.9
University/charity/NGO funded PhD scholarship	141	14.1
Endeavour Smart Idea(s)	117	11.7
Health Research Council (HRC)	112	11.2
National Science Challenges	111	11.1
Centre(s) of Research Excellence (CoREs)	98	9.8
Catalyst funding	92	9.2
Performance Based Research Fund	87	8.7
New Zealand philanthropic organisation(s)	66	6.6
Callaghan Innovation	53	5.3
Sustainable Food & Fibres Future	51	5.1
Private Investor (e.g., Angel Investor)	27	2.7
Bioresource Processing Alliance (BPA)	26	2.6
Lotteries grant(s)	21	2.1
R & D tax incentive	19	1.9
Rutherford Discovery Fellowship	13	1.3
Horizon Europe	11	1.1
New Zealand Product Accelerator (NZPA)	8	0.8
James Cook Fellowship	3	0.3
Ngā Puanga Pūtaiao Fellowship	1	0.1

Table 3: Sources of funding in the past five years

Zealand philanthropic organisations (7.5% in 2008, 6.6% in 2025), and commercial contracts (39.5% in 2008, 29.1% in 2025).

3.2.11 Cross sector engagement

Survey respondents were asked the following questions to explore how much interaction is occurring across different sectors.

3.2.11.1 Appointment to a board of directors

2025: Q25
2008: Q15
1996: Q53

Have you been appointed to a board of directors during the past five years. Yes (8.2%) No (91.8%).

Here the appointment to the board of directors of a company was used, as in previous surveys, as a measure

of the degree to which scientists have become involved in the active commercialisation of science. In 2025, 8.2% of respondents stated yes, compared to 5.2% of respondents in 2008 and 1.2% in 1996 (although the 1996 question stated over the past two years). Overall, it appears commercialisation of science as per this metric has become more common.

Male respondents were slightly more likely to be appointed to a board of directors (9.1%) compared to their female contemporaries (7.3%), and as might be expected, older respondents were more likely to be appointed as directors. Physical (18.2%) and social & behavioural scientists (15.7%) were the most likely to be appointed to a board of directors while agricultural & soil (3.6%) and earth & environmental (5.0%) scientists were the least like to be appointed to a board of directors. Industry (14.3%) and university (12.5%) respondents were far more likely to be members of a board of directors than those working in

Funding sources	% CRI	% Industry	% University	% Govt
Bioresource Processing Alliance (BPA)	5.8	2.0	0.5	1.3
Callaghan Innovation	2.3	28.0	4.9	0.0
Catalyst funding	13.9	0.0	9.5	2.6
Centre(s) of Research Excellence (CoREs)	4.3	4.0	18.3	1.3
Commercial contract(s)	56.5	12.0	14.4	3.9
Consultancy fees	11.9	14.0	14.9	3.9
Crown Research Institute(s)	77.4	2.0	5.9	2.6
Endeavour Programme(s)	18.0	0.0	10.5	6.5
Endeavour Smart Idea(s)	32.5	2.0	11.1	1.3
Government department(s)	24.9	8.0	10.8	27.3
Health Research Council (HRC)	1.7	0.0	24.7	2.6
Horizon Europe	2.3	0.0	0.8	0.0
James Cook Fellowship	0.3	0.0	0.5	0.0
Lotteries grant(s)	0.0	0.0	4.1	0.0
Marsden Fund	8.7	0.0	28.0	0.0
National Science Challenges	16.2	2.0	10.3	1.3
New Zealand philanthropic organisation(s)	0.9	0.0	15.2	0.0
New Zealand Product Accelerator (NZPA)	0.3	0.0	1.5	0.0
Ngā Puanga Pūtaiao Fellowship	0.0	0.0	0.0	0.0
Performance Based Research Fund	1.7	0.0	19.0	0.0
Private Investor (e.g., Angel Investor)	1.4	4.0	2.6	0.0
R & D tax incentive	0.3	18.0	0.3	0.0
Rutherford Discovery Fellowship	0.3	0.0	3.1	0.0
Sustainable Food & Fibres Future	11.9	6.0	1.5	0.0
University/charity/NGO funded PhD scholarship	6.1	4.0	27.5	3.9

Table 4: Percentage of respondents in each workplace who have received funding from the listed sources

government (3.1%) or CRIs (2.1%).

3.2.11.2 Advice to a government agency

2025: Q35
2008: Q41

During the last five years I have been solicited for scientific advice or evidence by a government agency to inform policy making. Yes (36.2%) No (63.8%)

Over one third of respondents (36.2%) of respondents reported having been solicited for advice by a government agency to inform policy making in the past five years. This result is slightly lower than the 2008 survey (39.9%). When analysed by workplace it is not surprising that those working in government had the highest positive response (54.2%). This was followed by those working in CRIs (39.9%), universities (31.2%) and industry (18.9%). It

should be noted that the category “government” includes those working in local government and in a range of industries so being categorised in this category does not necessarily mean one is consulted on policy.

The percentage of respondents asked to provide advice increases with age, a likely outcome of developing greater expertise and reputation over time. A higher percentage of male respondents (38.3%) compared to female respondents (33.8%) were solicited for advice or evidence for policy purposes by government. Solicitation by government varied by field with greater interactions in the areas of social & behavioural (58.1%), earth & environmental (49.6%) and agricultural & soil (42.3%) sciences. Lowest solicitation for policy input was recorded for the chemical (19.0%) and engineering & applied (23.9%) sciences.

These results are largely similar to the 2008 survey when 39.9% of respondents had been solicited for scientific advice

or evidence by a government agency, with younger scientists less likely to be consulted and more male respondents being consulted (43.2%) compared to female respondents (31.7%). Earth & environmental (62.9%) and medical & health (57.1%) scientists were the most consulted while physical (25.0%) and mathematical & computer (26.9%) scientists were the least consulted.

3.2.11.3 Asked for advice or research support to industry

2025: Q36

During the last five years I have been asked for advice or research support by industry. Yes (61.0%) No (39.0%).

This item was added to the survey to explore the level of interaction of scientists with industry, given the current government's focus on applied research and how research contributes to economic outcomes. Over three fifths (61.0%) of respondents reported having been asked for advice or research support from industry in the past five years. CRIs showed the highest level of support (73.0%) followed by industry (67.6%), government (54.2%) and universities (50.6%).

The highest levels of requests for advice or support were to scientists working in the agricultural & soil (82.1%), engineering (73.2%) and biological (72.7%) sciences, while the lowest levels were to those in the medical & health (39.9%), social & behavioural (41.9%), and physical (55.5%) sciences. Male respondents (68.6%) reported higher levels of being asked for advice and support than their female counterparts (52.7%) but this may have been influenced by the male/female ratios in the different fields.

3.2.12 Professional participation

2025: Q24
2008: Q21

Please list any professional organisations that you are a member of (include both New Zealand and overseas organisations).

Membership of professional scientific organisations provides the opportunities for collegial support, collaboration and professional growth within the scientific community. In 2025, 65.9% of survey respondents listed membership of one or more professional organisation, with many listing two or more organisations.

This statement differed from that used in the 2008 survey which simply asked respondents if they had attended meetings of, or had otherwise been active in, professional organisations with 77.4% providing a positive response. As such the two questions are not easily comparable. However, from the 2025 results it appears that just under two thirds of survey respondents (64.3%) are engaged in at least one professional organisation while over one third (36.6%) belong to two or more professional organisations with some members indicating membership of over five professional organisations.

4 Attitudes and Opinions

4.1 The major issues facing scientists and technologists

2025: Q28
2008: Q23
1996: Q14

The 1996 and 2008 surveys provided a list of seven important issues faced by scientists and asked respondents to identify the two issues they considered to be most important.

In 2025, this question was modified to use a Likert scale where respondents could score each issue on a scale of 1 to 5 (1 = not concerned at all, 5 = extremely concerned). An eighth issue, "lack of funding for humanities and social science research" was added to the list, and an option to state any additional issues was also provided.

The response from respondents to these issues is presented in Figure 6. "Interruptions in research funding" continues to be the top concern, consistent with the two previous surveys. However, in 2025, "overpoliticisation of research" has become the second most concerning issue, an issue which was in 6th position in 2008. "Lack of public understanding of science & technology" is now the third most concerning issue. In 2008, "bureaucracy & management" was the second most concerning issue, but now sits in fourth place in 2025.

The concerns of different subgroups were analysed by comparing the mean scores (M) for each of the issues. Male and female responses across most of the issues were similar although female respondents were notably more concerned with the "lack of funding for humanities and social sciences" ($M = 3.47$ compared with 2.98 for male respondents) probably because of the high percentage of female scientists in the social & behavioural sciences (61.9%).

Differences were observed across different fields of work. Most fields were moderately concerned with "lack of public understanding of science & technology" with mean scores ranging from $M = 3.74$ to 4.05, however engineering sciences & applied technologies scored noticeably lower at $M = 3.58$. Similarly, most fields were very concerned with "interruptions in research funding" ($M = 4.12$ to 4.44) although again engineering sciences & applied technologies scored lower ($M = 3.88$). The "overpoliticisation of research" was of most concern to the earth & environmental sciences ($M = 4.20$) and of least concern to the engineering sciences ($M = 3.72$) with most other fields scoring around $M = 4.00$. The "decline in student interest in science and technology" was of most concern to those in the chemical sciences ($M = 3.66$) and of least concern to social & behavioural scientists ($M = 2.83$). Social & behavioural scientists were also the least concerned about "bureaucracy and red tape" ($M = 3.31$), "an emphasis on funding applied research over basic research" ($M = 3.10$) and "fraudulent development of data" by scientists ($M = 2.71$). The most concern regarding "bureaucracy and red tape" was expressed by those working in agricultural & soil sciences ($M = 3.91$), the most concern regarding "funding of applied over

basic research” ($M = 3.79$) and regarding “fraudulent use of data by scientists” ($M = 3.68$) came from mathematical & computer scientists. The most concern regarding “lack of funding for humanities and social science” research was, not surprisingly, from social & behavioural science researchers ($M = 4.44$) with the least concern from engineering ($M = 2.76$) and chemical ($M = 2.79$) sciences.

With regards to workplaces, “interruptions in funding” was far more concerning for those in CRIs ($M = 4.46$) and universities ($M = 4.37$) than for those in industry ($M = 3.78$) and government ($M = 3.81$). Industry scientists appear to be more insulated from concerns regarding “politicisation of research” ($M = 3.78$) compared to government ($M = 3.95$), university ($M = 4.04$) and CRI ($M = 4.11$) scientists. “Bureaucracy and red tape” were of least concern to those in government ($M = 3.31$) and of most concern to scientists working in CRIs ($M = 3.75$). Government and industry were least concerned about “an emphasis on applied over basic research” ($M = 2.93$ and 2.71 , respectively) with much greater concern from universities ($M = 3.50$) and CRIs ($M = 3.37$). Industry was less concerned regarding “a lack of funding for humanities and social science research” ($M = 2.28$) relative to universities ($M = 3.28$), government ($M = 3.20$) and CRIs ($M = 3.17$). With other issues the responses from scientists in these different workplaces were very similar.

Across different age groups the only notable variations were that concerns regarding “a decline in student interest in science & technology”, and “bureaucracy and red tape”, tended to increase with age.

This survey item was also included in the US-based surveys, the Scientific Mind (Schalin, 2025) and Sketches of an American Scientist (Sommer and Seltzer, 1988) however,

in these surveys respondents were asked to identify the single most important issue facing scientific researchers today. Despite the different approach, the same three issues rated highest in the New Zealand and US surveys. In 2025 the US survey identified the “lack of public understanding of science and technology” (29%), “overpoliticisation of research” (26%) and “interruptions in research funding” (25%) as the most important issues. These same three issues were identified in the same order in the 1986 Survey of (US) Scientists with “lack of public understanding of science and technology” (40%), “overpoliticisation of research” (24%) and “interruptions in research funding” (21%).

While the New Zealand (NZAS) and US (Scientific Mind) surveys identified the same top three issues, “interruptions in research funding” was the greatest issue in all three New Zealand surveys but only the third greatest concern in the US surveys, perhaps reflecting that funding in the US is more abundant. For example, in 2022 the US spent 3.59% of their GDP (Worldbank, 2026) while New Zealand spent 1.50% of our GDP (Statbase, 2026) supporting scientific research.

4.2 Funding concerns

4.2.1 Allocation of PBRF funds has been fair

2026: Q30_5
2008: Q60

Overall, Performance-Based Research Funding (PBRF) monies have been fairly allocated to those university scientists most likely to perform excellent research.

Strongly disagree (8.7%), Disagree (14.2%), Somewhat disagree (12.2%), Neither agree nor disagree (38.2%),

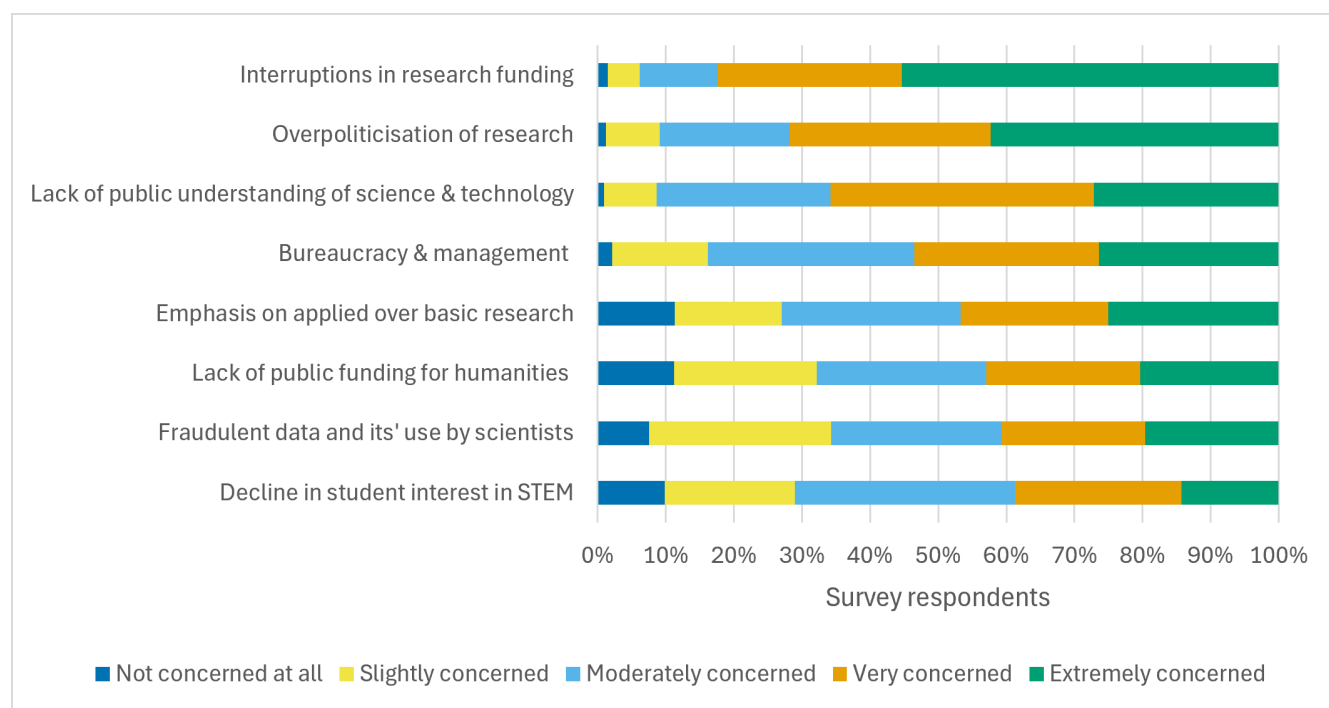


Figure 6: Ranking of the major issues facing scientists in 2025

Somewhat agree (7.8%), Agree (2.4%), Strongly agree (3.0%), I do not feel sufficiently informed to comment (13.4%).

Only 13.2% of respondents agreed with this statement and 35.1% disagreed while over half (51.6%) were neutral or felt insufficiently informed to comment. Agreement tended to increase with age, peaking at 25.4% in those over 69 years of age. Agreement and disagreement were higher in male (agreement 14.7%, disagreement 38.1%) than female (agreement 11.7%, disagreement 31.5%) respondents as female respondents were more likely to select the “neither agree nor disagree” or “I do not feel sufficiently informed to comment” (56.8% compared to 47.2%). Agreement was significantly higher for physical (30.9%) and chemical (20.7%) scientists and lower for the agricultural & soil (6.2%) and engineering & applied (8.2%) scientists.

As PBRF funding primarily affects university-based scientists many respondents from CRIs, government and industry chose to neither agree nor disagree (45% to 47%) while only a smaller percentage of university-based scientists (26.8%) selected this option. The level of disagreement was higher than agreement across all four types of workplaces: universities (44.7% disagreement, 17.7% agreement), CRIs (25.4% disagreement, 10.6% agreement), industry (26.3% disagreement, 15.8% agreement), and government (33.9% disagreement, 5.7% agreement).

Comparing the 2008 and 2025 results, in 2008 slightly more scientists agreed that allocation of PBRF funds was fair (17.8%), slightly less disagreed (32.7%), and a similar number neither agreed nor disagreed (36.1%), suggesting a slightly more negative attitude towards PBRF funding in 2025. University scientists in 2008 expressed over twice as much disagreement (56.2%) with the statement as agreement (22.4%), a similar pattern to their 2025 counterparts. In 2008 male respondents showed higher levels of disagreement (55.4%) than female respondents (33.8%) a similar pattern to that observed in 2025 (38.1% male disagreement, 31.5% female disagreement). In 2008, agreement varied significantly across different fields being highest for respondents working in the medical & health sciences (45.8%) and lowest for those working in the mathematical & computer sciences (15.3%), which differs from the 2025 survey results.

4.2.2 Funding to support research capability

2025: Q30_6
2008: Q56

The New Zealand public agencies that fund or invest in R&S do enough to support the retention and development of research capability needed by existing sectors and industries.

Strongly disagree (26.2%), Disagree (31.6%), Somewhat disagree (16.2%), Neither agree nor disagree (13.2%), Somewhat agree (2.9%), Agree (2.2%), Strongly agree (2.2%), I do not feel sufficiently informed to comment (5.4%). Almost three quarters (74.0%) of scientists disagreed with this statement while only 7.3% agreed. There

was little variation in response based on age, gender or place of work. The highest agreement came from those working in mathematical & computer (16.1%) and social & behavioural (11.1%) sciences, and highest disagreement from physical (89.6%) and agricultural & soil (87.7%) scientists.

The responses of scientists in 2025 were much more negative than those in 2008, when more respondents agreed (36.8%) than disagreed (27.7%) with the statement, while the remaining respondents elected to neither agree nor disagree (31.3%). In 2008, those under the age of 35 agreed more with the statement (56.8%) as did engineering & applied scientists (57.9%) while social & behavioural scientists showed the least agreement (27.6%).

In summary, confidence that public agencies are doing enough to retain and develop the research capacity New Zealand needs is extremely low, much lower than it was in 2008.

4.2.3 A lottery approach to funding

2025: Q33_1
2008: Q65

The great majority of bids for government research funding are of such similar quality and value that a lottery approach to funding would deliver a better result.

Strongly disagree (9.6%), Disagree (15.8%), Slightly disagree (7.6%), Neither agree nor disagree (7.5%), Slightly agree (12.8%), Agree (14.5%), Strongly agree (14.5%), I do not feel sufficiently informed to comment (21.3%).

Opinion was split regarding the potential use of a lottery approach to funding with 38.1% agreement, 33.0% disagreement, with the remaining 28.8% neutral or unable to comment. Agreement increased with age peaking with the 50 to 54 age group (55.7%) then declining. Agreement was higher in male (41.6%) compared to female (33.5%) respondents, although levels of disagreement were very similar (32.5% and 33.5%, respectively). Female respondents were more likely to feel insufficiently informed to comment (26.3% compared to 17.1%). Agreement was highest in the agricultural (65.4%) and chemical (51.7%) and lowest in the medical & health (25.4%) and social & behavioural (27.9%) sciences, with the social & behavioural (34.9%) and engineering & applied sciences (31.0%) least likely to feel sufficiently informed to comment. CRI respondents were the most amenable to a lottery approach with 49.2% agreeing, followed by 37.4% of university respondents. Many industry and government respondents did not feel sufficiently informed to comment (52.8% and 46.8%, respectively).

In the 2008 survey, views on a lottery approach were also split with 36.8% agreeing, 23.5% disagreeing and 38.8% undecided, which resembles the current survey, albeit with less disagreement and more undecided. In 2008, university scientists were more supportive of the idea of a lottery (40.5%) than CRI scientists (33.1%).

To test whether having previously received a government grant would influence respondent's answers, the 2025 responses of those who had received a Marsden, Endeavour

Smart Idea, Endeavour Programme or Health Research Council in the past five years were analysed separately. Of this group, 44% agreed with the idea of a lottery approach while 39.5% disagreed with only 6.5% undecided and 9.8% who did not feel sufficiently informed to comment. Surprisingly it appears that those who have had success with grants were slightly more supportive of a lottery approach to funding compared to the full survey population.

4.2.4 Views on research funding processes for major grants

The 1996 and 2008 surveys asked respondents to identify their greatest concerns with prominent grants (FRST, HRC, Marsden) if they had applied to these grants in the previous five years. Respondents were asked to select their two greatest concerns from a list of seven possible concerns. Respondents also had the opportunity to select “the award process works well and I have no major concern” as a single answer.

In 2025, the survey was modified to use a Likert scale to allow respondents to score their level of agreement with each of the concerns on a scale of 1 to 7 (1 = strongly disagree, 7 = strongly agree). Interpretation of the results were simplified by collating all of the disagree statements into one factor and the same was done for all of the agree statements (see Figure 7). As FRST funding no longer exists in 2025, the survey was applied to MBIE (Endeavour and Smart Ideas) funding instead.

