YOUTH INSIGHT
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2025 Youth in STEM Report

Prepared by YouthInsight for the
Department of Industry, Science and Resources

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Contents

Notes on interpreting the report

Significant differences – Differences between demographic groups cited in the report refer to statistically significant differences based on a 95% confidence interval. Charts in this report show statistically significant differences between subgroups using black or white arrows alongside the percentage results. If a difference is described as indicative, the difference is not statistically significant.

Weighted data and rounding – To ensure the survey results are representative of the population in accordance with the latest Australian Bureau of Statistics (ABS) Census, weighting has been applied to each wave since 2018 to correct for under or over representation of the population sample. Where the weighted population or proportions do not add up to 100%, this is due to rounding of decimal places up or down to the nearest whole number.

Multiple choice questions (MC) – Multiple choice questions will not add to 100% as respondents could select more than one answer. All multiple-choice questions have been labelled within the question text as MC.

Non-binary respondents – Data was collected from non-binary participants in this study. The total population sample includes these respondents, however, when comparing results between genders we have not shown the results from this population due to low base size.

Gender diverse respondents – This term is used toward the end of the report where we have conducted a deep-dive analysis of this audience. This population includes non-binary participants and other diverse gender respondents, including those that specified their gender as trans, they/them (but did not select non-binary), and unlabelled in their open text gender response. We have not included any respondents who did not disclose their gender in the survey within this population.

Culturally and linguistically diverse (CALD) – People have been classified as CALD if they speak a language other than English at home.

Location/area – When we refer to location or metropolitan vs regional areas, we are referring to the home location of the child, not the school or institution they attend.

Socioeconomic status (SES) – Low or high SES has been determined by using the ABS Socio-Economic Indexes for Areas (SEIFA) which ranks areas in Australia according to relative socioeconomic advantage and disadvantage into deciles. The indexes are based on information from the 5-yearly census. This survey employs the Index of Education and Occupation (IEO). Postcodes supplied by respondents have been mapped to the corresponding IEO decile. This report has grouped deciles one to 5 and classified this group as lower SES and deciles 6 to 10 as higher SES.

STEM classifications: Below is a list outlining how STEM has been classified in this research report.

- **STEM definition in the context of this report:** STEM stands for science, technology, engineering, and mathematics. In this survey, science refers to topics such as biology, chemistry, physics, and earth and environmental sciences. It does not include medicine, nursing, psychology or health sciences.
- **Technology** refers to topics related to information technology and programming, mechanics, electronics, and all other types of technology. Some technology courses could also be called engineering. There are many types of engineering, like aerospace and environmental engineering, and many types of mathematics, such as geometry, logic and statistics.
- **STEM subjects at primary school:** mathematics, science, technologies.
- **STEM subjects at secondary school:**
- **General STEM subjects:** mathematics, biology, chemistry, earth and environmental science, physics, geography, design and technologies, and digital technologies.
- **Year 9–10 elective STEM subjects:** geography elective, agricultural technology, design and technology, food technology, graphics technology, industrial technology, information and software technology.
- **Year 11–12 elective STEM subjects:** agriculture, biology, chemical world science, chemistry, computing applications, design and technology, earth and environmental science, earth and space science, electrotechnology (VET), engineering studies, geography, human society and its environment, industrial technology, information and digital technology (VET), information processes and technology, investigating science, living world science, marine studies, mathematics, mathematics advanced, mathematics extension, metal and engineering (VET), physical world science life skills, physics, science extension, software design and development.
- **STEM subjects at higher education:** agriculture, computing and information technology, engineering and technology, environmental studies, mathematics, biology, chemistry, physics, earth and environmental sciences.
- **STEM qualifications:** computing or information technology, data analyst, engineering, mathematics, science.
- **STEM jobs/careers:**
    - **Qualifying jobs/careers:** computing or information technology, data analysis, engineer, mathematician, scientist.
    - **Potential qualifying jobs/careers, depending on specific role:** entrepreneur, machinery operator or driver, professor, lecturer or teacher, public servant (includes Army, Airforce, Navy), technician or trade worker (mechanic, electrician, carpenter).

Executive summary

The purpose of this cross-sectional study is to build understanding of the perceptions and attitudes of young people toward STEM. The study aims to better assist families, educators and policy makers in supporting girls/women throughout their STEM education and toward their future consideration of STEM-related careers.

This report details the results of Wave 5 of the Youth in STEM research study, undertaken by YouthInsight on behalf of the Department of Industry, Science and Resources (DISR). Waves 1, 2, 3 and 4 were conducted in 2018–19, 2019–20, 2020–21 and 2023–24 respectively.

Between July and August 2025, an online survey was conducted among a nationally representative population sample of 3,001 young people aged 12–25 years old, sourced from a range of online panels. This report outlines the detailed findings from the 2025 Youth in STEM study and highlights some of the key comparative findings since Wave 4 (2023–24).

This wave of research supports previously identified themes relating to the impact of background and demographics on STEM perceptions and attitudes. The current survey found that young people whose parents have an education in STEM or work in a STEM-related field are more likely to demonstrate better understanding of STEM and participate in STEM study pathways than those whose parents do not. Further, the study demonstrates clear familial and cultural differences, with the propensity for young people who were born overseas as well as those from CALD backgrounds to demonstrate higher involvement in STEM-related study and careers than young people born in Australia or from non-CALD backgrounds.

In continuation from Wave 4, respondents were asked about their perceptions of Generative Artificial Intelligence (AI) and its influence on choices about their future. The data shows that a large proportion of young people feel influenced by this technology, and particularly boys, with this influence growing over time. Positively, most young people say their confidence with STEM subjects has either not changed or has grown as a result of using AI, with only a small minority saying their confidence has fallen as a result.

While the study is vastly detailed, this report focuses on a set of key metrics used to evaluate young people's understanding, attitudes and perceptions of STEM, their current involvement with STEM, and their future intentions regarding STEM. A summary of the findings for each of these key metrics, along with a summary table, can be found below.

Summary of results

The results presented in this section summarise key insights and differences between research Waves 4 (2023–24) and 5 (2025–26).

Table 1: Key metrics across Wave 4 and Wave 5.

Key metric	Wave 4	Wave 5
Understanding of the STEM acronym	71%	73%
Interest in STEM	87%	86%
Perceived importance of STEM	92%	93%
Confidence in studying STEM	87%	86%
Intention to pursue a career in STEM	33%	32%

Understanding of STEM and STEM-related jobs

- In Wave 5, 73% of young people were able to correctly recall all 4 subjects involved in the STEM acronym, consistent with Wave 4 (71%). There have been no significant changes in understanding by gender or age group this wave.
- Young people with parents who are educated in STEM are significantly more likely to have a correct understanding of the subjects that make up the STEM acronym (77% compared to 68%), as are young people whose parents are employed in a STEM-related field (79% compared to 72%).
- CALD young people demonstrate a significantly stronger understanding of the STEM acronym than non-CALD young people.
- Participants who are Aboriginal and/or Torres Strait Islander are significantly less likely to demonstrate correct understanding of the STEM acronym than non-Aboriginal and/or Torres Strait Islander young people.
- Compared to Wave 4, young people are more likely to identify some STEM careers such as engineer, IT/computing roles and data analyst. There has been a significant decline in the proportion who said they were unsure of any STEM jobs, from 7% to 5%. This represents a steady decline since Wave 2, when the proportion saying they were unsure was 15%.
- Girls/women are significantly more likely to associate the jobs ‘engineer’ (70%) and ‘scientist’ (52%) with STEM study compared to boys/men (65% and 47% respectively).
- When asked about gender associations with a range of different jobs and careers, STEM jobs and careers including ‘engineer’, ‘computing or information technology’,

'data analyst' and 'scientist', are significantly more likely to be associated with men than women.

Attitudes (interest and perception) towards STEM

- There continues to be a high level of interest in STEM subjects among young people, with the proportion of those 'somewhat' or 'very' interested in STEM subjects overall remaining stable at 86% (compared to 87% in Wave 4).
- Science and technology subjects consistently drive significantly more interest in STEM (63% and 59% respectively) than engineering and mathematics (45% and 48% respectively). These results are not significantly different to the previous wave, but indicatively we have seen a 3 percentage point increase in interest in engineering (from 42% to 45%).
- Young people with parents educated in STEM and young people with parents employed in STEM-related fields are significantly more likely to express an interest in STEM at the overall level (89% and 90% respectively), as are boys/men (92%) when compared to girls/women (80%).
- When it comes to interest in specific subjects, boys/men demonstrate significantly higher levels of interest in all individual STEM subjects except for science. Boys/men are most likely to express interest in technology subjects (76%) whereas interest from girls/women is highest for science at 61%.
- The perceived importance of STEM skills and knowledge overall is high and in line with Wave 4, at 93%. It was found that skills in technology are still regarded by young people as being the most important (84%) of all the STEM subjects for getting a good job in the future, followed by mathematics (78%), science (72%) and engineering (63%). While there were no significant changes in perceived importance of science, technology or engineering this wave, we have seen a significant increase in perceived importance of mathematics after a dip in Wave 4 (from 74% to 78%).
- Three in 5 (62%) young people said that technology is shaping the future, while half (50%) said that technology skills are in high demand. Technology skills (along with skills in mathematics) are also significantly more likely to be regarded as 'essential life skills' (42% and 54% respectively), 'usable in the workplace' (45% and 39%) and 'transferable to other areas' (43% and 45%).
- The survey found that most of these perceptions are significantly higher for girls/women than boys/men, particularly when it comes to reasons for regarding Technology as important.
- Some changes in reasons for perceived importance of STEM skills were observed between waves. For science, fewer young people thought that this subject teaches you analysis skills (38% to 34%). For maths, fewer young people thought that this subject helps us understand how the world works (28% to 25%) and that this subject teaches you how to be innovative (20% to 17%).

- The greatest change in reasons was observed for technology. This wave, fewer young people believe that technology skills are in demand (54% to 50%), that this subject teaches you how to be innovative (33% to 30%), that this subject teaches analysis skills (30% to 27%) and that this subject teaches you logical thinking (30% to 25%).
- Boys/men generally demonstrate significantly higher engagement with science and technology, being more likely than girls/women to agree that learning about science and technology is exciting (63% vs 50%); have friends who are also interested in science and technology (56% vs 46%); or discuss science and technology with their family (45% vs 34%).
- Consistent with the theme of social influence observed, parents and guardians play a strong role in positioning STEM study, jobs, and careers to young people. Importantly, the perceptions of STEM fostered by discussions with parents are regarded as largely positive. Similarly, conversations with teachers and career advisors are seen to be positive regarding STEM study, jobs, and careers.
- Despite this, around a quarter of young people reported having received negative impressions from parents and teachers about STEM careers, hearing that STEM jobs are scarce, not well-paid, and that they have poor working conditions.

Gender bias in STEM

- When asked about which gender is 'better' at STEM subjects, most young people do not hold a gender bias. Around two-thirds of young people say neither girls nor boys are better at science (70%), mathematics (69%) or technology (65%). Slightly fewer (58%) say neither gender is better at engineering.
- Seven in 10 (70%) young people said neither girls nor boys are better at science, while 12% said boys are better and 18% said girls are better. The proportion with no gender bias for science remains stable, while the proportion saying that boys are better than girls has fallen from 15% to 12% after a peak in Wave 4. Despite this, there has been a 2 percentage point increase in the proportion saying that girls are better than boys at science (from 16% to 18%, not significant).
- In Wave 5, boys/men remain significantly more likely to regard their own gender as being 'better' at all STEM subjects. Girls/women are more equitable than boys in their perceptions of who is better at STEM but still regard boys as being better at technology and engineering subjects. Girls/women have more positive perceptions of their own skills in relation to science and mathematics than boys/men do of girls' and women's skills.
- Consistent with this bias, when asked about gender associations with a range of different jobs and careers, STEM jobs and careers including 'engineer', 'computing or information technology', 'data analyst' and 'scientist', are significantly more likely to be associated with men than women. Despite this, most young people believe that most STEM jobs can be done by either boys or girls, which is extremely positive.

Current participation in STEM subjects

- Participation in STEM elective subjects has remained stable among Year 9 and 10 students (58%, consistent with Wave 4).
- Current participation in STEM elective subjects in Year 9 and 10 overall remains significantly higher among boys/men (71%) compared to girls/women (42%). This remains consistent with previous waves.
- Consistent with Wave 2, there is strong participation in STEM elective subjects overall among Year 11 and 12 students (94%), led by participation in mathematics (43%), chemistry (40%), mathematics advanced (38%) and biology (35%).
- Participation in STEM subjects among Year 11 and 12 students has not changed significantly since last wave (from 95% to 94%), however, indicatively we can see a slight increase in participation in chemistry (from 34% to 40%) and mathematics advanced (from 35% to 38%), and a decrease in participation in biology (from 38% to 35%) and mathematics (from 46% to 43%).
- The steady increase in participation in design and technology across waves 1 to 4 has now halted with participation remaining stable at 8% since last wave.
- Participation in STEM at Year 11 and 12 is significantly higher for boys/men than girls/women (98% vs 91%), unlike in Wave 4 where the difference was not significant (96% vs 94%). Significant skews are also evident by individual subjects. Girls/women are significantly more likely than boys/men to be currently studying biology (40% vs 28%) and are slightly more likely to be studying mathematics and mathematics advanced.
- In comparison, boys/men in Year 11 and 12 are significantly more likely to be studying physics (34% vs 18%) and industrial technology (11% vs 1%).
- The survey found that 35% of tertiary respondents are studying STEM, up slightly from 32% in Wave 4, and reflecting a steady increase over time.
- Consistent with previous waves, significantly more men are studying STEM at a tertiary level compared to women (48% vs 22% overall).
- This wave we have not seen any significant shifts in tertiary education subjects, although indicatively we have seen a slight increase in students studying engineering and technology (from 8% to 11%).
- At an individual subject level, men are significantly more likely than women to be studying engineering and technology (17% vs 4%), computing and information technology (14% vs 4%), mathematics (7% vs 3%), chemistry (5% vs 2%) and physics (3% vs 1%) at a tertiary level.
- Socio-cultural influences on participation are evident across all 3 study levels.

Influences in relation to STEM study

- Key factors influencing the consideration of STEM study continue to be led by personal interest (52%), young people's perceptions of their own skills and abilities (48%), potential future career (39%) and earning potential (30%).

- The proportion of young people influenced by personal interests and their skills and abilities have decreased this wave, as well as those influenced by potential earnings.
- The role of personal interest and perceptions of own skills and abilities is of significantly greater influence among girls/women than it is for boys/men (57% vs 46% and 50% vs 45% respectively). Girls/women are also more likely to be influenced by their potential future career (44% vs 34%).
- Conversely, boys/men are more likely than girls/women to be influenced by the kinds of jobs their family have (9% vs 7%), activities outside of school (9% vs 5%), as well as what they see on YouTube, social media and on TV.
- Overall, parents/guardians remain a key 'person' of influence with regards to study choices (50%) along with friends (28%) and teachers/lecturers (26%).
- It was found that girls/women are more likely than boys/men to be influenced by their parents (53% vs 47%). On the other hand, boys/men are more likely than girls/women to be influenced by successful business people (16% vs 12%), social media influencers/content creators (11% vs 8%), famous scientists (6% vs 3%) and celebrities (6% vs 2%).

Confidence in studying STEM

- Overall, confidence in studying STEM is high (86%), consistent with Wave 4 (87%). Confidence is highest for science (62%) followed by technology (61%), mathematics (61%) and engineering (40%).
- Boys/men are significantly more confident than girls/women in all STEM subjects, excluding science, where confidence among boys/men is on par with that of girls/women (63% and 61% respectively).
- Girls/women are least confident when it comes to studying engineering (28%), followed by technology (51%) and mathematics (56%).
- CALD young people were more likely to feel confident in STEM (89% vs 84% of those who are non-CALD. Those who were born overseas were also more likely to feel confident in STEM compared to those born in Australia (89% vs 85%).
- Consistent with other measures, a student's confidence in studying STEM is likely to be higher (across all STEM subjects) when at least one of their parents has previously studied or works in STEM themselves.
- Confidence in participating in conversations regarding STEM topics outside of school/study has remained stable for the past 3 waves, but this wave we have seen a significant drop, from 59% to 56%. Boys/men remain more confident than girls/women in discussing STEM topics outside of school/study (61% vs 51%), a finding that has been consistent across waves.

STEM study intentions and influences

- When asked about studying STEM subjects in the future, the intentions of Years 6 to 8 students have remained stable (69% in Wave 5 compared to 70% in Wave 4).

- Although not significant, likely due to a low sample size, there has been a slight uplift in intention to study agricultural technology this wave (from 5% to 10%), as well as geography elective (from 4% to 9%).
- Consistent with the previous wave, boys/men in Years 6 to 8 remain significantly more likely to intend to study STEM subjects in future than do girls/women (82% compared to 54%).
- Among those in Year 9 and 10 there has been no change in the proportion of young people intending to enrol in STEM subjects for Years 11 and 12 (93%).
- While not significant, we have seen an uplift in intentions for mathematics, design and technology and industrial technology, but we have also seen declines in intentions for other subjects such as biology, mathematics advanced and chemistry.
- Girls/women in Years 9 and 10 were found to be significantly more likely than boys/men to express an intention to study biology, although with a smaller gender gap than in Wave 4 (43% vs 25%).
- The intention of Year 11 and 12 students to study STEM at the tertiary level has declined slightly, although not significantly, from 39% to 35%. This is driven by slightly lower intention for computing and information technology this wave (from 9% to 5%), as well as slightly lower intention for mathematics (from 6% to 4%).
- Intention to study STEM at a tertiary level overall is driven by boys/men rather than girls/women (44% compared to 27%).
- This pattern is driven by strong skews towards boys/men for engineering and technology (21% compared to 8% for girls/women), and computing and information technology (8% compared to 3%). This wave there are also significant skews to boys/men for mathematics (5% vs 2%) and physics (4% vs 1%).
- After asking whether they were considering studying STEM in the future, relevant respondents were asked why they were not considering it. Most respondents (40%) said it was because they want to pursue a different career path, 37% said it is because they are interested in something else, while 23% said it is because they are studying something else already.
- There remains opportunity to increase future consideration for STEM through communicating messages about future job and career pathways. Data from the past few waves demonstrates that even with basic messaging about job and careers linked to STEM study, it is possible to increase interest in STEM study among both boys/men and girls/women (35% were more interested in STEM education after reading an explanation, consistent with previous waves).
- This wave, the proportion saying there was no change in their interest increased from 51% to 55%, while the proportion saying their interest declined after reading the explanation fell from 13% to 10%.

Career intentions and influences

- Respondents were asked about their certainty for their future career, and two-thirds (67%) reported feeling fairly or very certain about what they want to do in the future. This has been consistent since tracking started.
- When asked about future career aspirations, the intention to pursue a career in a STEM-related field has remained stable overall for Wave 5 (32% vs 33% in Wave 4).
- Boys/men remain significantly more likely to intend to pursue a career in STEM overall than do girls/women (45% vs 20%). This is driven by significant gender skews in intention to pursue a career as an engineer, in the field of computing and information technology, as a data analyst, inventor or mathematician.
- Those who wanted to become a scientist were asked what type of scientist they would like to become. The majority wanted to be biologists (37%) followed by chemists (16%) and earth or environmental scientists (16%), with girls skewing towards aspiring to be a biologist.
- For the first time in Wave 5, we also asked those who aspired to be an engineer what type of engineer they would like to become. The 2 most popular types were civil engineer (22%) and mechanical engineer (20%), followed by software engineer (17%) and electrical engineer (14%).
- Gender differences were found, with boys/men significantly more likely than girls/women to want to be a mechanical engineer (24% vs 10%) while girls/women were more likely to want to be a biomedical engineer (9% vs 3%) or chemical engineer (8% vs 1%).
- Key factors influencing the consideration of STEM career choices mirror those that influence intention to study: personal interests (60%), young people's perceptions of their own skills and abilities (52%) and earning potential (41%).
- This wave we have seen a significant increase in the influence of personal interests (from 55% to 60%) after a dip in Wave 4. Across all waves, have seen a continued downward trend in the influence of ambition to change the world and work experience, and a continued upward trend in the influence of earning potential.
- When it comes to specific people that influence career choices, parents/guardians are a key people of influence with regards to career choices (47%), alongside support from friends (22%) and teachers or lecturers (21%).
- While the influence of social media influencers/content creators remains consistent (12% across Waves 4 and 5), the influence of the role of celebrities has fallen significantly (from 5% to 4%) and shows a downward trend since tracking began.
- When asked about importance of several factors when considering choosing a future job or career, the top 10 factors overall have remained relatively consistent across the past few waves, with good working conditions and job security come top.
- This wave we have seen a significant increase the perceived importance of high salary (from 86% to 89%) and a slight increase in the perceived importance of a role that positively impacts society (from 80% to 83%).

Impact of AI on future study and careers

- For the second time since tracking started, respondents were asked about their perceptions of AI and the influence on choices about their future; it is clear to see that a large proportion of young people feel influenced by this technology, with this influence growing over time.
- Nine in 10 young people (88%) said they believe that generative AI tools will have a significant impact on work and careers in the future, up significantly from Wave 4 (82%).
- Unlike in Wave 4, we observed a gender difference, with girls/women being more likely to believe this than boys/men (89% vs 86%).
- While perceived impact was consistent across those aged 14–25, those aged 12–13 were the least sure about the impact of AI tools, with 15% feeling unsure (representing a decline from 21% in Wave 4). Other groups were also more likely to believe this, including those from metropolitan areas (89% vs 86% in regional/rural areas), CALD young people (90% vs 86% of those who are not CALD), and those with parents who have STEM education (90% vs 86% of those with parents without a STEM education).
- Three in 10 (32%) young people reported that recent developments in AI had made them reconsider their study or career choices, up from 29% in Wave 4.
- Nine per cent of young people are reconsidering their study choices, 10% are reconsidering their career, while 13% are reconsidering both their study choices and career, up from 11%.
- Gender played a role on influence of AI on life choices, as well as socio-economic factors.
- In Wave 5, we also asked a new question regarding the impact of using AI on young people's confidence with each of the 4 STEM subjects. The majority of young people say their confidence remains the same for all subjects except technology, and any impact seems to be more positive than negative; just over half (52%) of young people say AI has made them feel more confident with STEM overall, while a quarter (24%) say it has made them feel less confident.
- When it comes to the specific STEM subjects, AI has had the greatest impact on improving confidence with technology (38%), followed by science (33%) and maths (32%). It has had the lowest impact on improving confidence with engineering (27%), with the largest proportion of young people saying they don't use AI for this (23%).
- Boys/men are significantly more likely to say they now feel more confident as a result of using AI. This is true of STEM overall (58% vs 46%) and also of all individual STEM subjects.

Experiences of gender diverse young people

- As noted previously, the main body of the report does not show results from gender diverse young people when comparing results across genders, due to the low base size (n=33). Unfortunately, limitations of survey panels historically collecting gender data in a binary nature means that this audience is often difficult to reach, and many gender-diverse people are missed in research studies.
- Despite the difficulty experienced in reaching a robust sample size, this audience is important to understand, and within this report we conducted a deep-dive analysis to further understand their attitudes and behaviours across key metrics. Readers should interpret these results with caution, particularly when drawing conclusions about population-level differences between these groups.
- Overall, we found that understanding, interest and perceived importance of STEM overall among gender diverse young people are in line with, if not higher than, all other respondents. While gender diverse respondents' levels of confidence with STEM overall, science and mathematics are consistent with all other respondents, they have lower confidence in engineering and mathematics, and are more likely to say that use of AI has made them feel less confident with science and technology.
- Current participation is slightly lower among gender diverse respondents and they are less likely to have taken part in STEM-related activities. While they are slightly less likely to intend to study STEM in the future, they are slightly more likely to want to work in a STEM role, and over-index on appetite for roles in science and technology.

In conclusion

The insights presented in this report provide information for policy makers to take a data-driven approach in addressing the gender imbalance in STEM education and related careers. This research extends our knowledge regarding the significant role played by socio-cultural factors upon young people's perceptions of STEM and their decisions made to pursue study and careers in STEM-related fields.

Project background

Background

Building on from the Youth in STEM research, which was first commissioned in 2018 (referred to throughout as Wave 1), the Department of Industry, Science and Resources (DISR) has continued data collection and reporting on attitudes and perceptions of young Australians toward STEM. The objective of the research is to understand more about the perceptions of young Australians (12–25-year-olds) toward STEM skills and careers, particularly those of girls (women).

With the previous Youth in STEM research showing that girls' perceptions of, and engagement with, STEM are strongly influenced by parents, teachers and career advisors, DISR decided to expand the Youth in STEM research to provide insights into the attitudes

and perceptions of these key influencer groups. DISR have since published the STEM Influencer (Parents) and the STEM Influencer (Teachers and Career Advisors) research.

From 2019 onwards, the Youth in STEM research has tracked both the 12–25-year-old group of young people and the influencer group of parents and educators. Each cross-sectional study is conducted biennially as below, with results released early the following year:

- 2019: People aged 12–25 – referred to as 'Wave 2' throughout this report (completed – view the Youth in STEM survey 2019–20)
- 2020: Parents (completed – view the STEM influencer report: Parent survey 2020–21)
- 2020: Teachers and career advisors (completed – view the STEM influencer report: Teacher and career advisor survey 2020–21)
- 2021: People aged 12–25 – referred to as 'Wave 3' throughout this report (completed – view the Youth in STEM survey 2021–22)
- 2022: Parents (completed – view the STEM influencer report: Parent survey 2022–23)
- 2022: Teachers and career advisors (completed – view the STEM influencer report: Teacher and career advisor survey 2022–23)
- 2023: People aged 12–25 – referred to as 'Wave 4' throughout this report (completed – view the Youth in STEM report 2023–24)
- 2024: Teachers and career advisors (completed – view the STEM influencer report: Teacher and career advisor survey 2024–25)
- 2025: People aged 12–25 – referred to as 'Wave 5' throughout this report (current report).

The studies focus on any differences and similarities in data outcomes based on gender, as well as investigating the intersection of other demographics which may further influence STEM engagement and participation.

This research report is the fifth wave of the Youth in STEM research. Key differences between the insights from this report and the previous waves of the Youth in STEM research have been noted.

Objectives

The principal objective of the study is to track changes in awareness and perceptions of STEM subjects and STEM-related careers held by young Australians compared to the previous waves. The underlying theme of the research is to uncover key gender differences.

More specifically, the study aims to:

- understand student awareness of STEM and STEM-related careers
- evaluate perceived importance of STEM subjects to students
- determine student interest in STEM careers

- assess young Australians' engagement with STEM outside of education
- determine student interest in considering further STEM education
- identify barriers and enablers to STEM careers
- understand the factors that influence career choices.

Methodology

YouthInsight conducted a cross-sectional study using a 20-minute online survey among a representative population sample of young people in Australia. Young people completed the survey via computer, tablet or mobile phone. Most survey questions remain consistent wave-on-wave, however, any new questions have been noted throughout the report.

Between July and August 2025, an online survey was conducted among a nationally representative population sample of 3,001 young people aged 12–25 years old (95% CL; ~ ±1.8% CI). This means that if we were to re-run the survey 20 times with a matched sample population, 19 times out of 20 (a 95% confidence level) we would expect a result within 1.8 percentage points of the result that we found.

Interviewing young people and children

YouthInsight adheres to The Research Society Code of Professional Behaviour Guideline on interviewing children and young people. The guideline states:

Researchers must take special care when researching children and young people. The consent of a parent or responsible adult must first be obtained before collecting information from:

- *Children, defined as under 14 years; and*
- *Young people, defined as 14–17 years, when sensitive information is being collected.*

YouthInsight approach

Due diligence was carried out to ensure the consent of the parent and/or guardian was obtained prior to surveying children under 14 years.

To achieve population sample quotas YouthInsight blends its internal online sample provider data with accredited external panel providers. For the 2021 and 2023 surveys, YouthInsight utilised other online sample providers to help meet quotas for the 12–17-year-old group as well as the 18–25 group. In the 2018–19 survey, external sample was only required for the 18–25 group.

To reach young people under the age of 18 who are not signed up to a panel, an external provider can contact the parent and/or guardian initially to then invite their child to complete the survey. Quality control measures were in place in this instance to ensure that it was a child taking part in the survey and not an adult, for example:

- Ensuring that age matched year of birth (if not, respondents were screened out);

- Thorough quality checking of responses upon completion, for example looking for straight liners, speeders, poor quality open-end responses and nonsensical response patterns.

Population sampling

The total unweighted population sample for the third wave of the Youth in STEM survey in Wave 5 was 3,001 respondents. YouthInsight collaborated with 2 online panel partners to obtain a nationally representative sample of Australian young people.

Quotas were placed on state and territory, gender and age group. To ensure survey results were representative of the population, weighting was applied based on age, gender, state, CALD status and lower SES to correct for under or over representation of the population sample for these variables. Where the sample was not exactly matched across waves, weighting has been applied to ensure that any differences in results are not explained by a difference in sample make-up rather than a true change. For example, in Wave 5, we obtained a larger sample of 12–13s and a smaller sample of 14–15s than typical, and therefore weighting was applied to ensure consistency with previous waves.

To determine SES, the survey used SEIFA developed by the ABS. SEIFA ranks areas in Australia into 10 equally sized groups according to relative socioeconomic advantage and disadvantage. These are known as socioeconomic deciles. The indexes are based on information from the 5-yearly Census of Population and Housing. The data captured in the survey has been mapped to the IEO.

Below are the summary tables of the unweighted population sample and weighted population with applied weighting factors.

Table 2: Total unweighted population sample and weighted population.