4.2.4.1 Views on Health Research Council (HRC) award process

2025: Q43
2008: Q63
1996: Q39

In the past five years 143 (14.3%) of the survey respondents submitted an HRC grant application. While almost half (47.6%) indicated the HRC process worked well, some issues were identified, for example, almost two thirds (63.7%) believed that original non-mainstream ideas were unlikely to be funded, while almost half (47.6%) agreed the process was marred by cronyism and insider politics. Concerns were expressed that reviews were conflicting (51.1%) and perfunctory (43.4%), although there was much less concern that reviews were not given sufficient weight in award decisions (26.1%) or that original ideas are leaked or stolen (11.2%), (see Figure 7).

The number of respondents who had submitted HRC applications increased with age peaking in the 40 to 44 age group ($N = 28$) then decreasing ($N = 6$ in the over 69 age group). No respondents under the age of 25, and only four in the 25 to 29 age range, had submitted HRC applications. Mid-career (40 to 59 years old) respondents showed higher agreement that reviews were affected by cronyism, old boy's networks and insider politics and that reviews are conflicting. Concerns over original non-mainstream ideas being unlikely to be funded generally increased with age. Concerns regarding original ideas being leaked or stolen varied widely across age groups from 4.3 to 33.4%.

There were more female ($N = 87$) than male ($N = 47$) respondents who reported having applied for HRC grants in the past five years. Female respondents showed higher agreement that reviews are affected by cronyism, old boys' networks and insider politics (48.3%) compared to their male contemporaries (42.5%), that reviews were not given sufficient weight in award decisions (29.1% and 19.2%, respectively) and that reviews are conflicting (56.3% and 36.2%, respectively).

Most of those who had applied for HRC funding were working in the medical and health sciences ($N = 94$), however those working in other fields also submitted applications in the past five years; biological sciences ($N = 20$), social & behavioural sciences ($N = 10$), chemical sciences ($N = 9$), engineering & applied technologies ($N = 5$), agricultural & soil sciences ($N = 2$) and mathematical & computer sciences ($N = 1$).

More university-based researchers agreed that reviews were conflicting (51.6%) compared to those working at CRIs (22.2%), while those in CRIs were more likely to believe reviews were not given sufficient weight in award decisions (33.3%) compared to their university contemporaries (26.5%).

The 2008 and 1996 surveys also identified the same two greatest concerns; cronyism, old boy's networks and insider politics (2008, 16.9%; 1996, 20.9%) and original ideas being unlikely to be funded (2008, 9.1%; 1996, 20.9%), noting that the percentage values are lower in the two earlier surveys due to the differing methodology being used.

4.2.4.2 Views on MBIE Endeavour and Smart Idea grants

025: Q46

In the past five years 281 (28.2%) of the survey respondents had submitted an MBIE Endeavour programme or Smart Ideas project grant application. Only one third (33.5%) agreed that the award process worked well with significant agreement that reviews provide little useful information (63.9%) are conflicting (54.3%) and are marred by cronyism and insider politics (56.8%). A smaller number of respondents also agreed that there are concerns regarding reviews not being given sufficient weight in award decisions (23.5%) and original ideas being leaked or stolen (17.2%), (see Figure 8).

The number of respondents who had submitted MBIE applications increased with age, peaking in the 50 to 54 age group ($N = 56$) then decreasing ($N = 11$ in the over 69 age group). No applicants under the age of 25 and only one between the age of 25 to 29 had applied for MBIE funding.

There were more male ($N = 175$) than female ($N = 95$) respondents who reported applying for MBIE (Endeavour or Smart Ideas) funding in the past five years.

There were no clear patterns in concern over different issues amongst the different age groups or between male and female respondents, except a slightly higher percentage of male respondents (56.3%) than female respondents (50.6%) believed that reviews are conflicting while more female

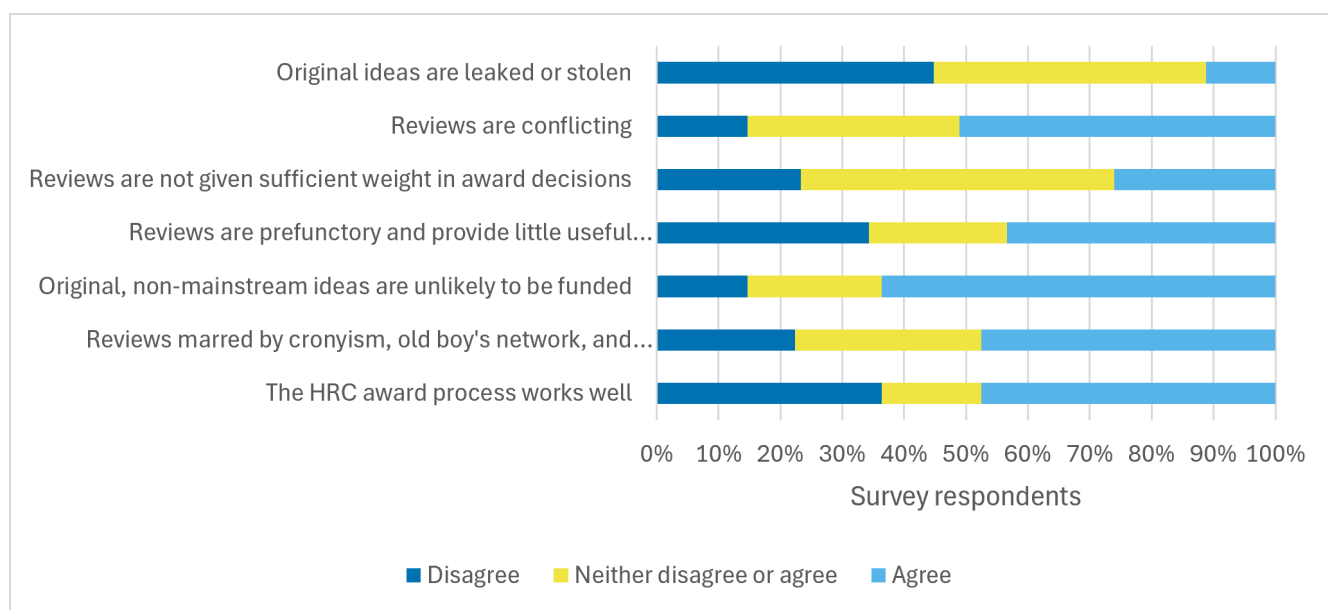


Figure 7: Issues regarding the Health Research Council award process

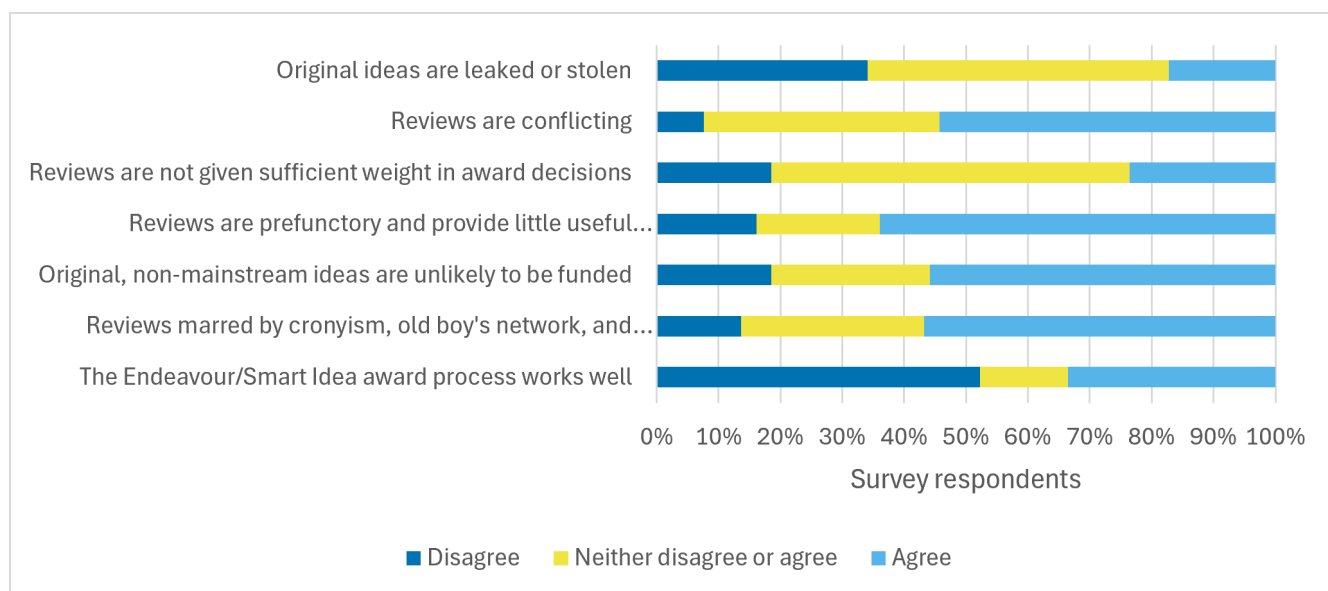


Figure 8: Issues regarding the MBIE (Endeavour and Smart Ideas) grant process

(20.5%) than male (15.4%) respondents were concerned over original ideas being leaked or stolen.

Scientists across all fields of research applied for MBIE funding; agricultural & soil sciences ($N = 31$), biological sciences ($N = 84$), engineering & applied technologies ($N = 24$), earth & environmental sciences ($N = 51$), medical & health sciences ($N = 16$), mathematical & computer sciences ($N = 7$), physical sciences ($N = 15$), chemical sciences ($N = 29$) and social & behavioural sciences ($N = 11$).

Opinions on how well the MBIE grants worked varied across different fields of work. Respondents working in the earth & environmental sciences had the highest agreement that MBIE grants work well (51.0%) while those

in agricultural & soil sciences had the lowest agreement (12.9%). Those in the agricultural & soil sciences were most concerned about reviews being affected by cronyism, old boy's networks and insider politics (71.0%) while those in engineering & applied sciences were the least concerned (33.3%). Respondents in the social & behavioural sciences were the most concerned that original, non-mainstream ideas would not be funded (72.8%) while those in the earth & environmental sciences were least concerned (41.2%). Agricultural & soil scientists were most concerned that reviews provided little useful information (77.4%) and were conflicting (71.1%) while mathematical & computer scientists were the least concerned (28.6%) about reviews providing little useful information while medical & health

scientists were the least concerned (31.3%) about reviews being conflicting. Social & behavioural scientists expressed the most concern that views were not given sufficient weight in award decisions (36.4%) while engineering & applied technology scientists were the least concerned (12.6%).

Only CRIs and universities had enough respondents ($N = 149$ and 104 , respectively) to make comparisons between the concerns they raised. Many concerns were very similar with the main differences being that a higher percentage of respondents at CRIs believed that reviews were perfunctory and provided little useful information (68.4% compared with 57.7% at universities), reviews were conflicting (56.7% compared with 50.5% at universities), and original ideas are leaked or stolen (22.3% compared to 9.6% at universities).

4.2.4.3 Views on Marsden grants

2025: Q46
2008: Q62
1996: Q39

In the past five years 279 (28.0%) of the survey respondents had submitted a Marsden grant application. While over half (52.7%) indicated the Marsden process worked well, some issues were identified, for example, almost half (49.5%) expressed concerns that the process was marred by cronyism and insider politics while over a third (38.4%) believed original, non-mainstream ideas are unlikely to be funded. Concerns were expressed that reviews were conflicting (42.1%) and perfunctory (39.4%), although there was much less concern that reviews were not given sufficient weight in award decisions (18.6%) or that original ideas are leaked or stolen (8.8%), see Figure 9.

The number of respondents who had submitted Marsden applications increased with age, peaking in the 45 to 49 age group ($N = 48$) then decreasing ($N = 8$ in the over 69 age group). No respondents under the age of 25 and only three respondents between the age of 25 to 29 had applied for Marsden funding.

Some concerns tended to increase with age, with the 55-to-64-year age group reporting the highest agreement that reviews were perfunctory (50.8%), were not given sufficient weight in reward decisions (32.0%). Those aged 50 to 54 years of age reported notably high concerns that reviews were conflicting (61.6%)

There were more male ($N = 153$) than female ($N = 112$) respondents who reported applying for Marsden funding in the past five years. Overall female respondents expressed more concerns regarding cronyism, old boy's networks and insider politics (51.3%) compared to male respondents (47.0%) while male respondents expressed greater concerns regarding reviews being perfunctory (43.0% compared to 33.3%), conflicting (45.0% compared to 39.0%) and not being given sufficient weight in award decisions (20.5% compared to 16.2%).

Scientists across all fields of research applied for Marsden funding; agricultural & soil sciences ($N = 12$), biological sciences ($N = 68$), engineering & applied technologies ($N = 20$), earth & environmental sciences ($N = 39$), medical & health sciences ($N = 56$), mathematical & computer sciences ($N = 11$), physical sciences ($N = 18$), chemical sciences ($N = 32$) and social & behavioural sciences ($N = 18$).

Opinions on how the Marsden grant process worked varied across different fields of work. Overall engineers and applied technologists seemed the happiest with the Marsden fund reporting that the process worked well (75.0%) and expressing the least concern regarding cronyism, old boy's networks and insider politics (20.0%), while agricultural & soil scientists were the least happy, reporting lowest agreement that the process worked well (33.3%) and expressing the greatest concerns regarding cronyism, old boy's networks and insider politics (91.6%). Mathematical & computer scientists were the most concerned over original non-mainstream ideas not being funded (72.8%) while engineers & applied technologists were the least concerned (20.0%). Those working in the physical sciences were the

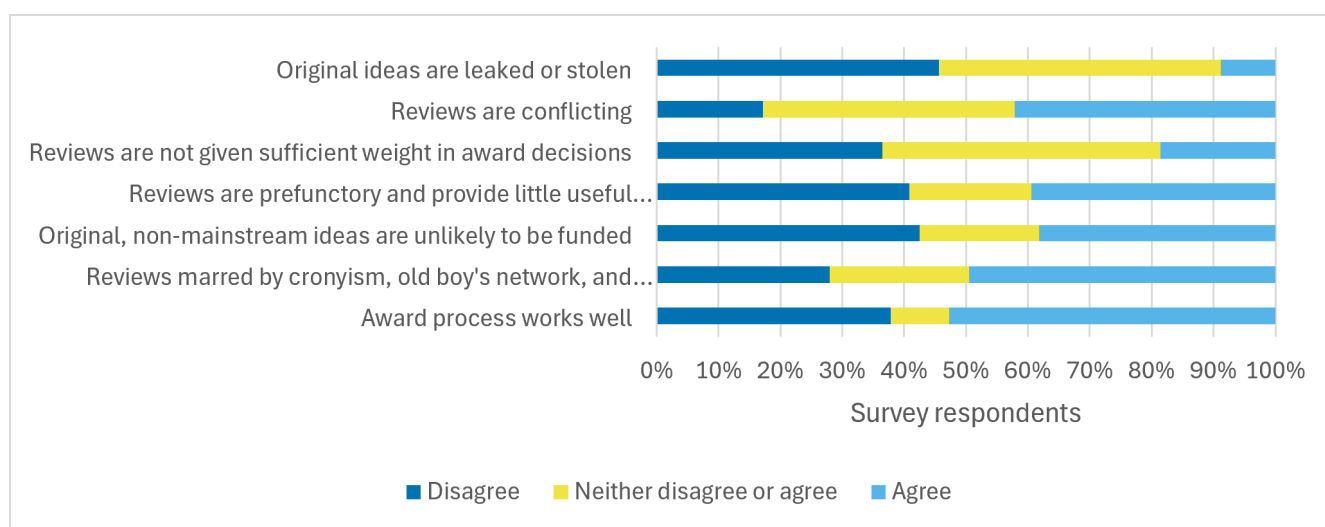


Figure 9: Issues regarding the Marsden grant process

most concerned that reviews were perfunctory (55.6%), while biological scientists were the least concerned (28.3%). Agricultural & soil scientists held greatest belief that reviews are conflicting (66.6%) while earth & environmental scientists were the least concerned (28.3%).

The earlier surveys identified similar concerns to the 2025 survey with cronyism, old boy's networks and insider politics (2008, 28.7%; 1996, 26.2%), reviews not being given sufficient weight in award decisions (2008, 12.6%; 1996, 6.9%) and non-mainstream ideas being unlikely to be funded (2008, 9.1%; 1996, 11.5%) were the three greatest concerns. Unlike the female respondents in 2025, those in 2008 were less concerned regarding old boy's networks (21.7%) than their male counterparts (31.2%) but more concerned that original ideas might not be funded (13.0% compared to 7.1%). In 2028 and 2025, agricultural & soil scientists expressed the greatest concerns regarding the influence of cronyism and old boy's networks (2008, 46.2%; 2025, 91.6%).

4.2.4.4 Comparison of grant feedback

Overall, higher levels of concerns were expressed with regards to the MBIE grant process compared to the other two grants. Across all three grants, perceptions of cronyism, old boys' networks and insider politics was a major concern for around half of respondents. Reviews were considered perfunctory, providing little useful information, by almost two thirds of MBIE applicants but slightly less than 40% for the other two grants. Over half of MBIE respondents believed that original, non-mainstream ideas were unlikely to be funded, but this dropped below 40% for the HRC and Marsden grants. Reviews were considered to be conflicting by over 50% of MBIE applicants and over 40% for the other two grants.

The Scientific Mind 2025 survey included a single item asking respondents to *identify your greatest concern with the research awards process*, the results of which aligned well with the above feedback on New Zealand grants. While just over one quarter of respondents indicated that "award processes work well and I have no major concerns" (27%) the two dominant concerns were noted; "reviews are marred by cronyism, personal networks, personal networks with favouritism and insider politics" (27%) and "original, non-mainstream ideas are unlikely to be funded". The same two concerns were also reported in the 1988 Sketches of the American Scientist survey (Sommer and Seltzer, 1988) suggesting these are persistent issues in both countries, and perhaps not able to be dealt with within the existing research awards frameworks.

4.3 Employment concerns

4.3.1 Job security

2025: Q32_4
2008: Q70
1996: Q45

I feel that my job is reasonably secure for the next two years.

Strongly disagree (18.3%), Disagree (13.3%), Somewhat disagree (9.7%), Neither agree nor disagree (7.5%), Somewhat agree (13.6%), Agree (22.2%), Strongly agree (12.0%), I do not feel sufficiently informed to comment (2.8%).

Overall, slightly more respondents felt their job was secure (47.6%) than those who didn't (41.3%), while 10.3% had either a neutral view or did not feel sufficiently informed to comment. Agreement was lower in 2025 compared to 2008 and 1996 when 60.9% and 51.3%, respectively, agreed their job was reasonably secure.

The most significant factor linked to variations in job satisfaction in 2025 was the respondent's organisation. A positive sense of job security was notably the lowest for those employed in CRIs (31.3% agreement, 50.1% disagreement). This is not surprising given the substantial changes that have occurred in this sector over the past two years, which have included redundancies and ongoing uncertainty regarding what the sector will look like in the future. In 2008, only 30.3% of CRI respondents disagreed that their job was reasonably secure, although it was lower compared to 1996 (54.6%) survey responses. As a comparison, disagreement by university-based respondents has been consistently lower, 24.4% in 1996, 20.8% in 2008 and 36.8% in 2025.

Those working in industry and for the government had the highest sense of job security (66.7% and 71.7% agreement respectively) compared with those employed by universities (54.0% agreement). Industry and government responses were not recorded in previous surveys.

Across fields of work, agreement regarding job security varied, being lowest in the earth & environment (29.9%) and agricultural & soil (36.3%) sciences and highest in the mathematical & computer (64.6%) and social & behavioural (62.2%) sciences. These results are consistent with previous surveys where social & behavioural scientists reported being the most secure in their jobs (1996, 74.2%; 2008, 72.5%) and agricultural & soil scientists reported being the least secure (1996, 32.9%; 2008, 51.6%).

Female respondents reported a more positive view of job security (50.0%) compared to male respondents (47.2%), which was consistent with 2008 results. A sense of job security was highest in the under 25 (69.3%) age group but varied with no obvious patterns across the older age groups.

4.3.2 Job satisfaction

2025: Q32_5
2008: Q71
1996: Q46

During the past two years my job satisfaction has risen.
Strongly disagree (19.2%), Disagree (18.4%), Somewhat disagree (13.1%), Neither agree nor disagree (16.9%), Somewhat agree (12.8%), Agree (11.6%), Strongly agree (6.1%), I do not feel sufficiently informed to comment (1.9%).

More respondents disagreed (50.7%) that their job satisfaction has risen in the past two years, than agreed

(30.5%) with the remainder (18.8%) recording either a neutral view or not feeling sufficiently informed to comment.

A comparison of improvement in job satisfaction between different employers showed a similar pattern to that observed with job security. CRI employees scored significantly lower agreement than any other group (23.9%). University employees scored only slightly higher (27.1%), followed by government (42.7%), with industry employees scoring the highest levels of job satisfaction (53.8%).

There was some variation in job satisfaction scores between different fields of work, with agricultural & soil (21.0%) and earth & environmental sciences (21.3%) scoring the lowest and chemical (43.0%) and social & behavioural sciences (40.0%) scoring the highest levels of job satisfaction. Female respondents scored a higher sense of job satisfaction (32.5%) compared male respondents (29.4%), while a sense of job satisfaction was highest with the youngest age groups.

In the 2008 survey more respondents agreed (44.1%) than disagreed (38.2%) with the remainder choosing to neither agree nor disagree (14.7%), while in 1996 more respondents disagreed (45.0%) than agreed (33.3%) with the remainder choosing to neither agree nor disagree (19.6%). Compared to both earlier surveys the 2025 survey had the most negative results.