GENDER, AGE AND STUDIES	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
Total	**3,001**	**100%**	**3,001**	**100%**
Gender				
Boys/men	1293	43%	1500	49%
Girls/women	1666	56%	1501	49%
Non-binary	29	1%	29	1%
Other	4	0%	4	0%
Prefer not to say	9	0%	9	0%
Age group				
12–13	337	11%	181	6%

GENDER, AGE AND STUDIES	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
14–17	734	24%	942	31%
18–21	998	33%	940	31%
22–25	932	31%	979	32%
Study status				
Enrolled in studies	2,474	82%	2,492	82%
Not enrolled in studies	527	18%	551	18%
Study level				
Primary school – Year 6 or below	64	3%	31	1%
High School – Year 7	170	7%	98	4%
High School – Year 8	126	5%	100	4%
High School – Year 9	157	6%	194	8%
High School – Year 10	197	8%	256	10%
High School – Year 11	212	9%	259	10%
High School – Year 12	294	12%	333	13%
University – Undergrad Year 1	365	15%	345	14%
University – Undergrad Year 2	263	11%	257	10%
University – Undergrad Year 3	212	9%	209	8%
University – Undergrad Year 4+	107	4%	111	4%
University – postgrad	171	7%	161	6%
TAFE/ Private College – Y1	84	3%	84	3%
TAFE/ Private College – Y2	20	1%	23	1%
TAFE/ Private College – Y3	4	0%	4	0%
TAFE/ Private College – Y4	10	0%	12	0%
Highest level of education among				

GENDER, AGE AND STUDIES	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
those no longer studying				
Year 10	18	4%	19	3%
Year 11	19	4%	20	4%
Year 12	147	29%	158	29%
VET Certificate	44	9%	48	9%
VET Diploma	16	3%	15	3%
Bachelor's degree	186	36%	195	36%
Graduate diploma or certificate	47	9%	52	10%
Postgraduate degree	28	5%	30	6%
Other	6	1%	6	1%
Type of school, among those in high school				
Public	669	55%	684	55%
Catholic	206	17%	218	17%
Private	210	17%	219	17%
Selective	97	8%	112	8%
Boarding	3	0%	4	0%
Other	35	3%	33	3%
Single sex or co-ed school				
Single sex	250	20%	262	20%
Co-ed	970	80%	1,008	80%
Student type				
International student	269	11%	239	10%
Domestic student	2,205	89%	2,253	90%

*Where weighted sample or proportions do not add up to 100%, this is due to rounding of decimal places up or down to the nearest whole number.

LOCATION, SES AND EMPLOYMENT STATUS	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION%
State				
NSW	1068	36%	979	32%
VIC	809	27%	788	26%
QLD	456	15%	605	20%
WA	298	10%	336	11%
SA	225	7%	211	7%
ACT	67	2%	61	2%
TAS	62	2%	32	1%
NT	16	1%	30	1%
Location				
Capital city/major metropolitan area	2,287	76%	2,287	73%
Regional or remote/rural	714	24%	714	27%
SES*				
Lower SES (Decile 1–5)	1,054	35%	1,102	36%
Higher SES (Decile 6–10)	1,927	65%	1,921	64%
Employment status among those aged 15+				
Working full-time	422	14%	447	15%
Working part-time	594	20%	587	20%
Working casually	785	27%	813	27%
Working in holidays only	42	1%	47	2%
Stay at home parent	42	1%	41	1%
Not employed and looking for work	478	16%	523	18%
Not employed and not looking for work	502	17%	449	15%

LOCATION, SES AND EMPLOYMENT STATUS	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION%
Other	70	2%	62	2%

*SES - not all postcodes are available in the SEIFA index list.

BACKGROUND AND PARENT BACKGROUND	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
Country of birth				
Australia	2,407	80%	2,443	80%
Other	594	20%	600	20%
Aboriginal and/or Torres Strait Islander				
Aboriginal and/or Torres Strait Islander	139	5%	144	5%
Non-Aboriginal and/or Torres Strait Islander	2,845	95%	2,883	95%
Unspecified	17	1%	16	1%
CALD status (based on language spoken other than English at home)				
Non-CALD	1,983	66%	2,025	67%
CALD	1,018	34%	1,018	33%
Parent's highest level of education				
Primary School	32	1%	31	1%
High School (Year 10)	206	7%	217	7%
High School (Year 12)	543	18%	554	18%
VET Certificate	120	4%	116	4%
VET Diploma	73	2%	68	2%
Bachelor's degree	833	28%	819	27%
Graduate diploma or certificate	435	14%	446	15%

BACKGROUND AND PARENT BACKGROUND	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
Masters	486	16%	497	16%
Doctorate	106	4%	113	4%
Other	16	1%	15	1%
Not sure/prefer not to say	151	5%	167	5%
Parent education				
STEM degree or certificate	1,583	53%	1,609	53%
Non-STEM degree or certificate	1,418	47%	1,434	47%
Parent employment				
Do not work in STEM career	2,634	88%	2,665	80%
Work in STEM career	367	12%	378	20%

WAVE	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION%
Wave				
Wave 1 (2018)	2,092	100%	1,905	100%
Wave 2 (2019)	3,021	100%	2,929	100%
Wave 3 (2021)	3,154	100%	3,154	100%
Wave 4 (2023)	2,970	100%	2,948	100%
Wave 5 (2025)	3,001	100%	3,043	100%

Current perspectives and behaviours

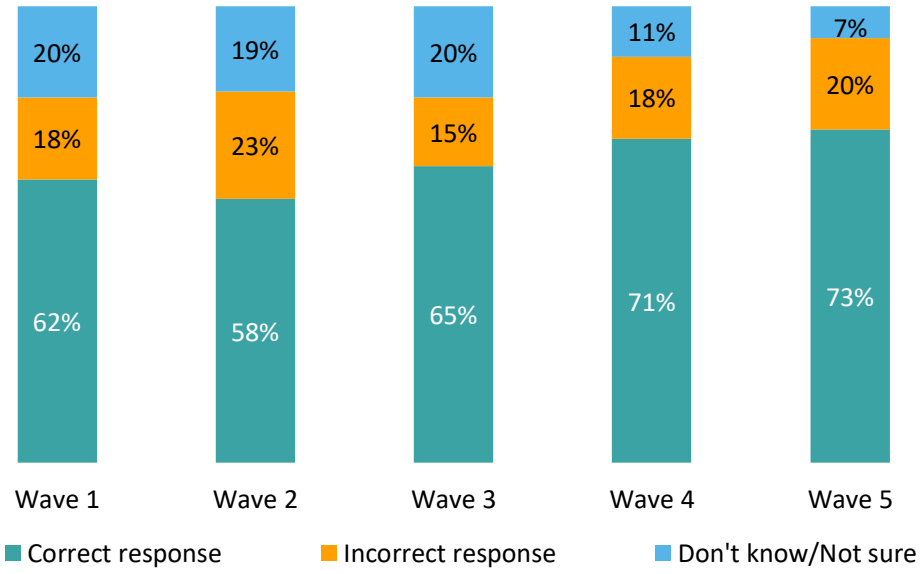
Understanding of STEM and STEM-related jobs

To get an indication of young people's understanding of STEM, respondents were asked what they believe the acronym 'STEM' stands for. Understanding of the term 'STEM' has increased slightly (from 71% to 73%) after a significant increase[1] was observed in Wave 4 (from 65% to 71%). This means that just under three-quarters of young people overall were able to correctly recall all 4 subjects involved. This reflects a steady increase since Wave 2 to the highest level yet.

The proportion who gave an incorrect response (but attempted to answer) increased slightly to 20%, while the proportion unsure is the lowest since tracking began (7%).

Figure 1: Understanding of the acronym 'STEM'.

Q. Please write below what you believe the term 'STEM' stands for.



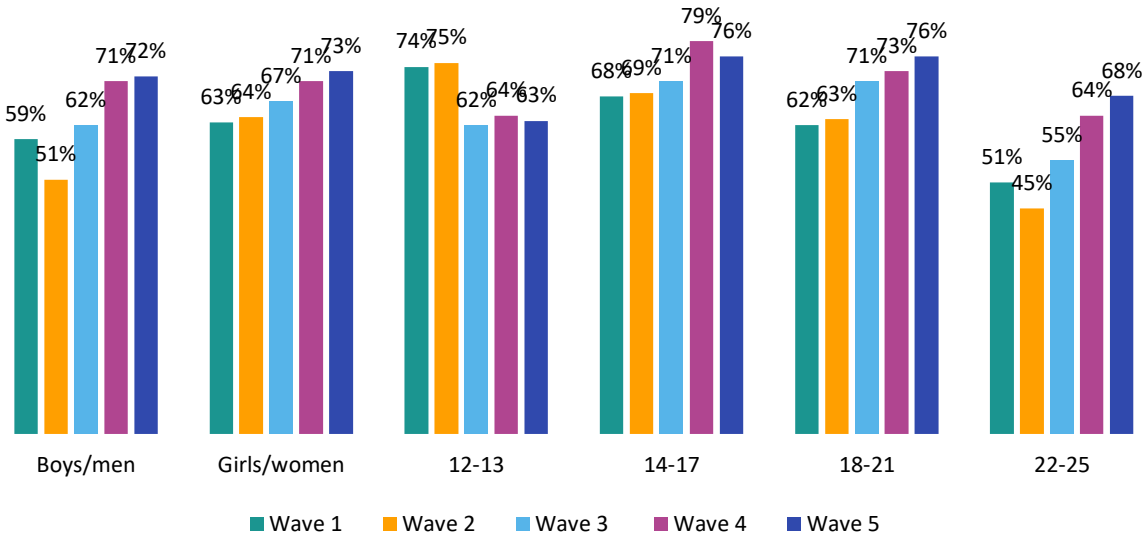
Base: Total – Wave 1 – 1,434, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

[1] **Significant differences** – Differences between demographic groups cited in the report refer to statistically significant differences based on a 95% confidence interval (*P*=.05); ~ ±1.8% CI. Charts in this report show statistically significant differences between subgroups using black or white arrows alongside the percentage results. If a difference is described as indicative, the difference is not statistically significant.

There have been no significant changes in understanding by gender or age group this wave, although there have been some indicative changes among age groups. For instance, the proportion of 14–17s who could correctly define the acronym has fallen slightly, from 79% to 76%, but for 18–21s and 22–25s understanding has slightly increased (from 73% to 76%, and 64% to 68% respectively).

Figure 2: Understanding of the acronym 'STEM' by gender and age (% Correct response).

Q. Please write below what you believe the term 'STEM' stands for.



Base: Wave 1 – 2,092, boys/men – 978, girls/women – 1,069, 12–13 – 77, 14–17 – 650, 18–21 – 771, 22–25 – 594. Wave 2 – 2,537, boys/men – 1,088, girls/women – 1,432, 12–13 – 44, 14–17 – 783, 18–21 – 875, 22–25 – 835. Wave 3 – boys/men – 1,559, girls/women – 1,538. 12–13 – 180, 14–17 – 938, 18–21 – 921, 22–25 – 1,115. Wave 4 – boys/men – 1,435, girls/women – 1,442. 12–13 – 161, 14–17 – 827, 18–21 – 901, 22–25 – 1,059. Wave 5 – boys/men – 1,293, girls/women – 1,666. 12–13 – 337, 14–17 – 734, 18–21 – 998, 22–25 – 932. Non-binary/other not shown due to low base size.

Consistent with previous waves, errors in understanding commonly relate to attributing incorrect subjects to the 'e' and the 'm' in STEM. Below are some of common responses mistakenly offered in the place of 'engineering' or 'mathematics':

- Science, Technology, **English**, Mathematics
- Science, Technology, **Economics**, Mathematics
- Science, Technology, **Education**, Mathematics
- Science, Technology, **Enterprise**, Mathematics
- Science, Technology, **Environment**, Mathematics
- Science, Technology, **Electronics**, Mathematics
- Science, Technology, Engineering, **Medicine**
- Science, Technology, Engineering, **Marketing**
- Science, Technology, Engineering, **Management**
- Science, Technology, Engineering, **Mechanics.**

The table below outlines some significant differences in the ability of key demographic groups to correctly identify the subjects included in STEM.

Table 3: Proportion correctly identifying all 4 STEM subjects: significant differences by audience.

Audience	WEIGHTED %
Location	
Metropolitan	75%
Regional/remote	68%
SES	
Lower SES (Decile 1–5)	70%
Higher SES (Decile 6–10)	75%
CALD status	
Non-CALD	71%
CALD	75%
Aboriginal and/or Torres Strait Islander	
Non-Aboriginal or Torres Strait Islander	73%
Aboriginal and/or Torres Strait Islander	64%

As noted in the above table, young people who identify as CALD demonstrate a significantly stronger understanding of STEM than non-CALD students. However, unlike in previous waves, there was no significant difference in understanding between those who were born in Australia (72%) vs. those who were born overseas (75%).

Of note, it was found that those who identify as Aboriginal and/or Torres Strait Islander are significantly less likely to demonstrate a correct understanding of STEM than non-Aboriginal and/or Torres Strait Islander students.

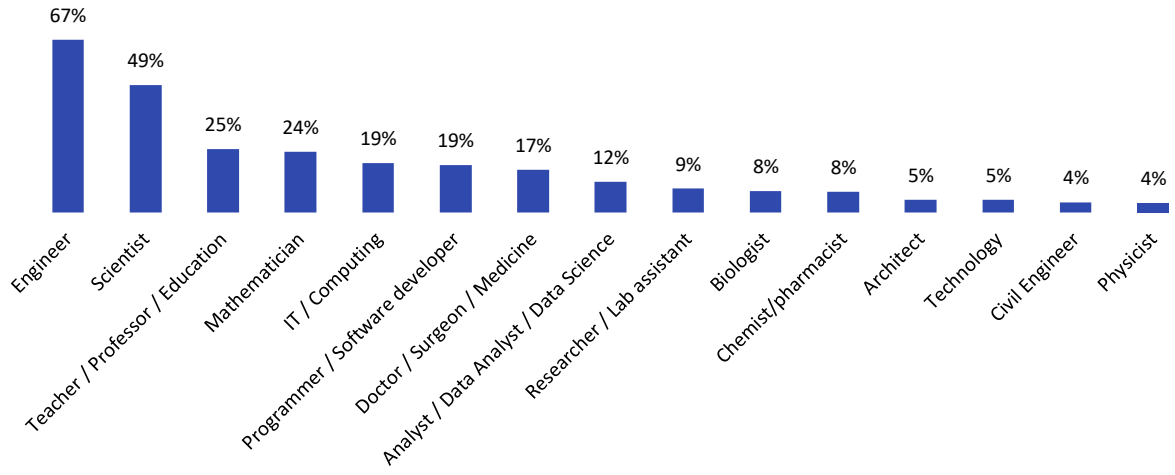
The role of parents continues to have a strong influence on young people's understanding of STEM. Young people with parents who are educated in STEM are significantly more likely to have a correct understanding of the subjects related to STEM (77% compared to 68%), as are young people whose parents are employed in a STEM-related field (79% compared to 72%).

Understanding of jobs in STEM

In Wave 5, young people were again asked about the types of jobs they associate with studying STEM subjects. Despite the evident misunderstanding of the 'e' within the STEM acronym, engineer remains the top-of-mind career commonly related to STEM study, followed by scientist, teacher and mathematician.

Figure 3: Top 15 jobs associated with STEM study pathways.

Q. What type of jobs do you think you would be able to get if you have a STEM degree or certificate?



Base: Wave 5 only, total – 3,001.

Compared to Wave 4, young people are more likely to identify some STEM careers such as engineer, IT/computing roles and data analyst. There has been a significant decline in the proportion who said they were unsure of any STEM jobs, from 7% to 5%. This represents a steady decline since Wave 2, when the proportion saying they were unsure was 15%.

Girls/women are significantly more likely to associate the jobs 'engineer' (70%) and 'scientist' (52%) with STEM study compared to boys/men (65% and 47% respectively).

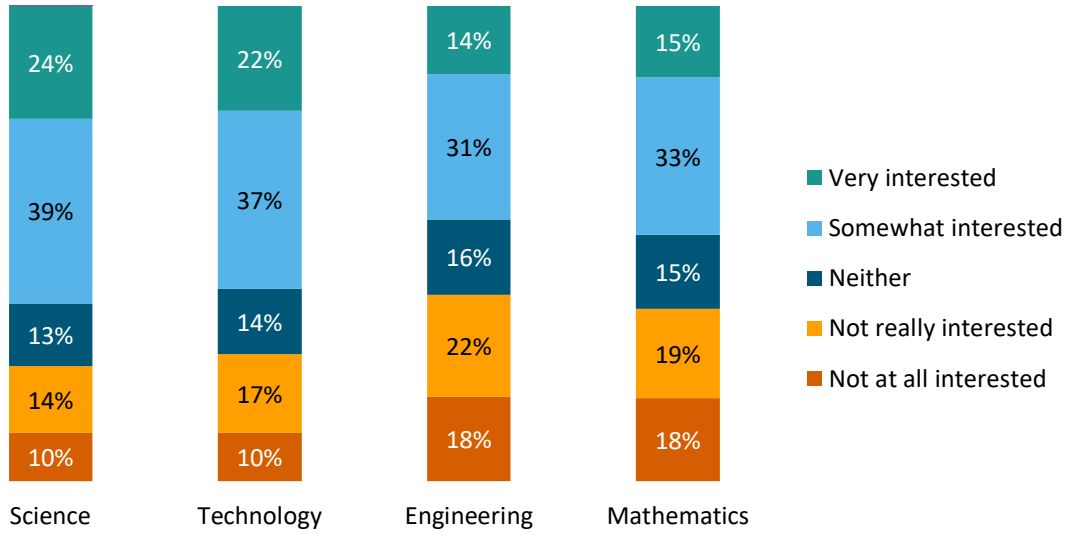
Attitudes towards STEM

Interest

The data shows that there continues to be a high level of interest in STEM subjects, with the proportion of those 'somewhat' or 'very' interested in STEM subjects being 86%. Science and technology subjects continue to drive significantly more interest among young people (63% and 59% respectively) than engineering and mathematics (45% and 48% respectively). These results are not significantly different to the previous wave, but indicatively we have seen a 3 percentage point increase in interest in engineering (from 42% to 45%).

Figure 4: Level of interest in STEM subjects.

Q. How interested are you in each of the below subjects?



Base: Wave 5 only, total – 3,001. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

Table 4: Level of interest in STEM subjects (Net: somewhat/very interested), by wave.

Q. How interested are you in each of the below subjects?

Subject	Net: somewhat/very interested				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
STEM overall	86%	84%	85%	87%	86%
Science	64%	62%	63%	63%	63%
Technology	65%	65%	64%	59%	59%
Engineering	42%	44%	43%	42%	45%

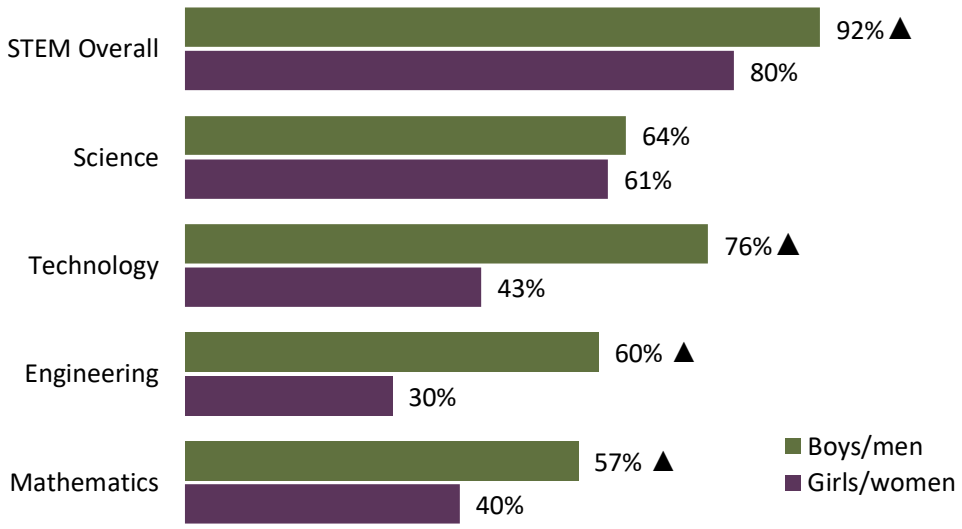
Subject	Net: somewhat/very interested				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Mathematics	50%	46%	48%	47%	48%

Base: Total – Wave 1 – 1,434, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Boys/men are significantly more interested in STEM subjects overall than girls/women (92% vs 80% overall). Boys/men also demonstrate significantly higher levels of interest in all individual STEM subjects except for science where interest from girls/women (61%) is not significantly different to interest from boys/men (64%), although it is slightly lower. Boys/men are most likely to express interest in technology subjects (76%) whereas interest from girls/women is highest for science at 61%. These findings have been consistent over time.

Figure 5: Level of interest in STEM subjects by gender (Net: somewhat/very interested).

Q. How interested are you in each of the below subjects?



Base: Wave 5 only, total – boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

Below are other significant differences among key demographic groups in relation to interest in STEM overall.

Table 5: Proportion interested in STEM overall.

Audience	WEIGHTED %
CALD status	
Non-CALD	83%

Audience	WEIGHTED %
Culturally and Linguistically Diverse	▲90%
Country of birth	
Born in Australia	85%
Born overseas	▲90%
Location	
Metropolitan	▲87%
Regional/remote	83%

The survey found that young people born overseas are more likely to be interested in STEM (90% vs 85%), driven by higher interest in all STEM subjects. CALD students were also more likely to be interested in STEM (90% vs 83%), again driven by a greater interest in all 4 STEM subjects. Young people living in metropolitan areas are also more likely to be interested in STEM (87% vs 83% in regional/rural areas), driven by higher interest in science and technology, a difference that was not found in Wave 4.

While not statistically significant, the research also found that Aboriginal and/or Torres Strait Islander young people have a higher interest in STEM (91%) than non Aboriginal and/or Torres Strait Islander people (86%). The higher interest in STEM among Aboriginal and/or Torres Strait Islander young people is driven by a significantly higher interest in engineering (60% vs 44% of other young people), consistent with Wave 4.

Interest was significantly higher for STEM overall among current 12–13 year olds than older young people (93%, compared to 87% of 14–17s, 85% of 18–21s and 85% of 22–25s). When looking at the specific subjects they were interested in, 12–13 year olds have the highest interest scores for all STEM subjects except Maths, where interest is consistent across age groups.

Again, young people with parents educated in STEM and young people with parents employed in STEM-related fields are significantly more likely to express an interest in STEM at the overall level. This is driven by significantly higher interest levels across all STEM subjects (when compared to those without parents educated or employed in STEM). This is consistent with previous waves.

Table 6: Level of interest in STEM subjects (Net: somewhat/very interested), by parent education/employment in STEM.

Q. How interested are you in each of the below subjects?

Subject	Parents Educated in STEM		Parents Employed in STEM	
	Yes	No	Yes	No
STEM overall	▲89%	82%	▲90%	85%
Science	▲68%	57%	▲68%	62%
Technology	▲62%	56%	▲67%	58%
Engineering	▲50%	39%	▲56%	43%
Mathematics	▲55%	41%	▲59%	47%

Base: Wave 5 – Parents educated in STEM - 1,583, Parents not educated in STEM - 1,418; Parents employed in STEM – 367, Parents not employed in STEM-related work – 2,634.

Perceived importance

Young people perceive the importance of STEM knowledge and skills for getting a job in the future as high, especially technology knowledge and skills. The perceived importance of STEM skills and knowledge overall is high, at 93%. This has been consistent since Wave 3.

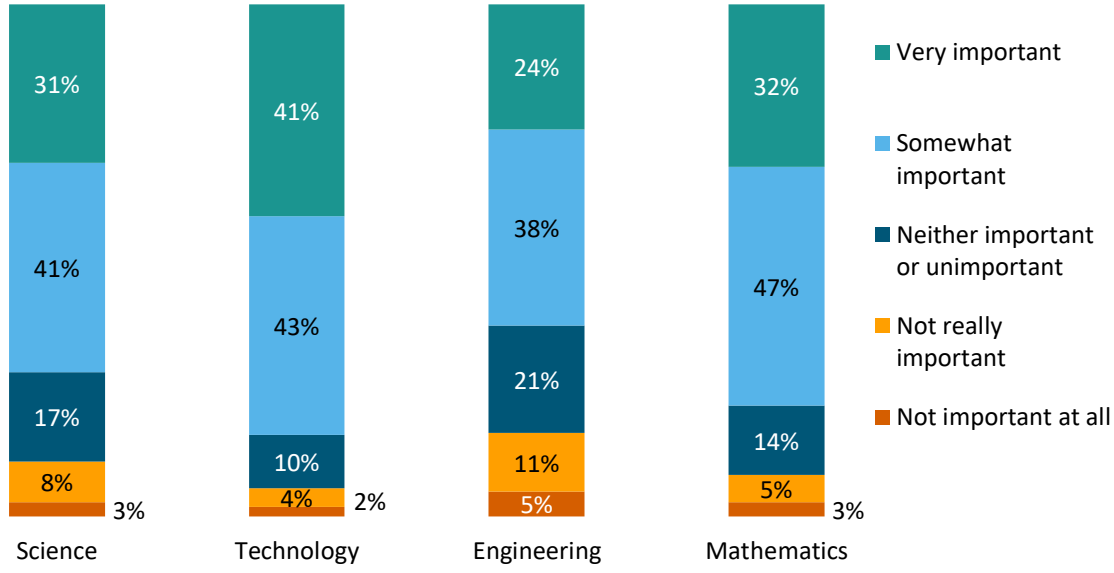
It was found that skills in technology are still regarded by young people as being the most important (84%) of all the STEM subjects for getting a good job in the future, followed by mathematics (78%), science (72%) and engineering (63%).

Engineering is a key point of difference between boys/men and girls/women. Boys/men are significantly more likely than girls/women to regard skills in engineering as being important for getting a good job in the future (71% compared to 55%). Boys/men are also more likely to regard skills in technology as being important than girls/women (86% compared to 82%).

While there were no significant changes in perceived importance of science, technology or engineering this wave, we have seen a significant increase in perceived importance of mathematics after a dip in Wave 4 (from 74% to 78%).

Figure 6: Perceived importance of STEM skills.

Q. How important do you believe it is to have knowledge and skills related to each of the subjects that make up STEM?



Base: Wave 5 only, total – 3,001. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

Table 7: Perceived importance of STEM skills (Net: somewhat/very important), by wave.

Q. How important do you believe it is to have knowledge and skills related to each of the subjects that make up STEM?

Subject	Net: somewhat/very important				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
STEM overall	92%	87%	92%	92%	93%
Science	73%	69%	74%	72%	72%
Technology	85%	79%	84%	82%	84%
Engineering	60%	58%	63%	62%	63%
Mathematics	79%	72%	78%	74%	▲78%

Base: Total. Wave 1 – 2,092, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

The respondents were asked why they thought STEM skills in these areas were important. Three in 5 (62%) young people said that technology is shaping the future, while half (50%) said that technology skills are in high demand. Technology skills (along with skills in mathematics) are also significantly more likely to be regarded as 'essential life skills' (42% and 54% respectively), 'usable in the workplace' (45% and 39%) and 'transferable to other areas' (43% and 45%).

The survey found that most of these perceptions are significantly higher for girls/women than boys/men, particularly when it comes to reasons for regarding technology as important.

Table 8: Reasons given for why it is important for knowledge and skills in technology and mathematics to get a good job, by gender.

Q. Why is it important to have knowledge and skills in (subject) to get a good job?

Statements	Technology		Mathematics	
	Girls/Women	Boys/Men	Girls/Women	Boys/Men
Technology is shaping the future/constantly evolving	▲68%	55%	-	-
These skills are in high demand	▲55%	46%	27%	29%
It is an essential life skill	▲47%	36%	▲60%	48%

Statements	Technology		Mathematics	
	Girls/Women	Boys/Men	Girls/Women	Boys/Men
Skills are transferable to other areas	▲47%	38%	▲49%	40%
You have to use these skills in the workplace	▲50%	39%	40%	37%
Gives you a wide range of careers options	▲45%	39%	34%	31%

Base: Wave 5 only, those who think it is important. Technology, Girls/women – 1,379, Boys/men – 1,112; Maths, Girls/women – 1,298, Boys/men – 1,032.

Skills in engineering are the least likely to be considered as essential life skills (20%). Despite this, those that regard engineering as important believe that engineering skills are in high demand (42%); and that studying the subject equips you with good problem-solving skills (40%), logical thinking skills (40%) and critical thinking skills (36%).

Some changes in reasons for perceived importance of STEM skills were observed between waves. For science, fewer young people thought that this subject teaches you analysis skills (38% to 34%). For maths, fewer young people thought that this subject helps us understand how the world works (28% to 25%) and that this subject teaches you how to be innovative (20% to 17%).

The greatest change in reasons was observed for technology. This wave, fewer young people believe that technology skills are in demand (54% to 50%), that this subject teaches you how to be innovative (33% to 30%), that this subject teaches analysis skills (30% to 27%) and that this subject teaches you logical thinking (30% to 25%), with the rise of AI potentially influencing these changes.

Table 9: Reasons given for why it is important for knowledge and skills in STEM subjects to get a good job.

Q. Why is it important to have knowledge and skills in (subject) to get a good job?

Statements	Subject			
	Science	Technology	Engineering	Mathematics
It is an essential life skill	22%	42%	20%	54%
Gives you a wide range of careers options	42%	42%	39%	32%

Statements	Subject			
	Science	Technology	Engineering	Mathematics
These skills are in high demand	35%	50%	42%	28%
This subject teaches problem solving skills	33%	29%	40%	55%
This subject teaches you logical thinking	39%	25%	40%	51%
Skills are transferable to other areas	40%	43%	33%	45%

Base: Wave 5 only, those who think it is important. Science – 2,163, Technology – 2,528, Engineering – 1,883, Mathematics – 2,356.

Drivers of perceptions of low importance of STEM subjects in getting a good job

Those who said that skills in STEM subjects were unimportant for getting in a good job in the future were asked an open-ended question about why they thought this. The key themes have been consistent across waves. Below are the key themes for each STEM subject.

Among those who regard skills in science as being unimportant for getting a good job in the future, key reasons provided include:

Perception that science is only relevant for specific or niche careers

- "Unless you want to specifically deal in Science field, no one ask about the grades you get in Science. Only Maths and English."
- "Science is only necessary for intricate science specific jobs which only make up a minority of jobs available in the world."
- "Only scientists need to know science."
- "As unless you're working in that specific STEM field, it isn't very useful."
- "Well most jobs don't tend to need the things you learn in science… most base jobs and such don't need anything from science outside of the basics."

Other skills are more important for good jobs, such as communication and creativity

- "People with good communication, and general life skills have it set for their future. With these skills you can benefit in major roles… Science is more of discovery more than communication."
- "There are plenty of good jobs around that do not require competent science knowledge such as jobs in law, finance, directors, the police force and many more."
- "Because there are many other high paying jobs like being a lawyer."
- "Many jobs focus more on communication, creativity, customer service rather than scientific knowledge."

For those who regard skills in engineering as being unimportant for getting a good job in the future, key reasons provided include:

Engineering regarded as niche and a specific skill set

- "Because unless you pick a job in engineering, you won't have to do anything involved in that field."
- "For health-related jobs, I'm not sure how engineering can impact."
- "You won't be required to chemically engineer a new chemical at a law firm, like how you wouldn't need to plan out where to put pillars for nursing."
- "Doctors don't really need engineering in their lives — they use maths, science, and biology instead."

- "Engineering doesn't seem to be a skill that lots of jobs need — it's more niche to roles as an engineer."

Other skills are perceived as more important for a good job

- "Some people can have fulfilling careers, like being a writer, without ever needing engineering."
- "I think communication, creativity, or leadership are more important for getting a good job."
- "Engineering skills are rarely applicable — maths and problem-solving are more transferable."

Some had practical concerns about studying engineering or entering a career in this sector

- "It's very hard to finish studying engineering at uni — is it worth such a high HECS debt?"
- "Engineering is difficult and not relevant to most jobs, so it doesn't seem worth it."
- "The job opportunities as an engineer in Australia aren't widely available."
- "I hear a lot of people who get an engineering degree struggle to find work after uni." "Because AI will dominate that field."
- "Many jobs that use engineering skills are already being fulfilled by robots."

For those who regard skills in technology as being unimportant for getting a good job in the future, key reasons provided include:

Ability to learn on the job, basics are enough

- "Because you can learn on the job."
- "Just basic skills in tech is already common knowledge."
- "Because you can always learn based on the type of technology you need to know in your job."
- "You don't need a degree to know [technology]."

Many jobs available that don't require use of technology

- "Not all good jobs require it."
- "Plenty of jobs exist without need technological skills."
- "Because there are still many jobs that do not require that much technology."
- "Lots of good jobs don't include technology skills."

Other skills are more important

- "It is not the pinnacle of most jobs, people skills are."

- "Because these skills are not that critical in jobs such as teaching (some roles), psychology, hospitality where they prioritise interpersonal skills, creativity and hands-on experiences over technology."
- "Because a 'good job' means something different to everyone and just because you have no knowledge in them does not mean you can't get a good job."

For those who regard skills in maths as being unimportant for getting a good job in the future, key reasons provided include:

There are many jobs available that don't require deep knowledge of maths

- *"Math doesn't apply to all jobs, for some it may be important but others might not be."*
- *"There are many 'good' jobs that don't involve maths, numbers, statistics, etc. This includes admin, creative arts, writing, etc."*
- *"How is the Pythagoras theorem going to help me in real life and how will it help me with my job or finding one?"*
- *"Not many jobs require advanced maths, or maths at all."*

Ability to leverage technology to support math skills if needed

- *"These days we have calculators literally in our pockets therefore the need to have a skill in maths isn't necessary."*
- *"Calculators and computer programming exist… I don't know how to calculate this insane equation by hand but I know how to input two things into this computer and I get the same answer."*
- *"Calculators, computers, AI, and software handle most complex calculations, so manual maths skills are less essential."*
- *"Computers can do maths for you."*

Other skills are more important and getting a "good job" doesn't depend on maths ability

- *"A definition of good job varies by person, and no matter your skill set, I think you can get a good job with what you're good at and it doesn't necessarily have to be in STEM."*
- *"Not the only important factor to get a 'good job'. You CAN get good job without [maths]."*
- *"Hard work is what gets a good job."*
- *"A good job is something you enjoy."*

Perceptions about STEM fields

Perceptions of science and technology fields have remained stable in Wave 4, with the majority having positive perceptions about science and technology. However, we have seen a significant decline in the proportion of young people saying they talk about science and technology at home with their family (from 43% to 40%) and that they like to watch shows about science and technology (from 49% to 44%).

Table 10: Proportion who agree with these statements about science and technology (Net: agree/strongly agree), by wave.

Q. Below is a list of statements people have made about science and technology. Please indicate, how much you agree with each of these statements.

Statements	Net: agree/strongly agree				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
My parents think it's important to learn about science and technology	55%	54%	56%	55%	56%
I talk about science and technology at home with my family	43%	42%	43%	43%	▼40%
My friends are interested in science and technology	56%	52%	53%	52%	51%
I like to watch shows about science and technology	53%	53%	51%	49%	▼44%
Scientists make a positive difference in the world	79%	73%	77%	77%	79%
I would like to be a scientist one day	26%	30%	30%	29%	27%
Learning about science and technology is exciting	64%	60%	60%	58%	57%
I will need to know about science and technology to get a good job in the future	55%	53%	53%	50%	51%

Statements	Net: agree/strongly agree				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
STEM skills are important when considering employment opportunities	Not asked	Not asked	66%	63%	65%

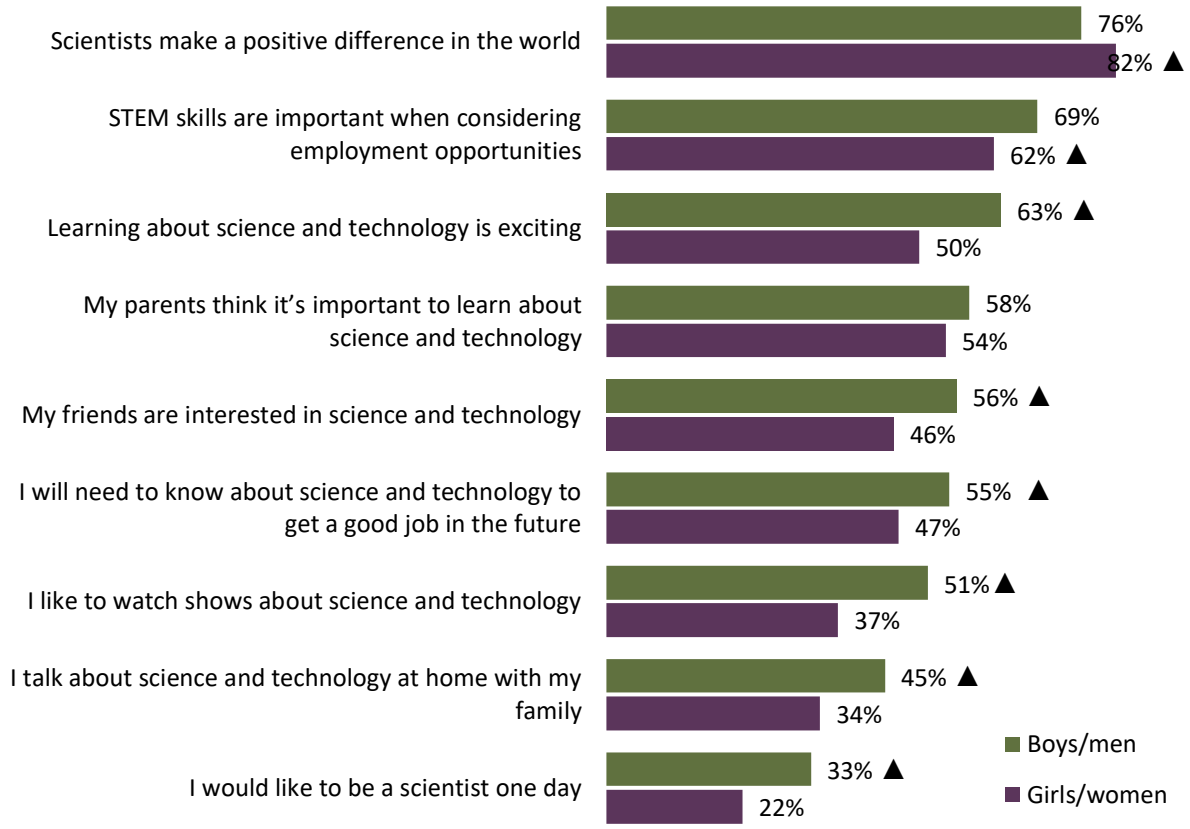
Base: Total. Wave 1 – 2,092, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Boys/men generally demonstrate significantly higher engagement with science and technology, being more likely than girls/women to agree that learning about science and technology is exciting (63% vs 50%); have friends who are also interested in science and technology (56% vs 46%); or discuss science and technology with their family (45% vs 34%). The gender gap in engagement with science and technology is larger than in previous waves, with girls/women significantly less likely to agree with these statements in Wave 5 than in previous waves.

Girls/women are more likely to acknowledge the contribution of scientists to the world than boys/men (82% vs 76%), while boys/men are significantly more likely to agree that they would like to be a scientist one day in the future (33% vs 22% of girls/women).

Figure 7: Proportion who agree with these statements about science and technology (Net: agree/strongly agree), by gender.

Q. Below is a list of statements people have made about science and technology. Please indicate how much you agree with each of these statements.


Scientists make a positive difference in the world
76%
82% ▲
STEM skills are important when considering employment opportunities
69%
62% ▲
Learning about science and technology is exciting
63% ▲
50%
My parents think it's important to learn about science and technology
58%
54%
My friends are interested in science and technology
56% ▲
46%
I will need to know about science and technology to get a good job in the future
55% ▲
47%
I like to watch shows about science and technology
51% ▲
37%
I talk about science and technology at home with my family
45% ▲
34%
I would like to be a scientist one day
33% ▲
22%
Boys/men
Girls/women

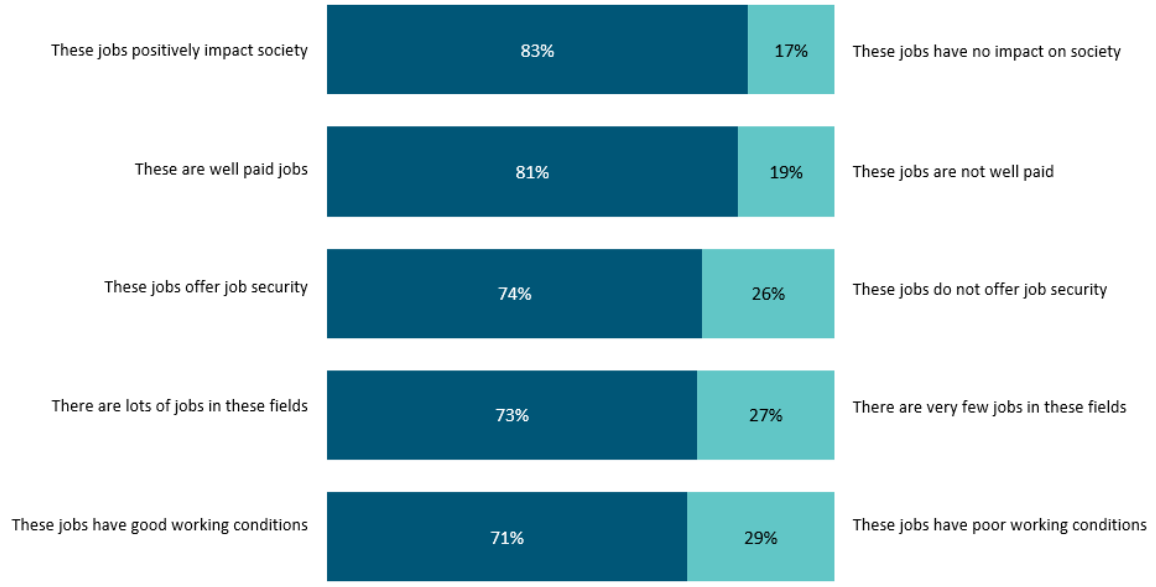
As seen consistently throughout this report, parents and guardians play a strong role in positioning STEM study, jobs and careers to young people. The perceptions of STEM fostered by discussions with parents and guardians are largely positive.

Positively, over 8 in 10 young people who have conversations with their parents or guardians about STEM say they have been given the impression that the jobs positively impact society (83%) and that STEM jobs are well paid (81%).

On the other hand, a quarter of these young people (27%) say they get the impression from their parents or guardians that there is job scarcity in these fields, while 29% believe that these jobs have poor working conditions.

Figure 8: Perceptions of STEM jobs as a result of conversations with parents/guardians.

Q. Thinking about conversations you have with your parents or guardians, which of the following opinions/views have you heard from them about careers that need science, technology, engineering and maths skills?



Base: Wave 5 only, those who have talked to their parents/guardians about STEM careers – 1,407. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

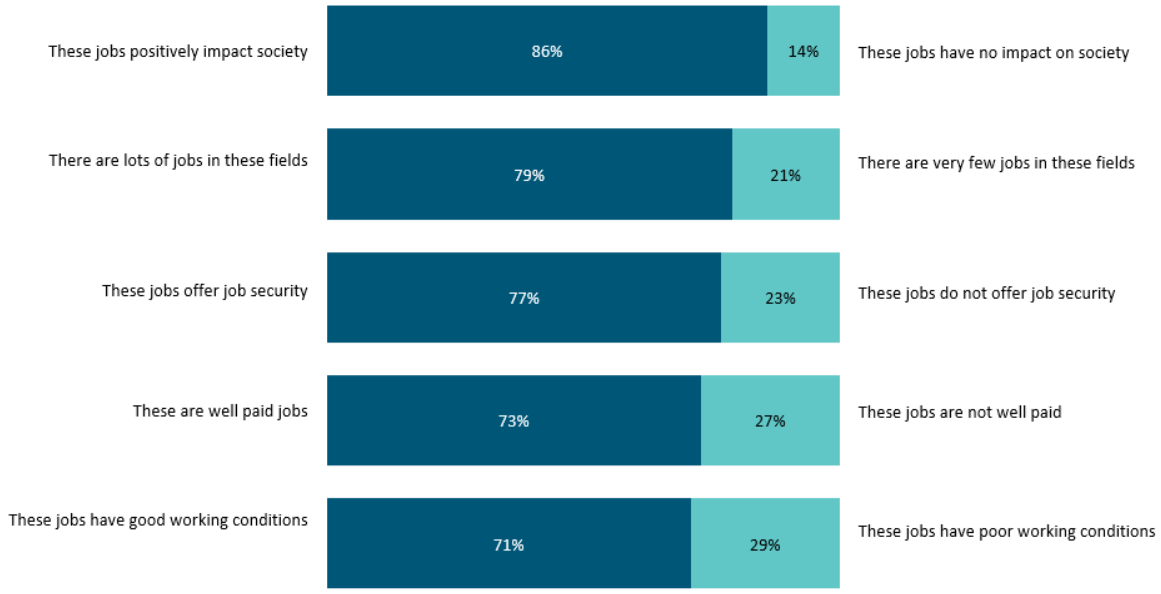
Similarly, conversations with teachers and career advisors are mostly positive regarding STEM study, jobs and careers.

Almost 9 in 10 students who have conversations with teachers and career advisors about STEM careers have the impression that they positively impact society (86%). Around 8 in 10 have the impression that there are lots of jobs in these fields (79%) and that STEM jobs offer security (77%).

Despite this, around 1 in 3 have heard from teachers/career advisors that these jobs are not paid well (27%) or have poor working conditions (29%).

Figure 9: Perceptions of STEM jobs as a result of conversations with teachers/career advisors.

Q. Thinking about your teachers or career advisors, which of the following opinions/views have you heard about careers that need science, technology, engineering and maths skills?



Base: Wave 5 only, those who have talked to their teachers or career advisors about STEM careers – 1,337. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

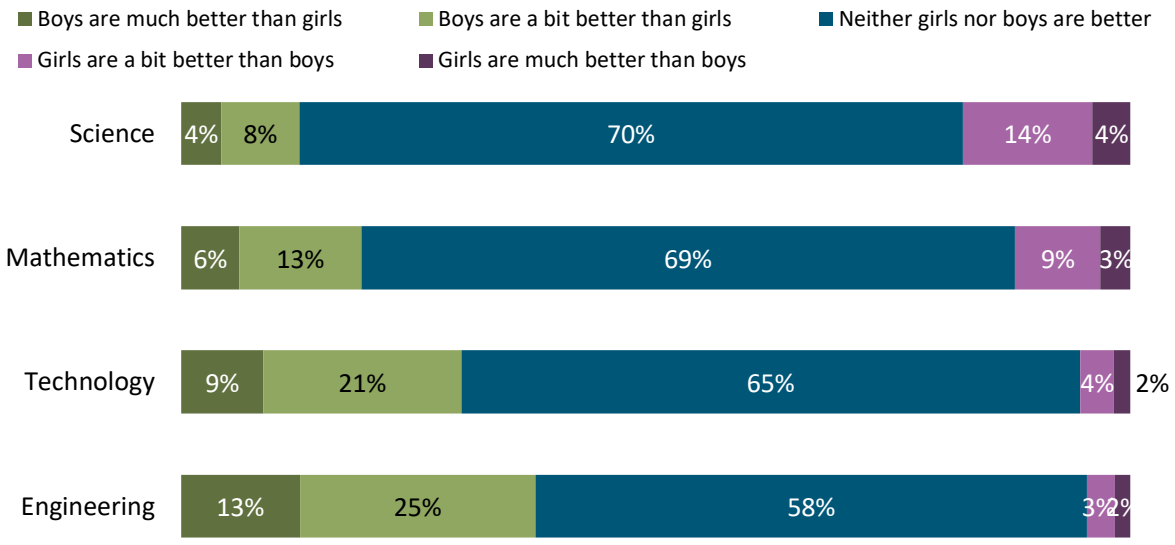
Gender bias in STEM

When asked about which gender is 'better' at STEM subjects, most young people do not hold a gender bias. Around two-thirds of young people say neither girls nor boys are better at science (70%), mathematics (69%) or technology (65%). Slightly fewer (58%) say neither gender is better at engineering. Following a peak in Wave 4, gender bias has mostly remained stable for mathematics, technology and engineering.

12% of young people said boys are better at science and 18% said girls are better at science. The proportion with no gender bias for science remains stable, while the proportion saying that boys are better than girls has fallen from 15% to 12% after a peak in Wave 4. Despite this, there has been a 2 percentage point increase in the proportion saying that girls are better than boys at science (from 16% to 18%, not significant).

Figure 10: Perceptions of gender differences in skills in STEM subjects.

Q. Who is better at the following subjects?



Base: Wave 5 only, total – 3,001. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

Table 11: Proportion who selected that either girls or boys are better at STEM subjects, by wave.

Q. Who is better at the following subjects?

Statements	% Selected			
	Wave 2	Wave 3	Wave 4	Wave 5
Girls are better at science	12%	14%	16%	18%
Girls are better at mathematics	9%	12%	11%	▼12%
Girls are better at technology	6%	7%	6%	5%
Girls are better at engineering	4%	7%	6%	5%
Boys are better at science	13%	12%	15%	▼12%
Boys are better at mathematics	17%	16%	21%	19%
Boys are better at technology	24%	24%	31%	30%
Boys are better at engineering	30%	29%	36%	37%

Base: Total. Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Consistently across the four STEM subjects, boys/men were more likely to say that boys are better than girls, while girls/women were more generally likely to say that neither girls nor boys were better.

Table 12: Proportion who selected that either girls or boys are better at STEM subjects, by gender.

Q. Who is better at the following subjects? Gender differences.

Statements	% Selected	
	Boys/men	Girls/women
Girls are better at science	14%	▲21%
Girls are better at mathematics	11%	▲14%
Girls are better at technology	4%	▲6%
Girls are better at engineering	3%	▲6%
Boys are better at science	▲18%	8%

Statements	% Selected	
	Boys/men	Girls/women
Boys are better at mathematics	▲23%	15%
Boys are better at technology	▲36%	24%
Boys are better at engineering	▲43%	32%

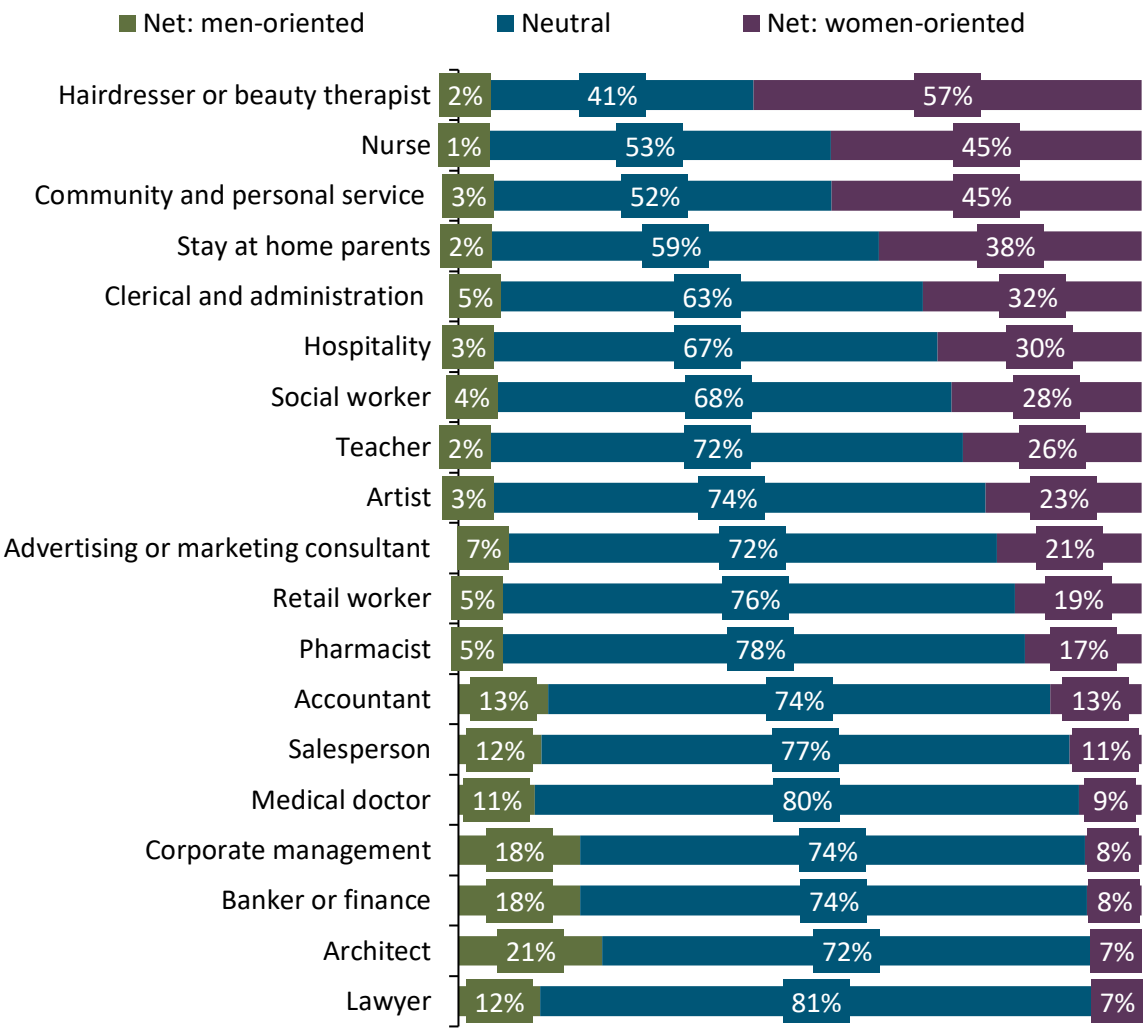
Base: Wave 5 only, boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

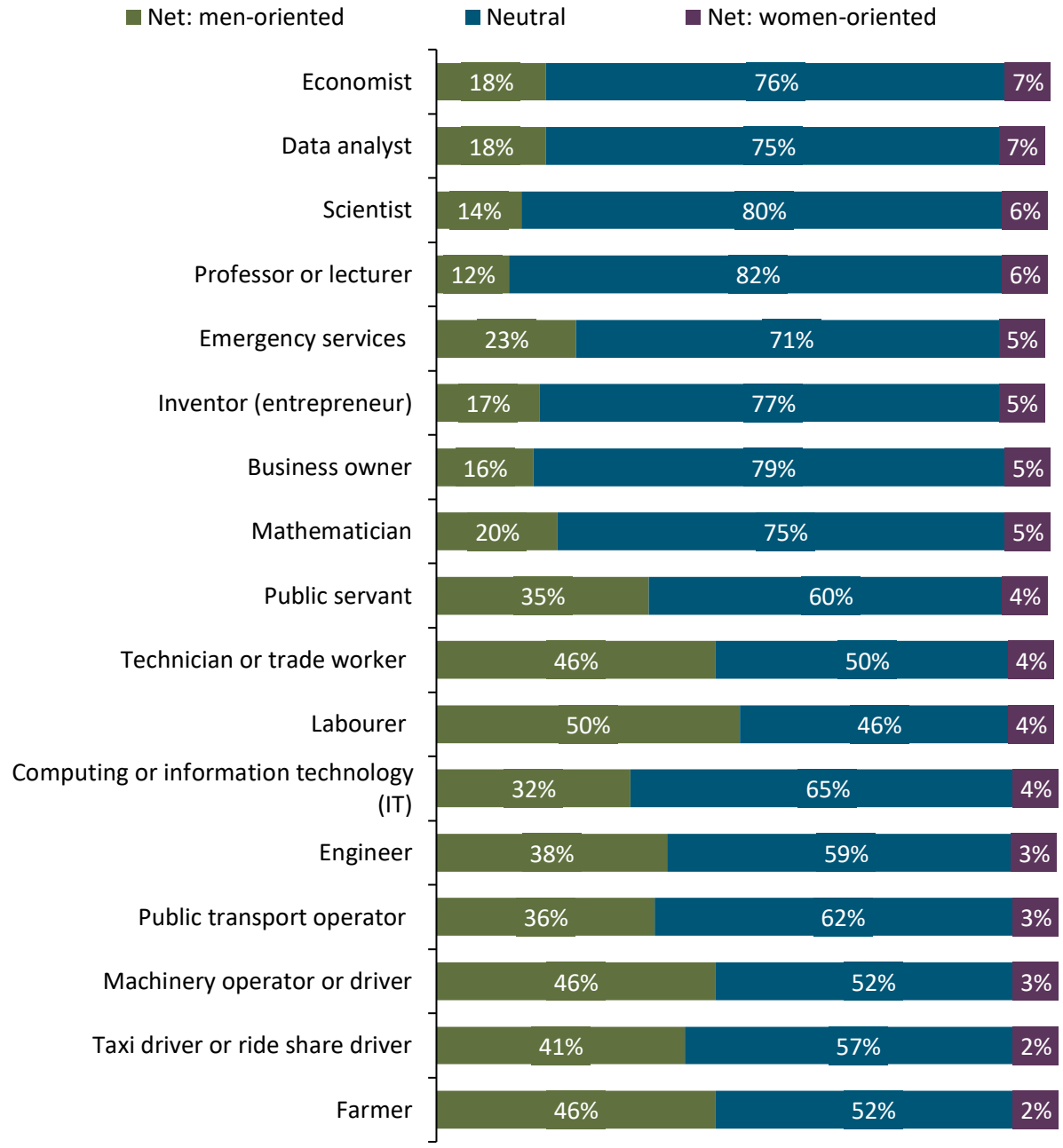
Consistent with this bias, when asked about gender associations with a range of different jobs and careers, STEM jobs and careers including 'engineer', 'computing or information technology', 'data analyst' and 'scientist', are significantly more likely to be associated with men than women.

Despite this, most young people believe that most STEM jobs can be done by either boys or girls, which is extremely positive.

Figure 11: Perceptions of gender orientation of certain job roles.

Q. Thinking about what you know do you think these jobs are more for boys, more for girls or for both?


Net: men-oriented
Neutral
Net: women-oriented
Hairdresser or beauty therapist 2% 41% 57%
Nurse 1% 53% 45%
Community and personal service 3% 52% 45%
Stay at home parents 2% 59% 38%
Clerical and administration 5% 63% 32%
Hospitality 3% 67% 30%
Social worker 4% 68% 28%
Teacher 2% 72% 26%
Artist 3% 74% 23%
Advertising or marketing consultant 7% 72% 21%
Retail worker 5% 76% 19%
Pharmacist 5% 78% 17%
Accountant 13% 74% 13%
Salesperson 12% 77% 11%
Medical doctor 11% 80% 9%
Corporate management 18% 74% 8%
Banker or finance 18% 74% 8%
Architect 21% 72% 7%
Lawyer 12% 81% 7%



Base: Wave 5 only, total – 3,001. Don't know excluded. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

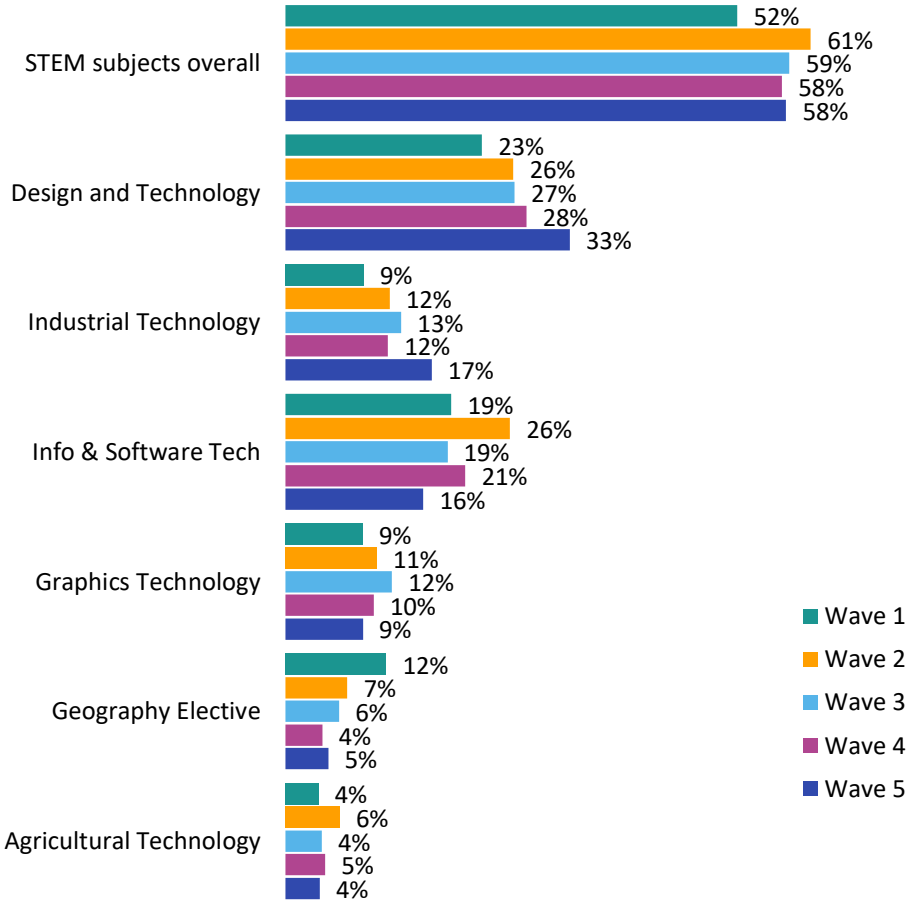
Current participation in STEM subjects

Year 9 and 10

The survey collected data on the proportion of young people currently studying STEM subjects. Participation in STEM elective subjects has remained stable overall for Wave 5 among Year 9 and 10 students (58%).