In all three surveys female respondents showed higher agreement (37.7% in 1996, 30.9% in 2008 and 32.5%) in 2025 than male respondents (32.2% in 1996, 41.2% in 2008 and 29.4% in 2025) although the comparative values were much closer in 2025. CRI-based respondents had higher levels of disagreement (52.3% in 1996, 44.4% in 2008, 60.8% in 2025) than university-based respondents (41.3% in 1996, 37.4% in 2008 and 52.2% in 2025).

Echoing the 2025 survey, the agricultural & soil sciences demonstrated the highest levels of disagreement (61.5% in 1996, 48.4% in 2008) while the medical health sciences showed the highest levels of agreement (62.8% in 1996 and 40.7% in 2008).

4.4 State of New Zealand science

4.4.1 Is science in New Zealand is headed in the right direction.

2025: Q32_6
2008: Q74

All things considered, science in New Zealand is headed in the right direction.

Strongly disagree (27.7%), Disagree (25.5%), Somewhat disagree (17.2%), Neither agree nor disagree (11.7%), Somewhat agree (8.8%), Agree (3.0%), Strongly agree (1.0%), I do not feel sufficiently informed to comment (5.1%).

Overall, there was a high level of disagreement (70.4%) and low agreement (12.8%) that science in New Zealand is heading in the right direction. Disagreement was higher with male (73.3%) compared to female (67.4%) respondents. Disagreement was lower in those under 30 perhaps due to less experience in the science system but was generally

consistently high across most other age groups. Agreement that science is heading in the right direction was highest in the engineering (19.0%) and chemical sciences (15.4%) while disagreement was notably highest in the physical (80.0%) and earth & environmental sciences (75.2%).

Analysis by workplace showed that government and industry respondents were almost twice as like to agree with this statement (18.6 and 20.5%, respectively) compared to university (10.8%) and CRI respondents (11.8%). The highest levels of disagreement came from university (76.4%) followed by CRI (72.1%). government (62.9%) and industry (51.2%) respondents.

When this same question was asked in the 2008 survey, there was a different pattern of responses with 26.3% of respondents agreeing that science in New Zealand was heading in the right directions, 38.8% disagreeing, while 33.0% were noncommittal. Disagreement was highest amongst those working in the physical (64.3%), agricultural & soil (61.3%) and earth & environmental (48.6%) sciences. Only those in the medical & health sciences (37.1%) had a level of agreement substantially higher than the mean (26.3%).

In 2025, the ambivalence of the scientific community of 2008 regarding whether science in New Zealand is heading in the right direction has been replaced by a clear message from the majority of scientists – science is **not** heading in the right direction. Some of the subsequent items in 4.5.3. may provide insight into some of the reasons behind this shift in confidence.

4.5 Science, values and government

4.5.1 Responsibilities of scientists

4.5.1.1 Responsible to science and citizens

2025: Q29_7
2008: Q31
1995: Q1

In my professional capacity, I feel responsible first to science and the creation of new products and knowledge, and then to the concern of citizens.

Strongly disagree (11.8%), Disagree (19.6%), Somewhat disagree (19.9%), Neither agree nor disagree (21.8%), Somewhat agree (13.0%), Agree (8.8%), Strongly agree (3.6%), I do not feel sufficiently informed to comment (1.5%).

Twice as many respondents disagreed (51.3%) than agreed (25.4%) with this statement, prioritising the concerns of citizens ahead of the creation of new products and knowledge, with over one-fifth (21.8%) taking a neutral position. A higher percentage of female respondents (55.3%) disagreed with the statement compared to male respondents (47.3%). The strongest disagreement with the statement came from respondents in the social sciences (75.0%) followed by those in the environmental sciences (60.3%) with the lowest disagreement from those in the physical (39.9%) and chemical (39.0%) sciences.

A comparison of workplaces showed the greatest disagreement with the statement came from respondents

in CRIs (51.8%) and universities (51.5%) with less disagreement from those in government (45.0%) and industry (37.5%) roles. The lowest agreement being from industry likely reflects that industries are financially driven to make a profit through the creation of new products and new knowledge.

There were no notable variations in responses from different age groups.

The 2008 survey showed a greater level of disagreement with this statement overall (60.1%) and across different subgroups, however, similar patterns were observed. Female respondents disagreed more (67.3%) than male respondents (57.2%). Strongest disagreement was from those in the medical & health sciences (71.4%) and engineering & applied sciences (71.1%).

This survey item was also included in the corresponding 2025 Scientific Mind survey (Schalin, 2025) but resulted in very different results with much lower levels of disagreement (19%) compared to agreement (43%) while the “neither agree nor disagree” response was selected by over one third (35%) of respondents. Interestingly there has been a decrease in agreement with this item compared to the 1988 version of this survey (67%) the reverse of the pattern observed with New Zealand scientists.

Although New Zealand and US scientists appear to differ in where they place their priorities, there is a common pattern that over time the commitment to science over citizens concerns is increasing. This may be due to scientists’ increasing perception that citizens are becoming less scientifically literate and more likely to be raise concerns based on mis- and disinformation (see Section 4.6.8 and more broadly Section 4.6 which explores issues of public concern).

It was also suggested in Scientific Mind (Schalin, 2025) that “From one perspective, one would anticipate, and perhaps favor, the likelihood that scientists are focused on the truth and discovering new things. The “concerns of citizens” is another way of saying “politics,” and those focused on truth should be wary about having their concern for citizens turned into a political agenda” while also noting that “we also fear the potential for “mad scientists” to create monstrosities such as viruses for which mankind has no defense. In this perspective, one would hope the concerns of citizens would outweigh the desire to explore such possibilities”.

4.5.1.2 New Zealand should be the primary beneficiary

2025: Q30_2
2008: Q34

New Zealand should be the primary beneficiary of scientific advances funded by New Zealand taxpayers.

Strongly disagree (3.0%), Disagree (7.7%), Somewhat disagree (11.6%), Neither agree nor disagree (14.6%), Somewhat agree (29.2%), Agree (22.4%), Strongly agree (11.0%), I do not feel sufficiently informed to comment (0.6%).

Overall, 62.6% of scientists agreed that New Zealand should be the primary beneficiary of science funded by New Zealand taxpayers with 22.3% disagreeing. Agreement with this statement decreased with age from 75.1% in those under 25 to 60.7% in those of 69 years of age. Agreement was higher with female respondents (65.2%) compared to male respondents (60.7%) and particularly high in the field of engineering & applied (73.9%) sciences and low in social & behavioural (40.0%) sciences, perhaps a reflection of how readily the intellectual property in these fields can or can’t be protected.

Across different workplaces, agreement was highest for those working for the government (73.6%), followed by CRIs (69.2%) industry (65.8%) and universities (50.7%), a response which reflects the different priorities and expectations of each workplace.

The 2008 survey results were slightly more positive than the 2025 results with 67.1% of scientists agreeing that New Zealand should be the primary beneficiary of science funded by New Zealand taxpayers while 28.3% disagreed and 13.0% chose to neither agree nor disagree. CRI-based scientists agreed more (73.2%) than university-based scientists (42.7%) while agreement was highest with the primarily CRI-based agricultural & soil scientists (90.3%) and lower for the primarily university based social & behavioural (34.5%) and physical (46.4%) scientists.

This survey item was also included in the Scientific mind survey (Schalin, 2025) with 47% of respondents agreeing, 22% disagreeing and 29% neither agreeing nor disagreeing however these responses were notably more negative than a comparable 1988 US survey question where the agree (79%) responses significantly outweighed the disagree (13%) and neither agree nor disagree (7%) responses.

The lower agreement in both the NZAS and US surveys in 2025 compared to previous surveys may be a recognition by an increasing number of scientists that science has become a global enterprise and that it is difficult (and perhaps even immoral) to try and limit the benefits of scientific advances to ones’ own country.

4.5.1.3 Political neutrality

Q38_4

Scientists should be neutral and not engage in political debates.

Strongly disagree (12.4%), Disagree (22.9%), Slightly disagree (17.2%), Neither agree nor disagree (10.3%), Slightly agree (10.1%), Agree (11.6%), Strongly agree (13.7%), Not applicable to my role (1.9%).

This question was introduced in the 2025 survey. Overall, more respondents disagreed with this statement (52.5%) than agreed (35.4%). Male respondents were more likely to agree (38.0%) than their female colleagues (31.2%) but there were no clear patterns in the responses by age. There were some variations between different fields of work, with those in the chemical (49.9%) and agricultural sciences (45.5%) most strongly believing that scientists should be apolitical while medical & health (23.8%) and social & behavioural

scientists (19.0%) agreed much less. A possible explanation for this is that the fields of medical & health and social & behavioural sciences are more affected by political decisions and/or work more with those affected by political decisions. The highest levels of disagreement were from respondents from universities (58.2%), followed by government (53.3%), CRIs (47.7%) and industry (44.4%). Perhaps this reflects the different roles, expectations and practical considerations of each role, for example university academics as critics of society while industry respondents may view political views as getting in the way of business.

4.5.1.4 Decisions on potentially dangerous technologies

2025: 29_1
2008: 24
1996: Q3

The development of potentially dangerous technologies should be decided, primarily within the scientific and engineering community.

Strongly disagree (7.9%), Disagree (16.2%), Somewhat disagree (18.4%), Neither agree nor disagree (11.8%), Somewhat agree (18.6%), Agree (12.8%), Strongly agree (6.4%), I do not feel sufficiently informed to comment (8.0%).

Overall, the percentage of respondents who disagreed (42.5%) with this statement was slightly higher than the percentage who agreed (37.8%) with this statement.

Female respondents showed greater agreement (41.7%) compared to male respondents (33.6%), as did those respondents aged under 25 (60.1%) while respondents older than 60 agreed least (32%). There was some variation across different fields of work with those in the medical & health and biological sciences most likely to agree with this statement (45.5% and 42.9% respectively) while those in the mathematical & computer, chemical and earth & environmental sciences showed the strongest disagreement (52.9%, 50.8%, and 50.4%, respectively).

A comparison by workplace showed that respondents working in government (51.6%) and industry (48.8%) were more likely to agree with this statement while CRI and university-based respondents showed lower levels of agreement (31.8% and 40.8%).

When one considers only the agree and strongly agree responses, for most groups they ranged between 10% and 20%, the only exceptions being for those working for the government (33.3%), in the biological sciences (27.0%) and the under 25-year-olds (53.4%).

Previous surveys have shown higher levels of disagreement with this statement (54.5% in 2008 and 63.9% in 1996) and lower levels of agreement (26.1% in 2008 and 21.1% in 1996) suggesting there has been a substantial cultural shift towards viewing the scientific and engineering community as being better suited to make decisions regarding potentially dangerous technologies. This may be connected to the perception that the scientific literacy of the public is

declining, with confidence in non-scientists being able to make informed decisions waning.

4.5.1.5 Dissemination of unorthodox views

2025: Q34_1
2008: Q33

It is in the public interest to discourage the dissemination of the views of scientists who do not agree with reigning orthodoxies in scientific issues.

Strongly disagree (13.7%), Disagree (26.6%), Somewhat disagree (21.3%), Neither agree nor disagree (19.2%), Somewhat agree (10.6%), Agree (4.1%), Strongly agree (1.4%), I do not feel sufficiently informed to comment (3.0%).

Progress in science requires scientists to be open to new hypotheses and to follow where experimental results and evidence lead them. This means being open to challenging reigning orthodoxies. The development of the heliocentric universe model and continental drift theory are two examples of initially unorthodox views which came to be accepted by the scientific community due to accumulated evidence.

In 2025, 61.6% of respondents disagree with this statement, 19.2% neither agreed nor disagreed and 16.1% agreed. The remaining 3.0% did not feel sufficiently informed to comment. Female respondents were less likely to disagree than male respondents (57.8% vs 64.1%). Responses varied depending on respondent's place of work with greater disagreement in industry (69.2%) and universities (65.2%) and lower levels of disagreement in government (54.7%) and CRIs (56.8%).

Agreement and disagreement with this statement varied notably across fields of work. Highest levels of agreement were seen in the social & behavioural (22.2%), engineering & applied (19.2%) and medical & health sciences (18.2%) while lowest levels of agreement were seen in mathematical & computer (9.7%), physical (10%) and chemical sciences (12.1%). Highest levels of disagreement were seen in the physical (80.1%) and agricultural & soil sciences (70.4%) while the lowest levels of disagreement were seen in medical & health (53.5%) and engineering & applied sciences (53.4%). In many fields over 20% of respondents selected the neither agree nor disagree option whereas previously in the 2008 survey this number was less than 10%. The same patterns were observed when analysed by highest qualification as well as fields of work.

The results of the 2008 survey were quite different, with much higher numbers of respondents disagreeing with the statement (85.3%) while 7.8% neither agreed nor disagreed and only 3.1% agreed. These results indicate a significant shift in the scientific community's views on how less orthodox ideas should be dealt with. The 2008 survey also showed little variation between the subgroups defined by age, gender, work location or scientific field, although it was noted those working in universities and engineering sciences were more likely to agree with this statement than other groups – this was not observed in the 2025 survey.

This survey item was also included in the Scientific mind survey (Schalin, 2025) with similar results; 59% of respondents disagreeing, 14% agreeing, and 24% neither agreeing nor disagreeing, a result described by the author as “surprising, and perhaps alarming”.

While this apparent culture shift towards more scientists showing less support for the dissemination of unorthodox views raises some concerns, it needs to be considered in the context of what has changed since the previous 2008 survey. Social media has provided a platform which is regularly used to spread scientific mis- and dis-information. There have also been instances where “unorthodox” ideas and findings have later been shown to be fraudulent, particularly in the social & behavioural and medical & health sciences. Perhaps survey respondents are responding to these societal shifts with increased caution and vigilance in their fields of study. Feedback on this survey item has also suggested that respondents’ interpretation of the term “dissemination” may vary, and that in future surveys this item should be reworded to be clearer in its meaning.

4.5.2 Responsibilities of government

4.5.2.1 Government should define the research agenda

2025: Q30_3
2008: Q35
1996: Q16

It is the government’s role to broadly define what research should be carried out, thereby providing scientists with a ‘research agenda’.

Strongly disagree (24.9%), Disagree (28.2%), Somewhat disagree (22.7%), Neither agree nor disagree (8.9%), Somewhat agree (13.5%), Agree (1.1%), Strongly agree (0.5%), I do not feel sufficiently informed to comment (0.2%).

There was strong disagreement (75.8%) with the suggestion that it is the government’s role to set a ‘research agenda’ for scientists. Agreement with this statement was mainly populated by those who somewhat agreed (13.5%) rather than agreed (1.1%) or strongly agreed (0.5%). Only a small percentage of respondents did not feel informed enough to comment (0.2%) while less than 10% (8.9%) neither agreed nor disagreed.

Female respondents were less likely to agree with the statement (9.7%) than male respondents (20.5%), while older respondents were more likely to agree (>18% for those 60 and over) than younger respondents (<10% for those 29 and under). Respondents with university and government roles were least likely to agree that the government should define the research agenda (13.1% and 9.3%, respectively) compared to those working in industry (17.9%) and CRIs (21.8%).

A comparison across the different fields of work showed the strongest disagreement with this statement came from the social & behavioural and mathematical & computer sciences (92.3% and 83.3%, respectively) and the strongest agreement from the agricultural & soil and earth & environmental sciences (25.0% and 23.4%).

The response to this survey item in previous surveys was also negative (2008, 55.7% disagreement, 33.6% agreement; 1996, 46.5% disagreement, 36.5% agreement), but not to the same level as the current survey. The more negative response in 2025, which was strongest from those at universities and CRIs, likely reflects the negative views of changes undertaken by the current government (outlined in Section 4.5.1) but also, a sense that successive governments have undervalued and underfunded science in New Zealand.

Previous surveys show similar patterns to the 2025 survey with female respondents disagreeing more (65.4% in 2008, 63.8% in 1996) than their male counterparts (51.7% in 2008, 41.3% in 1996) and agreeing less (21.2% in 2008, 23.0% in 1996 for female respondents; 38.5% in 2008, 40.6% in 1996 for male respondents). University-based respondents showing higher levels of disagreement (68.5% in 2008, 61.2% in 1996) compared to those based in CRIs (37.3% in 2008, 30.5% in 1996) and correspondingly lower levels of agreement (21.2% in 2008, 23.8% in 1996 for university-based respondents; 52.8% in 2008, 48.6% in 1996 for CRI-based respondents). Agricultural & soil scientists showed the highest levels of agreement (58.0% in 2008, 31.5% in 1996) and social & behavioural scientists showed the lowest levels of agreement (10.3% in 2008, 22.8% in 1996).

This survey item was also included in the Scientific Mind survey (Schalin, 2025) with lower levels of disagreement (51%) and higher levels of agreement (26%) compared to the New Zealand survey. Perhaps this apparent greater level of confidence in the US government is due to their stronger history of the adequate funding and government co-ordination of science through plans such as the Endless Frontier developed by Vannevar Bush (Bush, 1945). The results of the previous Scientific mind survey from 1988 were similar; agreement (25%) and disagreement (60%).

4.5.2.2 Government research agendas are political

2025: Q30_4
2008: Q36
1996: Q17

When the government sets research agenda, it is responding more to political priorities than it is to the potential for scientific advances.

Strongly disagree (0.7%), Disagree (0.6%), Somewhat disagree (1.8%), Neither agree nor disagree (6.1%), Somewhat agree (22.2%), Agree (37.2%), Strongly agree (30.6%), I do not feel sufficiently informed to comment (0.8%).

Respondents decisively agreed (90.0%) that when the government sets the research agenda it is responding more to political priorities than to the potential for scientific advances, with only 3.1% disagreement with this statement.

Female respondents showed higher agreement (92.5%) with this statement compared to male respondents (87.4%), while agreement varied from 86.7% in physical sciences to 93.2% in agricultural & soil sciences and from 86.8% in government scientists to 92.3% in CRI scientists. There was no clear pattern in responses by age group.

In earlier surveys agreement with this statement was lower (78.6% in 2008, 73.0% in 1996) and responses were similar across most subgroups, the exception being higher levels of agreement in 2008 by earth & environmental scientists (91.4%) and physical scientists (89.3%).

The increased agreement with this statement in 2025 aligns well with the increasing concerns scientists have regarding the overpoliticisation of science (Section 4.1) and the increasing view that politicians shouldn't set the scientific agenda (Section 4.5.2.1).

4.5.2.3 Should there be payoffs from fundamental research?

2025: Q33_2
2008: Q39
1996: Q20

When the government funds basic/fundamental research, the government should not expect a specific payoff because no scientist can guarantee a result in advance of doing the research.

Strongly disagree (1.1%), Disagree (2.7%), Slightly disagree (3.2%), Neither agree nor disagree (1.6%), Slightly agree (7.1%), Agree (38.1%), Strongly agree (42.5%), I do not feel sufficiently informed to comment (3.6%).

A strong majority of respondents (87.7%) agreed that the government cannot expect a specific payoff in advance of carrying out research as the results of research cannot readily be guaranteed. This response was relatively consistent across the different age groups and genders. In terms of the different fields of work the lowest agreement was from the social & behavioural sciences (81%) and the highest was from the chemical (91.4%) and biological (90.3%) sciences. By workplace only respondents working in government (84.1%) scored lower than the other workplaces which clustered around the mean.

In the previous 2008 survey, 80.6% of respondents agreed with this statement. The increase in 2025 to 87.7% agreement may reflect dissatisfaction the current government's push for more applied research and the corresponding changes that have been made to the Marsden fund, traditionally New Zealand's primary fund for fundamental research.

This statement item was also included in the related US surveys. The Scientific Minds (Schalin, 2025) showed overwhelming agreement (93%) as did the Sketches of an American Scientist (92%) (Sommer and Seltzer, 1988).

It is interesting to compare the response of this statement with that of Section 4.5.1.2. where 62.8% of scientists agree that New Zealand should be the primary beneficiary of research in New Zealand. So, while most scientists recognise that the outcomes of science are unpredictable, it is still the view of many that research benefits New Zealand where it can.

4.5.2.4 Advancing the frontiers of knowledge is important

2025: Q33_3
2008: Q40

Even if it brings no immediate results, scientific research that advances the frontiers of knowledge is necessary and should be supported by the New Zealand government.

Strongly disagree (0.1%), Disagree (0.6%), Slightly disagree (1.6%), Neither agree nor disagree (1.7%), Slightly agree (6.3%), Agree (28.0%), Strongly agree (60.5%), I do not feel sufficiently informed to comment (1.2%).

There is overwhelming support (94.8%) for science research advancing the frontiers of knowledge without the expectation for immediate results. This support was consistent across gender, and fields of work. The highest levels of disagreement were recorded in those over 65 years of age (6.6%) and those working in industry (5.4%), but overall, the idea of carrying out science to advance the frontiers of knowledge is a central tenet for most New Zealand scientists.

The 2025 results are consistent with those of the 2008 survey (95.6% support) when results were also relatively uniform across all subgroups.

The overwhelming agreement with this statement aligns well with one of the major reasons that scientists became scientists, their "intrigue with the search for truth and an understanding of the natural world" while also recognising that fundamental research often leads to long term "improvement and advancement of humanity" a second major reason for pursuing a career in science (see Section 4.7.1).

4.5.3 Perceptions of government performance

In 2025, additional questions were added to explore the science community's opinions of recent changes in government policies, including changes to the Marsden fund, disestablishment of Callaghan Innovation and restructuring of the Crown Research Institutes (CRIs) into Public Research Organisations (PROs).

4.5.3.1 Government decisions are science based

2025: Q40_5

The current Government makes decisions based on scientific evidence.

Strongly disagree (27.5%), Disagree (26.3%), Slightly disagree (15.0%), Neither agree nor disagree (10.9%), Slightly agree (6.2%), Agree (2.9%), Strongly agree (0.4%), I do not feel sufficiently informed to comment (10.9%).