Figure 12: Elective subjects undertaken by Year 9 and 10 students. Showing STEM subjects only.

Q. Which of the following elective subjects best describes the subjects you have chosen to do in years 9 and 10?



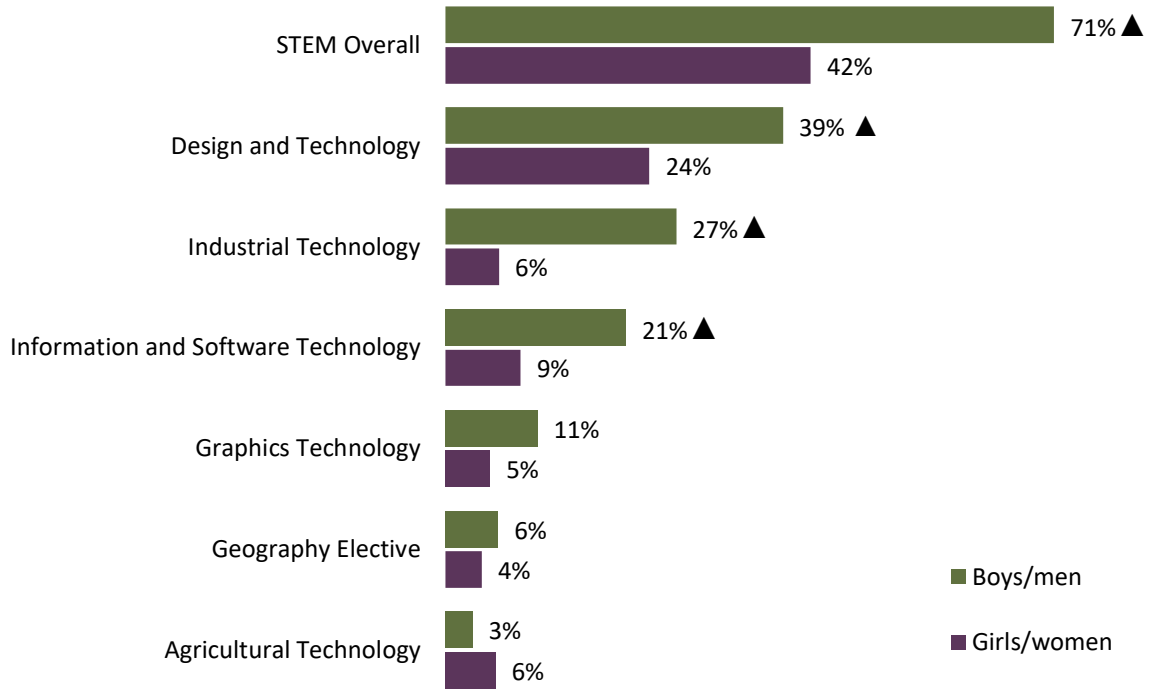
Base: Year 9 and 10s – Wave 1 – 209, Wave 2 – 358, Wave 3 – 320, Wave 4 – 319, Wave 5 – 354. (MC).

Current participation in STEM elective subjects in Year 9 and 10 overall remains significantly higher among boys/men (71%) compared to girls/women (42%). This remains consistent with previous waves.

This gender divide is evident across several key elective subjects, significantly so for information and software technology (21% vs 9%), design and technology (39% vs 24%) and industrial technology (27% vs 6%).

Figure 13: Elective subjects undertaken by Year 9 and 10 students by gender. Showing STEM subjects only.

Q. Which of the following elective subjects best describes the subjects you have chosen to do in years 9 and 10?



Base: Wave 5 only. Year 9 and 10s, boys/men – 167, girls/women - 182. Non-binary/other not shown due to low base size. (MC).

Those with parents/guardians with STEM employment were more likely than those who do not to have chosen STEM overall (73% vs 55), while those with parents/guardians with prior STEM education were also more likely (64% vs 52%).

Year 11 and 12

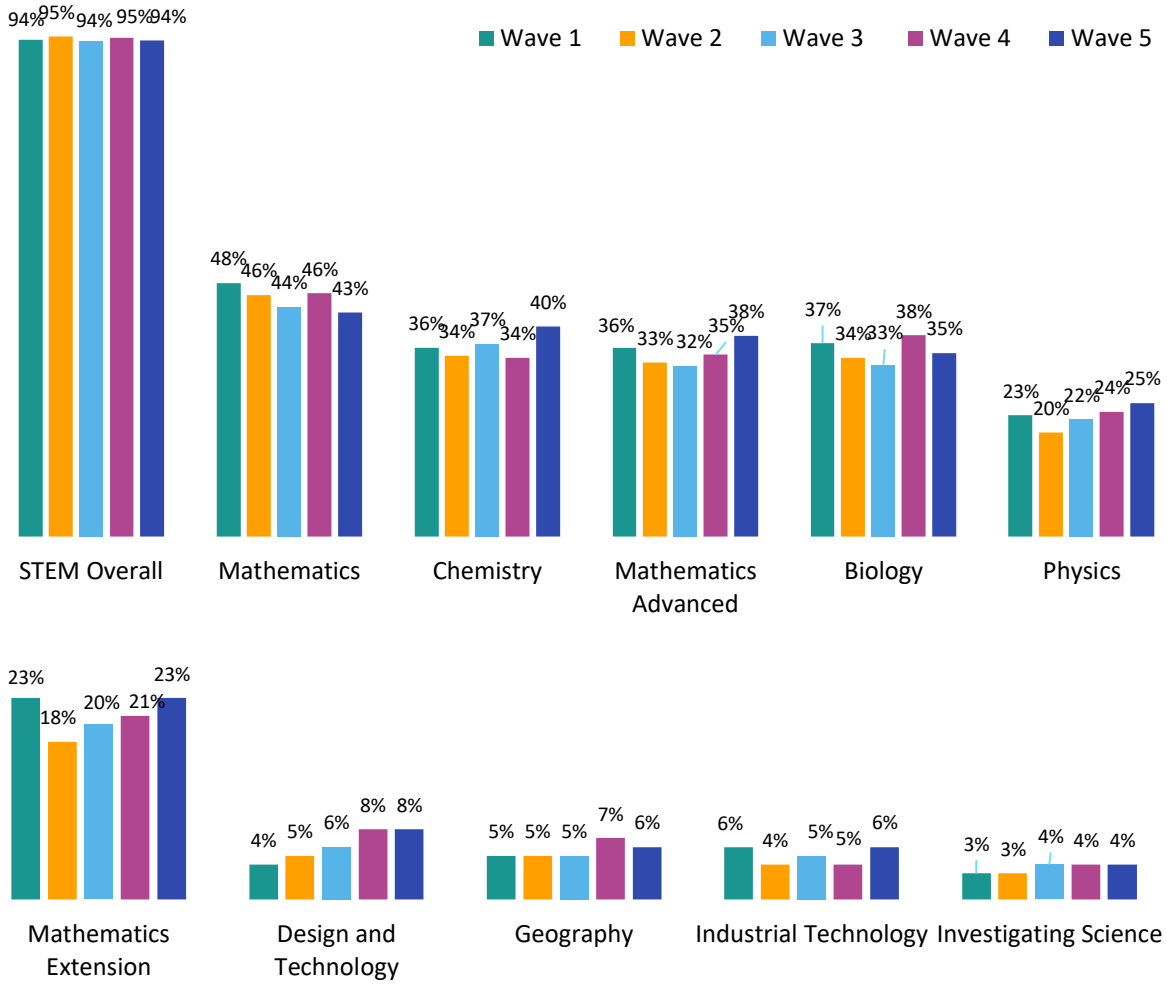
Consistent with previous waves, there is strong participation in STEM elective subjects overall among Year 11 and 12 students (94%), led by participation in mathematics (43%), chemistry (40%), mathematics advanced (38%) and biology (35%).

Participation in STEM subjects among Year 11 and 12 students has not changed significantly since last wave, however, indicatively we can see a slight increase in participation in chemistry (from 34% to 40%) and mathematics advanced (from 35% to 38%), and a decrease in participation in biology (from 38% to 35%) and mathematics (from 46% to 43%).

The steady increase in participation in design and technology across Waves 1 to 4 has now halted with participation remaining stable at 8%, consistent with Wave 4.

Figure 14: Elective subjects undertaken by Year 11 and 12 students. Showing STEM overall and top 10 STEM subjects.

Q. Which of the following elective subjects best describes the subjects you have chosen to do in years 11 and 12?



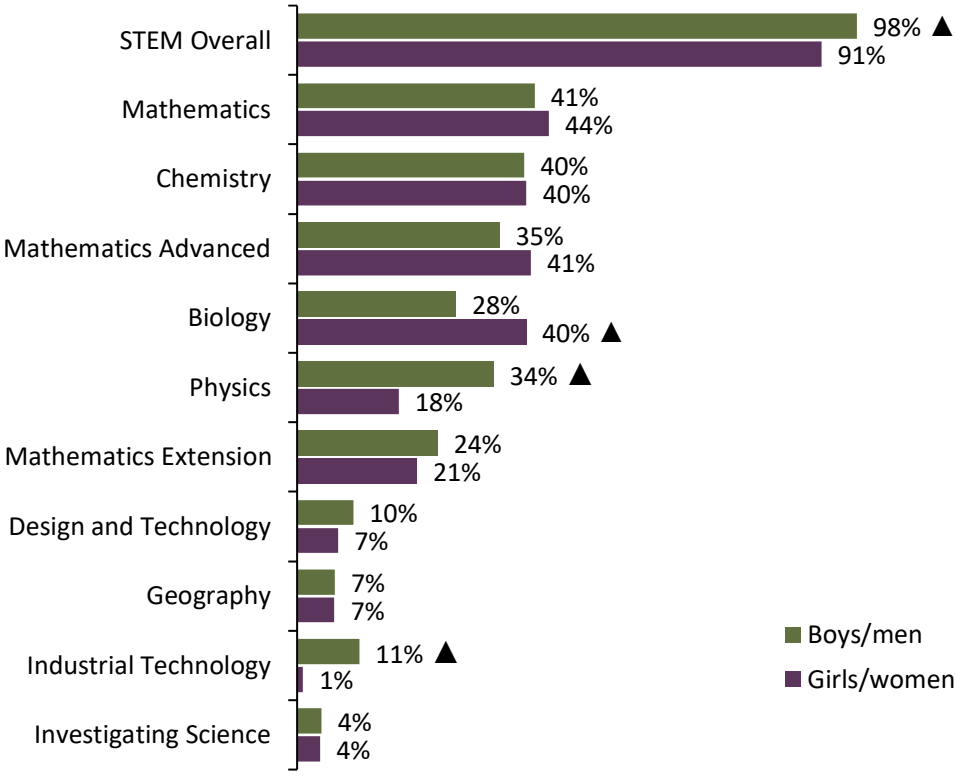
Base: Year 11 and 12s – Wave 1 – 380, Wave 2 – 653, Wave 3 – 680, Wave 4 – 627, Wave 5 - 506. (MC).

Participation in STEM at Year 11 and 12 is significantly higher for boys/men than girls/women (98% vs 91%), unlike in Wave 4 where the difference was not significant. Significant skews are also evident by individual subjects. Girls/women are significantly more likely than boys/men to be currently studying biology (40% vs 28%) and are slightly more likely to be studying mathematics and mathematics advanced.

In comparison, boys/men in Year 11 and 12 are significantly more likely to be studying physics (34% vs 18%) and industrial technology (11% vs 1%).

Figure 15: Elective subjects undertaken by Year 11 and 12 students, by gender. Showing STEM overall and top 10 STEM subjects.

Q. Which of the following elective subjects best describes the subjects you have chosen to do in years 11 and 12?



Base: Wave 5 only. Year 11 and 12s, boys/men – 205, girls/women - 294. Non-binary/other not shown due to low base size. (MC).

While there were no differences by subgroup in terms of the proportion currently studying STEM overall at Year 11 and 12, some key differences are evident for individual subjects. Those who live in metro areas were more likely than regional students to be studying chemistry or engineering studies. Those who were born overseas were more likely than those born in Australia to be studying chemistry and physics. Those with a CALD background were more likely than non-CALD students to be studying chemistry, mathematics advanced, physics, mathematics extension and engineering studies.

Once again, the influence of parent/guardian education in STEM is evident: students with parents or guardians who have a STEM education were more likely to be studying chemistry,

physics or mathematics extension. Students with a parent or guardian with a STEM education were more likely to be studying mathematics advanced, physics and mathematics extension.

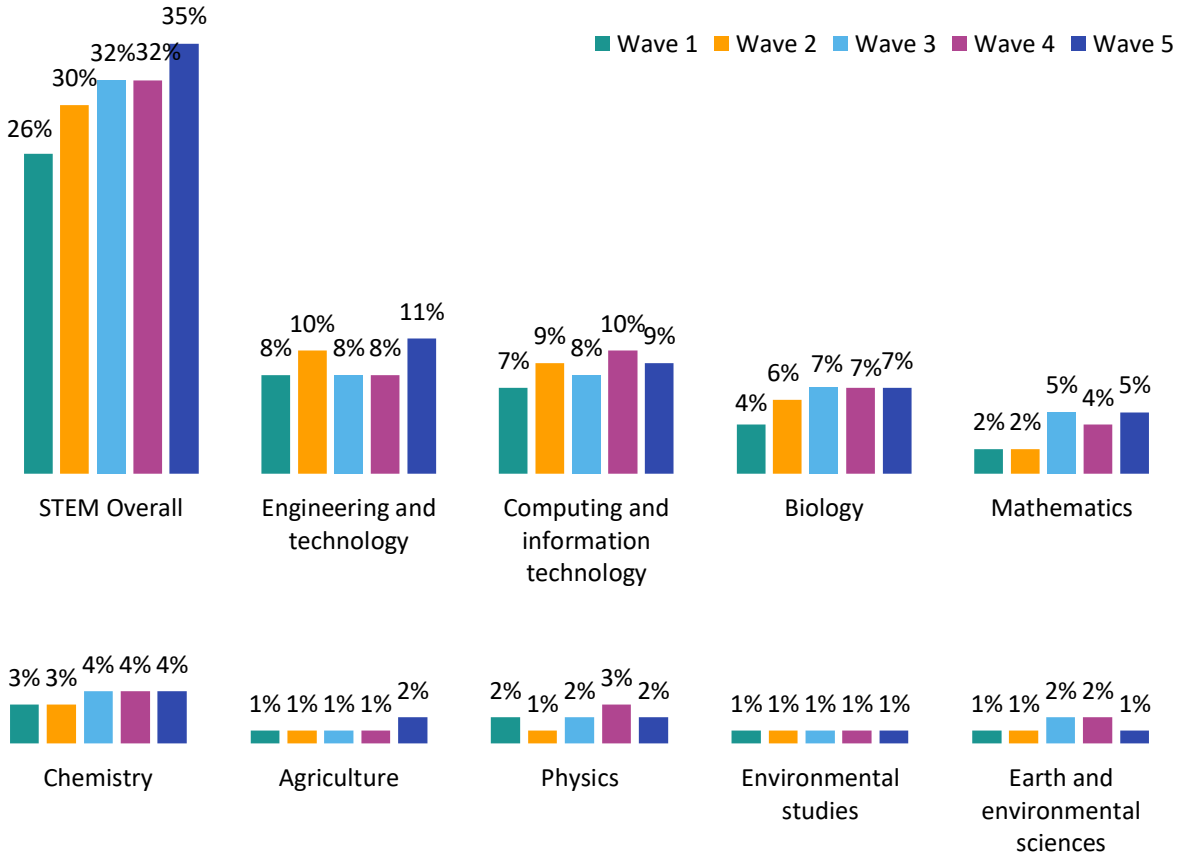
Higher education

Overall, the proportion of young people studying STEM-related courses at a tertiary level has increased slightly (from 32% to 35%, not significant), but reflects a steady increase over time. Tertiary courses in engineering and technology and computing and information technology remain the most popular STEM areas of study at a tertiary level overall.

This wave we have not seen any significant shifts in tertiary education subjects, although indicatively we have seen a slight increase in students studying engineering and technology (from 8% to 11%).

Figure 16: Subject(s) studying at higher education. Showing STEM subjects only.

Q. Which of the below courses best describes the course you are currently studying in your higher education course?



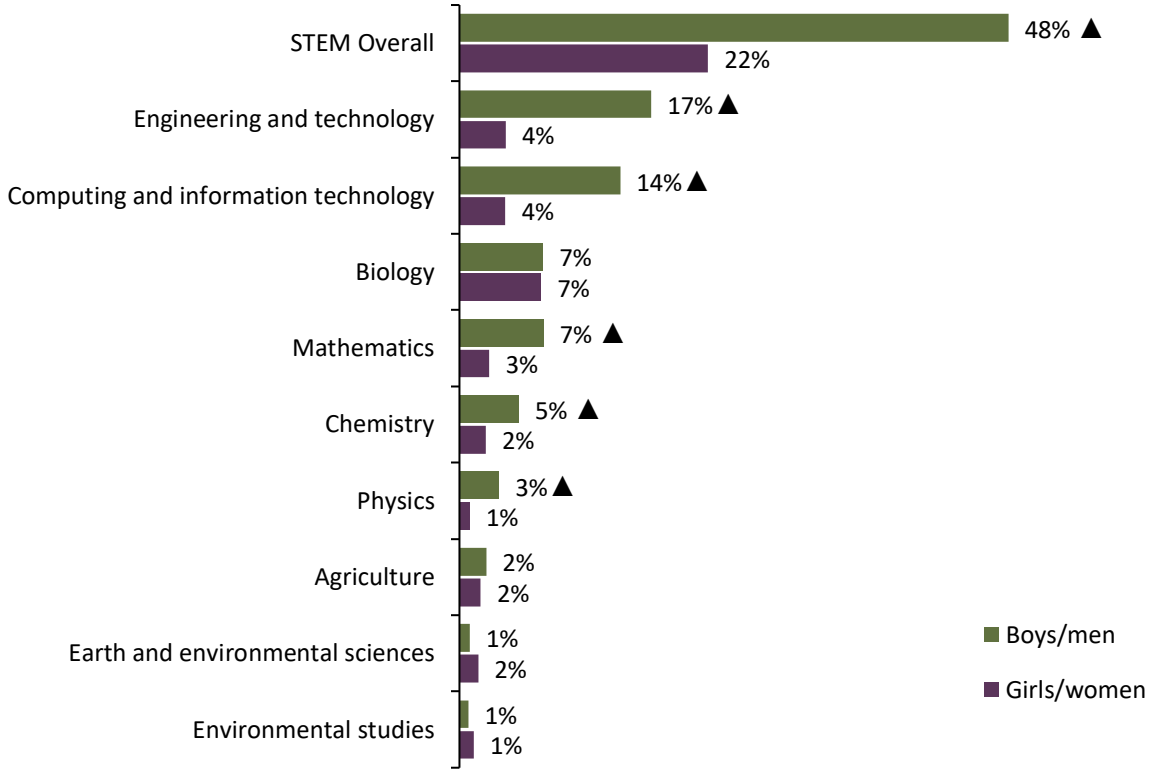
Base: Those in Higher Education – Wave 1 – 933, Wave 2 – 1,140, Wave 3 – 1,260, Wave 4 – 1,177, Wave 5 – 1,236. (MC).

Consistent with previous waves, significantly more men are studying STEM at a tertiary level compared to women (48% vs 22% overall).

It was found that at an individual subject level, men are significantly more likely than women to be studying engineering and technology (17% vs 4%), computing and information technology (14% vs 4%), mathematics (7% vs 3%), chemistry (5% vs 2%) and physics (3% vs 1%) at a tertiary level.

Figure 17: Subject(s) studying at higher education, by gender. Showing STEM subjects only.

Q. Which of the below courses best describes the course you are currently studying in your higher education course?



Base: Wave 5 only, those in Higher Education, boys/men – 548, girls/women - 674. Non-binary/other not shown due to low base size. (MC).

Aside from gender, a key factor in determining study of STEM at a tertiary level is parent/guardian engagement in STEM. Tertiary students with parents who are educated in STEM are significantly more likely to be studying STEM overall (40% vs 29%), and students with parents who work in STEM are slightly more likely to be studying STEM overall (42% vs 34%, not significant).

Below are other significant differences among key demographic groups.

Table 13: Significant differences between subgroups in studying STEM overall at a tertiary level.

Audience	WEIGHTED %
Location	
Metropolitan	▲37%
Regional/remote	27%
CALD status	
Non-CALD	32%
CALD	▲40%
Country of birth	
Born in Australia	32%
Born overseas	▲45%
SES	
Lower SES (Decile 1–5)	30%
Higher SES (Decile 6–10)	▲37%
Aboriginal and/or Torres Strait Islander status	
Non-Aboriginal and/or Torres Strait Islander	34%
Aboriginal and/or Torres Strait Islander	▲63%

Some key differences are also evident for individual subjects. Students who were born overseas as well as students who are CALD students are more likely than those born in Australia to be studying computing and information technology and engineering and technology.

Influences in relation to STEM study

Key factors influencing the consideration of STEM study continue to be led by personal interest (52%), young people's perceptions of their own skills and abilities (48%), potential future career (39%) and earning potential (30%).

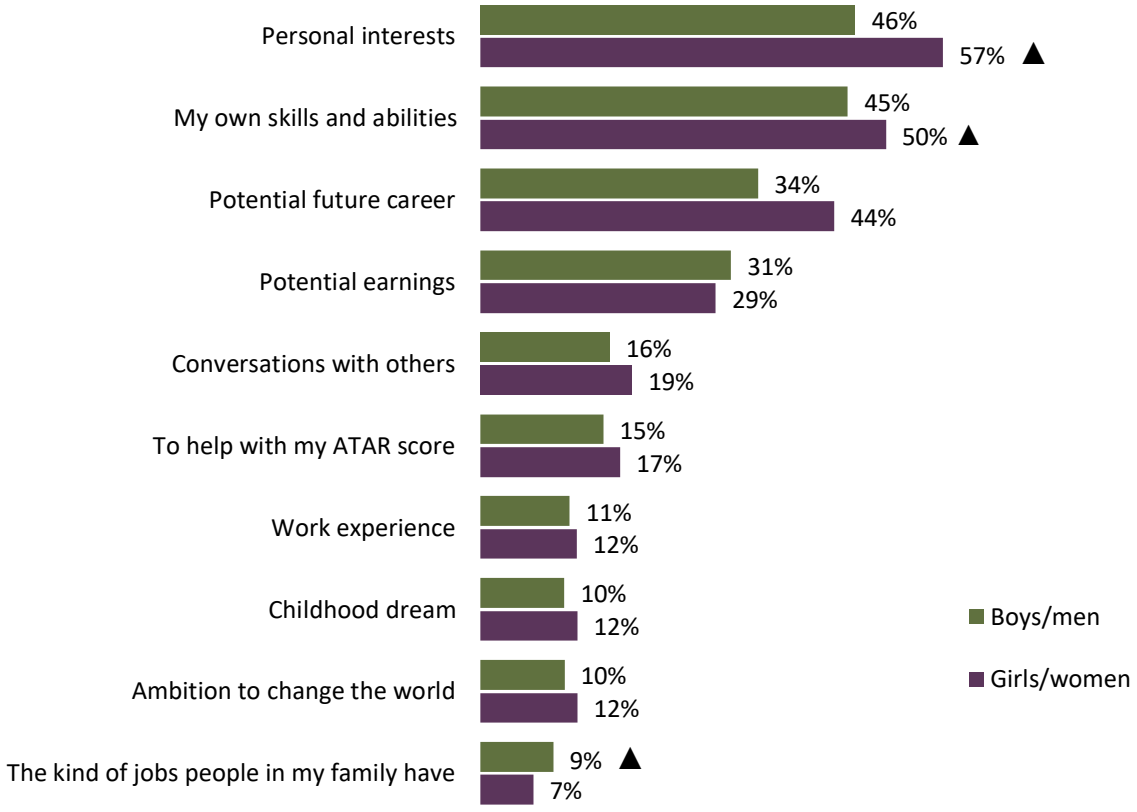
The proportion of young people influenced by personal interests and their skills and abilities have decreased this wave, as well as those influenced by potential earnings.

The role of personal interest and perceptions of own skills and abilities is of significantly greater influence among girls/women than it is for boys/men (57% vs 46% and 50% vs 45% respectively). Girls/women are also more likely to be influenced by their potential future career (44% vs 34%).

Conversely, boys/men are more likely than girls/women to be influenced by the kinds of jobs their family have (9% vs 7%), activities outside of school (9% vs 5%), as well as what they see on YouTube, social media and on TV.

Figure 18: Top 10 factors most influencing decision of which subject to study, by gender.

Q. Which factors most influence your decision of the subjects you choose to study? (MC).



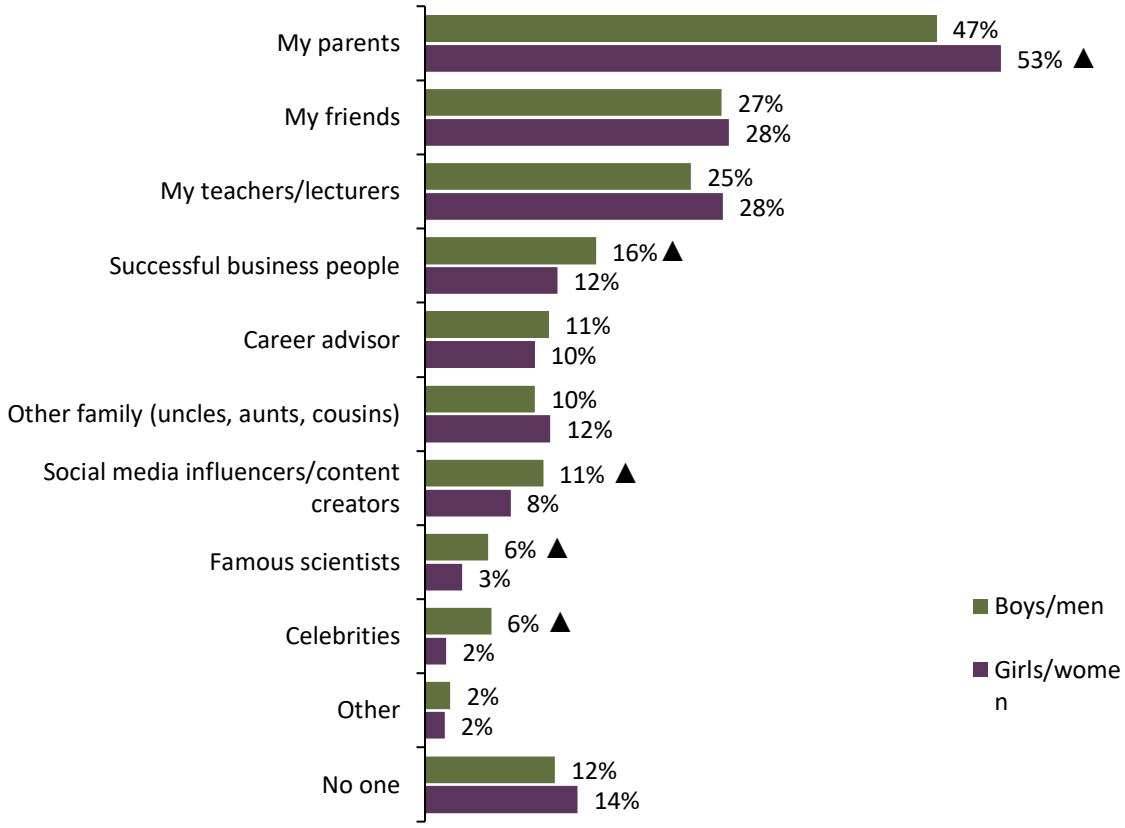
Base: Wave 5 only, boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

Overall, parents/guardians remain a key 'person' of influence with regards to study choices (50%) along with friends (28%) and teachers/lecturers (26%).

It was found that girls/women are more likely than boys/men to be influenced by their parents (53% vs 47%). On the other hand, boys/men are more likely than girls/women to be influenced by successful business people (16% vs 12%), social media influencers/content creators (11% vs 8%), famous scientists (6% vs 3%) and celebrities (6% vs 2%).

Figure 19: People most influencing the decision of which subject to study, by gender.