Overall, 68.8% of respondents disagreed that government decisions are science based while only 9.5% agreed. More female than male respondents disagreed (72.1% compared with 67.0%) and there was no discernible pattern of response by age. The highest levels of disagreement were seen in the earth & environmental (79.4%) and medical & health (76.6%) sciences while the highest levels of agreement were

in the agricultural & soil (18.2%) and chemical (15.5%) sciences. Disagreement was much lower for those working in industry (44.4%), followed by those in government (67.4%) with similar scores for those in CRIs (70.6%) and universities (71.2%).

4.5.3.2 Proposed changes will benefit science & technology research

2025: Q40_1

Overall, I think the Government's proposed changes to the science research sector in New Zealand in 2025 will benefit science and technology research in New Zealand.

Strongly disagree (17.2%), Disagree (22.1%), Slightly disagree (9.8%), Neither agree nor disagree (10.9%), Slightly agree (10.4%), Agree (7.8%), Strongly agree (2.0%), I do not feel sufficiently informed to comment (19.8%).

Over the past two years many changes have been made to the science system in New Zealand, and this is perhaps why almost one fifth of respondents did not feel sufficiently informed to comment (19.8%). Overall, just under half (49.1%) of respondents disagreed that proposed changes will benefit science and technology research while 20.2% agreed. Male respondents were more likely to agree (22.5%) compared to female respondents (17.0%), more likely to neither agree nor disagree (13.6%) than female respondents (8.1%) and less likely to feel insufficiently informed to comment (16.0% compared to 23.2% of female respondents).

There were no clear patterns of difference across different age groups, while in fields of work the strongest agreement that proposed changes would be beneficial were in agricultural & soil sciences (44.2%) followed by chemical sciences (31.0%). The lowest support came from the medical & health (6.0%) and earth & environmental (16.8%) sciences, two areas where changes can have profound effects on both the health of New Zealanders and the environment that they live in.

Analysis by workplace showed government respondents felt the least sufficiently informed to comment (43.5%) followed by industry (37.1%). CRI employees showed the greatest agreement (34.0%) while university employees showed the greatest disagreement (62.3%). The disagreement by university-based respondents may be influenced by the movement of funding from fundamental to applied research which will benefit CRIs/PROs while many in government and industry are still waiting to see where these changes lead.

4.5.3.3 Removal of humanities and social sciences from the Marsden fund

2025: Q40_6

I support the removal of Humanities and Social Science funding from the Marsden fund.

Strongly disagree (39.5%), Disagree (25.6%), Slightly disagree (9.7%), Neither agree nor disagree (6.5%), Slightly agree (2.6%), Agree (2.4%), Strongly agree (3.3%), I do not feel sufficiently informed to comment (10.5%).

Almost three quarters (74.8%) of respondents disagreed with the removal of the humanities & social sciences from the Marsden fund compared to agreement from 8.3% of respondents. Female respondents disagreed more strongly (80.5%) than their male counterparts (71.4%). Agreement was notably lower for the age ranges 45 to 49 (3.4%) and 50 to 54 (2.7%) and highest in age groups over 60 (between 10.8 to 19.2%). Agreement was highest for those working in the agricultural (27.3%) and chemical (25.8%) sciences while disagreement was highest for those working in the social & behavioural (90.5%) and earth & environmental (83.2%) sciences. Disagreement was lowest for those working in industry (55.5%) followed by government (68.9%), CRIs (76.8%) and universities (79.4%), with the latter likely the most affected by this change.

4.5.3.4 Marsden fund and economic impacts

2025: Q40_7

I support the expectation that 50% of funded Marsden proposals must demonstrate potential for economic impacts.

Strongly disagree (39.9%), Disagree (23.3%), Slightly disagree (11.3%), Neither agree nor disagree (5.8%), Slightly agree (6.4%), Agree (4.8%), Strongly agree (2.1%), I do not feel sufficiently informed to comment (6.3%).

Almost three quarters of respondents (74.5%) disagreed with this statement while only 13.3% agreed. A small percentage did not feel they were sufficiently informed (6.3%) or chose a neutral (5.8%) response. Female respondents showed higher levels of disagreement (77.1%) compared to male respondents (72.6%) while agreement with this statement showed a pattern of increasing with age (e.g., 6.3% agreement for those aged 25 to 29, 26.8% for those aged over 69 years of age).

The strongest disagreement with this statement was observed in those working in the social & behavioural (83.3%) and earth & environmental (83.2%) while the strongest agreement by far was seen in the agricultural & soil (24.7%) and engineering & applied (20.1%) sciences, highlighting a pattern whereby those areas where there is already a strong connection between research and potential economic outcomes show greater support for this statement. Agreement was much higher in industry (25%) compared to CRIs (13.1%), universities (11.0%) and government (8.6%).

This item is, in many ways, the antithesis of the previously discussed item "Even if it brings no immediate results, scientific research that advances the frontiers of knowledge is necessary and should be supported by the New Zealand government" which received almost unanimous support in Section 4.5.2.4. With the Marsden fund having been one of the few funds which supported fundamental research, it is not surprising that introducing expectations of economic outcomes has been met with disagreement.

4.5.3.5 Disestablishment of Callaghan Innovation

2025: Q40_3

I support the disestablishment of Callaghan Innovation.

Strongly disagree (13.7%), Disagree (22.5%), Slightly disagree (8.5%), Neither agree nor disagree (10.8%), Slightly agree (4.6%), Agree (4.9%), Strongly agree (3.1%), I do not feel sufficiently informed to comment (31.9%).

Almost one-third of respondents reported that they did not feel sufficiently informed to comment (31.9%) while 44.7% disagreed with the disestablishment of Callaghan Innovation and 12.6% agreed. Younger scientists generally felt less sufficiently informed to comment, as did female respondents (39.5%) who were also less likely to agree with the disestablishment of Callaghan Innovation (5.7%). Those working in fields less likely to have engaged with Callaghan Innovation were least likely to feel able to comment, e.g., social & behavioural (50.0%) and medical & health (43.3%) sciences, while disagreement with the statement was highest with mathematical & computing (58.0%) and engineering & applied (54.3%) sciences. Levels of agreement clustered into two groups – higher in universities (15.6%) and CRIs (13.4%) and lower in industry (2.8%) and government (4.4%).

This item is closely aligned with the following item regarding the merging of CRIs as both are parts of the broader changes to the science system which are currently in progress.

4.5.3.6 Merging of CRIs

2025: Q40_2

I support the Government's plan to merge Crown Research Institutes into four Public Research Organisations.

Strongly disagree (6.2%), Disagree (7.5%), Slightly disagree (6.7%), Neither agree nor disagree (16.6%), Slightly agree (15.4%), Agree (21.2%), Strongly agree (6.2%), I do not feel sufficiently informed to comment (20.1%).

Twice as many survey respondents agreed (42.8%) with the plan to merge the CRIs than disagreed (20.4%) while 20.1% did not feel sufficiently informed to comment. Female respondents expressed lower levels of agreement (37.0%) and higher levels of not feeling sufficiently informed to comment (24.9%) compared to male respondents (47.9% and 15.8%, respectively). Scientists under the age of 35 felt less sufficiently informed to comment (35.0%) than those over the age of 60 (13.8%). Agreement was highest for those working in the agricultural & soil (71.5%), earth & environmental (52.4%) and physical (53.5%) sciences while those in the medical & health (17.4%), social & behavioural (21.4%) and mathematical & computer (22.6%) sciences had the lowest levels of agreement and also the highest levels of not feeling sufficiently informed to comment (41.2%, 45.2%, and 32.3%, respectively).

The highest levels of agreement came from those working within the CRIs (67.3%). Not surprisingly they also had the lowest levels of not feeling sufficiently informed to comment (4.2%). Lowest levels of agreement came from the university (25.2%) and government (22.2%) sectors followed by industry (35.3%).

In summary, the strongest support for the merging of the CRIs comes from those directly involved – those employed by CRIs and in fields most strongly associated with CRIs such as agricultural & soil, earth & environment, and physical scientists. Given that the merging of the CRIs to form Professional Research Organisations (PROs) is still underway, it will be informative to revisit this item again in a few years once the changes have been fully embedded.

4.5.3.7 Government science strategy is open and inclusive

2025: Q30_7
2008: Q42

Government science strategy is open and inclusive of a large segment of New Zealand scientists.

Strongly disagree (19.5%), Disagree (30.5%), Slightly disagree (22.2%), Neither agree nor disagree (17.6%), Slightly agree (3.5%), Agree (1.1%), Strongly agree (1.0%), I do not feel sufficiently informed to comment (4.7%).

Most scientists disagreed that government science strategy is open and inclusive (72.6%) with little agreement (5.6%). Most of those who felt insufficiently informed to be able to comment were under 40 years of age and disagreement was highest in the 50-to-54-year age group (80.5%). Male respondents showed a higher level of agreement (7.6%) compared to their female counterparts (3.2%). Agreement was notably highest in the engineering & applied sciences (12.4%) and lowest in the social & behavioural sciences (2.2%). Agreement was highest in industry (10.5%) and lowest in government (3.8%) respondents.

In 2008, the percentage of those disagreeing with the statement was much lower (48.5%) with over one third neither agreeing nor disagreeing (35.7%) and higher levels of agreement (13.6%) albeit still a minority response. By comparison the results in 2025 show greater disagreement that government science strategy is open and inclusive.

4.6 Issues of public concern (scary issues)

4.6.1 Human activities and climate change

2025: Q29_3
2008: Q28

Increasing levels of human induced atmospheric carbon dioxide is the main cause of climate change.

Strongly disagree (0.8%), Disagree (0.7%), Somewhat disagree (1.8%), Neither agree nor disagree (3.3%), Somewhat agree (5.8%), Agree (20.0%), Strongly agree (60.3%), I do not feel sufficiently informed to comment (7.2%).

Most respondents (86.1%) agreed that human induced carbon dioxide is the main cause of climate change while only a very small minority (3.3%) disagreed. There was little difference between the responses of male and female respondents however age did influence results. No respondent under the age of 35 disagreed with the statement, and there was a general increase in disagreement

peaking at 9.4% in the 55 to 59 age group then dropping to 5.2% above the age of 65.

The highest agreement with the statement was found amongst those working in the mathematics & computing (94.1%) and chemical sciences (91.5%) and highest disagreement with those working in the physical (6.7%) and agricultural & soil (6.1%) sciences. In the fields likely to be less familiar with the science underlying climate change, larger numbers of respondents identified that they did not feel sufficiently informed to comment, e.g., the medical & health (12.2%) and social & behavioural sciences (10.6%).

Respondents working in CRIs displayed the highest levels of agreement (91.4%) followed by those working in universities (85.2%), government (80.0%) and industry (73.2%).

This statement was not included in the 1996 survey but in 2008 69.5% of respondents agreed with the statement, 9.2% disagreed and 18.6% neither agreed nor disagreed. In 2008, respondents from CRIs were in higher agreement (76.1%) compared to university scientists (64.6%) which is consistent with the 2025 results. The highest agreement was in the earth & environmental (82.8%) and agricultural & soil sciences (80.6%) the lowest agreement was the mathematical (53.8%) and engineering & applied sciences (55.2%) which is not completely consistent with the 2025 results. However, the addition of the “I do not feel sufficiently informed to comment” option in 2025 may have affected the results.

The same item was included in the 2025 Scientific Mind survey. Overall, 78% of respondents agreed that increased human-induced atmospheric carbon dioxide is the main cause of climate change, while 9% disagreed and 12% were non-committal.

4.6.2 Views on impacts of AI

2025: Q33_9

Artificial Intelligence's (AI's) potential negative impacts outweigh its' potential positive impacts.

Strongly disagree (4.6%), Disagree (14.3%), Slightly disagree (15.3%), Neither agree nor disagree (24.6%), Slightly agree (10.7%), Agree (7.9%), Strongly agree (6.6%), I do not feel sufficiently informed to comment (16.1%).

A new item introduced into the 2025 survey, views on the relative benefits/risks of AI were split with more disagreeing (34.2%) than agreeing (25.2%) while the largest percentage (40.7%) were either neutral in their views or did not feel sufficiently informed to comment.

A higher percentage of male respondents (37.5%) disagreed with the statement compared with female respondents (31.1%) while a higher percentage of female respondents did not feel sufficiently informed to comment (19.2%) compared to male respondents (12.5%). The number of male (24.9%) and female (25.6%) respondents agreeing with the statement, and who neither agreed nor disagreed were very similar (25.0% and 24.0%). There was some degree of variation of responses across different age groups but there were no clear patterns.

In terms of field of work, the highest level of agreement with this statement came from those in the mathematical & computing (35.6%) sciences while the highest levels of disagreement from the engineering & applied (38.9%) and social & behavioural (39.5%) sciences. In terms of workplace, the strongest agreement was in those working at universities (29.3%) and the strongest disagreement was found in industry (43.2%).

This item statement was also included in the Scientific Mind survey (Schalin, 2025) and demonstrated a similar split with American scientists but with an even greater number of respondents choosing an undecided position. Responses were as follows: disagree (31%), agree (19%) and neither agree nor disagree (47%).

The diverse responses and degree of uncertainty displayed in both surveys likely reflects that AI is a relatively new technology, so that many scientists are waiting for more evidence before solidifying their view of AI. The next survey will likely require a wider set of questions for this topic.

4.6.3 Genetic modifications outside of laboratories

2025: Q29_2

I support the use of genetic modification (GM) outside of laboratories.

Strongly disagree (3.8%), Disagree (5.1%), Somewhat disagree (7.2%), Neither agree nor disagree (12.5%), Somewhat agree (24.3%), Agree (19.7%), Strongly agree (15.7%), I do not feel sufficiently informed to comment (11.8%).

Many respondents expressed support for the use of genetic modification (GM) outside of laboratories (59.7%) while a minority (16.1%) disagreed. Almost one quarter (24.3%) were either non-committal or did not feel sufficiently informed to comment. Male respondents displayed greater support (63.9%) relative to female respondents (55.1%). There was no consistent pattern in support across the different age groups. Support was higher from respondents based in industry (65.8%) and CRIs (64.0%) and lower in those based in universities (55.7%) and in government (50%). Support was lowest from those working in the social & behavioural sciences (35.5%) and earth & environmental (46%) and highest in the chemical (76.2%), biological (71.9%) and agricultural & soil sciences (68.4%), while the highest percentages who did not feel sufficiently informed to comment were in the social & behavioural (25.0%), physical (23.3%) and environmental sciences (17.5%).

4.6.4 Nuclear power

2025: Q29_4
2008: Q27

New Zealand should reconsider its prohibition of nuclear power sources.

Strongly disagree (17.6%), Disagree (15.3%), Somewhat disagree (10.3%), Neither agree nor disagree (13.4%), Somewhat agree (12.9%), Agree (9.9%), Strongly agree

(10.6%), I do not feel sufficiently informed to comment (10.0%).

There was slightly more disagreement (43.2%) than agreement (33.4%) with this statement. Disagreement with this statement tended to increase with age (peaking at 63.1% with the 60- to 64-year-old group), and disagreement was higher with female respondents (48.0%) compared to male respondents (40.7%). Disagreement was highest with those working in the social & behavioural sciences (63.8%) and lowest for those working in the physical sciences (26.7%). The variation between those in different workplaces was relatively minor, ranging from 39.0% in industry to 45.8% in government.

When this item was first introduced in the 2008, the level of disagreement was similar (44.3%) however, levels of agreement (39.9%) and “neither agreeing nor disagreeing” were higher (14.1%). It is possible that levels of agreement have dropped with time, however, this may also be a result of introducing the additional option “I do not feel sufficiently informed to comment” into the survey.

In 2008, female respondents also reported higher levels of disagreement (51.9%) compared to male respondents (41.3%). Social & behavioural scientists reported the highest levels of disagreement (69.0%). There were no significant differences reported across different age groups or workplaces.

4.6.5 Embryonic stem cell research

2025: Q29_5
2008: Q26

Embryonic stem cell research should not be carried out in New Zealand.

Strongly disagree (17.8%), Disagree (26.3%), Somewhat disagree (1.8%), Neither agree nor disagree (15.7%), Somewhat agree (2.4%), Agree (1.8%), Strongly agree (1.7%), I do not feel sufficiently informed to comment (20.6%).

There was strong disagreement with this statement (57.8%) and little agreement (5.9%) with over one third (36.3%) electing to be either noncommittal or not feeling sufficiently informed to comment. Disagreement tended to increase with age, and disagreement was higher with male (61.9%) compared to female (53.3%) respondents. Disagreement was lowest for those in the mathematical & computer (35.3%) and earth & environmental (48.3%) sciences and highest with the biological (66.7%) and physical (66.6%) sciences. Disagreement was highest for those working in industry (61.0%) and lowest for those working at CRIs (53.6%), however, industry also had the highest percentage of scientists agree with the statement (9.7%) and fewest respondents who neither agreed nor disagreed (7.3%).

This item was a simplified version of the item “I believe that embryonic stem cell research should be suspended while other stem cell sources are researched” used in the 2008 survey. Despite this modification, the 2008 survey showed similar levels of support for embryonic stem cell research

with over three-fifths (62.6%) of respondents disagreeing with the statement, lower levels of agreement (13.8%) and almost one fifth (18.8%) choosing to neither agree nor disagree. In 2008 agreement was lower in those under 35 (8.1%) and higher in female respondents (16.4%) compared to male respondents (16.4%). There was no notable difference between the responses of those working in universities and CRIs, however, it did vary across different fields of work. Medical & health scientists showed both the highest levels of agreement (17.2%) and disagreement (71.4%) which was made possible by having the smallest proportion of undecided (8.6%) respondents. Earth & environment scientists agreed the least (5.8%) with the statement and physical scientists agreed the most (21.4%).

4.6.6 Media reporting on science

2025: Q29_6
2008: Q30

Newspaper and television reporting on science issues in New Zealand is accurate and unbiased.

Strongly disagree (7.3%), Disagree (17.7%), Somewhat disagree (25.9%), Neither agree nor disagree (20.6%), Somewhat agree (15.3%), Agree (6.3%), Strongly agree (1.4%), I do not feel sufficiently informed to comment (5.5%).

Over twice as many respondents had a negative view of the accuracy and unbiased nature of media reporting (50.9%) compared to those who had a positive view (23.0%). There were no clear patterns in the differences between different age groups and female respondents had a more negative view (52.2%) compared to their male contemporaries (47.9%). Physical scientists reported the highest levels of agreement (36.7%) while medical & health and social & behavioural sciences reported the highest levels of disagreement (58.2% and 57.5%, respectively). Government scientists reported the highest levels of disagreement (60.1%) while CRI and university scientists had the highest levels of agreement (23.9% and 24.3%, respectively).

When this item was introduced in the 2008 survey, respondents also had a more negative than positive view of the media with almost double the percentage of respondents disagreeing (44.4%) that reporting is accurate and unbiased compared to those agreeing (23.8%) with this statement and over one quarter (26.6%) choosing to neither agree nor disagree, suggesting little has changed with regards to scientists perception of the media in seventeen years. However, in contrast to the 2025 results, in 2008 medical and health scientists reported the highest agreement (37.1%). Biological, engineering & applied and physical scientists reported the highest levels of disagreement (50.0% for all three fields). Male respondents recorded higher agreement (28.0%) than their female colleagues (13.5%).

The response to this survey item in the Scientific Mind (Schalin, 2025) was mixed with the greatest percentage of responses undecided (39%), followed by disagree (36%) and agree (23%). Overall American respondents had a slightly

less negative view of media reports of science, though the reason for this is unclear.

4.6.7 Scientific research should be freely and publicly available, not behind paywalls

2025: Q29_8

Scientific research should be freely and publicly available, not behind paywalls.

Strongly disagree (0.5%), Disagree (2.2%), Somewhat disagree (1.9%), Neither agree nor disagree (4.9%), Somewhat agree (12.9%), Agree (23.7%), Strongly agree (47.8%), I do not feel sufficiently informed to comment (6.1%).

This item was introduced to the 2025 survey as there has been much discussion in the scientific community regarding free access to scientific research. Support for research being free and publicly available was very strong (84.4%) of which 47.8% of respondents indicated strong agreement. Only 4.6% of respondents disagreed with the statement. Agreement was slightly higher amongst younger respondents and there was little variation between male and female respondents. Chemical scientists showed the greatest disagreement with this statement (10.2%) while earth & environmental scientists showed the least disagreement (0.7%). Government scientists had the strongest agreement (88.5%) and industry scientists the weakest agreement (75.6%).

A similar question, “Open-source science (where science is freely and publicly available) is better than placing research behind journal paywalls” was included in the Scientific Minds survey (Schalin, 2025) also resulted in strong agreement (78%).

4.6.8 Dis- and mis-information

2025: Q38_2

It is becoming more difficult to distinguish between what is fact and what is dis- and mis-information. Strongly disagree (0.5%), Disagree (2.6%), Slightly disagree (2.4%), Neither agree nor disagree (4.3%), Slightly agree (19.5%), Agree (42.6%), Strongly agree (27.3%), I do not feel sufficiently informed to comment (0.9%).

This item was introduced into the survey in 2025, in response to increasing concern and discussion regarding dis- and mis-information. Most respondents agreed (89.4%) that it has become more difficult to distinguish between fact and dis- and mis-information. There was no difference in levels of agreement between male and female respondents, and a slight tendency for older participants to agree less. The strongest agreement with this statement came from mathematical & computer scientists (96.8%) and lowest agreement from biological scientists (84.7%). Industry based respondents showed the strongest agreement (91.4%) while government-based respondents showed the lowest agreement (84.4%).

4.6.9 New Zealand's response to Covid

There has been much public discussion regarding the 2020 – 2023 coalition government's response to the Covid pandemic. While the government's efforts were praised as being science informed in the beginning, public criticism and dissatisfaction increased as the pandemic progressed. This survey was an opportunity to explore the views of those with a scientific background regarding the government response to Covid.

4.6.9.1 Government response was appropriate

2025: Q37_1

Overall, the New Zealand Government's response to Covid was appropriate.

Strongly disagree (1.7%), Disagree (4.9%), Slightly disagree (4.0%), Neither agree nor disagree (2.7%), Slightly agree (5.3%), Agree (37.6%), Strongly agree (41.2%), I do not feel sufficiently informed to comment (2.6%).

A high percentage of respondents (84.1%) agreed that the New Zealand Government's response to Covid was appropriate while 10.6% disagreed. Female respondents had higher levels of agreement (87.0%) than male respondents (83.3%). Disagreement tended to increase with age from 0% in those aged under 25 to 23.2% in those over 69 years of age. Levels of agreement were highest in those working in the earth & environmental (89.6%), biological (87.4%) and engineering & applied (85.5%) sciences and lowest in the physical (78.5%) and agricultural & soil (78.9%) sciences. Those working in CRIs had the highest levels of agreement (87.2%), followed by universities (83.1%), government (81.8%) while those in industry had the lowest levels of agreement (79.4%).

4.6.9.2 Government response was informed by science

2025: Q37_2

Overall, the New Zealand Government's response to Covid was informed by science.

Strongly disagree (1.1%), Disagree (2.7%), Slightly disagree (3.2%), Neither agree nor disagree (1.6%), Slightly agree (7.1%), Agree (38.1%), Strongly agree (42.5%), I do not feel sufficiently informed to comment (3.6%).

A high percentage of respondents (87.7%) agreed that the Government's response to Covid was informed by science, while 7.0% disagreed with this statement. Male and female respondents had similar levels of agreement (87.6 and 89.1%, respectively). There was little variation across the different age groups. Levels of agreement were highest in those working in the chemical (91.4%) and biological (90.3%) sciences and lowest in the mathematical & computer (80.6%) and social & behavioural (81.0%) sciences. Those working in government had the lowest level of agreement (84.1%) while those in the remaining three working places were all within 1% of the mean (87.7%).

4.6.9.3 Masks were an appropriate tool

2025: Q37_3

Masks were an appropriate tool to use in response to the Covid pandemic.

Strongly disagree (0.9%), Disagree (1.5%), Slightly disagree (1.2%), Neither agree nor disagree (1.0%), Slightly agree (3.7%), Agree (29.8%), Strongly agree (59.5%), I do not feel sufficiently informed to comment (2.4%).

A strong majority of respondents agreed (93.0%) with the use of masks in response to the Covid pandemic while 3.6% disagreed. A slightly higher percentage of female respondents supported mask use than male respondents (94.6%, and 92.5% respectively). There was little difference across the different age groups, and agreement was lowest for those working in agricultural & soil (89.4%) sciences and highest with physical (96.4%) sciences. Support for mask use was at 100% for those working in government and lowest for CRI (92.2%) and university (92.7%) respondents.

4.6.9.4 Support for vaccines

2025: Q37_4

I support the use of vaccines in response to the Covid pandemic.

Strongly disagree (0.6%), Disagree (0.7%), Slightly disagree (0.4%), Neither agree nor disagree (1.5%), Slightly agree (2.4%), Agree (17.2%), Strongly agree (75.5%), I do not feel sufficiently informed to comment (1.7%).

There was overwhelming support (95.1%) for the use of vaccines in response to the Covid pandemic, with very low levels of disagreement (1.7%). There was little difference in the response from respondents in terms of gender or age, and slightly lower support from those working in agricultural & soil (92.1%) and earth & environmental sciences (92.8%) and in CRIs (94.8%) and universities (95.0%), however agreement did not drop below 92% in any group.

4.6.9.5 Support for vaccine mandates

2025: Q37_4

I support mandatory vaccinations in response to the Covid pandemic.

Strongly disagree (6.6%), Disagree (6.2%), Slightly disagree (6.0%), Neither agree nor disagree (5.6%), Slightly agree (13.5%), Agree (24.6%), Strongly agree (34.5%), I do not feel sufficiently informed to comment (3.0%).

While there was almost unanimous support for the use of vaccines, respondents were more reticent regarding vaccines being mandatory. 18.8% of respondents disagreed with vaccines being mandatory while 72.6% supported mandatory vaccination. Support was also not as strong for mandatory vaccinations with only 34.5% strongly agreeing compared with 75.5% strong agreement regarding the use of vaccines.

Agreement was slightly higher with female respondents (74.3%) compared to male respondents (72.2%) and there

was no consistent pattern to responses across different age groups. Lowest levels of agreement were seen in those working in the mathematical & computer (64.5%) and medical & health (67.3%) sciences while the highest levels of agreement were in the earth & environmental (79.2%) and engineering & applied (73.9%) sciences. Agreement was lower from those working in government (65.9%) followed by those in industry (69.7%), CRIs (72.4%) and universities (73.9%). It is interesting that those in the medical & health fields show lower agreement regarding mandatory vaccinations.

4.7 Developing the human resources of science

4.7.1 Reasons to become a scientist

2025: Q26
2008: Q44
1996: Q31

The 1996 and 2008 surveys provided a list of ten reasons to become a scientist and asked respondents to identify the two reasons that were most important in their decision to become a science professional.

In 2025, this question was modified to use a Likert scale where respondents could score each issue on a scale of 1 to 5 (1 = not at all important, 5 = extremely important). The reasons were modified slightly to include two additional reasons, *influence of a schoolteacher* and *I found my chosen field of expertise intrinsically enjoyable*, and an option to state any additional reasons was also provided.

The response from respondents to these issues is presented in Figure 10.

The strongest reasons for choosing to become a science professional are intrinsic in nature – enjoyment of the subject, a search for truth and understanding of the natural world, a desire to contribute to the advancement of humanity, and a sense of achievement, all have over 85% of respondents scoring these reasons as moderately, very or extremely important to them. At the other end of the scale, extrinsic reasons such as a desire for fame or riches score low with over 65% of respondents scoring these as not at all important.

The influences of a schoolteacher or an older scientist/technologist/engineer had a moderate influence with over a third of respondents considering these factors at least moderately important. These results highlight that connecting school students and teachers with enthusiastic scientists/technologists/engineers can influence students to consider careers in science.

Comparison of the responses from different subgroups was carried out by comparing mean scores for each reason. Across most of the reasons male and female respondents scored similarly, although female respondents scored higher with regards to a sense of achievement ($M = 3.76$) compared to male respondents ($M = 3.55$) while male respondents scored higher with regards to the search for truth and understanding of the natural world ($M = 3.97$) and becoming famous for research ($M = 1.49$) relative to female respondents ($M = 3.77$ and $M = 1.33$, respectively).

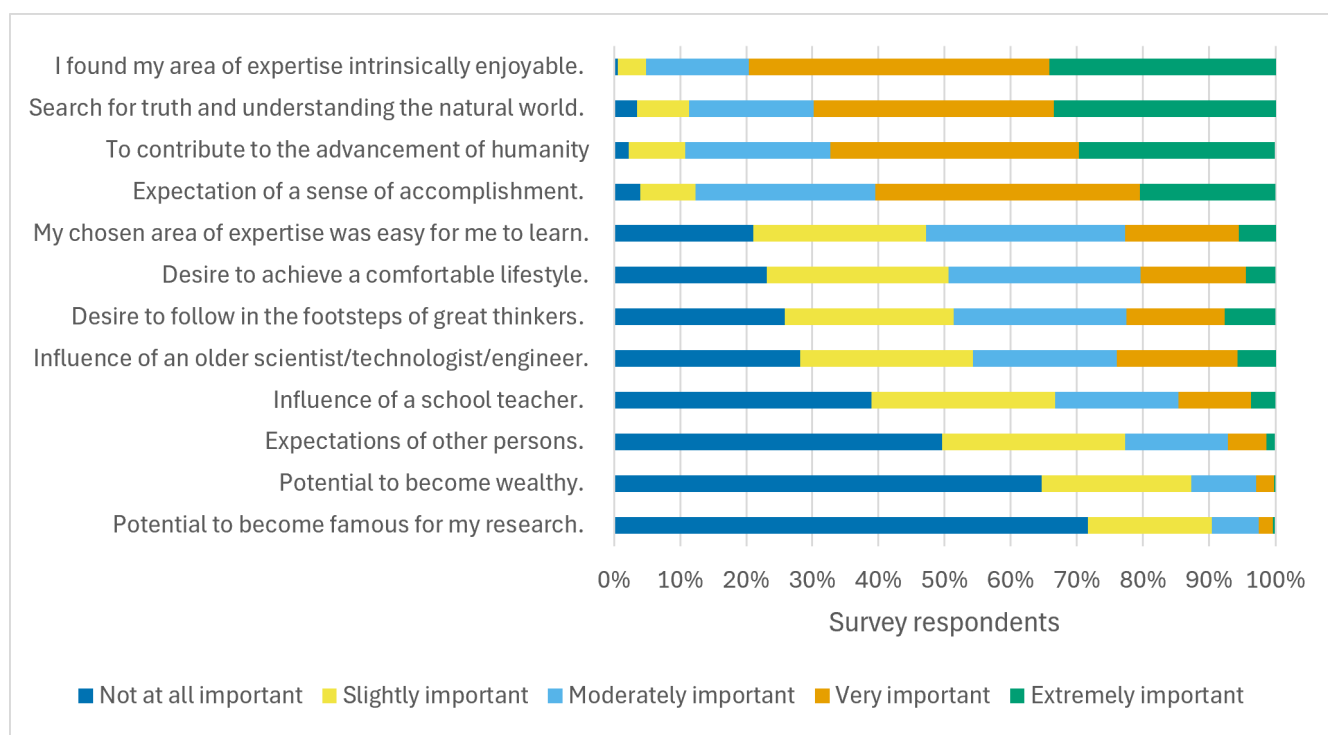


Figure 10: Reasons for becoming a STEM professional

Comparisons between the different places of work provided very similar results across most of the reasons, although the advancement of humanity scored higher for those from CRIs ($M = 3.91$) and universities ($M = 3.84$) compared to those in industry ($M = 3.66$) and government ($M = 3.57$). Those in industry scored higher with regards to a desire to achieve a comfortable lifestyle ($M = 2.80$) compared to CRIs ($M = 2.50$), universities ($M = 2.53$) and government ($M = 2.42$). University respondents scored higher with regards to potentially becoming famous for their research ($M = 1.53$) followed by industry ($M = 1.37$), CRIs ($M = 1.34$) and government ($M = 1.23$) based respondents.

While respondents across all fields scored very similar means for their expectation of a sense of accomplishment there was some variation across the other reasons. Social & behavioural scientist scored highest for the desire to achieve a comfortable lifestyle ($M = 2.86$) and to contribute to the advancement of humanity ($M = 4.31$) while physical scientists scored the lowest for both reasons ($M = 2.28$ and 3.37 , respectively). Influence of an older scientist/technologist/engineer was most influential for physical scientists ($M = 2.66$) and least influential for chemical scientists ($M = 2.31$), while a schoolteacher was most influential for chemical scientists ($M = 2.56$) and least influential for social & behavioural scientists ($M = 1.78$).

Biological scientists scored highest with regards to a desire to understand the natural world ($M = 4.11$) while those in the medical & health scientists scored lowest ($M = 3.67$). Chemical scientists found their area of expertise most intrinsically enjoyable ($M = 4.25$) while engineering sciences & applied technologies found it the least intrinsically enjoyable ($M = 3.86$). Physical scientists

had the greatest hope of becoming famous for their research ($M = 1.78$) while agricultural & soil scientists had the least hope of fame ($M = 1.22$). Agricultural & soil scientists also had the lowest expectations for becoming wealthy ($M = 1.29$) while chemical scientists were the most optimistic ($M = 1.74$).

Comparison by age showed few differences for most reasons, although the score for the desire to achieve a comfortable lifestyle declined with age ($M = 3.13$ for those aged 25 to 29, and $M = 2.11$ for those over 69). The under 25 age group scored notably higher in their desire to follow in the footsteps of great thinkers ($M = 3.35$ compared to a population mean of 2.53), lower in their interest for truth and understanding in the natural world ($M = 3.24$ compared to a population mean of the $M = 3.89$), and were more optimistic about their potential to become wealthy ($M = 2.41$ compared to a population mean of $M = 1.51$).

Although a different approach was used in the previous surveys, the outcomes were comparable with the current survey with the three top reasons for becoming a scientist being *intrigue with the search for truth and knowledge* (34.9% in 2008, 32.9% in 1996), *a desire to contribute to the improvement of humankind* (23.8% in 2008, 18.7% in 1996) and *expectation of a sense of accomplishment* (16.0% in 2008, 17.4% in 1996). No significant differences were described in terms of age, gender or place of work. Some variation was reported regarding fields of work with earth & environment scientists having the highest response (65.7%) to *intrigue with the search for truth and knowledge*, medical & health scientists having the highest response (42.9%) to *a desire to contribute to the improvement of humankind* whereas engineering & applied scientists ranked it lowest

(13.2%). Mathematics & computer scientists scored *my chosen field is easier and more fun* three times higher than any other field (19.2%).

4.7.2 Prepared for other work

2025: Q31_5
2008: Q50

My education and training have prepared me for productive work outside of research.

Strongly disagree (3.1%), Disagree (5.9%), Somewhat disagree (10.8%), Neither agree nor disagree (10.4%), Somewhat agree (19.3%), Agree (30.4%), Strongly agree (17.3%), I do not feel sufficiently informed to comment (2.3%).

Scientific careers are particularly vulnerable to shifting government priorities and funding decisions, a phenomenon aptly demonstrated in 2025/2026 with the loss of over 700 roles from the science sector (Save Science Coalition, 2026). Consequently, it is important that scientists feel equipped to explore careers outside of scientific research. This item sought to determine how confident scientists are that their education and training can translate into broader job opportunities. In 2025 just over two thirds responded positively (67.5%) to this question while just under one fifth (19.8%) disagreed. This response is less positive compared to the 2008 survey when 75.6% agreed with the statement while only 9.7% disagreed.

Comparison of results by gender showed little difference between male and female respondents, a pattern also observed in the 2008 survey. In terms of age younger (<30 years of age) and older (>59 years of age) appear to be the most confident regarding their preparedness for productive work outside of research, whereas in the 2008 survey confidence tended to slightly increase with age. Those in the engineering & applied sciences were significantly more confident (76.7% in agreement) than other groups while those in the biological sciences were least confident (62.8% in agreement). In 2008, those working in the engineering & applied sciences were also the most confident (92.1%) while physical scientists were the least confident (57.2%)

Industry based professionals were the most confident (87.1%) followed by those working in government (84.9%), universities (65.8%) and CRIs (60.2%). In 2008, university scientists were also notably more confident (79.8%) than their CRI contemporaries (66.9%).

With only around two thirds of 2025 respondents (67.5%) agreeing that they feel prepared for a productive career outside of research and the current uncertain research environment, these responses should signal to those setting policies as well as research and training organisations that more needs to be done to support scientists (and students training to be scientists) to be able to explore broader career options beyond research.

4.7.3 Attracting women into STEM

2025: Q31_1
2008: Q47
1996: Q32

Special efforts should be made to attract women into science, maths and engineering studies.

Strongly disagree (1.8%), Disagree (4.2%), Slightly disagree (4.1%), Neither agree nor disagree (13.9%), Slightly agree (20.2%), Agree (27.7%), Strongly agree (26.8%), I do not feel sufficiently informed to comment (1.3%).

Almost three quarters (74.7%) of respondents agreed that special efforts should be made to attract women into science, maths and engineering studies while a much lower percentage (10.1%) disagreed. Support from female respondents (86.5%) was higher than from male respondents (66.4%) and highest amongst those under the age of 30. Support appeared to decrease slightly from ages 55 upwards. Overall support across CRIs (76.1%), government (75.5%), universities (73.8%) and industry (69.2%) were relatively similar. The fields of work with the greatest support for special efforts to attract women were the social & behavioural (82.2%), earth & environmental (82.2%) and mathematical & computer sciences (80.6%) while the lowest support was seen from the chemical (60.3%) and agricultural & soil sciences (64.2%).

In 2008 the statement was slightly different, asking if special efforts should be made to attract women into science, maths and engineering postgraduate studies. Agreement was lower (56.2%) and disagreement higher (23.8%) compared to the 2025 results. Support was highest from social & behavioural (74.2%), and engineering & applied scientists (60.6%) and lowest from biological (45.4%) and agricultural & soil (48.4%) scientists. Agreement was higher with female respondents (69.2%) compared with male respondents (51.2%) and support was higher in those under 35 years of age.

While the percentage of female respondents to this survey (48.1%) is now almost equal to that of male respondents (49.1%) female participants are still underrepresented in fields such as physical (22.2%), engineering & applied (25.3%), chemical (33.0%), mathematical & computer (35.0%) and agricultural & soil (36.0%) sciences (Section 3.2.2). However, this does perhaps raise several questions. This raises several questions. Should efforts to attract women into science now focus specifically on areas where they remain a minority, and do efforts now need to be made to attract men into areas where they are now the minority?

4.7.4 Attracting Māori into STEM

2025: Q31_2
2008: Q48
1996: Q33

Special efforts should be made to attract Māori into science, maths and engineering studies.

Strongly disagree (2.5%), Disagree (3.4%), Slightly disagree (2.9%), Neither agree nor disagree (11.5%), Slightly

agree (17.1%), Agree (29.0%), Strongly agree (32.2%), I do not feel sufficiently informed to comment (1.4%).

There was strong agreement that special efforts should be made to attract Māori into science, maths and engineering studies with over three quarters of respondents (78.3%) agreeing with this statement and 8.3% disagreeing. Female respondents showed greater agreement (87.3%) than male respondents (72.4%) and support was highest in those under 35 years of age. Agreement was highest with CRI respondents (81.4%) followed by government (79.6%), universities (77.9%) and industry (58.9%). There was variation in response across different age groups though no clear pattern to the variation. With regards to field of work the highest levels of agreement were in the earth & environmental (85.3%), social & behavioural (84.5%) and biological sciences (83.4%) and the lowest levels of agreement were found in the chemical (58.6%), agricultural & soil (69.1%) and engineering & applied (72.6%) sciences.

In 2008 the statement was slightly different, asking if special efforts should be made to attract Māori into undergraduate science, maths and engineering studies. Agreement was lower (62.1%) and disagreement higher (19.7%) compared to the 2025 results. Support was highest from social & behavioural (77.6%) scientists with no other fields even close to this and lowest from physical (50.0%) and mathematical & computer (53.8%) scientists. Agreement was higher with female respondents (69.2%) compared with male respondents (59.1%) and support was higher in those under 35 years of age. University scientists demonstrated greater support (79.8%) than their CRI counterparts (66.9%).

While there has been a modest increase in the percentage of Māori respondents participating in these surveys (0.7% in 1996, 1.7% in 2008, and 4.1% in 2025) over time, the participation rate remains far below the percentage of Māori in the New Zealand population (17.5%; Stats NZ, 2025).

It should also be noted that there has been very little change in the percentage of Pasifika Peoples taking part in the survey (0.5% in 1996, 0.6% in 2008, and 0.7% in 2025). Perhaps this is a future area where special initiatives and support should be measured given that Pasifika Peoples make up 8.9% of the New Zealand Population (Stats NZ, 2023).

4.7.5 Benefits of DEI

2025: Q29_9

The promotion of diversity, equity and inclusion (DEI) has had a positive effect on the advancement of scientific research.

Strongly disagree (4.8%), Disagree (3.4%), Somewhat disagree (4.4%), Neither agree nor disagree (13.9%), Somewhat agree (10.4%), Agree (20.5%), Strongly agree (32.6%), I do not feel sufficiently informed to comment (10.0%).

This item was introduced to the 2025 survey. Overall, there was majority support for DEI having had a positive effect of the advancement of scientific research (63.5%)

compared to those who disagreed with this statement (12.6%). Female respondents were much more supportive (74%) compared to male respondents (55.3%). Across the different fields, social & behavioural (73.0%) earth & environmental (71.3%) and biological (68.8%) scientists were the most supportive while physical (46.6%) and chemical (50.8%) scientists were the least supportive. Those based in industry were the least supportive with only 50.0% of respondents agreeing that DEI had a positive effect, followed by those in government (61.6%), universities (64.7%) and CRIs (65.8%).

This survey item was also included in the Scientific Minds survey (Schalin, 2025) where there was also majority agreement that DEI has a positive effect on scientific advancement (72%). While the author of the aforementioned study describes this result as “disturbing”, interpreting DEI as “anti-meritocratic, which is anti-science”, an alternative view is that many scientists have seen the benefits of DEI in promoting the fair treatment and participation of groups that have historically been under-represented, excluded from, and/or discriminated against in the science community. Visible benefits of DEI can be seen in the increased participation of women and Māori in Aotearoa New Zealand’s science community and support for actions which support these groups to engage with science (see Sections 3.2.2, 3.2.3, 4.7.3, 4.7.4).

4.8 On the nature of scientific inquiry

4.8.1 Scientific knowledge and Mātauranga Māori

2025: Q33_5
2008: Q43
1996, Q9

It is important that Mātauranga Māori is part of the New Zealand science system.

Strongly disagree (8.6%), Disagree (7.9%), Slightly disagree (6.4%), Neither agree nor disagree (12.9%), Slightly agree (14.9%), Agree (25.5%), Strongly agree (20.7%), I do not feel sufficiently informed to comment (3.2%).

A majority of respondents (61.1%) agreed that it is important that Mātauranga Māori is part of the New Zealand science system, while fewer disagreed (22.9%), expressed a neutral position (12.9%) or did not feel sufficiently informed to comment (3.2%). Female respondents agreed substantially more (75.2%) than male respondents (49.6%). There was a small increase in disagreement with this statement as the age of respondents increased. The strongest support for Mātauranga Māori was seen in responses from respondents working in CRIs (67.6%), then government (57.1%), universities (56.7%) and industry (48.6%). Across the different fields of work, the highest levels of agreement were found in the earth & environmental (72.8%), social & behavioural (69.8%), biological (66.3%) and medical & health (66.0%) sciences while the least agreement was found in the engineering (40.9%), physical (41.3%), chemical (47.4%) and mathematical & computer sciences (48.5%).