Q. And which of the below people most influence your decision of the subjects you choose to study? (MC).



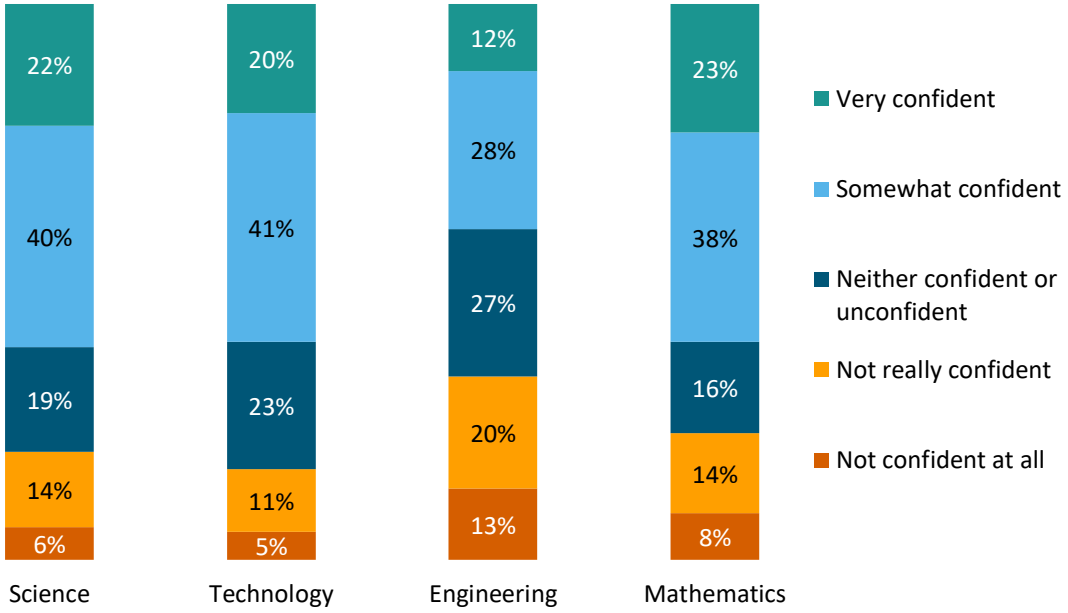
Base: Wave 5 only, boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

Confidence in studying STEM

Young people were asked about their level of confidence in studying a range of STEM subjects. Overall, confidence in studying STEM is high (86%) and consistent with Wave 3 (87%). Confidence is highest for science (62%), closely followed by technology (61%), mathematics (61%) and engineering (40%).

Figure 20: Confidence levels in studying STEM, by STEM subject.

Q. How confident do you feel about studying each of the subjects that make up STEM?



Base: Wave 5 only, total – 3,001. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

Table 14: Confidence in studying STEM (Net: somewhat/very confident) by wave.

Q. How confident do you feel about studying each of the subjects that make up STEM?

Subject	Net: somewhat/very confident				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
STEM Overall	85%	80%	85%	87%	86%
Science	62%	58%	61%	62%	62%
Technology	64%	61%	64%	62%	61%
Engineering	37%	38%	41%	41%	40%
Mathematics	63%	57%	60%	59%	61%

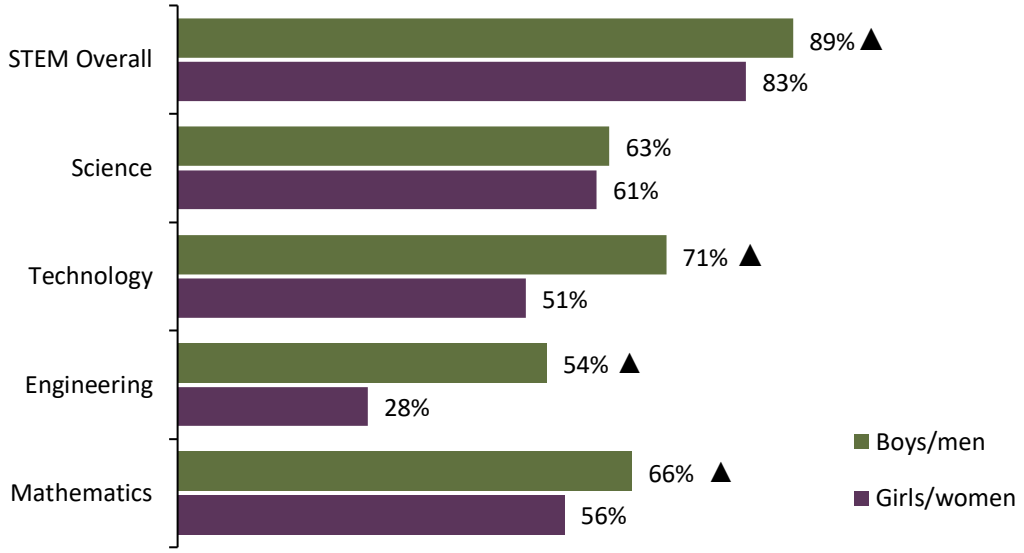
Base: Total, Wave 1 – 2,092, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

The data shows that boys/men are significantly more confident than girls/women in all STEM subjects, excluding science, where confidence among boys/men is on par with that of girls/women (63% and 61% respectively).

Girls/women are *least* confident when it comes to studying engineering (28%), followed by technology (51%) and mathematics (56%).

Figure 21: Net confidence in studying STEM (net: somewhat/very confident), by STEM subject, by gender

Q. How confident do you feel about studying each of the subjects that make up STEM?



Base: Wave 5 only, total – boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

CALD young people were more likely to feel confident in STEM (89% vs 84% of those who are non-CALD). Those who were born overseas were also more likely to feel confident in STEM compared to those born in Australia (89% vs 85%).

Table 15: Significant differences between subgroups in confidence in studying subjects that make up STEM (net: somewhat/very confident).

Audience	WEIGHTED %
CALD status	
Non-CALD	84%
CALD	▲89%
Country of birth	
Born Overseas	▲89%

Audience	WEIGHTED %
Born in Australia	85%

Consistent with other measures, a student's confidence in studying STEM is likely to be higher (across all STEM subjects) when at least one of their parents has previously studied or works in STEM themselves. Details of these differences are noted below:

Table 16: Confidence in studying STEM (net: somewhat/very confident) subjects by parent background.

Q. How confident do you feel that you can study and get good results in each of the following subjects?

Subject	Confidence in studying STEM (net: somewhat/very confident)			
	Parent study in STEM		Parent employment in STEM	
	Yes	No	Yes	No
STEM overall	▲89%	82%	▲91%	85%
Science	▲67%	56%	▲69%	61%
Technology	▲63%	58%	65%	60%
Engineering	▲47%	34%	▲48%	39%
Mathematics	▲67%	54%	▲73%	59%

Base: Wave 5 – Parents educated in STEM - 1,583, Parents not educated in STEM - 1,418; Parents employed in STEM – 367, Parents not employed in STEM-related work – 2,634.

Drivers of gender differences in confidence in STEM

It was found that the reasons girls/women lack confidence in engineering are primarily related to a lack of familiarity, having not studied the subject before (53%) and reportedly having 'no interest' in the subject (45%). Around a third (32%) say they don't understand it.

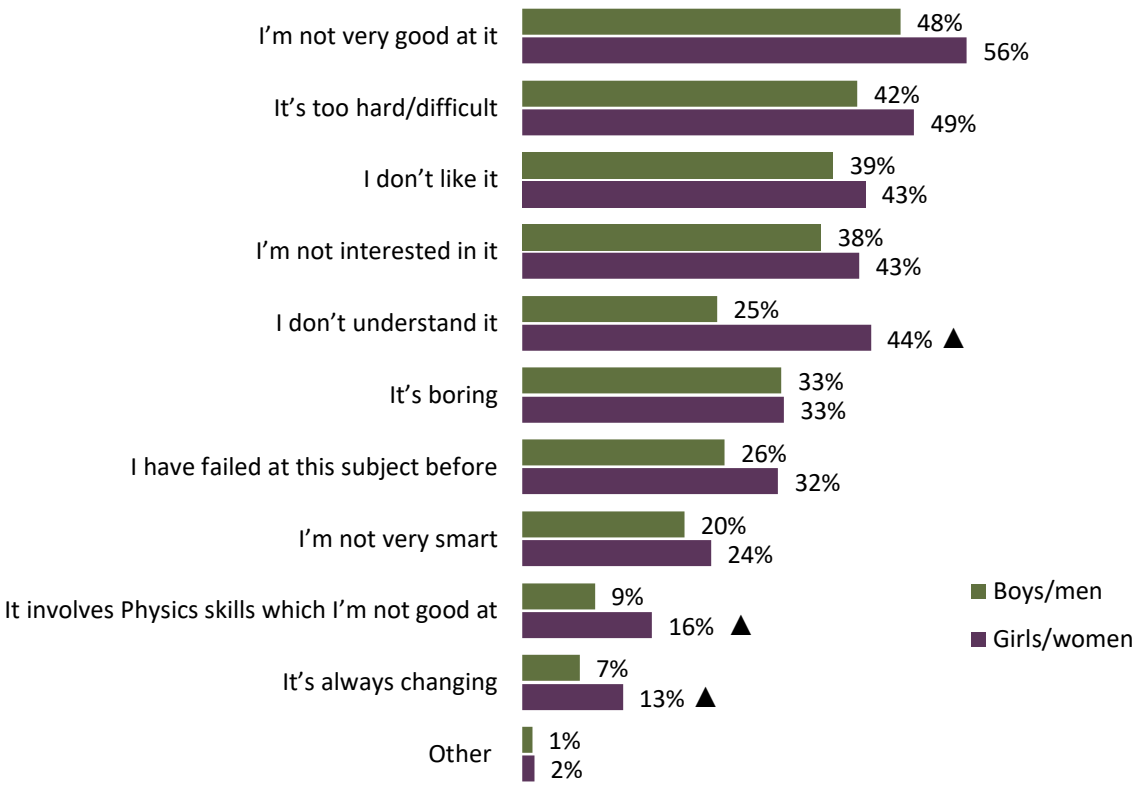
Considering technology, reasons for low confidence among girls/women are mostly related to not being interested in it (44%), not having studied it before (34%), but also not feeling that they are very good at it (31%).

Girls/women doubt their abilities in science, with 41% saying they aren't very good at it. They are more likely than boys/men to say it requires maths skills which they aren't good at (23% vs. 11%), and that it involves biology skills which they aren't good at (22% vs. 15%). The most common reason among boys/men for low confidence in studying science is lack of interest or that they don't like it (both 36%) rather than them not feeling good at it.

The data also suggests that the reasons driving low confidence in mathematics are also more internalised and reflect the perceptions of girls/women regarding their own ability. Girls/women are significantly more likely than boys/men to attribute their low confidence in mathematics to 'not understanding it' (44% vs 25%) or say that they are 'not very good at it', they 'don't like it' and that they have 'failed this subject before'. Sixteen per cent of girls/women say they are not confident in mathematics because it involves Physics skills which they are not good at, compared to only 9% of boys/men.

Figure 22: Reasons for not feeling confident in getting good results in mathematics, by gender.

Q. Why do you not feel confident about getting good results in mathematics?



Base: Wave 5 only, those who do not feel confident – boys/men – 267, girls/women – 406. Non-binary/other not shown due to low base size.

Confidence in participating in conversations regarding STEM topics outside of school/study has remained stable for the previous 3 waves, but this wave we have seen a significant drop, from 59% to 56%. This decline is driven by an increase in the proportion who feel neither confident nor unconfident (from 27% to 30%).

Table 17: Confidence levels in understanding of science and technology outside of school/study.

Q. And what about outside of school/study, how confident is your understanding of science and technology when people are talking about it or when you watch or read about it on TV or online?

Confidence	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Net: Confident	66%	58%	59%	59%	▼56%
Net: Not confident	9%	13%	13%	14%	15%

Base: Total. Wave 1 – 2,092, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Boys/men remain more confident than girls/women in discussing STEM topics outside of school/study (61% vs 51%), a finding that has been consistent across waves.

Again, there is a role of parent/guardian background, with confidence higher among those with parents/guardians with STEM education (60% vs 50% of those who do not). Young people with parents in a STEM job were slightly more likely to be confident than those without (60% vs 55%, not significant).

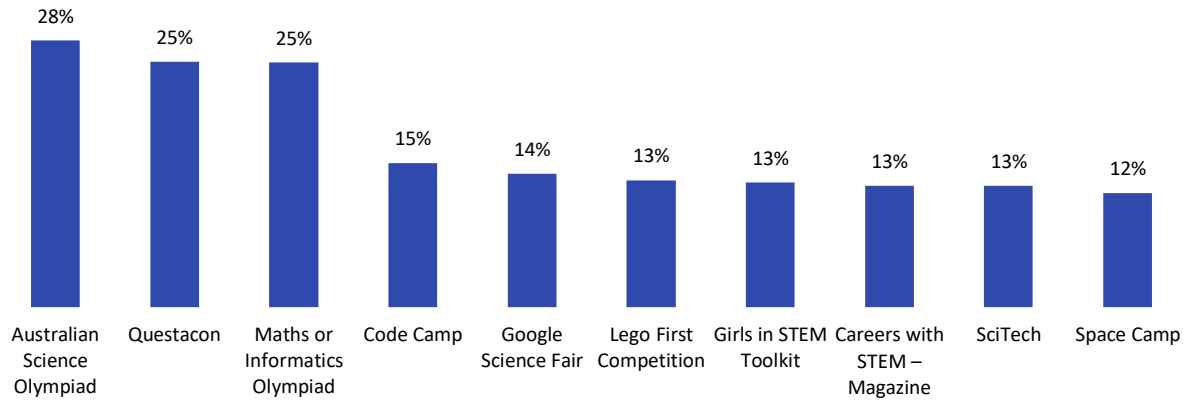
Participation in STEM activities and events

The research sought to understand students' awareness of and participation in STEM activities and events over the last 12 months. Awareness of activities and events related to STEM remained stable at 85%, consistent with the past 2 waves.

The top 10 events that students are aware of are noted below.

Figure 23: Awareness of STEM events, activities and resources among those who had participated in a STEM activity or event. Showing top 10 events aware of only.

Q. And which of the below events, activities or resources have you heard of?



Base: Those who had participated in a STEM activity/event – Wave 5 – 1,335.

This wave we observed a significant increase in awareness of F1 in Schools (from 6% to 9%) and a significant decline in awareness of the BHP Billiton Science and Engineering Awards (from 9% to 6%).

Participation in STEM-related activities outside of school/study remained stable at 45% this wave, made up of 29% who had participated in a few and 15% who had participated in one activity.

Boys/men were more likely to say they had participated (48% vs 41% of girls/women), driven by a greater proportion of boys/men saying they had participated in a few activities (32% vs 27%).

Participation was also higher among those with a higher socio-economic status (47%), those in metro areas (48%), those born overseas (52%), those with a CALD background (51%), those who identify as Aboriginal and/or Torres Strait Islanders (54%), those with a parent or guardian with STEM education (55%) or who works in STEM (53%).

Future intentions for STEM

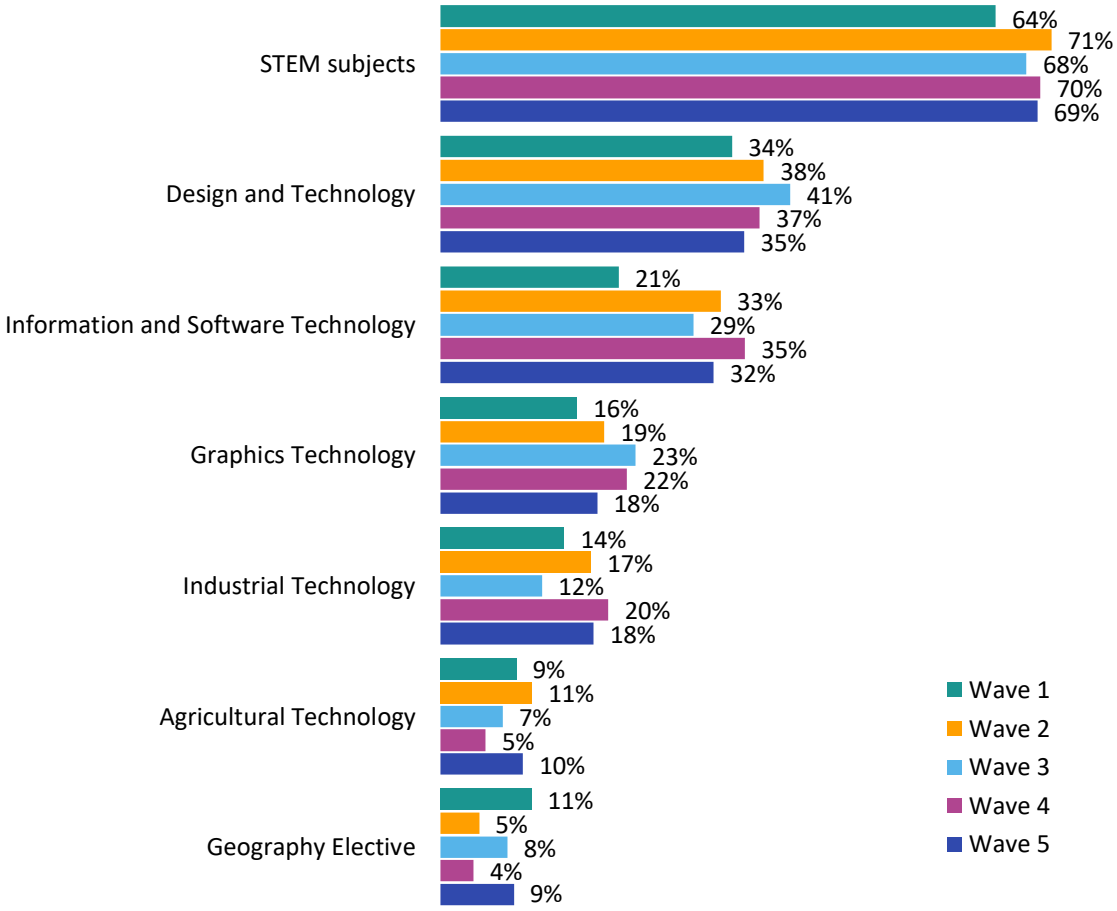
Intention to study STEM subjects in the future

Intentions for STEM electives at Year 9 and 10

When asked about studying STEM subjects in the future, the intentions of Years 6 to 8 students have remained stable (69% in Wave 5, compared to 70% in Wave 4). Although not significant, likely due to a low sample size, there has been a slight uplift in intention to study agricultural technology this wave (from 5% to 10%), as well as geography elective (from 4% to 9%).

Figure 24: Future STEM elective study intentions among students in Years 6 to 8, by wave.

Q. Which of the following subjects would you be interested in studying once you get the choice to select your subjects?



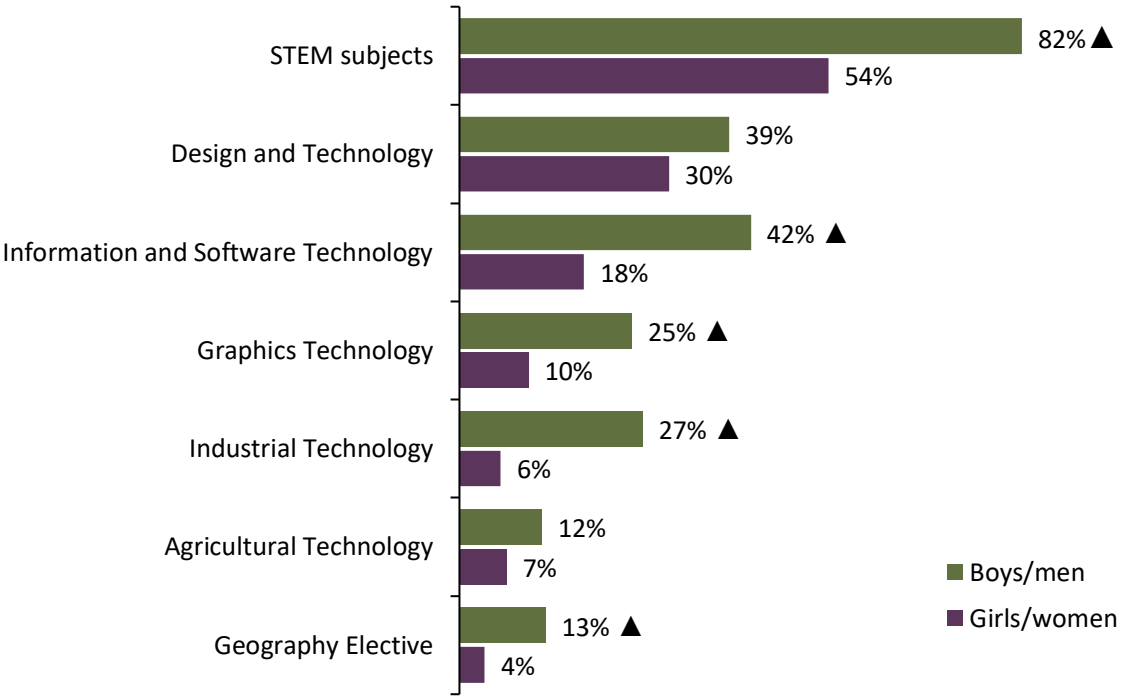
Base: Year 6–8s – Wave 1 – 67, Wave 2 – 289, Wave 3 – 221, Wave 4 – 168, Wave 5 - 360. (MC).

Consistent with the previous wave, boys/men in Years 6 to 8 remain significantly more likely to intend to study STEM subjects in future than do girls/women (82% compared to 54%).

The data also shows that boys/men are significantly more likely than girls/women to express an intention to study information and software technology (42% vs 18%), graphics technology (25% vs 10%), industrial technology (27% vs 6%) and geography elective (13% vs 4%).

Figure 25: Future STEM elective study intentions among students in Years 6 to 8, by gender.

Q. Which of the following subjects would you be interested in studying once you get the choice to select your subjects?



Base: Year 6—8s, Wave 5 only, total – boys/men – 175, girls/women – 182. Non-binary/other not shown due to low base size. (MC)

Intentions for STEM electives at Year 11 and 12

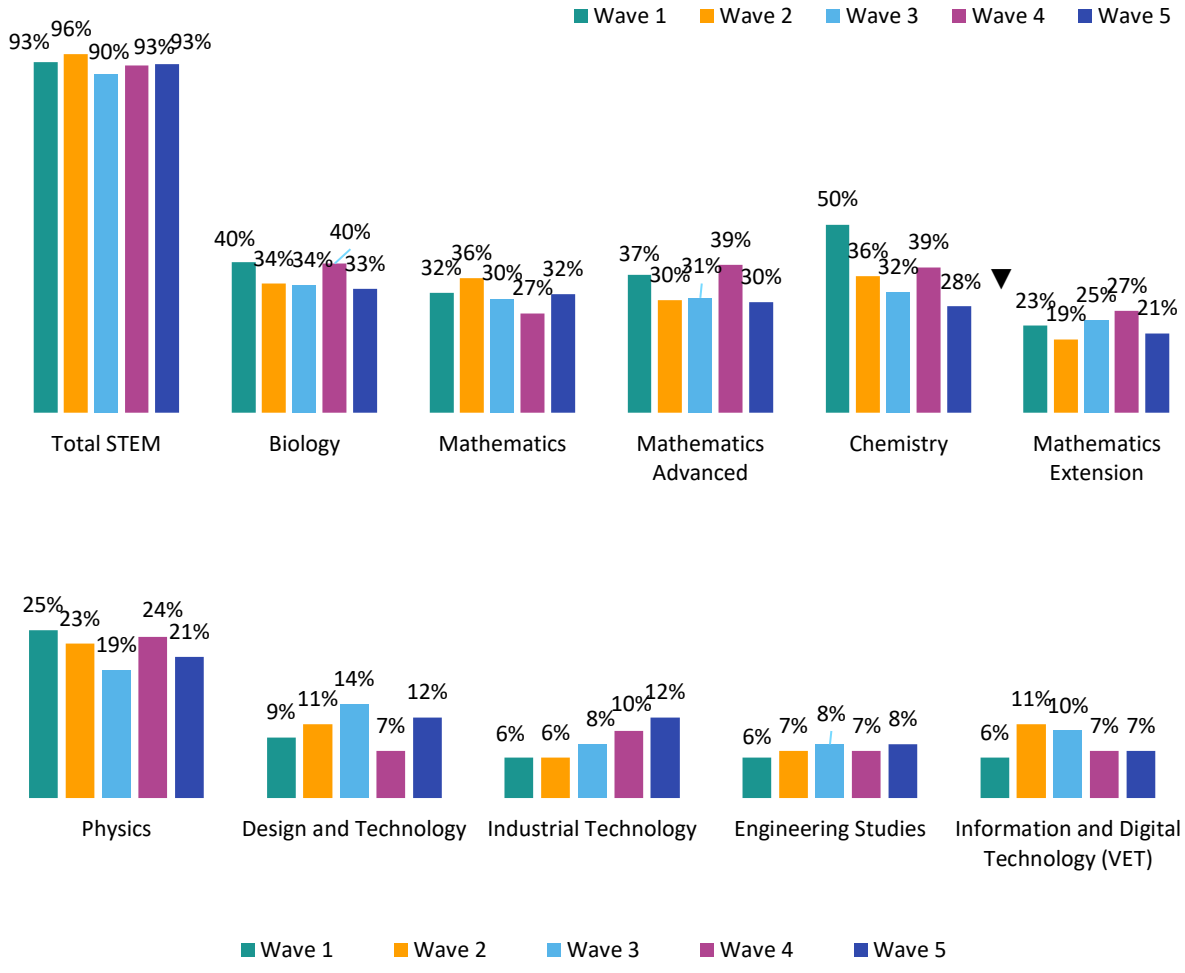
Among those in Year 9 and 10 there has been no change in the proportion of young people intending to enrol in STEM subjects for Years 11 and 12 (93%).

While not significant, we have seen an uplift in intentions for mathematics, design and technology and industrial technology, but we have also seen declines in intentions for other subjects such as biology, mathematics advanced and chemistry. The decline in intention for chemistry was significant (from 39% to 28%).

The data shows that while intention increased for many subjects in Wave 4, intention has now returned to levels previously observed instead of continuing on an upward trajectory. The exception to this rule in industrial technology.

Figure 26: Future STEM elective study intentions for Years 11 and 12 (among Year 9 and 10s). Showing total (STEM overall) top 10 only, by wave.

Q. Please select from the below list which elective subjects you are considering choosing for years 11 and 12.



Base: Year 9 and 10s – Wave 1 – 209, Wave 2 – 358, Wave 3 – 320, Wave 4 – 319, Wave 5 - 354. (MC).

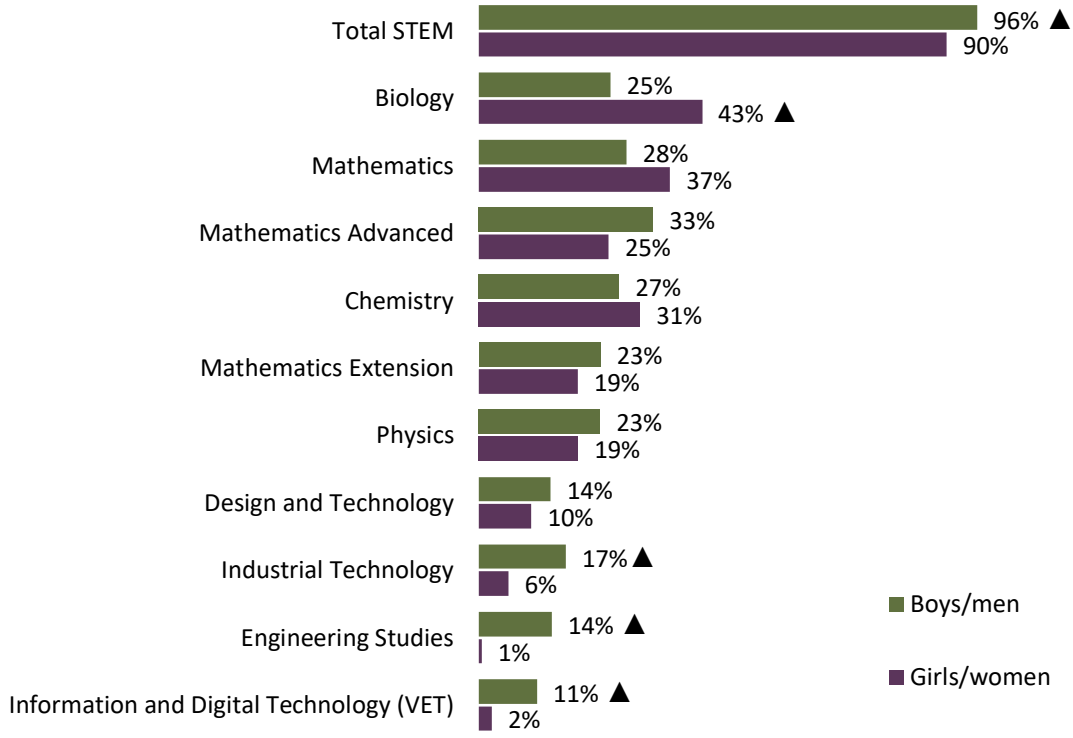
Gender skews in STEM study intentions among Year 9 and 10 students are also evident, with 96% of boys intending to study STEM compared to 90% of girls.

Girls/women in Years 9 and 10 were found to be significantly more likely than boys/men to express an intention to study biology, although with a smaller gender gap than in Wave 4 (43% vs 25%). Girls were slightly more likely to intend to study mathematics and chemistry than boys, but these differences are not significant.

In comparison, it was found that Year 9 and 10 boys are significantly more likely than girls to express intention to study industrial technology (17% vs 6%), engineering studies (14% vs 1%) and information and digital technology (11% vs 2%). Other differences were not significant, but boys were slightly more likely to intend to study physics, design and technology, mathematics advanced and mathematics extension.

Figure 27: Future STEM elective study intentions for Years 11 and 12, among Year 9 and 10s, by gender.

Q. Please select from the below list which elective subjects you are considering choosing for years 11 and 12.



Base: Wave 5 only. Year 9 and 10s, boys/men – 167, girls/women - 182. Non-binary/other not shown due to low base size. (MC).

At an overall STEM level, students who are CALD were more likely to intend to study STEM at Years 11 and 12 than those who were not (97% vs 90%). Students who had a parent with a STEM education were also more likely to intend to study STEM at Years 11 and 12 (97% compared to 89% of students with parents who do not have a STEM education).

Differences are also evident at an individual subject level, with CALD students having a higher intention for biology, mathematics advanced, chemistry, mathematics extension and physics.

Students who identified as Aboriginal and/or Torres Strait Islanders were significantly more likely to intend to study metal and engineering (VET), automotive (VET), earth and space science and living world science than those who did not, but were less likely to intend to study chemistry.

Students who were born overseas were more likely than those born in Australia to intend to study biology in Years 11 and 12 (52% vs 29%).

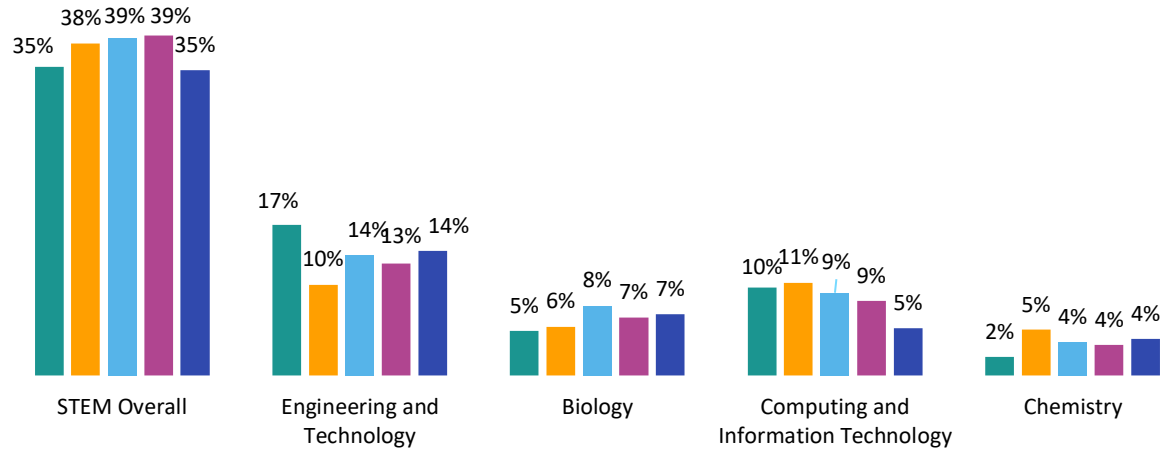
Students whose parents have studied STEM are also significantly more likely to intend to study many STEM subjects, such as mathematics advanced, chemistry, mathematics extension and physics, than those who did not. However, intentions did not differ significantly between those whose parents work in STEM and those who do not.

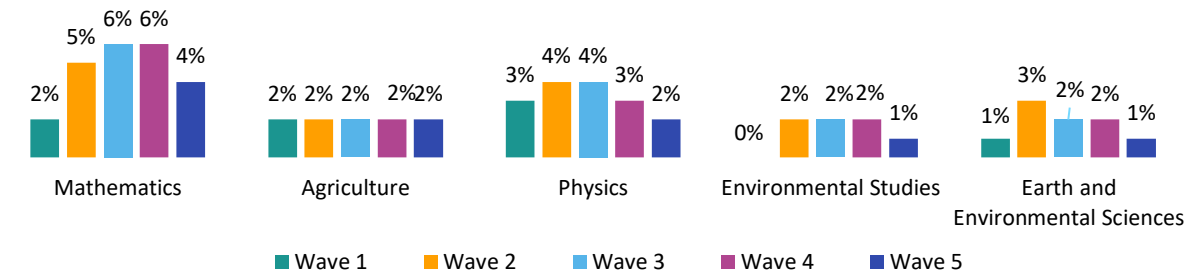
Intentions for STEM at higher education

The intention of Year 11 and 12 students to study STEM at the tertiary level has declined slightly, although not significantly, from 39% to 35%. This is driven by slightly lower intention for computing and information technology this wave (from 9% to 5%), as well as slightly lower intention for mathematics (from 6% to 4%).

Figure 28: Future study intentions for STEM at higher education, among those in Year 11 and 12, by wave.

Q. Please select from the below list which course(s) you are considering after high school.



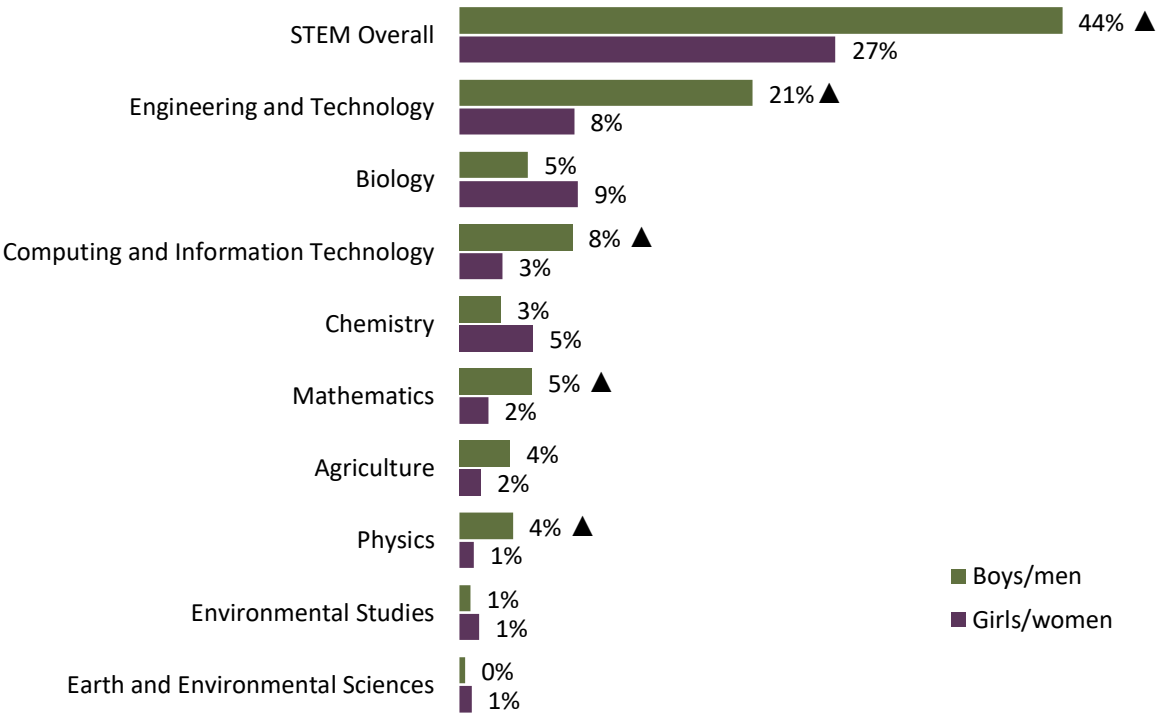


Base: Those in Years 11 and 12 – Wave 1 – 380, Wave 2 – 653, Wave 3 – 680, Wave 4 – 627, Wave 5 - 506. (MC).

Clear gender skews are evident in intention to study STEM at a tertiary level among Year 11 and 12 students. Intention to study STEM at a tertiary level overall is driven by boys/men rather than girls/women (44% compared to 27%). This pattern is driven by strong skews towards boys/men for engineering and technology (21% compared to 8% for girls/women), and computing and information technology (8% compared to 3%). This wave there are also significant skews to boys/men for mathematics (5% vs 2%) and physics (4% vs 1%).

Figure 29: Future study intentions for STEM at higher education, among those in Year 11 and 12, by gender.

Q. Please select from the below list which course(s) you are considering after high school.



Base: Wave 5 only, those in Years 11 and 12, boys/men – 205, girls/women - 294. Non-binary/other not shown due to low base size. (MC).

The table below shows differences in the intention to study STEM overall at a tertiary level among key demographic subgroups.

Table 18: Significant difference between subgroups in intention to study STEM subjects at higher education, among those in Year 11 and 12.

Audience	WEIGHTED %
Location	
Metropolitan	▲38%
Regional/remote	26%
SES	
Lower SES (Decile 1–5)	▲39%
Higher SES (Decile 6–10)	28%

At an individual subject level, engineering and technology is more likely to be an intended study choice for CALD students (21% vs 9% of non-CALD students).

Biology is more likely to be an intended study choice for students from higher socioeconomic areas than those from lower socioeconomic areas (8% vs 4%).

This wave there is no difference in intention to study STEM overall at higher education between those with parents with a STEM education and those without. However, at a subject level, intention to study physics is higher among those who have parents who work in STEM (4% vs 1%).

While there is no significant difference in intention to study STEM overall between those with parents educated in STEM and those without, intention to study engineering and technology is higher among those who have a parent who works in STEM (22% vs 13%).

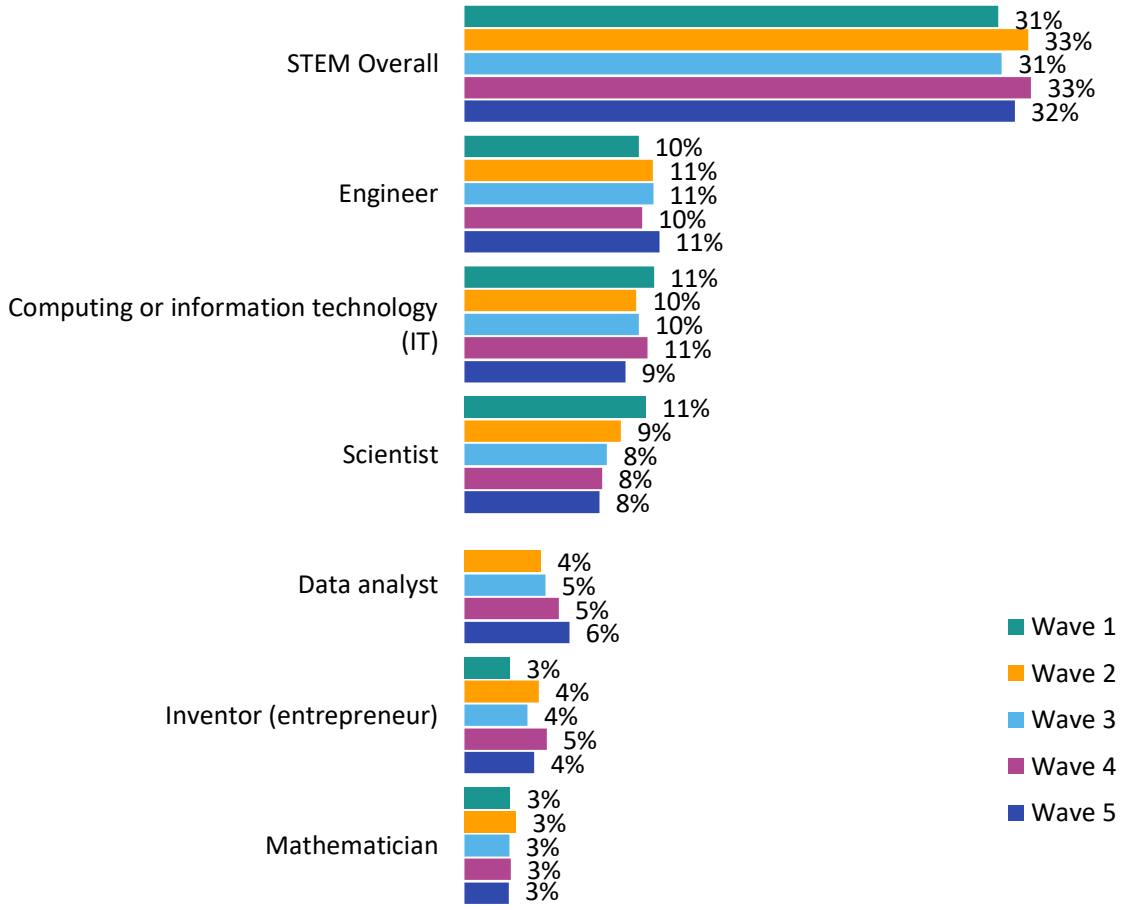
Career intentions

Respondents were asked about their certainty for their future career, and two-thirds (67%) reported feeling fairly or very certain about what they want to do in the future. This has been consistent since tracking started.

When asked about future career aspirations, the intention to pursue a career in a STEM-related field has remained stable overall for Wave 5 (32% vs 33% in Wave 4).

Figure 30: STEM career intentions, by wave.

Q. What type of career would you like to have in the future?

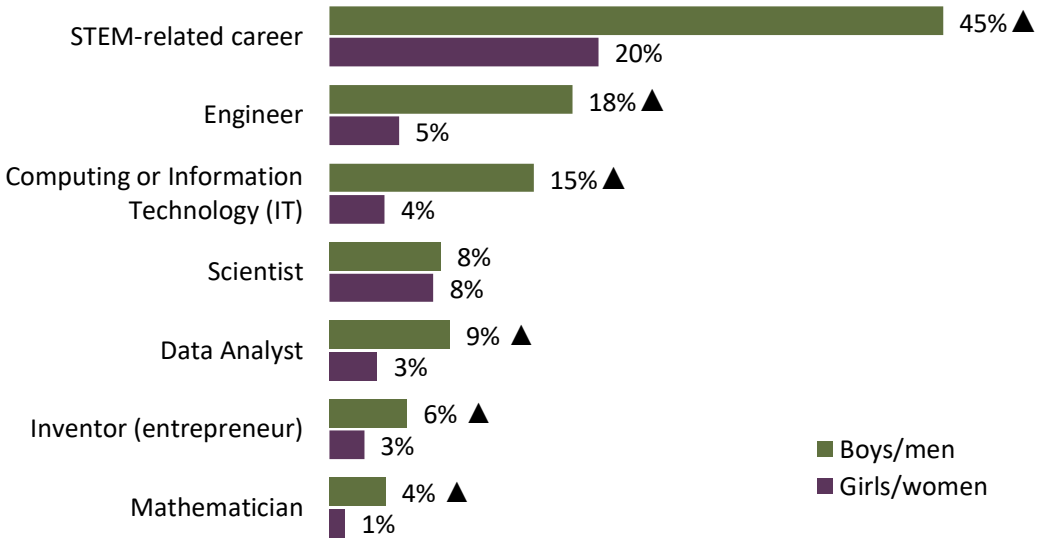


Base: Total – Wave 1 – 1,434, Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Boys/men remain significantly more likely to intend to pursue a career in STEM overall than do girls/women (45% vs 20%). This is driven by significant gender skews in intention to pursue a career as an engineer, in the field of computing and information technology, as a data analyst, inventor or mathematician, detailed in the chart below.

Figure 31: STEM career intentions, by gender.

Q. What type of career would you like to have in the future?



Base: Wave 5 only – boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

Below are other significant differences in STEM career intention (overall) among key demographic groups.

Table 19: Significant differences between subgroups – future STEM career intention.

Audience	WEIGHTED %
SES	
Lower SES (Decile 1–5)	27%
Higher SES (Decile 6–10)	▲35%
Location	
Metropolitan	▲35%
Regional/remote	25%
CALD	
Non-CALD	29%
CALD	▲37%
Country of birth	
Born overseas	▲41%
Born in Australia	30%

Young people with parents who had a STEM education were more likely than those who did not to intend to have a career in STEM (38% vs 25%). The same was true among those with at least one parent who worked in STEM (44% vs 30% of those whose parents do not work in STEM).

Those who wanted to become a scientist were asked what type of scientist they would like to become. The majority wanted to be biologists (37%) followed by chemists (16%) and earth or environmental scientists (16%). There was a slight gender skew, with boys/men being more likely to want to become a physicist (22% vs 10% of girls/women) and girls/women being more likely to want to become a biologist (46% vs 30% of boys/men).

For the first time in Wave 5, we also asked those who aspired to be an engineer what type of engineer they would like to become. The 2 most popular types were civil engineer (22%) and mechanical engineer (20%), followed by software engineer (17%) and electrical engineer (14%). Fewer than 1 in 10 wanted to be an aeronautical engineer (8%), biomedical engineer (4%) or chemical engineer (3%). Seven per cent specified they wanted to be another type of engineer not listed, with the majority of these 'other' responses being related to mechatronics or robotics engineering.

Gender differences were found, with boys/men significantly more likely than girls/women to want to be a mechanical engineer (24% vs 10%) while girls/women were more likely to want to be a biomedical engineer (9% vs 3%) or chemical engineer (8% vs 1%).

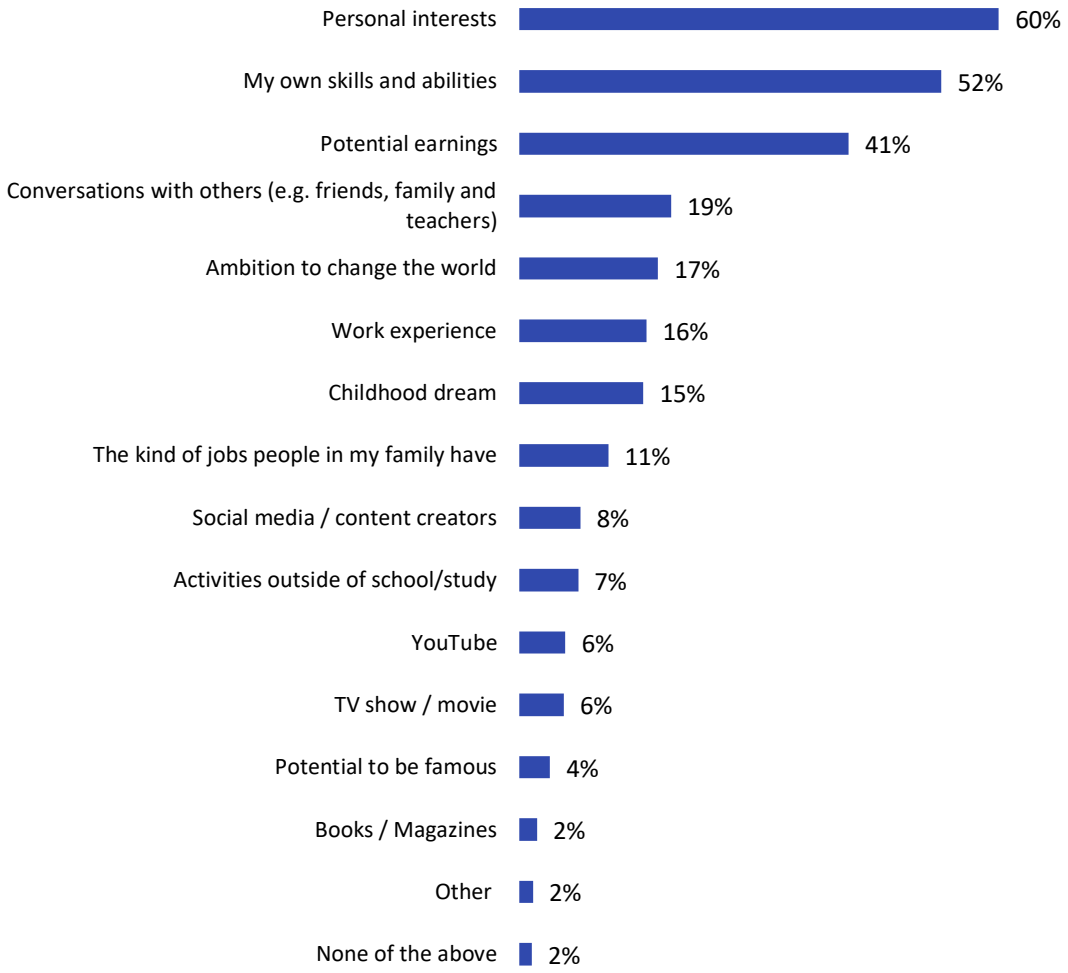
Factors influencing career intentions

Factors of influence

Key factors influencing the consideration of STEM career choices mirror those that influence intention to study: personal interests (60%), young people's perceptions of their own skills and abilities (52%) and earning potential (41%).

Figure 32: Factors influencing career intentions.

Q. Which factors influence the career you aspire to?



Base: Wave 5 only, total – 3,001. (MC)

This wave we have seen a significant increase in the influence of personal interests (from 55% to 60%) after a dip in Wave 4. Across all waves, have seen a continued downward trend in the influence of ambition to change the world and work experience, and a continued upward trend in the influence of earning potential.

Table 20: Changes in factors influencing career choice by wave.

Q. Which factors influence the career you aspire to?

Factors influencing career choice	Wave 2	Wave 3	Wave 4	Wave 5
Personal interests	59%	61%	55%	▲60%
My own skills and abilities	53%	56%	51%	52%
Potential earnings	32%	38%	39%	41%
Ambition to change the world	23%	22%	18%	17%
Work experience	20%	20%	18%	16%

Base: Total. Wave 2 – 3,021, Wave 3 – 3,154, Wave 4 – 2,948, Wave 5 – 3,001.

Gender differences were observed in factors influencing career aspirations. Girls/women are significantly more likely to be influenced than boys/men by personal interests (63% vs 56%), their own skills and abilities (55% vs 50%), ambition to change the world (19% vs 15%) and a childhood dream (17% vs 14%). On the other hand, boys/men are more likely to be influenced than girls/women by social media/content creators (9% vs 6%), YouTube (9% vs 2%) and potential to be famous (5% vs 2%), along with activities they take part in outside of school (9% vs 6%).

It was found that young people from lower socioeconomic backgrounds are more likely to be influenced by childhood dreams (17% vs 14%), whereas those from higher socioeconomic backgrounds are slightly more likely to be influenced by potential earnings (42% vs 39%, not significant).

Those living in metropolitan areas are significantly more likely than those in regional/remote areas to be influenced by an ambition to change the world (18% vs 14%), while those in regional/remote areas are slightly more likely to be influenced by their own potential interests (63% vs 58%, not significant).

Those born overseas were more likely to be influenced by social media/content creators (10% vs 7% of those who were born in Australia).

CALD young people are more likely to be influenced by their potential earnings when compared to non-CALD young people (45% vs 38%), while non-CALD young people are more likely to be influenced by their personal interests (61% vs 57%).

Young people who identify as Aboriginal or Torres Strait Islander were more likely than those who do not to be influenced by ambition to change the world (24% vs 17%), activities

outside of school (16% vs 7%) and books or magazines (8% vs 2%). On the other hand, non-Aboriginal or Torres Strait Islander young people were more likely to be influenced by their personal interests (60% vs 45%) and potential earnings (41% vs 31%).

Young people with parents who have a STEM education are more likely to be influenced by the kinds of jobs their family have (13% vs 9%) and ambition to change the world (19% vs 16%) than students whose parents do not have a STEM education. There were no significant differences between those with a parent working in STEM versus those without.

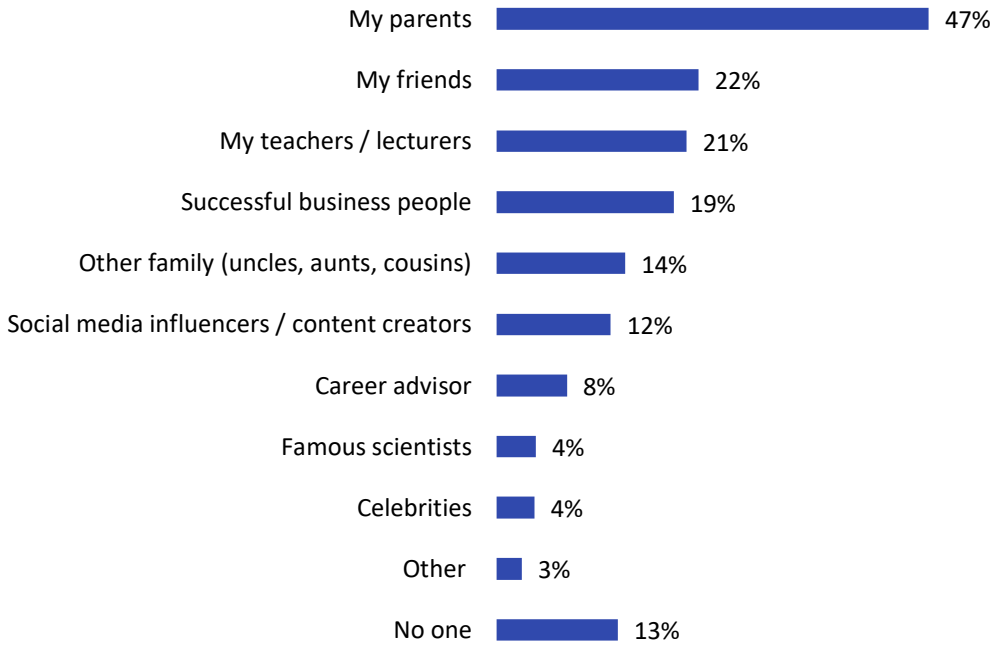
People of influence

Consistent with learnings about the influence of parent/guardian education and career on student study preferences and behaviour, when it comes to specific people that influence career choices, parents/guardians are a key people of influence with regards to career choices (47%), alongside support from friends (22%) and teachers or lecturers (21%).

While the influence of social media influencers/content creators remains consistent (12% across Waves 4 and 5), the influence of the role of celebrities has fallen significantly (from 5% to 4%) and shows a downward trend since tracking began.

Figure 33: People influencing career intentions.

Q. Which of the below people influence the career you aspire to?



Base: Wave 5 only, total – 3,001. (MC)

Again, gender differences are evident. Boys/men are more likely than girls/women to be influenced by career advisors (9% vs 6%) and celebrities (5% vs 3%), while girls/women are more likely to be influenced by their teachers or lecturers (23% vs 18%).

Young people who were born overseas are more likely to be influenced by successful business people than those who were born in Australia (24% vs 18%) along with famous scientists (7% vs 4%), with a similar trend observed for young people who are CALD.

The role of parents' or guardians' education in STEM again comes to the fore. Students whose parents have studied STEM are more likely to be influenced by both their parents (52% vs 42%) and famous scientists than those whose parents do not have a STEM education (5% vs 3%).

Those students whose parents have *not* studied STEM are more likely to feel that they are not influenced by anyone when it comes to careers compared to those with STEM educated parents or guardians (17% vs 10%).

Those with parents or guardians employed in STEM-related work are more likely to be influenced by their parents than those whose parents or guardians do not work in STEM (54% vs 46%).

Importance of factors when choosing a career

When asked about importance of several factors when considering a future job or career, the top 10 factors overall have remained relatively consistent across the past few waves, led by good working conditions and job security.

This wave we have seen a significant increase the perceived importance of high salary (from 86% to 89%) and a slight increase in the perceived importance of a role that positively impacts society (from 80% to 83%).

Table 21: Importance of factors considered when choosing a career (net: somewhat/very important), top 10, by wave.

Q. How important are each of the following factors when choosing a career?

Statements	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Has good working conditions	92%	87%	92%	91%	92%
Job security	89%	86%	89%	90%	90%
High salary	82%	76%	82%	86%	▲89%
Is a fun environment to work in	87%	84%	88%	87%	88%
Subject matter is interesting	89%	84%	87%	87%	86%
Positively impacts society	Not asked	80%	83%	80%	83%

Statements	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Provides structure and consistency	Not asked	78%	81%	81%	82%
Has lots of opportunities for on-the-job training and learning new skills	86%	80%	84%	82%	81%
Helping people	79%	78%	82%	77%	79%
Offers a lot of variety within the role	Not asked	78%	81%	80%	78%

Base: Those aged 14+ – Wave 1 – 2,015, Wave 2 – 2,752, Wave 3 – 2,974, Wave 4 – 2,787, Wave 5 – 2,664.

All of the top 10 factors in Wave 5, excluding 'high salary' are significantly more important to girls/women than they are to boys/men.

Table 22: Importance of factors considered when choosing a career (net: somewhat/very important), by gender.

Q. How important are each of the following factors when choosing a career?

Top 10 statements (Wave 5)	Boys/men	Girls/women
Has good working conditions	89%	▲95%
Job security	86%	▲94%
High salary	88%	90%
Is a fun environment to work in	86%	▲90%
Subject matter is interesting	84%	▲88%
Positively impacts society	78%	▲88%
Provides structure and consistency	80%	▲84%
Has lots of opportunities for on-the-job training and learning new skills	78%	▲84%
Helping people	73%	▲86%
Offers a lot of variety within the role	75%	▲82%

Base: Those aged 14+, boys/men – 1,133, girls/women – 1,490. Non-binary/other not shown due to low base size.

When looking at other subgroup differences, those born overseas were more likely to place greater importance on many of these factors when choosing a career than those born in Australia, including working in an industry that is growing (81% vs 76%). Similarly, CALD young people are more motivated than non-CALD young people by jobs in an industry that is growing (80% vs 75%).

The impact of AI on future study and careers

For the second time since tracking started, respondents were asked about their perceptions of AI and the influence on choices about their future; it is clear to see that a large proportion of young people feel influenced by this technology, with this influence growing over time.

Firstly, the survey asked whether they believe that generative AI tools (for instance, ChatGPT) would have a significant impact on work and careers in the future. Nine in 10 young people (88%) said they did believe this, up significantly from Wave 4 (82%).

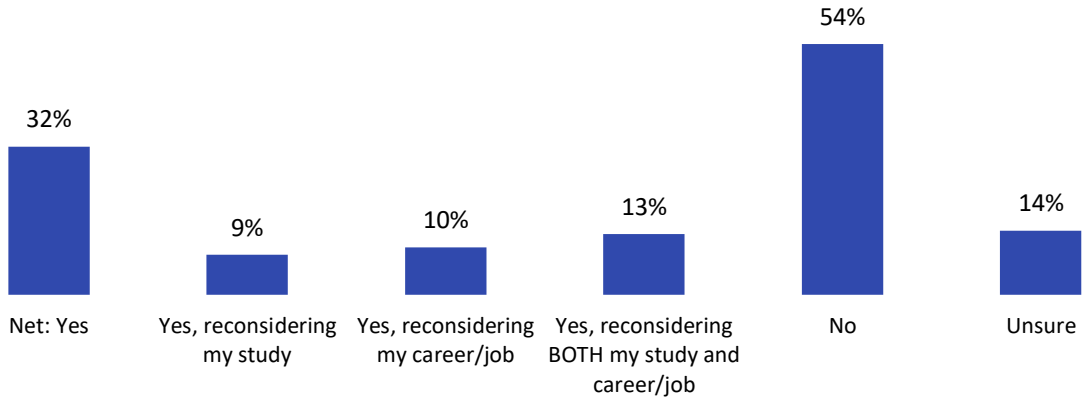
Unlike in Wave 4, we observed a gender difference, with girls/women being more likely to believe this than boys/men (89% vs 86%). Other groups were also more likely to believe this, including those from metropolitan areas (89% compared to 86% from people from regional/remote areas), CALD young people (90% compared to 86% from non-– young people), and those with parents who have STEM education (90% compared to 86% from people with parents who do not have STEM education).

While perceived impact was similar across all age groups (those aged 14–25), those aged 12–13 were the least sure about the impact of AI tools, with 15% feeling unsure. This represented a decline from 21% in Wave 4, however).

As seen in the chart below, the survey also asked about whether recent developments in AI have made them reconsider their study or career choices, and 3 in 10 (32%) said yes, up significantly from 29% in Wave 4. Nine per cent of young people are reconsidering their study choices, 10% are reconsidering their career, while 13% are reconsidering both their study choices and career, up this wave from 11%.