In 2008, levels of agreement (34.9%) and disagreement (34.4%) were similar, with the remainder (19.5%) electing to neither agree nor disagree. In 1996, fewer respondents agreed (23.7%) than disagreed (48.6%) while just under a third of respondents (32.2%) chose to neither agree nor disagree. Clearly support for Mātauranga Māori as part of the New Zealand science system has continued to grow over time. In all three surveys there was stronger support from female respondents, those working in the social & behavioural sciences and those working in CRIs. The medical & health sciences which were previously described as showing a substantial increase in agreement from 14.5% in 1996 to 48.6% in 2008 now show 66.0% agreement in 2025.

4.8.2 Serendipity or methodological approach?

2025: Q33_6
2008: Q45
1996, Q18

Scientific discovery is more a serendipitous result of insight and circumstance than it is of textbook methodological treatment of a subject area.

Strongly disagree (3.0%), Disagree (13.5%), Slightly disagree (11.2%), Neither agree nor disagree (21.9%), Slightly agree (19.0%), Agree (17.3%), Strongly agree (7.9%), I do not feel sufficiently informed to comment (6.3%).

Overall, more respondents agreed with this statement (44.2%) than disagreed (27.7%), although the number of respondents choosing the strongly agree/disagree options were small (7.9% and 3.0% respectively). This suggests that while many respondents consider serendipity to play an important role in scientific discovery, they simultaneously recognise the value of using a methodological approach in scientific discovery. Over one fifth (21.9%) of respondents were non-committal choosing the neither agree nor disagree response.

A comparison of the different subgroups showed little difference between the results for male and female respondents (46.0% and 43.2%, respectively) although agreement did appear to increase with increasing age. Those working in industry showed greater disagreement with this statement (41.7%) compared to less than 29% disagreement in the other three workplaces, while those working at universities and CRIs had the highest levels of agreement (48.4% and 44.1% respectively) compared to industry (25.0%) and government (25.5%). Comparing the different scientific disciplines the highest levels of agreement were found in the chemical (51.8%) and biological (49.4%) sciences while the highest levels of disagreement were found in the engineering & applied (35.5%) and physical (34.8%) sciences.

In the previous 2008 and 1996 surveys a higher percentage of respondents agreed with this statement (49.9% and 61.5%, respectively) and agreement also appeared to increase with age. Men showed higher levels of agreement than women in the previous surveys (53.7% vs 40.4% in 2008, and 65.1% vs 50.4% in 1996). The decline in support

between the 1996 and 2008 surveys was previously suggested to be the result of the more “goal driven results orientation of government science policy” that “has had an effect on scientists’ perception of the discovery process” (Sommer, 2010).

This survey item was also included in the Scientific Mind survey (Schalin, 2025) where a similar result to the current survey was observed with more respondents agreeing (49%) than disagreeing (22%) with the statement. Also, similar to the previous New Zealand surveys, the previous Scientific Mind study scored much higher agreement (74%) than disagreement.

So, it appears that currently in both New Zealand and the United States while serendipity is still considered of greater importance than a methodological approach in leading to scientific discoveries, that view has reduced over time.

4.8.3 Teamwork or individual insights

2025: Q33_7
2008: Q49

Scientific advances are more likely to emerge from team research than from the insights of an individual.

Strongly disagree (1.7%), Disagree (4.8%), Slightly disagree (5.2%), Neither agree nor disagree (20.0%), Slightly agree (15.0%), Agree (28.1%), Strongly agree (23.2%), I do not feel sufficiently informed to comment (2.0%).

Many respondents (66.3%) agreed that team research is more likely to result in scientific advances than individual insights. This level of agreement is higher than that recorded in the 2008 survey (51.2%).

Overall, in the 2025 survey, agreement was higher for female respondents (71.6%) compared to male respondents (62.8%), while younger respondents agreed more than older respondents (e.g., 81.4% of 30- to 34-year-olds compared to 53.2% of 60- to 64-year-olds). The intensity of responses also varied with only respondents above 50 years selecting the “strongly disagree” response. CRI and university respondents showed the strongest agreement with the statement (66.4%, and 68.1%, respectively) while government and industry respondents showed lower levels of agreement (50.0%, and 52.7%, respectively). There was also some variation across different fields of work with medical & health and engineering & applied sciences showing the highest levels of agreement (77.9%, and 76.2%, respectively), while those working in the mathematical & computer and physical sciences displayed the lowest levels of agreement (48.6% and 50.0%), respectively.

Comparison with the 2008 survey showed common patterns. Both surveys indicated that both female and younger respondents had higher levels of agreement than male and older respondents, but levels of agreement were higher in the 2025 survey (see Table 5). The 2008 survey observed that the fields of work with highest agreement included agricultural & soil, earth & environmental, and biological sciences while the lowest agreement was observed with the social, physical, and mathematical & computer sciences. The 2025 results were consistent with these results.

Sub-group	2008 Survey		2025 Survey	
	Agree	Disagree	Agree	Disagree
Female	57.2%	19.2%	71.6%	7.5%
Male	48.6%	25.3%	62.8%	14.2%
Under 45	More than 60%	Not available	72.2%	6.9%
Over 45	Just over 40%	Not available	58.2%	18.4%

Table 5: Comparison of responses to survey item “Scientific advances are more likely to emerge from team research than from the insights of an individual”

The levels of agreement between university and CRI based respondents were similar in both surveys.

Overall, there is much higher agreement that scientific advances are more likely to emerge from team research than from the insights of an individual from the 2025 cohort compared to the 2008 cohort, and this belief is higher for female compared to male participants (Table 5).

4.8.4 Social & physical scientist collaboration

2025: Q32_2
2008: Q27
1996, Q38

During the past five years I have participated in or directly witnessed at least one effective research collaboration between social scientists and physical scientists.

Strongly disagree (7.3%), Disagree (11.8%), Somewhat disagree (2.5%), Neither agree nor disagree (5.9%), Somewhat agree (10.1%), Agree (23.3%), Strongly agree (25.2%), I do not feel sufficiently informed to comment (14.0%).

Overall, there was almost three times as much agreement with this statement (58.6%) as disagreement (21.6%) with the remaining respondents (19.9%) either expressing a noncommittal or insufficiently informed response. Agreement was slightly lower for younger (under 30 years) scientists while disagreement was slightly higher for male (24.4%) compared to female (18.2%) respondents. Agreement was notably higher for those in the social & behavioural (84.4%), mathematical & computing (80.7%) and earth & environmental and (79.5%) while disagreement was significantly higher in the chemical (46.6%) and physical (43.6%) sciences.

Agreement was much higher for those working for CRIs (72.6%) compared to universities (53.0%), government (41.4%) and industry (13.2%), likely reflecting the different foci of different organisations, and visibility of such collaborations to scientists within those organisations.

There has been a notable reversal in the responses to this statement in 2008, when three times as many respondents disagreed with this statement (59.6%) than agreed with this statement (18.1%). Responses were similar between places of work, and between male and female respondents, while agreement was highest for earth & environmental (60.0%) and agricultural & soil scientists (51.6%) fields of science and lowest for physical (25.0%) and biological

(29.5%) scientists. These results suggest that there has been a significant perceived increase in collaborations between social and physical scientists, perhaps driven by funding requirements for greater collaboration, and that this has occurred most significantly in CRIs.

4.8.5 Cross-institutional collaboration

2025: Q32_3
2008: Q68
1996, Q51

Over the past five years the opportunities for cross institutional collaborative research have greatly improved.

Strongly disagree (5.5%), Disagree (13.1%), Somewhat disagree (7.8%), Neither agree nor disagree (23.9%), Somewhat agree (16.8%), Agree (12.6%), Strongly agree (4.0%), I do not feel sufficiently informed to comment (16.3%).

Responses to this question were spread between agreement (33.4%), disagreement (26.4%), neither agreeing nor disagreeing (23.9%) and not being sufficiently informed to comment (16.3%). Half (50%) of those below the age of 30 did not feel sufficiently informed to comment, while older scientists were more confident (>80%) in commenting. Agreement was slightly higher amongst mid-career scientists (40 to 59 years old, 35.9%) and was higher for female (37.3%) respondents compared to their male counterparts (30.1%). Agreement was highest from those in the chemical (41.4%), medical & health (40.7%), social & behavioural (37.8%) sciences while disagreement was highest for those in the physical (40.0%) and agricultural & soil (34.6%) sciences. A comparison of workplaces showed that agreement was highest in CRIs (36.6%) and universities (34.9%) and lowest for industry and government (both 18.9%), with a much higher percentage of the latter indicating that they did not feel sufficiently informed to comment; government (35.8%), industry (29.7%), universities (14.6%) and CRIs (10.2%).

In 2008, more respondents agreed (42.1%) than disagreed (24.9%) or were noncommittal (29.6%). Female respondents were reported to be more positive than their male counterparts and those under the age of 35 years were the least positive in their responses. Agreement was significantly higher for those working in agricultural & soil sciences (51.6%) while the lowest agreement was expressed

by those working in the mathematical and computer sciences (23.1%).

In 1996, a slightly different statement was used “My freedom to collaborate with scientists outside my own institution has increased since the restructuring”. The results were very different to subsequent surveys with twice as many respondents disagreeing (31.3%) as agreeing (15.4%), with the greatest number of respondents electing to neither agree nor disagree (45.6%).

4.9 On freedom of expression

4.9.1 Pressure to commercialise

2025: Q31_7
2008: Q57

During the last five years I have experienced increased pressure to direct my research toward commercial outcomes.

Strongly disagree (2.7%), Disagree (7.3%), Somewhat disagree (4.1%), Neither agree nor disagree (13.3%), Somewhat agree (11.8%), Agree (21.1%), Strongly agree (29.9%), I do not feel sufficiently informed to comment (9.9%).

Over four times as many survey respondents (62.8%) agreed with this statement than disagreed (14.1%). Agreement tended to be highest for those from 30 to 54 years of age, while female respondents showed slightly higher agreement (64.0%) than their male counterparts (61.0%). Agreement was highest for those working in social & behavioural (73.4%), earth & environmental (73.2%), and physical (72.4%) sciences and lowest for the medical & health (48.0%), mathematical & computer (54.9%) and engineering & applied (57.5%) sciences. Unsurprisingly, those working at CRIs reported the highest agreement (77.7%) followed by universities (60.9%), industry (48.6%) and government (24.9%), noting that much higher percentages of government (21.2%) and industry (18.9%) did not feel sufficiently informed to comment (compared to 7.0% and 8.1% of CRI and university respondents, respectively).

This item was introduced in 2008 when results were very similar with regards to agreement (61.8%), although disagreement was higher (26.1%), with a small minority electing neither agree nor disagree option (6.4%). Similar to the 2025 results, CRI scientists felt more pressure to commercialise (70.4%) compared to university scientists (57.9%), however the fields of research where agreement was reported differed with the pressure to commercialise highest for agricultural & soil (77.4%), engineering & applied (76.3%) and biological (68.2%) scientists and lower for medical & health (57.1%), earth & environmental (51.4%) and social & behavioural (51.7%) scientists. The most significant changes between 2008 and 2025 are increases in the percentage of social & behavioural (51.7% in 2008, 73.4% in 2025) and earth & environmental (51.4% in 2008, 73.2% in 2025) sciences and decreases in the percentage of engineering & applied (76.3% in 2008, 57.5% in 2025) and agricultural and soil (77.4% in 2008 and 64.2% in 2025) sciences. In 2008, it was male respondents that were in slightly higher agreement than female respondents.

4.9.2 Able to submit research for publication

2025: Q30_9
2008: Q72

I am able to submit my research results for publication without prior approval from my employer.

Strongly disagree (18.7%), Disagree (15.7%), Somewhat disagree (6.5%), Neither agree nor disagree (9.8%), Somewhat agree (7.2%), Agree (18.5%), Strongly agree (20.6%), I do not feel sufficiently informed to comment (3.0%).

The percentage of respondents who agreed (46.3%) and disagreed (40.9%) was very similar. Agreement was slightly higher for male (47.7%) compared to female (43.8%) respondents and there was no clear pattern in the responses of respondents from different age groups. There was significant variation in the perceived ability to publish without permission across different fields, from a minority of agricultural & soil scientists (12.4%) to a majority of social & behavioural (75.5%) and medical & health (68.6%) scientists. Respondents working in universities were much more readily able to publish without permission (81.7%) compared to those in CRIs (17.6%), government (15.3%) and industry (13.5%).

The percentage of respondents who agreed with this statement in 2008 was much higher (62.3%) and the percentage who disagreed was much lower (31.3%) than the 2025 responses, with both universities (93.2% in 2008, 81.7% in 2025), and CRIs (20.4% in 2008, 17.6% in 2025) showing a drop in agreement with this statement. In both 2008 and 2025, disagreement with this statement was greatest amongst agricultural & soil (61.3% in 2008, 83.9% in 2025) scientists while agreement was notably highest for social & behavioural (87.9% in 2008, 68.6% in 2025) and medical & health (82.8% in 2008, 68.6% in 2025) scientists.

The overall drop in the percentage of scientists being able to submit research without publication is likely due to greater caution by organisations to make sure that publication does not jeopardise potential commercial benefits from scientists' research.

4.9.3 May speak freely on public policy issues

2025: Q38_8
2008: Q73
1996, Q50

I am free to speak freely on public policy issues within my areas of expertise without prior approval from my employer.

Strongly disagree (12.5%), Disagree (13.6%), Slightly disagree (8.4%), Neither agree nor disagree (9.7%), Slightly agree (10.2%), Agree (15.6%), Strongly agree (10.4%), Not applicable to my role (19.6%).

The response to this statement was almost equally split between those agreeing (36.2%) and disagreeing (34.5%) with almost one fifth (19.6%) of respondents indicating that it was not applicable to their role. Male respondents were more confident in being able to speak freely (39.8%) than their female colleagues (32.6%) who were also more likely to indicate it was not applicable to their role (female 23.9%, male 15.1%). Respondents under the age of 30 were most likely to indicate speaking publicly was not applicable to their role (47.3%), otherwise there were no clear patterns in responses according to age.

University-based scientists had the greatest levels

of agreement (53.5%) followed by industry (27.7%), government (24.5%) and CRI (17.7%) based scientists. Those working in the social & behavioural (64.3%) and medical & health (47.7%) reported the highest levels of agreement while those in the physical (25.0%), agricultural & soil (27.3%) and engineering & applied (30.0%) sciences reported the lowest levels of agreement.

Overall, agreement was higher in earlier surveys (55.4% in 2008, 46.9% in 1996) while disagreement was similar (33.3% in 2008, 30.3% in 1996). Similar patterns were observed in some of the subgroups, for example highest agreement was reported from those in the social & behavioural sciences (84.5% in 2008, 71.9% in 1996) and the lowest from the agricultural & soil sciences (19.3% in 2008, 31.9% in 1996). CRI scientists reported the lowest levels of agreement (23.2% in 1996, 23.2% in 2008, 17.7% in 2025), however, there has been variable levels of agreement from university scientists over time (67.4% in 1996, 29.8% in 2008, and 53.5% in 2025) regarding their perceived ability to speak publicly on policy issues. Possible explanations for the increase in agreement between 2008 and 2025 may include the increased public engagement by scientists (particularly university-based scientists) in response to events such as the Christchurch earthquakes and the Covid pandemic, and greater confidence in exercising academic freedom.

This survey item was also included in the Scientific Mind 2025 survey (Schalin, 2025) with notably higher levels of agreement (62%) compared to disagreement (22%) and neither agreeing nor disagreeing (14%), perhaps reflecting a scientific community that is more confident in speaking publicly. Unsurprising, and in line with the NZAS results, tenured academics in the US were the most confident (72%) while those who work in government and the private sector had reported much higher levels of disagreement (88% and 46%). Younger scientists also appeared to feel more constrained in their ability to comment.

4.9.4 Direct knowledge of fraud

2025: Q32_1
2008: Q68
1996, Q11

Excluding general mistakes that can be charitably dismissed (but not condoned), I have direct personal knowledge of fraud (e.g. falsifying data, misreporting results, plagiarism) on the part of a professional scientist during the past five years.

Strongly disagree (42.5%), Disagree (28.5%), Slightly disagree (2.3%), Neither agree nor disagree (4.1%), Slightly agree (4.2%), Agree (5.9%), Strongly agree (4.8%), I do not feel sufficiently informed to comment (7.8%).

Almost three-quarters of scientists (73.3%) do not have direct personal knowledge of fraudulent behaviour in the past five years, while a small number (14.9%) have. There was little difference between the experiences of male and female scientists, or across different age groups. Experience of fraudulent behaviour varies across the different fields, lowest in the earth & environmental (7.1%) and physical

sciences (10.3%) and highest in biological (18.2%) and social & behavioural sciences (22.3%). Experiences of fraudulent behaviour was lowest for those working in government roles (9.6%) followed by CRIs (13.3%), industry (15.7%) and universities (16.8%).

In 2008 fewer respondents reported personal knowledge of fraud (8.9%) while also noting that “it must be remembered that a single act of fraud may have been recognised by many individuals rather than a unique instance witnessed by each observer.” In both 2008 and 2025, the place of work did not appear to have much of an effect on observation of fraud. There were variations across the different fields, however, these were not consistent with the variations observed in the current survey. In 2008, experience of fraud was highest in the agricultural & soil (19.2%), mathematical & computer (19.2%) and engineering & applied (18.4%) sciences. These results may reflect that in such a small research community like New Zealand, when fraud does emerge in any field it will likely be observed by multiple scientists.

The response to this same item in the 2025 Scientific Mind survey elicited a similar response with agreement (12%), disagreement (75%) and the remainder neither agreeing nor disagreeing (10%), reflecting perhaps the interconnected and international nature of science, including awareness of fraudulent behaviour (Schalin, 2025).

4.10 Performance of the science & technology system

This section focuses on how the individual scientist views the operation of the New Zealand science and technology system and compares it with responses to the same statements in 2008.

4.10.1 Science policy is open and inclusive

2025: Q30_7
2008: Q42

Government science strategy development is open and inclusive of a large segment of New Zealand scientists and technologists.

Strongly disagree (19.5%), Disagree (30.5%), Somewhat disagree (22.2%), Neither agree nor disagree (17.6%), Somewhat agree (3.5%), Agree (1.1%), Strongly agree (1.0%), I do not feel sufficiently informed to comment (4.7%).

Most respondents disagreed (72.2%) with this statement while only 5.6% agreed. A higher percentage of early-career researchers (under 30 years) neither agreed nor disagreed (32.0%) compared to other age groups, while there was little difference in disagreement between male and female respondents. Disagreement varied widely across different fields of work from engineering & applied (50.6%) and medical & health (64.5%) sciences to physical (82.7%) and biological (80.4%) sciences. Disagreement varied across the different places of work from industry (44.7%) and government (60.4%) to universities (74.7%) to CRIs (76.1%).

In 2008, the percentage of respondents who disagreed (48.5%) was much lower than those in 2025 (72.2%) while

the percentage of those agreeing with the statement (13.6%) was over twice that reported in 2025 (5.6%), with more respondents selecting to neither agree nor disagree (35.7%). Overall, this indicates that scientists in 2025 perceive the present science policy environment to be much less open and inclusive, perhaps influenced by changes such as removing support for the social sciences and humanities from the Marsden fund and focusing funding on applied research and away from fundamental research (see Section 4.5.3).

Comparing the 2025 and 2008 responses for different subgroups there were many similar patterns. Male respondents expressed twice as much agreement than their female counterparts (16.0% compared to 7.7% in 2008, 7.6% compared with 3.2% in 2025). Scientists under the age of 35 reported lower levels of agreement and higher levels of neutral options (selecting neither agreeing nor disagreeing or not sufficiently informed to comment) than their older peers. In 2008, as in 2025, there was little difference in agreement between CRIs and universities and there was wide variation between different fields of work, with disagreement the highest for physical sciences (67.8%) and agreement highest for mathematical & computer (23.1%) and earth & environmental (20.0%) sciences.

4.10.2 National Science Challenges were well-designed

2025: Q40_8

Overall, the National Science Challenges were well designed and administered.

Strongly disagree (10.2%), Disagree (11.6%), Slightly disagree (7.8%), Neither agree nor disagree (11.1%), Slightly agree (5.8%), Agree (9.2%), Strongly agree (3.4%), I do not feel sufficiently informed to comment (41.0%).

Many respondents (41.0%) did not feel sufficiently informed to be able to comment, and of those that did more disagreed (29.6%) than agreed (18.4%) with this statement. Those younger than 50 years of age felt less sufficiently informed to comment (52.5%) and female respondents had higher levels of agreement (23.5%) compared to male respondents (14.6%). Agreement with the statement was highest for those working in the social (30.9%), agricultural (23.4%) and biological (23.3%) sciences and lowest for the physical (7.2%), engineering & applied (12.8%) and mathematical & computer (12.9%) sciences. Government and industry-based scientists felt the least informed and unable to comment (68.9% and 57.1%, respectively), and only with government respondents was the percentage agreeing (20.0%) higher than those disagreeing (6.6%). CRI-based respondents had the higher percentage of agreement (22.8%) but this was still outweighed by CRI-based respondents who disagreed (28.8%). University-based respondents showed the greatest disagreement (37.8%) with much lower agreement (14.0%).

Overall, there appears to have been limited understanding of the National Science Challenges, particularly outside of CRIs and universities. Of those who felt they knew enough to comment there was greater disagreement than agreement

that the National Science Challenges were well designed and administered, and support was higher in CRIs than in universities.

4.10.3 Ending of National Science Challenges

2025: Q40_9

The end of the National Science Challenges has left some valuable areas of research without support.

Strongly disagree (2.7%), Disagree (1.9%), Slightly disagree (1.1%), Neither agree nor disagree (6.6%), Slightly agree (10.4%), Agree (23.3%), Strongly agree (19.7%), I do not feel sufficiently informed to comment (34.3%).

While over a third of survey respondents (34.3%) did not feel able to comment, most of the remaining respondents agreed (53.4%) that the ending of the National Science Challenges has left valuable areas without support, with much lower disagreement (5.7%). Overall, younger respondents were more likely to state that they were not sufficiently informed to be able to comment, while disagreement was notably higher across the 50-to-64-year group (11.6%). There was little difference in agreement between male and female respondents and agreement was highest with earth & environmental (65.1%), biological (63.0%) and agricultural & soil (58.5%) scientists and lowest with medical & health (39.6%) and chemical (44.8%) scientists.

Government and industry-based scientists were the least informed and unable to comment (64.4% and 57.1%, respectively), while the highest agreement was observed with CRI (66.6%) and university (46.5%) scientists.

4.10.4 Availability of state-of-the-art equipment

2025: Q31_6
2008: Q53

I think access to state-of-the-art equipment is better now than it was five years ago.

Strongly disagree (4.2%), Disagree (8.4%), Somewhat disagree (10.0%), Neither agree nor disagree (20.2%), Somewhat agree (12.2%), Agree (16.8%), Strongly agree (7.8%), I do not feel sufficiently informed to comment (20.4%).

More respondents agreed (36.8%) than disagreed (22.6%) with this statement, with just over one fifth (20.2%) non-committal. A similar percentage (20.4%) did not feel sufficiently informed to comment, most likely those who do not require state-of-the-art-equipment in their roles. Female respondents were more positive in their response (40.9%) than their male counterparts (33.8%) and were also more likely to feel insufficiently informed to comment (21.1% compared with 14.9% for male respondents). Age-related responses showed early-career scientists provided a more positive response compared to other age groups.

Chemical (50.0%) and biological (40.9%) reported the highest agreement while physical (30.9%) and agricultural (29.6%) scientists reported the highest disagreement. A large proportion of social & behavioural scientists did not

feel sufficiently informed to comment (42.2%). Agreement was similar across the different work organisations (35 to 40%) although much higher percentages of government (38.5%) and industry (31.6%) respondents did not feel sufficiently informed to comment compared to those respondents based in CRIs (16.9%) and universities (16.4%).

When this item was first introduced in 2008, scientists were more positive in their responses with higher levels of agreement (46.6%) than disagreement (16.5%) with over one quarter (28.5%) neither agreeing nor disagreeing. Female respondents agreed less (39.4%) than their male counterparts (50.7%) and CRI scientists agreed more (50.7%) than university scientists (42.6%). Agricultural & soil scientists reported much higher agreement (64.5%) than other fields while engineering & applied scientists reported much lower agreement (34.2%).

Overall, scientists in 2025 show less agreement that they have better access to state-of-the-art equipment compared to scientists in 2008.

4.10.5 Sufficient access to equipment and resources

2025: Q31_8
2008: Q58

I have access to sufficient equipment and resources to carry out my research.

Strongly disagree (9.1%), Disagree (17.6%), Somewhat disagree (15.6%), Neither agree nor disagree (11.5%), Somewhat agree (16.8%), Agree (18.7%), Strongly agree (5.4%), I do not feel sufficiently informed to comment (5.2%).

Slightly more respondents disagreed (42.3%) with this statement than agreed (40.9%). Male and female responses were very similar, and there were no distinguishable patterns in the responses from different age groups.

The strongest agreement with this statement came from those working in the chemical (53.4%) and mathematical & computer (51.7%) sciences while the strongest disagreement came from those in the physical (51.7%) and agricultural & soil (48.1%) sciences. Agreement was similar between workplaces with government-based respondents agreeing the most (42.3%) and university-based correspondents agreeing the least (39.4%). The percentage of those who felt insufficiently informed to comment was higher in industry (17.9%) and government (13.5%) and lower in CRIs (2.2%) and universities (3.6%), while disagreement was higher in universities (46.8%) and CRIs (44.6%) and much lower in government (32.7%) and industry (35.9%).

In 2008, responses were much more positive with over two thirds agreeing (69.6%), just over one fifth disagreeing (21.9%) and a small percentage undecided (3.9%). Responses did not appear to be affected by age, but male respondents disagreed more (24.2%) than female respondents (16.3%). CRI scientists agreed more (72.5%) than university scientists (66.3%) Variation amongst fields was limited. Mathematical & computer scientists recorded the highest levels of agreement (80.8%) while engineering &

applied and physical scientists reported the highest levels of disagreement (34.2% and 28.5% respectively).

The lower agreement by scientists in 2025 compared to those in 2008 may reflect the combined effects of increasing costs of the resources required to do science with the decreasing value and availability of funding for research.

4.10.6 Satisfactory staff and technical support

2025: Q30_8
2008: Q59

During the past five years technical and other staff support for my scientific research has been satisfactory.

Strongly disagree (16.1%), Disagree (23.1%), Somewhat disagree (15.2%), Neither agree nor disagree (19.2%), Somewhat agree (12.4%), Agree (8.8%), Strongly agree (1.8%), I do not feel sufficiently informed to comment (3.4%).

Almost twice as many respondents disagree with this statement (54.4%) as agreed with it (23.0%). Disagreement tended to increase with age, though dropped notably above the age of 60. Agreement was slightly higher for male (24.5%) than female (21.6%) respondents. Agreement was highest for agricultural & soil (29.6%) and chemical (29.3%) scientists and lowest for medical & health (16.1%), physical (17.2%) and social & behavioural (17.7%) scientists. Agreement was highest for those working in CRIs (28.8%) followed by industry (27.0%), universities (19.2%) and government (17.0%).

In 2008, in contrast to 2025, the percentage of respondents who agreed with this statement (47.9%) was slightly higher than those who disagreed with it (42.1%) with only a small percentage choosing to neither agree nor disagree (5.8%). The age of respondents had little effect on responses, however, male respondents reported higher levels of agreement (50.2%) than female respondents (42.3%). CRI scientists agreed (54.9%) more than university scientists (43.9%). Earth & environmental and mathematical & computer scientists reported the highest levels of agreement (62.9% and 61.5%, respectively) while social & behavioural scientists reported the lowest agreement (36.2%).

Overall, scientists in 2025 reported less satisfaction with technical and other support for their research when compared to their 2008 contemporaries.

4.10.7 Understanding of government funding policies

2025: Q33_8
2008: Q54

I am sufficiently informed on Government funding body priorities to allow me to submit coherent bids for research funding.

Strongly disagree (5.6%), Disagree (12.0%), Somewhat disagree (14.5%), Neither agree nor disagree (13.2%), Somewhat agree (18.0%), Agree (15.1%), Strongly agree (4.8%), I do not feel sufficiently informed to comment (16.8%).

Overall, slightly more respondents agreed (37.9%) than disagreed (32.1%) with this statement while the remaining third of respondents were either neutral in their opinion or did not feel sufficiently informed to comment (30.0%). Confidence tended to increase with age though declined notably for those over 69 years of age. Male respondents were slightly more confident in their responses (39.9%) compared to female respondents (36.8%). Those working in the physical sciences were notably more confident (51.5%) than other fields whose responses ranged between 34.6% (agricultural & soil sciences) and 43.9% (chemical sciences). Agreement was highest in those working at universities (45.0%) and CRIs (37.9%) – not surprising as they are the most affected by government funding priorities – and lowest for those working in government (17.0%) and industry (8.4%).

The item was an adaptation of the 2008 survey item “I regard myself as sufficiently informed of FRST’s portfolio schemes to formulate coherent bids for science funding” for which more respondents disagreed (63.4%) than agreed (36.0%). Engineering & applied and earth & environmental scientists showed the highest levels of agreement (60.5% and 42.9%, respectively) while mathematic & computer, social & behavioural and medical & health scientists reported the lowest levels of agreement (26.9%, 27.6%, and 28.6%, respectively). University scientists reported higher levels of disagreement (68.0%) than CRI scientists (54.2%).

Overall, comparison of the two surveys suggests that scientists in 2025 were more confident (or at least less negative) regarding their ability to understand the relevant funding body priorities, particularly those based in universities and CRIs.

4.11 Science communication

Science communication supports public understanding of science and recruitment of future scientists. Anecdotal information suggested that scientists can face barriers when engaging in science communication, so the following series of items was introduced to the 2025 survey to explore how broadly science communication is embraced, supported and rewarded in scientific organisations.

4.11.1 It is important for scientists to share their research with the public

2025: Q38_3

It is important for scientists to share their research with the public.

Strongly disagree (0%), Disagree (0.1%), Slightly disagree (0.4%), Neither agree nor disagree (1.9%), Slightly agree (6.7%), Agree (36.8%), Strongly agree (53.4%), Not applicable to my role (0.7%).

There was almost universal agreement (96.9%) that it is important for scientists to share their research with the public with only 0.5% disagreement and 1.9% neither agreeing nor disagreeing (neutral response). Across most subgroups agreement was relatively consistent except for notably higher scores for a neutral response from those in

the chemical sciences (7.1%) and for not feeling sufficiently informed to comment by those working in industry (2.8%).

4.11.2 My organisation supports me to engage with the general public regarding my scientific expertise

2025: Q38_5

My organisation supports me to engage with the general public regarding my scientific expertise.

Strongly disagree (2.1%), Disagree (6.6%), Slightly disagree (6.2%), Neither agree nor disagree (15.7%), Slightly agree (18.8%), Agree (27.2%), Strongly agree (12.7%), Not applicable to my role (10.8%).

While scientists almost unanimously believe it is important for scientists to share their research with the public, only 58.7% agreed that their organisation supports them while 14.9% disagreed with this statement. Agreement increases with age from the under 25 group (44.4%) peaking at the 55-to-59-year age group (75.0%) and then dipping slightly for the over 69-year age group (62.3%). There was little variation between genders while social & behavioural scientists showed much higher agreement (73.8%) and engineering & applied scientists showed much lower agreement (48.6%) compared to other fields of work. Respondents working at CRIs showed much strongest disagreement with the statement (22.9%) compared to those based in universities (10.4%), industry (11.2%) and government (8.8%). Almost one quarter of those working in industry (22.2%) did not feel sufficiently informed to comment.

4.11.3 My organisation rewards me when I engage with the general public regarding my scientific expertise

2025: Q38_6

My organisation rewards me when I engage with the general public regarding my scientific expertise.

Strongly disagree (8.4%), Disagree (17.9%), Slightly disagree (13.2%), Neither agree nor disagree (20.6%), Slightly agree (13.4%), Agree (9.6%), Strongly agree (2.9%), Not applicable to my role (14.1%).

Just over one quarter of respondents (25.9%) agreed that their organisation rewards them for engaging with the general public while a larger percentage (39.5%) disagreed with this statement. There was little difference between male and female respondents and different age groups, however there was some variation across fields of work with highest agreement amongst social & behavioural (35.7%), chemical (32.7%) and mathematical & computer (32.3%) and lowest agreement with agricultural & soil (22.1%) and medical & health (22.5%) sciences. Highest levels of agreement were seen in those working in government (31.1%) followed by universities (29.3%), CRIs (20.6%) and industry (19.5%).

4.11.4 I feel safe presenting my work to the general public

2025: Q38_7

I feel safe presenting my work to the general public.

Strongly disagree (2.6%), Disagree (5.2%), Slightly disagree (8.7%), Neither agree nor disagree (13.6%), Slightly agree (12.5%), Agree (34.6%), Strongly agree (13.0%), Not applicable to my role (9.7%).

Scientists can sometimes experience negative, even hostile reactions from the public, particularly when presenting work that may be considered confronting or controversial by the public, so it seemed pertinent to include this survey item. Overall, more respondents agreed that they feel safe presenting their work to the public (60.1%) than those who did not (16.5%). A higher percentage of scientists under the age of 29 did not feel this statement was applicable to their role (26.3%) while female respondents had greater disagreement with this statement (19.4%) compared to their male contemporaries (12.9%). This is perhaps not surprising given research indicates that female scientists are more likely to experience hostility from the public (de Haas et al 2023).

Disagreement was highest for respondents working in the biological (20.3%), mathematical & computer (19.3%), and agricultural & soil (18.2%) sciences, and lowest in the engineering & applied (10.0%) and chemical (10.2%) sciences. Disagreement was also higher for those working in universities (18.7%) and CRIs (18.7%) and lower for those in government (11.1%) and industry (19.4%).

4.11.5 Public trust in science and technology

2025: Q38_1

The general public appear to be less trusting of science and technology than they were a decade ago.

Strongly disagree (0.1%), Disagree (0.7%), Slightly disagree (2.8%), Neither agree nor disagree (10.4%), Slightly agree (16.4%), Agree (41.9%), Strongly agree (24.8%), Not applicable to my role (2.7%).

There was strong agreement (83.1%, with 66.7% agreeing or strongly agreeing) that the general public appear to have become less trusting of science and technology over the past decade, with only 3.6% of respondents disagreeing with this statement. Agreement was consistent across age groups and gender but was notably lower for those working in engineering & applied technologies (72.8%) and higher for those working in the biological sciences (88.1%). Agreement was significantly lower for those working in government (76.0%) compared to industry (80.0%), universities (82.9%) and CRIs (84.9%).

4.11.6 Communication methods

2025: Q39

Respondents were asked to identify all the ways they have shared science and technology information with

the public. A list of options was provided to survey respondents, and respondents were also able to list other communication methods using an “other, please specify” option in the survey. Sharing science and technology information through public talks (38.3%) and through their organisations’ website (32.3%) were the most common approaches, followed by school talks (18.7%), use of personal websites (8.5%), Bluesky (7.2%), Instagram (5.6%), YouTube (4.8%), Blogging (3.8%), and TikTok (0.4%). Other methods which were not included in the survey options but were also identified by respondents included sharing information via traditional news media (3.9%) LinkedIn (2.5%), Facebook (0.9%), and X/Twitter (0.9%). Almost one quarter (23.2%) of respondents identified that they do not share such information with the general public.

4.12 Recommending science and engineering as careers

2025: Q31_3 and
Q31_4
2008: Q51

The 2008 survey included the statement “the way things are going with scientific and engineering careers in New Zealand, I would recommend such careers to New Zealand youth”. However, scientific and engineering careers can be quite different so in the 2025 survey this statement was split into two statements to assess views on science and engineering careers separately. The statements were also shortened to make them more succinct, resulting in the following statements:

I would recommend a career in science to young people. Strongly disagree (3.9%), Disagree (10.0%), Somewhat disagree (13.0%), Neither agree nor disagree (9.7%), Somewhat agree (22.4%), Agree (25.1%), Strongly agree (15.6%), I do not feel sufficiently informed to comment (0.2%).

I would recommend a career in engineering to young people. Strongly disagree (1.2%), Disagree (1.8%), Somewhat disagree (1.7%), Neither agree nor disagree (11.5%), Somewhat agree (16.3%), Agree (31.2%), Strongly agree (14.1%), I do not feel sufficiently informed to comment (22.2%).

An initial analysis suggested that respondents were more supportive of a career in engineering compared to science, however, the high number of respondents who selected “I do not feel sufficiently informed to comment” (22.2%) in recommending an engineering career made the comparison difficult. Anticipating that this response may be due to scientists having a poor understanding of what an engineering career entails (and therefore selecting the I do not feel sufficiently informed option), the data was reassessed separately for respondents who trained as scientists and those who trained as engineers. The results in terms of aggregated disagree/neither/agreed/insufficient information are discussed in the following sections and shown in Figures 11 and 12.

4.12.1 Views of engineers

The 63 respondents whose highest qualification was in engineering were analysed separately with regards to whether they would recommend a career in science or engineering.

4.12.1.1 Views on a career in science

The majority (72.9%) of engineers agreed they would recommend a career in science while a smaller percentage disagreed (15.8%) or were non-committal (11.1%). Female respondents agreed more (80.0%) than their male colleagues (70.8%). Agreement was variable and with no clear pattern across different age groups. Agreement was highest for engineers working in industry (100%) and in government (100%) but much lower for those working in universities (75.0%) and in CRIs (41.1%).

4.12.1.2 Views on a career in engineering

Engineers were highly enthusiastic about encouraging young people into a career in engineering (90.5%), with female engineers even more enthusiastic (93.4%) than their male colleagues (89.6%). There was no clear pattern in the responses from different age groups. Engineers working in industry and government were unanimous in supporting careers in engineering (both 100%) followed by those in universities (92.8%) and CRIs (76.5%).

4.12.2 Views of scientists

The responses of the remaining 770 respondents whose highest qualifications were not engineering were similarly analysed.

4.12.2.1 Views on a career in science

This cohort of respondents showed more reticence with only around three fifths agreeing they would recommend a career in science (62.1%). Female respondents were more positive (68.4% agreed, 23.6% disagreed) compared to their male colleagues (56.4% agreed, 32.9% disagreed). Agreement dipped in mid- to late-career (50 to 64 years of age, 54.5%) The highest agreement was reported by those working in engineering & applied (76.9%) and social and behavioural (75.1%) sciences and the lowest agreement in agricultural & soil (46.9%) and biological (58.4%) sciences. The highest levels of agreement were reported by scientists working in industry (83.9%), followed by government (74.5%), universities (64.3%) and CRIs (53.4%).

4.12.2.2 Views on a career in engineering

Just under one quarter (24.1%) of respondents did not feel they had sufficient information to comment, while most of the remaining respondents agreed they would recommend a career in engineering (59.2%) (see Figure 12). Male respondents reported a higher level of agreement (61.8%) compared to their female counterparts (57.0%). There was no clear pattern based on the age of respondents. Agreement was highest for those who worked in the engineering & applied (88.5%) and mathematical & computer (79.3%) sciences and lowest for those working in the agricultural & soil (39.3%), biological (54.8%)

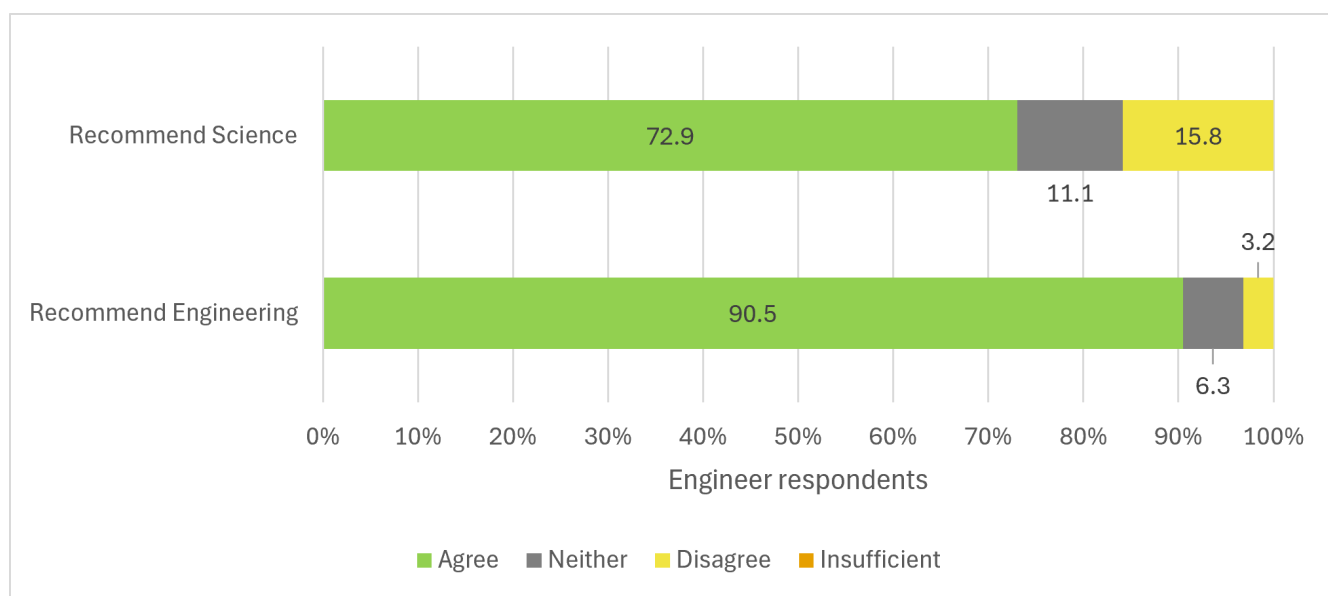


Figure 11: Career recommendations by engineers

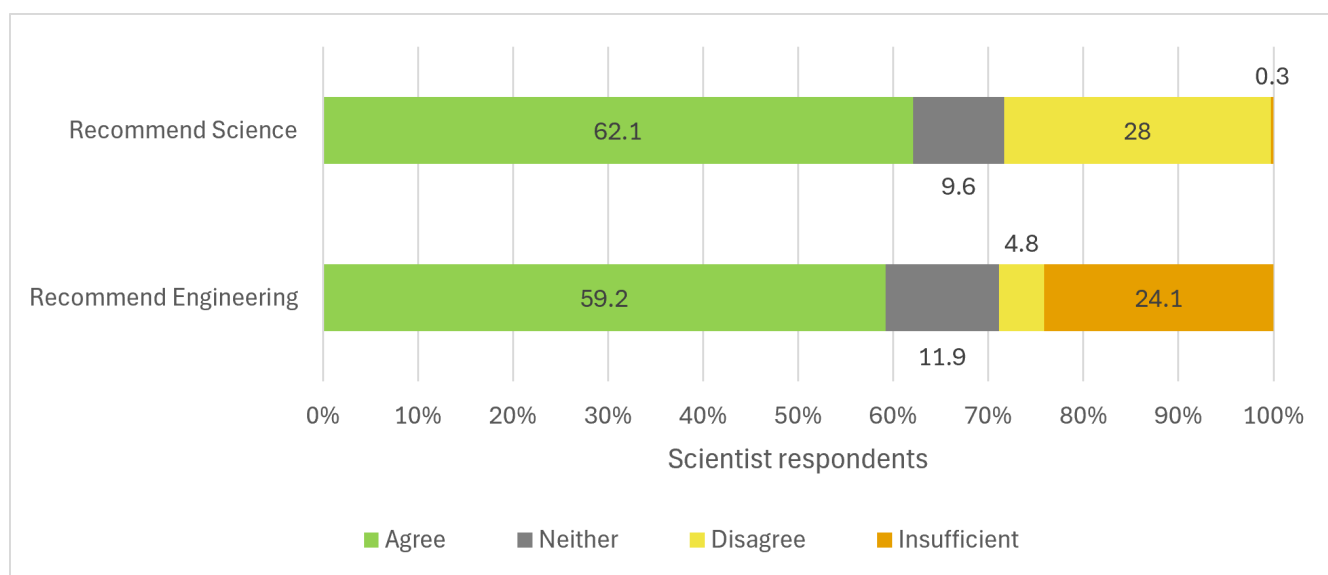


Figure 12: Career recommendations by scientists

and medical & health (54.9%) sciences. A comparison of workplaces showed the highest agreement with government (70.5%) followed by university (60.6%), CRI (55.2%) and industry (54.8%).