Most respondents (54%) said that AI had no impact on their consideration of study or career prospects, while 14% were unsure.

Figure 34: Influence of AI on reconsideration of study or career choices.
Q. Have Generative AI tools or AI overall made you reconsider your current or future study or career prospects?



Base: Wave 5 only, total – 3,001.

Boys/men were significantly more likely to say that AI had made them reconsider their prospects across both study and career (37%, vs 27% of women/girls).

There were also other subgroup differences when it came to the influence of AI on study and career choices, as seen in the table below.

Table 23: Influence of AI on reconsideration of study or career choices (net: yes)

Audience	WEIGHTED %
SES	
Lower SES (Decile 1–5)	25%
Higher SES (Decile 6–10)	▲36%
Location	
Metropolitan	▲35%
Regional/remote	23%
CALD status	
Non-CALD	27%
CALD	▲40%
Country of birth	
Born overseas	▲41%
Born in Australia	30%
Aboriginal and/or Torres Strait Islander status	
Aboriginal and/or Torres Strait Islander	▲49%

Audience	WEIGHTED %
Non-Aboriginal and/or Torres Strait Islander	31%

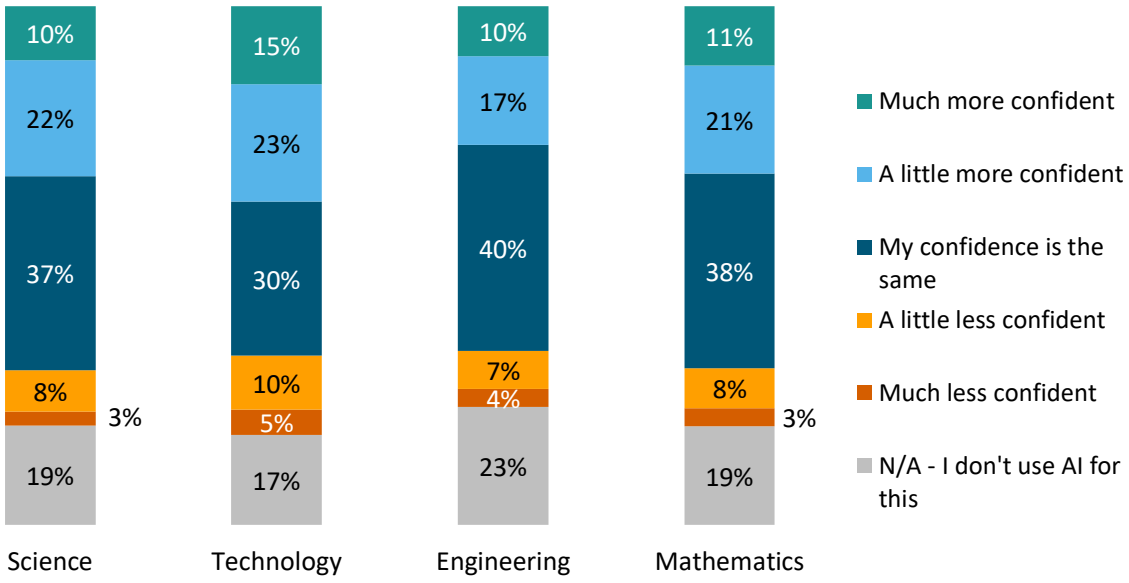
Parent/guardian background in STEM also plays a role here: young people who had at least one parent or guardian with a STEM education were more likely than those who did not to say that AI has made them reconsider their options (38% vs 25%). The same was true for those who had at least one parent or guardian who worked in STEM (37% vs 31% of those without a parent or guardian who works in STEM).

In Wave 5, a new question was asked regarding the impact of using AI on young people's confidence with each of the four STEM subjects. The majority of young people say their confidence remains the same for all subjects except technology, and any impact seems to be more positive than negative. Just over half (52%) of young people say AI has made them feel more confident with STEM overall, while a quarter (24%) say it has made them feel less confident.

When it comes to the specific STEM subjects, AI has had the greatest impact on improving confidence with technology (38%), followed by science (33%) and maths (32%). It has had the lowest impact on improving confidence with engineering (27%), with the largest proportion of young people saying they don't use AI for this (23%).

Figure 35: Influence of using AI on confidence in STEM subjects.

Q. Has using Generative AI changed how confident you feel with each of the following STEM subjects? Generative AI has made me feel…



Base: Wave 5 only, total – 3,001.

Table 24: Influence of using AI on confidence in STEM subjects.

Q. Has using Generative AI changed how confident you feel with each of the following STEM subjects? Generative AI has made me feel…

	NET: More confident	NET: Less confident
Total STEM	52%	24%
Science	33%	11%
Technology	38%	15%
Engineering	27%	11%
Mathematics	32%	11%

Base: Wave 5 only, total – 3,001.

There are gender differences in terms of how confidence has been impacted. When looking at the proportion of young people who feel more confident in STEM subjects as a result of using AI, boys/men are significantly more likely to say they now feel more confident. This is true of STEM overall (58% vs 46%) and also of all individual STEM subjects.

There are no gender differences in terms of the proportion of young people who feel less confident with STEM as a result of using AI.

Table 25: Influence of using AI on confidence in STEM subjects (net: a little/a lot more confident), by gender.

Q. Has using Generative AI changed how confident you feel with each of the following STEM subjects? Generative AI has made me feel…

	Boys/men	Girls/women
Total STEM	▲58%	46%
Science	▲38%	28%
Technology	▲43%	33%
Engineering	▲35%	19%
Mathematics	▲36%	29%

Base: Wave 5, total - boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

At an overall STEM level, the groups who are most likely to say AI has made them feel more confident are those aged 22–25 (57%) followed by 18–21s (54%), those in metropolitan areas (54%), those born overseas (61%) and CALD young people (59%).

While there is no significant difference at an overall STEM level between young people who identify as Aboriginal or Torres Strait Islander and those who do not, at an individual subject

level the data shows that Aboriginal or Torres Strait Islander young people are more likely to report an increase in confidence in Science (41% vs 32%) and Engineering (35% vs 26%) as a result of using AI.

Again, there is a role of parent background, with respondents with at least one parent who has a STEM education being more likely to report an increase in confidence with STEM overall (57% compared to 45% among people with parents who do not have a STEM education).

There is no difference between those who have a parent who works in STEM and those who do not at an overall level. But the data shows that young people with a parent who works in STEM are more likely to report an increase in confidence with technology (43% vs 37%) and engineering (35% vs 26%) as a result of using AI.

The STEM journey: perspectives and behaviours

Focusing on the relationship between awareness (understanding), current behaviours and future intentions regarding STEM is a useful way to start to think about some of the challenges in progressing student engagement with STEM in schools. Funnels give the ability to trace the proportions of a given population from understanding to current behaviour and future intention. By looking at the conversion rates between these measures (e.g., considering those currently studying STEM as a proportion of those aware of STEM) it is possible to identify where blockages exist and where we can focus to build momentum for STEM among young people.

At an overall level, despite a slight increase in understanding of the term STEM this wave (from 71% to 73%), there is still room to improve awareness and understanding of STEM as a concept.

Fewer students are currently studying STEM than understand the STEM concept, suggesting that 'conversion to study' is relatively weak – the proposition for studying STEM needs support/promotion to drive uptake of STEM study options.

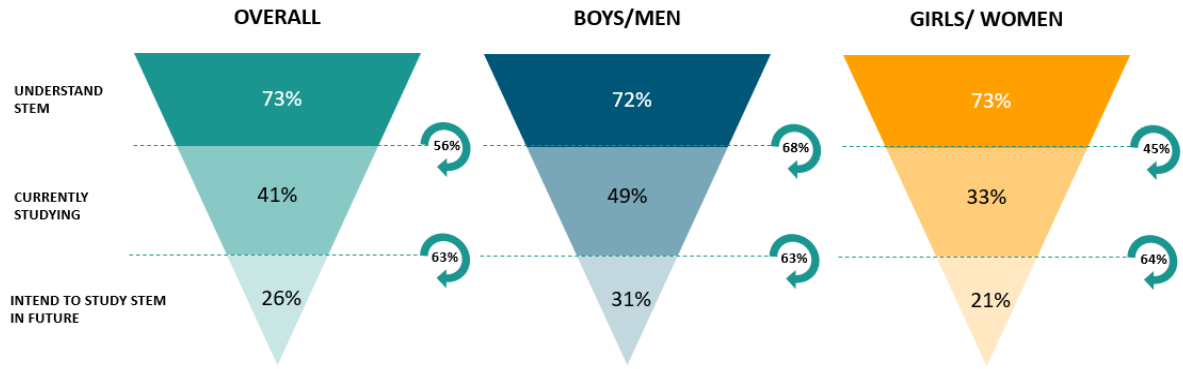
Intention to study STEM in the future is also relatively weak. Fewer students intend to study STEM in the future than are studying STEM currently. While this may reflect some natural attrition as tertiary students complete their education it may also suggest some challenges in the experience of studying STEM or weakness in the understanding of the role of STEM in jobs and careers more broadly (as examples).

Positively, while there has been no significant change in the proportion of young people that understand the term STEM or who are currently studying STEM, we have seen a significant increase in the proportion intending to study STEM this wave (from 22% to 26%), specifically driven by boys/men (from 25% to 31%).

Conversion from understanding to currently studying is weaker among girls/women, while conversion from currently studying to intention to study STEM in the future is similar across genders.

Figure 36: Participation funnels by gender.

Q. Please write below what you believe the term 'STEM' stands for. / Which of the following elective subjects best describes the subjects you have chosen to do (at Years 9 and 10 / at Years 11 and 12 / in your higher education course). / Please select from the below list which elective subjects you are considering choosing (at Years 9 and 10 / at Years 11 and 12 / in your higher education course).



Base: Wave 5 – total – 3,001, boys/men – 1,293, girls/women – 1,666. Non-binary/other not shown due to low base size.

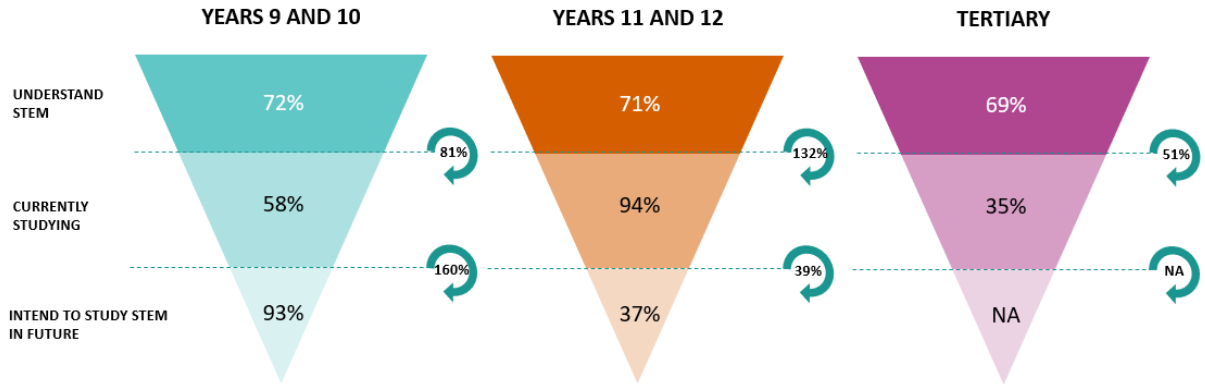
Looking across year levels we continue to see strong forward momentum for STEM in Years 9 and 10. Of note is the strong conversion on intention to study with almost all students in Years 9 and 10 expecting to have to study some STEM subjects in their final years of Secondary School – regardless of whether they have studied them previously or not.

We see another increase in the understanding of the subjects involved in STEM among Year 11 and 12 students, yet some students still end up studying STEM subjects without fully understanding the concept. Of note is the drop off in intention to study STEM post Year 11 and 12 schooling. While nearly all students study subjects related to STEM in years 11 and 12, only 37% indicate an intention to continue studying STEM in the future (down slightly from 39% in Wave 4). This indicates a strong need to understand not only the motivations to study STEM in year 11 and 12 (among Year 9 and 10 students) and what changes for Year 11 and 12 students as they contemplate study and careers post-secondary school, but also to understand the experience in studying STEM at the Year 11 and 12 level within secondary schools as well as supporting messaging.

At a tertiary level, understanding of STEM falls slightly, and participation in STEM subjects is seen to decrease.

Figure 37: Participation funnels by year level.

Q. Please write below what you believe the term 'STEM' stands for. / Which of the following elective subjects best describes the subjects you have chosen to do (at Years 9 and 10 / at Years 11 and 12 / in your higher education course). / Please select from the below list which elective subjects you are considering choosing (at Years 9 and 10 / at Years 11 and 12 / in your higher education course).



Base: Wave 5 only, Year 9 and 10s – 354 , Year 11 and 12s – 506, tertiary students – 1,236. (MC).

Reasons students step away from STEM

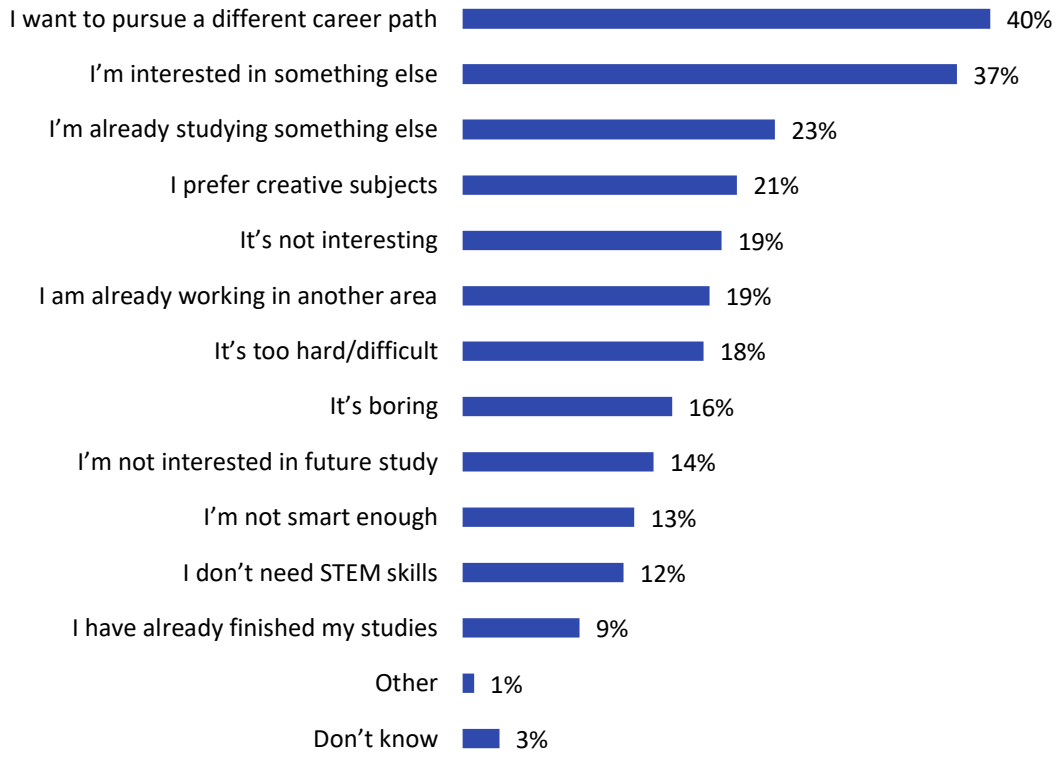
If respondents indicated they were not considering studying STEM in the future, they were asked for their reasons. Most respondents (40%) said it was because they want to pursue a different career path, 37% said it is because they are interested in something else, while 23% said it is because they are studying something else already.

One in 5 (21%) said they prefer creative subjects, while a similar proportion said it is because they do not find STEM interesting (19%), 18% said it is too hard or difficult, 16% said it is boring, and 13% said they are not smart enough to study STEM.

This wave we have seen a significant increase in the proportion of young people who are not considering STEM because it is too difficult (from 16% to 18%).

Figure 38: Reasons for not considering studying STEM in the future

Q. Why are you NOT considering studying subjects related to STEM in the future?



Base: Wave 5 only, those not considering studying STEM in the future – 1,076 (MC).

Girls/women were significantly more likely to give many of these reasons than boys. For instance, they were more likely than boys/men to say it was because they want to pursue a different career path (46% vs 30%), they are interested in something else (42% vs 30%), or that they are already studying something else (28% vs 18%).

CALD young people were significantly less likely than non-CALD young people to give the reason that they prefer creative subjects (16% vs 23%).

Impact of STEM messaging on future intentions

Towards the end of the survey, respondents were given the following explanation about STEM careers:

> *"There is a huge variety of industries you can work in with a STEM degree. Just a few examples include information technology; mining; construction of cars; aeroplane and rocket design; medical instrument design; wind turbine and solar panel design and construction; environmental contaminant testing; fisheries; curating natural history exhibitions; 3D printing; sustainable fashion; and mathematical modelling of the impact of humans on the planet."*

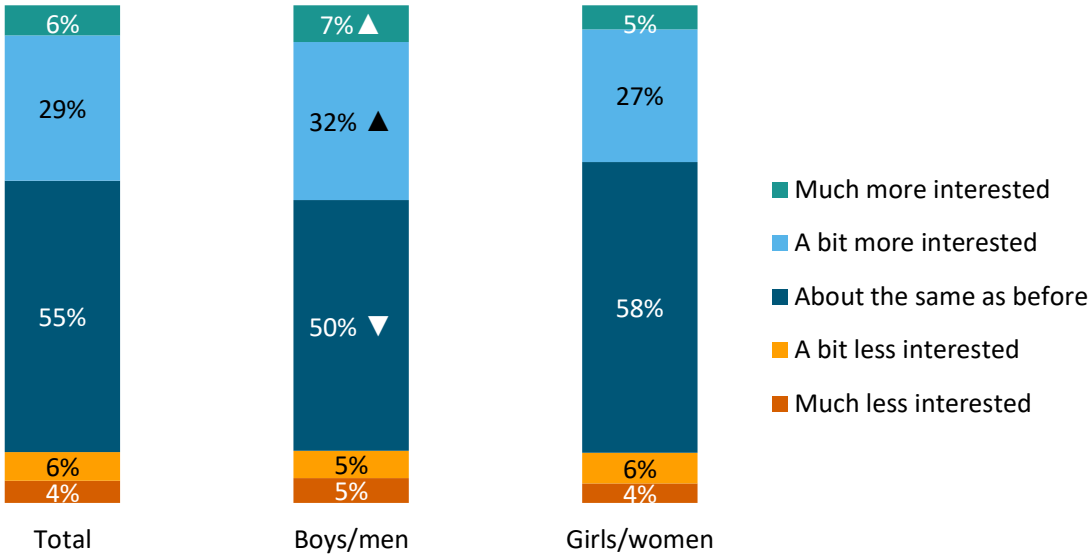
They were then asked, upon reading the explanation, how their interest in getting a STEM degree has changed, with 35% saying that they were more interested upon reading the description, in line with Wave 4 (36%). This wave, the proportion saying there was no change in their interest increased from 51% to 55%, while the proportion saying their interest declined after reading the explanation fell from 13% to 10%.

With over a third saying that this increases their interest, there remains opportunity to influence future consideration for STEM through communicating messages about future job and career pathways. Consistent findings from this study demonstrates that even with basic messaging about job and careers linked to STEM study, it is possible to increase interest in STEM study among both boys/men and girls/women.

Boys/men were more likely to say that they were more interested in STEM careers after reading the explanation than girls/women (39% vs 32%), driven by a significantly higher proportion of boys/men who say it made them a bit more interested (32% vs 27%) as well as much more interested (7% vs 5%). Girls were more likely to say their interest had not changed (58% vs 50%).

Figure 39: Change in interest in STEM degree once they have read about STEM careers.

Q. Now you have read the explanation, has your interest in getting a STEM degree changed?



Base: Wave 5 only, those aged 15+ – 2,935, boys/men – 1,268, girls/women – 1,628. Non-binary/other not shown due to low base size. Weighted percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

Table 26: Change in interest in STEM degree once they have read about STEM careers (Net: a bit more interested, much more interested), by wave.

Q. Now you have read the explanation, has your interest in getting a STEM degree changed?

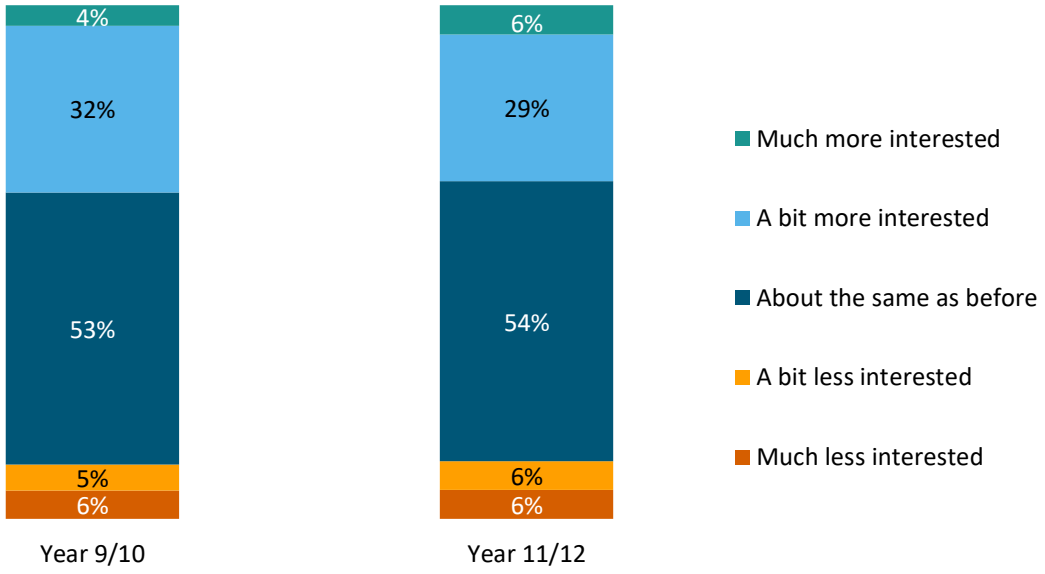
Interest	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Net: A bit/much more interested in getting a STEM degree	Not asked	42%	42%	36%	35%

Base: Wave 5 only, those aged 15+ – 2,935.

The same pattern is seen for both Year 9 and 10 students as well as Year 11 and 12 students.

Figure 40: Change in interest in STEM degree once they have read about STEM careers, by Year Level.

Q. Now you have read the explanation, has your interest in getting a STEM degree changed?



Base: Wave 5 only, those aged 15+, Year 9/10 – 304, Year 11/12 – 505. percentages may not add up to 100% due to rounding of decimal places to the nearest whole number.

The experiences of gender diverse young people

As noted previously, the main body of the report does not show results from gender diverse young people when comparing results across genders, due to the low base size (n=33). Unfortunately, limitations of survey panels historically collecting gender data in a binary nature means that this audience is often difficult to reach, and many gender-diverse people are missed in research studies.

Within this report, we conducted a deep-dive analysis to further understand their attitudes and behaviours across key metrics. We have compared the results from this audience with those who are not gender-diverse, who we have labelled as 'all other respondents' (i.e., identify as boys/men, girls/women and those who did not disclose their gender) and have focused on the key metrics and any other interesting differences.

In Wave 5, it proved even more difficult to reach a gender-diverse audience than previously, leading to a lower sample size than in Wave 4 (n=60). The analysis of differences between gender-diverse and non-gender diverse young people in this wave is based on n=33 survey respondents, representing an almost 50% reduction from the n=66 respondents surveyed in the previous wave. This smaller sample size may limit the statistical power of comparisons and reduce the generalisability of findings. Readers should interpret these results with caution, particularly when drawing conclusions about population-level differences between these groups. DISR's future data collection efforts will aim to achieve a larger, more representative sample size to strengthen the reliability of analysis.

Overall, we found that understanding, interest and perceived importance of STEM overall among gender diverse young people are in line with, if not higher than, all other respondents. While gender diverse respondents' levels of confidence with STEM overall, science and mathematics are consistent with all other respondents, they have lower confidence in engineering and mathematics, and are more likely to say that use of AI has made them feel less confident with science and technology.

Current participation is slightly lower among gender diverse respondents and they are less likely to have taken part in STEM-related activities. While they are slightly less likely to intend to study STEM in the future, they are slightly more likely to want to work in a STEM role, especially in science and technology. Consistent with Wave 4, gender diverse people are more likely to step away from STEM to pursue creative interests and careers, so more could be done to educate young people, specifically gender diverse young people, about how some STEM careers can involve creativity.

Audience profile

Table 27: Total unweighted sample and weighted population of gender-diverse young people. Note: Respondents who did not disclose their gender were categorised as 'all other respondents'. Gender diverse respondents were not weighted and therefore the unweighted and weighted figures match.

	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
Total	**33**	**100%**	**33**	**100%**
Age group				
12–13	1	3%	1	3%
14–17	6	18%	6	18%
18–21	7	21%	7	21%
22–25	19	58%	19	58%
Study status				
Enrolled in studies	21	64%	21	64%
Not enrolled in studies	12	36%	12	36%
Study level				
High School – 7–8	3	14%	3	14%
High School – 9–10	2	10%	2	10%
High School – 11–12	5	24%	5	24%
Tertiary	11	52%	11	52%
Student type				
International student	2	10%	2	10%
Domestic student	19	90%	19	90%
State				
NSW	15	45%	15	45%
VIC	7	21%	7	21%
QLD	3	9%	3	9%
WA	4	12%	4	12%
SA	1	3%	1	3%
ACT	1	3%	1	3%
TAS	2	6%	2	6%
NT	0	0%	0	0%

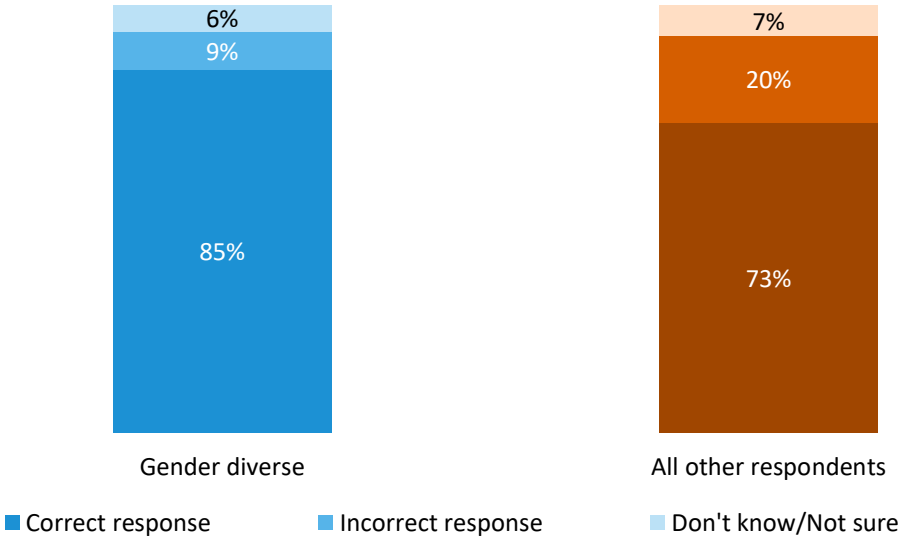
	UNWEIGHTED SAMPLE n	UNWEIGHTED SAMPLE %	WEIGHTED POPULATION n	WEIGHTED POPULATION %
Location				
Capital city/major metropolitan area	27	82%	27	82%
Regional or remote/rural	6	18%	6	18%
SES*				
Lower SES (Decile 1–5)	14	42%	14	42%
Higher SES (Decile 6–10)	19	58%	19	58%
Country of birth				
Australia	28	85%	28	85%
Other	5	15%	5	15%
Aboriginal and/or Torres Strait Islander status				
Aboriginal and/or Torres Strait Islander	4	12%	4	12%
Non-Aboriginal and/or Torres Strait Islander	29	88%	29	88%
Unspecified	-	-	-	-
CALD status				
Non-CALD	24	73%	24	73%
CALD	9	27%	9	27%
Parent/guardian education				
STEM degree or certificate	17	52%	17	52%
Non-STEM degree or certificate	16	48%	16	48%
Parent/guardian employment				
Do not work in STEM career	30	91%	30	91%
Work in STEM career	3	9%	3	9%

Understanding of STEM and related jobs

The large majority (85%) of gender diverse respondents could correctly define STEM. While not significant, gender-diverse respondents were slightly more likely to be able to correctly define 'STEM', compared to all other respondents (73%).

Figure 41: Understanding of the acronym 'STEM'.

Q. Please write below what you believe the term 'STEM' stands for.



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

When it came to naming specific jobs you could get with an education in STEM, gender diverse respondents were more likely to name teachers/educators, accountants, entrepreneurs and astrophysicists.

The survey also asked respondents to view a list of jobs and report whether they thought they were more for boys, more for girls, or for either. Gender diverse respondents were significantly more likely than all other respondents to say these jobs can be done by either gender. This applied to both STEM and non-STEM jobs.

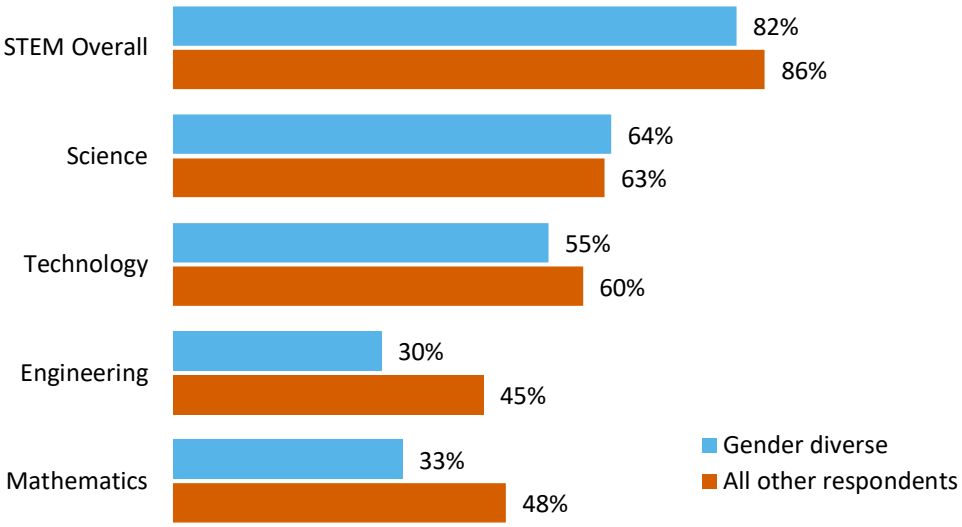
Interest in STEM

The data shows that there is a high level of interest in STEM subjects across most young people, with no significant differences in interest between gender diverse young people (82%) and all other respondents (86%).