4.12.3 Comparison with previous surveys

Although the 2025 survey statement has been split and modified compared to the statements in previous surveys, there is value in comparing them. The aggregate responses for the 2008 survey reported that more respondents disagreed that they would recommend science and engineering as a career (41.2%) than agree (36.8%) while the remaining were undecided (18.8%) in response to the statement “the way things are going with scientific and engineering careers in New Zealand, I would recommend such careers to New Zealand youth”.

In 2008, CRI scientists were less optimistic about recommending a career in science with substantially lower levels of agreement (26.7%) and higher levels of disagreement (59.2%) than their university counterparts’ levels of agreement (43.8%) and disagreement (28.7%). Agreement was higher amongst female respondents (43.3%) compared to male respondents (31.2%) while scientists over 65 and below 35 were reported to be the most positive. Social & behavioural and medical & health scientists reported the highest agreement (51.7% and 48.6%, respectively) while the lowest agreement was reported by agricultural & soil (22.6%) and biological scientists (25.0%).

In 1996, the responses were even more negative. The aggregate responses reported that more respondents disagreed that they would recommend science and engineering as a career (45.8%) than agree (35.2%) while the

remaining were undecided (18.2%). CRI scientists remained less optimistic (56.0% disagreed, 24.7% agreed) than their university counterparts (37.0% disagreed, 44.8% agreed).

It is difficult to identify why the responses in previous surveys were so much more negative than those in the 2025 survey, although possible contributing factors could include concerns regarding the merging of HortResearch and Crop & Food which occurred in 2008 and that the 2025 survey was carried out before the negative consequences of the current government “restructuring” of the science sector were revealed.

5 Summary

The science system in Aotearoa New Zealand has undergone comprehensive change in the last two years with more to come, so it was timely for the NZAS survey of scientists and technologists to return after a 17-year hiatus. The NZAS 2025 survey continues to serve the original four functions of previous surveys – as a source of information for the development of science policy, to provide performance measures for science policy, to contribute to enhanced public understanding of science and technology, and to serve as a voice for the science community (Sommer, 2010).

This report presents information which can be used to inform policy makers for the benefit of Aotearoa New Zealand – our citizens, our scientists, our economy, our society and our environment. The content of this report provides opportunities for policy makers to reflect on changes (or lack of change) in demographics, for example, Māori and female representation in science (Sections 3.2.2 and 3.2.3), on the concerns voiced regarding science funding (Section 4.2), on institutional support for science communication (Section 4.11), and employment conditions (Section 4.3).

This report also allows for the performance measurement of government policies by measuring changes in responses across different surveys. For example, the progress made in increasing the percentage of female respondents in science from 22.8% in 1996 to 48.1% in 2025 (Section 3.2.2) reflects positively on government policies that have encouraged more women into STEM, while the more modest increase of Māori in STEM from 0.7% in 1996 to 4.1% in 2025 (Section 3.2.3) suggests there may be opportunities for further policy support. Some changes in performance measures are gravely concerning, for example the drop in perceived job security by CRI scientists from 69.7% in 2008 to 31.3% in 2025 (Section 4.3.1) raises concerns regarding the process by which CRIs have been restructured into PROs (Public Research Organisations). Also, persistent negative feedback regarding cronyism and old boys’ networks during grant assessment (Section 4.2) indicates a major issue, as well as an opportunity to develop better policies to revitalise the grants system in Aotearoa New Zealand and measure the effects of changes in future surveys.

The information encompassed in this report can also serve as a tool to enhance public understanding of science and technology, and readers are encouraged to use it for this purpose. There is value in the public understanding that most scientists are driven by a desire to better understand the world around us and to make the world a better place (Section 4.7.1), are enthusiastic for science to be communicated to the public (Section 4.11) and take their responsibilities to citizens seriously (Section 4.5.1). This report also provides the public with opportunity to understand the scientific community’s views on important issues such as climate change, artificial intelligence (AI), genetic modification, the government’s response to Covid, and mis- and dis-information (Section 4.6), as well as scientists’ deep concerns regarding the current funding and direction of research in New Zealand (Sections 4.2 and

4.4.1).

The voice of the science community presented in this report is drawn from 997 scientists and technologists, with over 90% actively engaged in research, and is representative of approximately 14% of the scientific community in Aotearoa New Zealand (Section 1.2.1). The report encompasses their activities and perspectives related to the funding (Section 4.2) and practice of science, collaboration within and outside of science (Sections 4.3 – 4.5), engagement with the public and their views on topics of public interest – including climate change, genetic engineering, nuclear power, and the value of humanities research (Sections 4.6.1, 4.6.3, 4.6.4, and 4.5.3.3). Whether or not they would recommend a career in science and/or engineering (Section 4.12) provides one poignant indicator of the current morale within the science community.

The overwhelming theme from the comments and other sections of the survey is that science in Aotearoa New Zealand is underfunded and has been underfunded for decades. The biggest concern for scientists across all three (1996, 2008, and 2025) surveys has been interruptions to research funding (Section 4.1) and this concern is echoed in complaints about the current funding models (Section 4.2). In 2025, scientists have also expressed growing concern regarding the overpoliticisation of science and a lack of public understanding of science (Section 4.1). Another persistent theme over all three surveys has been concern over how science and funding is managed with excessive bureaucracy, cronyism, and a lack of support for truly original research (Section 4.2). Many of the viewpoints observed in this survey, for example views on DEI (Section 4.7.5) and discouraging unorthodox views (Section 4.5.1.5), align with observations made regarding similar survey carried out in the US (Schalin, 2025)(Schalin 2025).

New themes have emerged in 2025, including a lack of trust in government decisions with only 12.6% of respondents agreeing that science in Aotearoa New Zealand is heading in the right direction (Section 4.4.1) and only 9.5% agreeing that government decisions are science based (Section 4.5.3.1). Concerns regarding the public's trust in science, science communication and mis- and disinformation are also growing (Sections 4.6.6 & 4.6.8). Survey responses also demonstrated that female scientists are more likely to feel unsafe presenting their work to the public compared to male scientists (19.4% compared to 12.9%) (Section 4.11.4) and growing concerns from scientists that public trust in science is decreasing (Section 4.11.5). A new item in the 2025 survey reveals that a slight majority of scientists (52.5%) disagree that scientists should remain neutral and not engage in political debates (Section 4.5.1.3).

While the previous 1996 and 2008 surveys only made comparisons between responses from university and CRI based scientists, the 2025 survey has expanded these comparisons to include scientists working in industry and government. This has provided a deeper understanding of how opinions may vary across different workplaces, for example, with industry scientists placing less value on DEI (Section 4.7.5), Mātauranga Māori (Section 4.8.1) and

serendipity in scientific discovery (Section 4.8.2) compared to other scientists, while government scientists were least likely to agree that science advances emerge from teamwork rather than individual insights (Section 4.8.3) and that the government should define the research agenda (Section 4.5.2.1).

This survey has provided insights into the demographics, opinions and concerns of scientists across a broad range of scientific fields and workplaces. Comparison with previous surveys has revealed both significant changes, as well as areas of inertia in the science environment in Aotearoa New Zealand. This survey, in turn, will also provide a measuring point against which future surveys results can be measured.

6 Supplementary Comments from Participants

In addition to completing the survey items within this report, 268 respondents provided supplementary comments voicing their opinions and concerns regarding science in Aotearoa New Zealand, and it is only right and fitting that we end this report with some of the respondents' views in their own words. To maintain their anonymity each respondent has only been identified using a few demographic descriptors. Unlike the 2008 when a handful of optimistic responses were included, the 2025 comments provide little optimistic content.

6.1 Funding for science

"The system is chronically underfunded. Merging, unmerging, changing funding procedures, and creating new research institutes (like the AI PRO) by shuffling a tiny pot of money around will not change the state that the science system is in. Simply providing more money in a poorly managed system would provide better outcomes than creating an 'efficient' and 'economy-focused' system that has no more money to actually do the work/research."

A male early-career scientist working in a CRI

"The NZ science system is underfunded. It is concerning that people in high leadership positions do not seem to be advocating to fix this."

A female early-career scientist working for a CRI

"Low GDP spent on science means funding rates are super low. Capped budgets for grants set many years ago make it impossible to hire staff at 1.0FTE and adequately fund research. Lack of a career structure for fixed-term contract staff - tenure/permanent positions few and far between, commercial funding has always failed to support, and we lack a co-ordinated fellowship programme with funding for sufficient numbers of fellowships. The lack of blue skies funding - BSF is well known for driving innovation and successful discoveries and we have progressively lost this type of funding. All of these things and other factors mean that science and scientists cannot be sustained sufficiently to ensure truly successful outcomes and we are not retaining good staff or attracting the next generation of scientists."

A female, late-career scientist working in a university

"Funding has been shrinking for 30 years, as has the science sector in New Zealand. New Zealand politicians do not understand the value of science to national productivity, capturing IP and societal welfare, including higher education. They have collectively let NZ down, the problem is across all the parties. I have spent the last 3 decades hoping sense would prevail and it has continued to deteriorate. Have scientists failed to "sell" their value to the rest of NZ? Who should do this and how could this be done better?"

A late-career scientist working for a CRI

"1.46% of GDP investment in R&D is shameful for a developed nation!!! What is the need for growing investment in defence?"

A male mid-career scientist working for a CRI

"A pressing issue is that the size (max value) of major grants has not increased in 20 years, whilst salaries and consumables costs have gone up significantly - this makes it increasingly difficult to write internationally competitive grants (ie undertake work that is considered at the top of the field by peers), and presents major challenges in employing and retaining postdocs and research fellows as they cannot be supported for more than 2 years, or are working on partial salaries (underfunded). The whole science system at the moment feels like it is running on charity and goodwill from academics, which is increasingly waning, and you cannot blame people for looking elsewhere. The government needs to prioritise investment in science, and increase the %GDP spent so we can capitalize on the knowledge base and unique skills we have built in this country before it is lost or damaged irreparably."

A female mid-career scientist working at a university

6.2 The science environment

"University overhead policies (where the full weight of overhead costs are based on FTE) are punishing for early-career researchers, who have to pay their entire salaries from external contestable funds. This means ECRs on fixed-term contracts and in precarious career stages are often providing more research overhead support dollars to their host organisations than senior academics, who can simply minimise their costed FTE and retain their guaranteed university salaries. I'm struck that when I advertise for PhD scholarships, I never receive any applications from New Zealanders. I don't blame them, as there is little professional or financial benefit to be had in New Zealand from a PhD. The sector appears to have pulled up the ladder, with an increasing cohort of early-career researchers with nowhere to go except overseas or to other lines of work."

A male mid-career scientist working at a university

"Things are dire, especially for women and emerging researchers. Without a proper research workforce plan, and monitoring, we cannot be sure where people are ending up. Too many younger people will not choose a career in research because of the uncertainties over funding and hence their jobs. Universities exit key areas when they are under financial strain, regardless of the fact it can [take] 20 years to rebuild capacity and capability."

A female late-career scientist working at a university

"The success rate in the Marsden fund is so low that biases within the panel towards a particular topic and or people influence the results significantly. In such environment a lottery will be fairer. The decision process in HRC and the success rates there are still unknown to me even-though I

have been part of successful grants a few times. Universities in NZ are too managerial with too many bureaucrats relative to academics. The academic freedom at the university is what attracted me to work there and what led to my most exciting projects (some of which have led to commercial developments eventually). The erosion of my academic freedom has led me to leave the university and start my own company. I am among the few privileged that could do it."

A female late-career scientist working for her own company

"The success of the National Science Challenges was inhibited hugely by the bureaucratic complexities between CRI's. The NZ science system is plagued by patch protection, siloed research and protectionism rather than transparent accountability."

A female mid-career scientist working for a CRI

"The changes to the Marsden fund to stop funding social/humanities research and to require economic benefit from 50% of proposals is interfering in the support of basic/fundamental research in NZ. The Marsden fund has been a stable, very important, and non-political fund in NZ and needs to be supported to maintain NZ's international science credibility and continue to fund knowledge generation in NZ. It also needs increased funding because it hasn't had an increase for a long time. The science reform that is merging the CRIs has some positive potential in terms of reducing competition within the NZ science system. However, it is taking a great deal of resources and not necessarily addressing all of the key challenges within the CRI system."

A female mid-career scientist working for a CRI

"Reliable funding sources and good job security are two big problems the science sector is currently facing. It is important these are addressed because we need adequate resources and long-term stability to do good science."

A female early-career scientist at a university

"Managerialism in the CRIs and Universities and the micro-management of science combined with the competitive funding system and the utterly inadequate govt funding for science have together been exceedingly destructive. The amalgamation of the CRIs alone will not fix the problem."

A male, late-career scientist working in a CRI

"It's a village and there's a lot of 'village' thinking: inward-looking and isolated, dominated by 'big men' and institutional vested interests and tunnel vision. Enthusiastic young people are a source of great hope and the start-up culture is thriving but start-up finance and growth capital is a critical limitation as is the loss of talent abroad and the difficulty of attracting talent in and then keeping it, given the cost and bureaucracy of visas and better conditions and opportunities overseas. Building a career as an academic is very difficult in the NZ environment so talented people

leave, which is depressing."

A male, late-career scientist working for a start up company

"I see cronyism in funding allocations as being the major hindrance to success in the NZ academic environment. I'd like to see all of the major funders use lotteries following an initial quality assessment. I also have the perception that many of the major funders are more likely to preferentially support those with prior NZ links (i.e. at least one of BSc / MSc / PhD done at an NZ institution), and that these people are more likely to "get on" and ultimately be considered successful within the system."

A male mid-career scientist working at a university

"As is already known, the New Zealand science system is woefully underfunded and the general experience of most is that those who are already successful and are known to produce results (because they were lucky to get sufficient funding early in their careers) are most likely to get further funding as they are seen as sure bets (a worthy "return on investment"). This severely disadvantages our young researchers with respect to the abysmally low likelihood for their ideas to be selected for funding. As older scientists our own research careers stagnate for the same reasons and the situation has been getting progressively worse over the last 2 decades. This has resulted in little hope for a large number of New Zealand's scientists to support and mentor emerging scientists or postdoctoral positions when their own careers and research have been slowly destroyed by a woeful funding system and they now have no chance to obtain funding because they have little respect or standing in their fields of research. Within the CRI system, generally speaking there is very little room to develop in a specific area of expertise and become a respectable expert where one can produce quality publications nor attract interest from potential overseas collaborators and international money. We are invisible. Unfortunately my early 'mentors' were in the same position and this has had knock-on impacts for my career to the point that I am now producing very mediocre research and have run out of avenues to advance my career - as such my ability to mentor and aid emerging researchers is practically nil. Despite trying to leave the science system I am yet to be successful in acquiring other work as laughably I'm seen to be too specialized! My experience is not unusual - despite what the talking heads in various senior management positions say, the morale in the engine room is very low."

A male mid-career scientist working for a CRI

"While there are pockets of optimism, the overall environment is gloomy. New Zealand expertise is being leap-frogged by overseas territories who place a greater value on science, thus we fall increasingly behind. The emphasis on short-term funding grants/contracts makes establishing advanced methods risky and unsustainable. The increasing focus on money-spinning widgets and gadgets has diverted resources from science focused on the things that keep Aotearoa New Zealand healthy and productive: One Health,

environmental adaptation and sustainability.”

A female, mid-career scientist working at a CRI

6.3 Science, society and the future of science in Aotearoa New Zealand

“The public and government do not seem to respect research in general with a woeful appreciation for humanities and social science research, psychology excepted. I fear I will need to move country to advance my career as there are almost no options here.”

A female early-career scientist working for a university

“Social sciences, Mātauranga Māori, protecting the environment and blue-sky fundamental research are important to economic growth, even if economic growth seems to be the sole focus of the current government. The statement of corporate intent of the new ESNZ PRO, written without any involvement of its generic scientists (I don’t even know if high-level science strategists were involved), is shocking in considering economic growth above all at the expense of the aspects listed at the start of this comment.”

A female early-career scientist working for a CRI

“Science is undervalued in NZ. The benefits from a strong science sector are not recognised by this government and the science funding structures have not kept up with inflation. Added to this the science community has been impacted by loss of the National science challenges, cuts to Marsden and HRC funding, as well as the suspension of this year’s Endeavour funding round. Forward thinking approaches to support research and collaboration, like the Wellington Science City funding have also been lost. In NZ, scientists spend far too much time applying for funding and having to justify why they should have a job at all. Although there is some amazing and exciting science happening in NZ, it is a miserable time to be a scientist in NZ. Unless things change, we will continue to lose our best and brightest to other countries that better understand the value of science.”

A male mid-career scientist working for an independent research organisation

“Not enough being done to retain young scientists. Scientists are going into the consultancy sector due to higher salaries. Current govt not interested in science - lack of a science advisor highlights govts scant regard for science.”

A female late-career scientist working in a local government role

“My greatest fear is for the next generation of NZ scientists. The current environment of short-term contracts, precarious funding and lack of career progression is leading to our best and brightest either going overseas or leaving the scientific workforce. I think this is a tragedy and an enormous loss to NZ.”

A female late-career scientist working for a university

“I think STEM areas do not do enough to capture the hearts of the NZ public - and believe this would do more for bolstering public support than trying to capture minds. I also think a much better broadcasting of all of the good work that happens in the STEM industries (e.g. water treatment where I work) and research areas would be a significant benefit for explaining the need and the outcomes of why we need reliable and leading solutions to our modern worlds many issues. While I think there are opportunities for research to be more industrialised, I am not convinced that the recent dramatic shake up to the science sector is the ideal way to get there.”

A male, early-career scientist working in industry

6.4 Government decisions

“I believe that governments should prioritize and support fundamental, curiosity-driven science—what I call “root science”—without interference from industrial interests, commercial pressures, or political conflicts. This kind of science is the foundation of long-term innovation and societal progress, and it must be protected and strengthened. In New Zealand, the current science funding model needs a serious overhaul. Too many scientists spend a disproportionate amount of their valuable time writing grant applications instead of doing the research they are trained and passionate to do. This is inefficient and demoralizing. Scientists should have stable, sufficient funding to pursue the work they know is worth doing - work that often leads to breakthroughs precisely because it is not immediately profitable or trendy. Moreover, universities are increasingly being run like businesses, with leadership teams focused on revenue generation rather than academic excellence or public good. This shift undermines the core mission of education and research. Government investment in education and science should be seen not as a cost, but as a long-term investment in the nation’s future—one that must be maintained regardless of economic cycles or political trends.”

A male mid-career scientist working at a university

“I agree with much of the SSAG review, but the government’s applications of it have been absolutely abysmal. They cherry-picked a few recommendations from the review and left out the rest. How can the system operate without any decent funding? I can only assume that the government doesn’t care about the science workforce whatsoever, and they expect to get miraculous outcomes while putting hardly any resources in.”

A mid-career scientist working for government

“It is a shame to see the government cherry-picking recommendations from Sir Peter’s report about the CRI and missing out on an opportunity to reshape the fundamentals of science for the greater good of NZ and NZers. Also, governments led by both Labour and National appear to have lost the understanding of the role of public-good science vs. R&D. They seem to confuse R&D with ‘research’, and thus

expect industry to front up with funding for stages on the curve that they wouldn't be expected to cover normally, and should be covered by stable and reliable long-term public funding."

A female mid-career scientist working for a CRI

6.5 Survey format

Feedback provided by respondents regarding the survey included that the survey was very long, the content was too academic orientated and some of the items could have been better worded. This feedback will be used to inform future surveys while also noting the following:

- After a 17-year hiatus there were many areas we wanted to explore. If we carry out these surveys on a more regular basis, every three to five years, we should be able to reduce and refine the content. Also providing respondents with an estimate of how long it will take to complete, plus a progress bar were excellent ideas which we will take on board for the next survey
- The wording of some items could be improved, however, when we change questions we must consider whether they remain consistent and therefore comparable with items from previous surveys. That said, we will aim to make more improvements where it is possible.
- Parts of the survey did focus on those in academic and active researchers following on from the earlier surveys. However, a broader view of those who work in other roles would certainly add to the value of the survey. If those working in such roles have any suggestions on how future surveys might better engage them, or items which would better reflect their roles and their concerns, they are welcome to contact me at michael.edmonds@canterbury.ac.nz.

In concluding this report, I would like to thank all those who have participated in and supported this survey, with particular thanks to Professor Jack Sommer for his foundational work with the earlier surveys and his guidance with the current survey. It is vital that we, as a scientific community, have information that allows us to inform and measure the effects of government policy, enhance public understanding of science and technology, and inform our leaders in providing a combined voice for our community.

Waiho i te toipoto, kaua i te toiroa
Let us keep close together, not far apart

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