While the differences are not statistically significant, the data does show slightly lower interest in technology, engineering and maths among gender diverse young people, compared to all other respondents, with a similar level of interest in science. This is consistent with the previous wave.

Figure 42: Perceived interest in STEM (net: somewhat/very interested), by STEM subject, by gender diversity

Q. How interested are you in each of the below subjects? (Net: Somewhat/very interested)



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

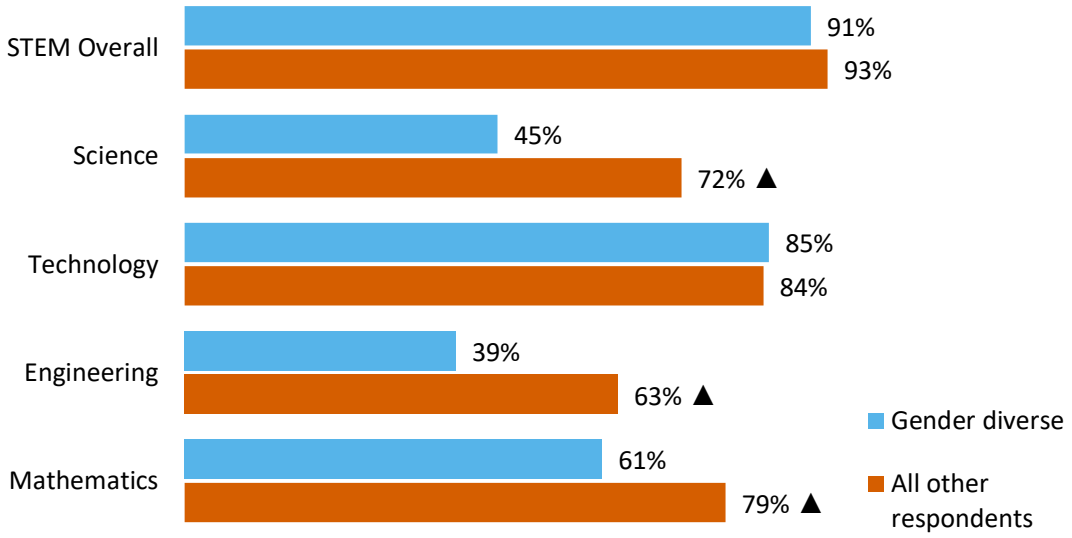
Perceived importance of STEM skills

Young people perceive the importance of STEM knowledge and skills for getting a job in the future as high. Nine in 10 (91%) gender diverse respondents said that STEM skills and knowledge are important, in line with the thoughts of all other respondents (93%), albeit slightly lower.

Despite no difference at the overall STEM level, gender diverse respondents were significantly less likely to think Science, Engineering and Mathematics are important. The only subject where there was no difference in perceived importance was technology.

Figure 43: Perceived importance of STEM skills (net: somewhat/very important), by STEM subject, by gender diversity

Q. How important do you believe it is to have knowledge and skills related to each of the subjects that make up STEM? (Net: Somewhat/very important)



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

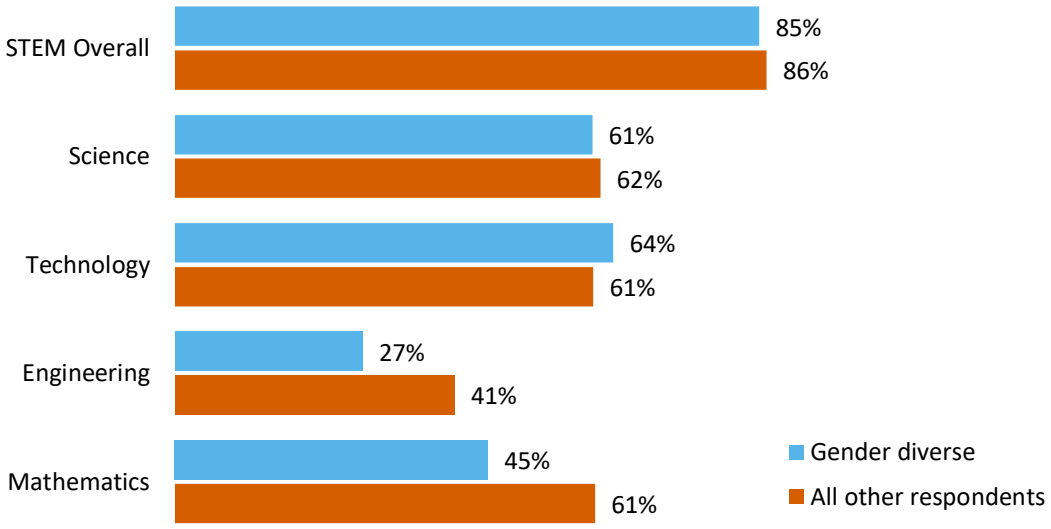
Confidence in studying STEM

Young people were asked about their level of confidence in studying a range of STEM subjects. Overall, confidence in studying STEM is high for gender diverse individuals (85%) but is consistent with all other respondents (86%). Confidence is highest for technology (64%), followed by science (61%), mathematics (45%) and engineering (27%).

Although not significant, gender diverse respondents are indicatively less confident with engineering and mathematics than all other respondents.

Figure 44: Net confidence in studying STEM (net: somewhat/very confident), by STEM subject, by gender diversity

Q. How confident do you feel that you can study and get good results in each of the following subjects? (Net: Somewhat/very confident)



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

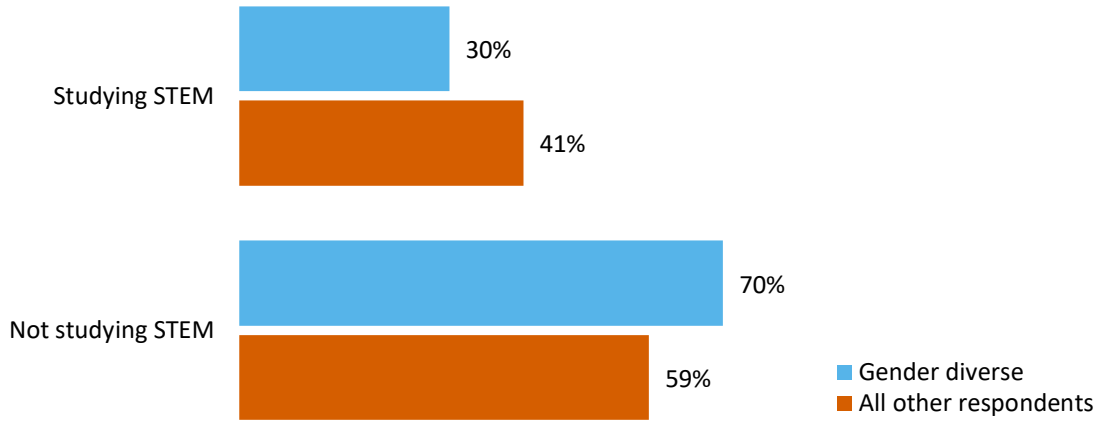
This wave the survey asked respondents about how the use of AI has impacted their confidence in STEM, and results are slightly different for gender diverse respondents than all other respondents. Only 24% of gender diverse people agreed AI has made them feel more confident with STEM. This was significantly lower than all other respondents, at 52%.

Current STEM participation

The survey asked participants to select whether they were studying a STEM subject (depending on year level). The netted totals are below. We can see that the proportion of gender diverse students studying STEM is slightly lower than all other respondents (30% vs 41%).

Figure 45: Proportion studying STEM at any level (net: totals across year levels)

Q. What subjects are you currently studying?



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

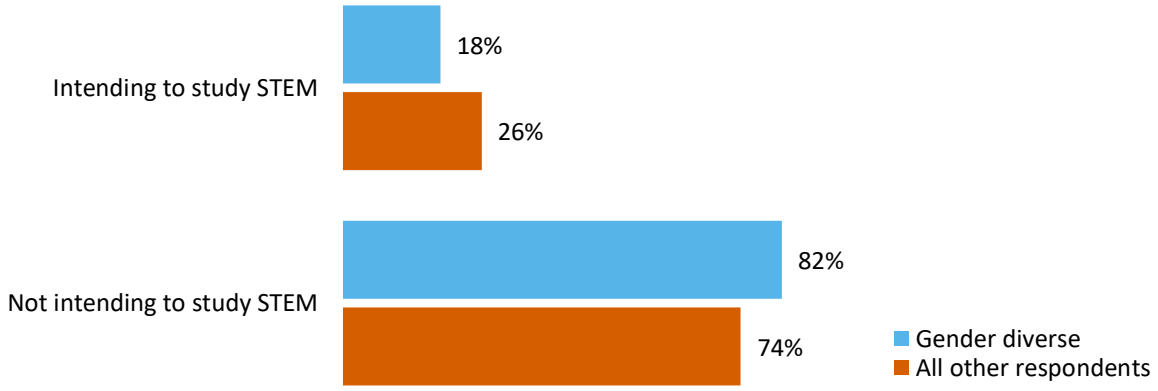
Gender diverse respondents were also slightly less likely to have taken part in STEM-related activities than all other respondents (39% vs 45%).

Future STEM study intentions

The survey asked about intention to study a STEM subject in the future. The data shows that (while not significant), gender diverse young people are slightly less likely to intend to study STEM in the future (18% compared to 26% of all other respondents), consistent with the previous wave.

Figure 46: Proportion intending to study STEM at any level (net: totals across year levels)

Q. Please select from the below list which subjects you are considering choosing for [year level].



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

When asked why they intend to study STEM, reasoning was mainly consistent among gender diverse young people and all other respondents. The exception to this is that gender diverse young people were more likely to intend to study STEM in the future because they enjoy it (75% vs 42%). Please note, this is based on a very low sample (n=12).

When asked why they do not intend to study STEM in the future, gender diverse young people were significantly more likely to say that they prefer creative subjects (64% vs 20%), a finding consistent across the past 2 waves, but based on a very low sample (n=14). There may be opportunity to show young people, and specifically gender diverse young people, how STEM jobs can also incorporate creativity.

When asked about which factors influence their study choices, it was found that gender diverse young people were significantly more likely to be influenced by a childhood dream (30% vs 11%).

In terms of people who influence their study choices, gender diverse respondents were significantly less likely to be influenced by their parents (30% vs 50%) or other family (0% vs 11%). In fact, they were more likely to say they were not influenced by anyone (33% vs 13%).

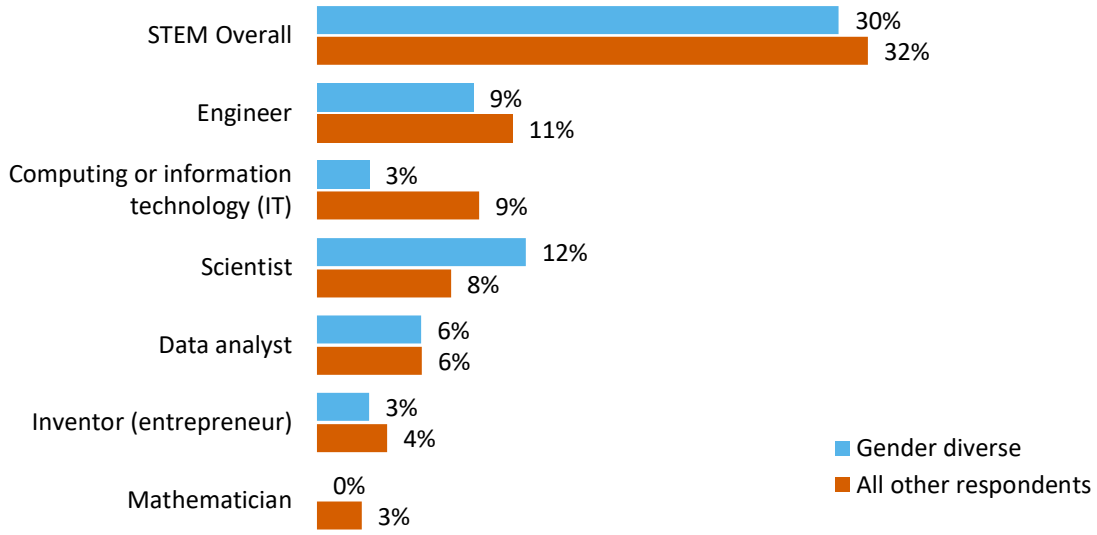
Future STEM career intentions

Respondents were also asked about their intention to work in STEM in the future, either for a job or a career. A third (30%) of gender diverse young people said they would like to have a career in STEM, in line with all other respondents (32%).

While there were no significant differences, gender diverse young people were slightly more likely to intend to have a career as a scientist, and less likely to intend to have a career in computing/IT.

Figure 47: Proportion intending to have a career or job in STEM

Q. What type of career would you like to have in the future?



Base: Wave 5 only, Gender diverse – 33, All other respondents – 2,968.

Looking at non-STEM career intentions, gender diverse young people were significantly more likely than all other respondents to want to be an artist (21% vs 6%) or a social worker (21% vs 5%).

When asked about which factors influence their career choices, it was found that gender diverse young people were significantly more likely to be influenced by their ambition to change the world than all other respondents (36% vs 17%).

In terms of people who influence their career choices, gender diverse respondents were significantly more likely to be influenced by celebrities (12% vs 4%), or no one (36% vs 13%) and less likely to be influenced by their parents (12% vs 48%).

Appendix: Questionnaire

Note on accessibility: The following questionnaire is presented in the format we use online and includes programming instructions in square brackets. It also contains tables listing questionnaire items. Tables don't have header rows or alt text, and some have blank cells. Questionnaire items appear in the left column with response options in the right column/s. If you have difficulty navigating the information in this questionnaire, please contact YouthInsight at support@youthinsight.com.au

[PROGRAMMING INSTRUCTIONS PROVIDED IN RED]

[SC = Single choice question | MC = Multi choice question | OE = Open ended response required]

SECTION 1: DEMOGRAPHICS

Thank you for your participation in this important research. To begin, we first need to ask a few questions to get to know you better.

1. How old are you?

[ASK ALL. DROP DOWN from 12 to 25. SCREEN OUT <12 AND >25]

[ASK IF AGED 12 TO 13]

As you are under 14 years of age, we will need to get parental consent for you to complete this survey. We will need one of your parents or a legal guardian to complete this next question before you can progress to the survey.

Dear Parents and Legal Guardians,

This questionnaire is about young people's attitudes and behaviour towards science, technology, engineering, maths (STEM)-related subjects and activities. The research is being conducted by Student Edge on behalf of the Department of Industry, Science and Resources.

All answers provided in this research are anonymous and confidential and will only be used for the purposes of this research.

For any queries, please contact Student Edge on support@youthinsight.com.au

To provide consent for your child to take part in this study you will need to answer a few questions below.

- Name
- Are you over 18 years of age?
- What is your relationship to the child?
- Email address

- Do you consent for your child to take part on this study?
- Do you give Student Edge permission to contact you to verify that the information you have provided is correct and true?

[IF NOT FULLY COMPLETED OR CONSENT IS NOT GIVEN – TERMINATE]

2. And which of the following do you identify as?
   [ASK ALL. SC.]

		[AIM FOR]
Man/Boy	1	49%
Woman/Girl	2	49%
Non-binary	3	2%
I identify my gender as: (please specify)	4	
Prefer not to say	5	

3. Where do you live?
   ASK ALL. SC.

		[AIM FOR]
Sydney - City/Suburbs	1	32%
NSW - Regional	2	
Melbourne – City/Suburbs	3	26%
VIC - Regional	4	
Brisbane - City/Suburbs	5	20%
QLD - Regional	6	
Perth - City/Suburbs	7	11%
WA – Regional	8	
Adelaide - City Suburbs	9	7%
SA - Regional	10	
ACT	11	2%
Hobart - City/Suburbs	12	2%
TAS - Regional	13	
Darwin – City/Suburbs	14	1%
NT - Regional	15	

4. Please enter your postcode
   [ASK ALL. OE. RESPONDENTS TO BE ASSIGNED TO METRO OR REGIONAL AND LOW OR HIGH SES BASED ON POSTCODE.]

5. Are you of Aboriginal and/or Torres Strait Islander origin?

[ASK ALL. SC.]

Yes	1
No	2
Prefer not to specify	3

6. Are you a student currently? [REWORDED IN 2025]
[ASK ALL. SC.]

Yes	1
No	2

Q6a. As you are under 15 years of age, please provide a reason below of why you are not currently enrolled in any studies?

[ASK IF NOT CURRENTLY ENROLLED IN ANY STUDIES AND AGED UNDER 15]

_____
_____
_____

Q6b. What's the highest level of education you have attained?

[ASK IF NOT CURRENTLY ENROLLED IN ANY STUDIES AND AGED 15+]

Year 10	1
Year 12	2
VET Certificate	3
VET Diploma	4
Bachelor's degree	5
Graduate diploma or certificate	6
Postgraduate degree	7
Other (please specify)	98

7. Which of the below best describes the level you're currently studying at?
Please select the year you started in [2025]

[ASK IF Q6= CODE 1. SC.]

Primary school – Year 6 or below	1
High school – Year 7	2
High school – Year 8	3
High school – Year 9	4
High school – Year 10	5
High school – Year 11	6
High school – Year 12	7
University – Undergrad Year 1	8
University – Undergrad Year 2	9
University – Undergrad Year 3	10
University – Undergrad Year 4+	11
University – postgrad	12
TAFE/VET/Private college – Y1	13
TAFE/VET/Private college – Y2	14
TAFE/VET/Private college – Y3	15
TAFE/VET/Private college – Y4	16
Other (specify)	98

8. And what type of school do you attend?

[ASK IF Q7 = CODES 1-7. SC.]

Public school	1
Catholic school	2
Private school	3
Selective school	4
Boarding school	5
Other (please specify)	6

9. And is your school a single sex or co-ed school?

[ASK IF Q7 = CODES 1-7. SC.]

Single sex school	1
Co-ed school (mixed genders)	2

10. Are you an international student or a domestic student?

[ASK IF Q6= CODE 1. SC.]

International student	1
Domestic student	2

11. In what country were you born?

[ASK ALL. SC.]

Australia	1
Other (specify)	2

12. How long have you been living in Australia?

[ASK IF Q11 = CODE 2. SC]

Less than 1 year	1
1–2 years	2
2–3 years	3
3–4 years	4
4–5 years	5
5+ years	6

13. Do you speak a language other than English at home?

[ASK ALL. SC.]

No, English only	1
Yes	2

14. Which other languages do you speak at home (other than English)?

[ASK IF Q13 = YES. MC.]

Arabic	1

Bengali	2
Cantonese	3
Dutch	4
Filipino	5
First Nations Language (please specify)	6
French	7
German	8
Greek	9
Hausa	10
Hindi	11
Italian	12
Japanese	13
Javanese	14
Korean	15
Malay	16
Mandarin	17
Portuguese	18
Punjabi	19
Russian	20
Spanish	21
Tagalog	22
Telugu	23
Turkish	24
Urdu	25
Vietnamese	26
Other (specify)	98

15. Which of the following best describes your current employment situation?

[ASK ONLY PEOPLE AGED 15 AND OVER. SC.]

Working full-time	1
Working part-time	2
Working casually	3
Working in holidays only	4
Stay at home parent	5
Not employed and looking for work	6
Not employed and not looking for work	7
Other	98

16. To the best of your knowledge, what's the highest level of education either of your immediate parents(s) or guardian(s) have attained?
[ASK ALL. SC]

Primary School	1
High school (Year 10)	2
High School (year 12)	3
VET Certificate	4
VET Diploma	5
Bachelor's degree	6
Graduate diploma or certificate	7
Masters	8
Doctorate	9
Other (please specify)	98
Not sure/prefer not to say	99

17. To the best of your knowledge, have your parent(s) or guardian(s) completed a degree or certificate in any of the following areas?
[ASK ALL. MC]

Accounting	1
Architecture	2

Computing	3
Engineering	4
Law	5
Marketing	6
Mathematics	7
Medicine	8
Nursing	9
Science	10
I don't know	98
None of the above	99

18. And to the best of your knowledge what type of job do your parent(s) or legal guardian(s) work in? If your parents are retired, please tell us what they did before they retired.
    Select up to 2 choices. If they have more than one job, please select what you believe to be their main job.
    [ASK ALL. MC.]

		STEM RELATED
Accountant	1	
Advertising or marketing consultant	2	
Architect	3	
Artist	4	
Banker or finance	5	
Business owner	6	
Clerical and administration (office support)	7	
Community and personal service (aged care, childcare)	8	
Computing or information technology (IT)	9	STEM
Corporate management	10	
Data analyst	11	STEM

Economist	12	
Emergency services (police, fire or ambulance)	13	
Engineer	14	STEM
Farmer	15	
Hairdresser or beauty therapist	16	
Hospitality	17	
Inventor (entrepreneur)	18	STEM
Labourer (construction, grounds maintenance, factory worker)	19	
Lawyer	20	
Machinery operator or driver	21	
Mathematician	22	STEM
Medical doctor	23	
Nurse	24	
Pharmacist	25	
Professor or lecturer	26	
Public servant (includes Defence Force - Army, Airforce, Navy)	27	
Public transport operator (bus driver, train conductor)	28	
Retail worker	29	
Salesperson	30	
Scientist	31	STEM
Social worker	32	
Stay at home parents	33	
Taxi driver or ride share driver	34	
Teacher	35	
Technician or trade worker (mechanic, electrician, carpenter)	36	
Software/game developer	37	STEM
Unemployed	38	

Don't know	98	
Other (Specify)	99	

SECTION 2: CURRENT AND FUTURE STUDY INTENTIONS

Great, thanks. Now in this next section we would like to ask you some questions **about your current and future study intentions.**

Q19a. What are you intending to do after school?
[ASK IF NOT IN TERTIARY EDUCATION]

Go to university	1
Do a TAFE or other vocational course	2
Get a job/continue working in a job	3
Do an apprenticeship	4
Take a gap year	5
Other (please specify)	97
Not sure yet	99

19. Which of the following **elective** subjects best describes the subjects you have chosen to do in years 9 and 10?
Please select a maximum of 6 subjects and minimum of 3
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones you are considering from the list below.
[ASK YEAR 9 TO 10 STUDENTS MC. RANDOMISE]

		STEM RELATED
Arts - Music	1	
Arts - Visual Arts	2	
Arts - Dance	3	
Arts - Drama	4	
Arts - Photography Digital media	5	

Languages	6	
Commerce	7	
Humanities and Social Sciences	8	
Human Society and Its Environment (HSIE) - Aboriginal Studies	9	
Human Society and Its Environment (HSIE) - Commerce	10	
Human Society and Its Environment (HSIE) - Geography Elective	11	STEM
Human Society and Its Environment (HSIE) - History Elective	12	
Human Society and Its Environment (HSIE) - Work Education	13	
PDHPE - Child Studies	14	
PDHPE - Physical Activity	15	
PDHPE - Sports Studies	16	
VET in Years 9 and 10	17	
Agricultural Technology	18	STEM
Design and Technology	19	STEM
Food Technology	20	
Graphics Technology	21	STEM
Industrial Technology	22	STEM
Information and Software Technology	23	STEM
Textiles Technology	24	
Other (specify)	98	

20. Which of the following **elective** subjects best describes the subjects you studied in years 9 and 10?
Please select a maximum of 6 subjects and minimum of 3
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones you studied. below.
[ASK YEAR 11 TO 12 STUDENTS MC. RANDOMISE]

		STEM RELATED

Arts - Music	1	
Arts - Visual Arts	2	
Arts - Dance	3	
Arts - Drama	4	
Arts - Photography Digital media	5	
Languages	6	
Commerce	7	
Humanities and Social Sciences	8	
Human Society and Its Environment (HSIE) - Aboriginal Studies	9	
Human Society and Its Environment (HSIE) - Commerce	10	
Human Society and Its Environment (HSIE) - Geography Elective	11	STEM
Human Society and Its Environment (HSIE) - History Elective	12	
Human Society and Its Environment (HSIE) - Work Education	13	
PDHPE - Child Studies	14	
PDHPE - Physical Activity	15	
PDHPE - Sports Studies	16	
VET in Years 9 and 10	17	
Agricultural Technology	18	STEM
Design and Technology	19	STEM
Food Technology	20	
Graphics Technology	21	STEM
Industrial Technology	22	STEM
Information and Software Technology	23	STEM
Textiles Technology	24	
Other (specify)	98	

21. Which of the following **elective** subjects best describes the subjects you have chosen to do in years 11 and 12?

Please select a maximum of 12 subjects and minimum of 4
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones you are considering from the list below.
[ASK YEAR 11 TO 12 STUDENTS MC.]

Subjects	STEM RELATED	Subjects	STEM RELATED
Aboriginal Studies		Human Society and Its Environment	
Agriculture	STEM	Industrial Technology	STEM
Ancient History		Information and Digital Technology (VET)	STEM
Automotive (VET)		Information Processes and Technology	STEM
Biology	STEM	Investigating Science	STEM
Business and Economics		Languages	
Business Services (VET)		Legal Studies	
Business Studies		Living World Science	STEM
Ceramics		Marine Studies	STEM
Chemical World Science	STEM	Mathematics	STEM
Chemistry	STEM	Mathematics Advanced	STEM
Citizenship and Legal Studies		Mathematics Extension	STEM
Community and Family Studies		Metal and Engineering (VET)	
Computing Applications	STEM	Modern History	
Construction (VET)		Music	
Creative Arts		Personal Development, Health and Physical Education	
Dance		Photography, Video and Digital Imaging	
Design and Technology	STEM	Physical World Science Life Skills	
Drama		Physics	STEM

Earth and Environmental Science	STEM	Primary Industries (VET)	
Earth and Space Science	STEM	Retail Services (VET)	
Economics		Science Extension	STEM
Electrotechnology (VET)	STEM	Society and Culture	
Engineering Studies	STEM	Software Design and Development	STEM
English Advanced/Extension/Other		Sport, Lifestyle and Recreation Studies	
Entertainment Industry (VET)		Studies of Religion	
Exploring Early Childhood		Technology Life Skills	
Financial Services (VET)		Textiles and Design	
Food Technology		Tourism, Travel and Events (VET)	
Geography	STEM	Visual Arts	
History Extension		Visual Design	
Hospitality (VET)		Work and the Community Life Skills	
Human Services (VET)		Work Studies	
		Other (please specify)	

22. Which of the following **elective** subjects best describes the subjects you did when you were in years 11 and 12?
Please select a maximum of 12 subjects and minimum of 4
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones studied.
[ASK HIGHER EDUCATION MC.]

Subjects	STEM RELATED	Subjects	STEM RELATED
Aboriginal Studies		Human society and its environment	
Agriculture	STEM	Industrial technology	STEM

Ancient History		Information and Digital Technology (VET)	STEM
Automotive (VET)		Information Processes and Technology	STEM
Biology	STEM	Investigating Science	STEM
Business and Economics		Languages	
Business Services (VET)		Legal Studies	
Business Studies		Living World Science	STEM
Ceramics		Marine Studies	STEM
Chemical World Science	STEM	Mathematics	STEM
Chemistry	STEM	Mathematics Advanced	STEM
Citizenship and Legal Studies		Mathematics Extension	STEM
Community and Family Studies		Metal and Engineering (VET)	
Computing Applications	STEM	Modern History	
Construction (VET)		Music	
Creative Arts		Personal Development, Health and Physical Education	
Dance		Photography, Video and Digital Imaging	
Design and Technology	STEM	Physical World Science Life Skills	
Drama		Physics	STEM
Earth and Environmental Science	STEM	Primary Industries (VET)	
Earth and Space Science	STEM	Retail Services (VET)	
Economics		Science Extension	STEM
Electrotechnology (VET)	STEM	Society and Culture	
Engineering Studies	STEM	Software Design and Development	STEM
English Advanced/Extension/Other		Sport, Lifestyle and Recreation Studies	

Entertainment Industry (VET)		Studies of Religion	
Exploring Early Childhood		Technology Life Skills	
Financial Services (VET)		Textiles and Design	
Food Technology		Tourism, Travel and Events (VET)	
Geography	STEM	Visual Arts	
History Extension		Visual Design	
Hospitality (VET)		Work and the Community Life Skills	
Human Services (VET)		Work Studies	
		Other (please specify)	

23. Which of the below courses best describes the course you are currently studying in your higher education course?

Please select a maximum of 2 subjects and minimum of 1.

Please note that different higher education providers offer different choices of courses, so please select the subjects that best describe the ones you are considering from the list below.

ASK IF Q7 = CODES 8-16. MC.

		STEM RELATED
Accounting	1	
Agriculture	2	STEM
Architecture	3	
Built environment	4	
Business and management	5	
Communications	6	
Computing and information technology	7	STEM
Creative arts	8	
Dentistry	9	
Economics	10	

Education and training	11	
Engineering and technology	12	STEM
Environmental studies	13	STEM
Health services and support (e.g. nutrition, occupational therapy)	14	
Humanities and social sciences	15	
International relations		
Languages	16	
Law	17	
Mathematics	18	STEM
Medicine	19	
Nursing	20	
Para-legal studies	21	
Pharmacy	22	
Psychology	23	
Rehabilitation (e.g. physiotherapy, chiropractic)	24	
Biology	25	STEM
Chemistry	26	STEM
Physics	27	STEM
Earth and environmental sciences	28	STEM
Social work	29	
Sport and leisure	30	
Surveying	31	
Tourism and hospitality	32	
Veterinary science	33	
Other (specify)	98	

24. Thinking about high school, which of the following subjects would you be interested in studying once you get the choice to select your subjects. Please select from the below list which elective subjects you would be interested in for years 9 and 10.
[ASK STUDENTS IN YEARS 6, 7 AND 8. Q7 = CODE 1-3]
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones you are considering from the list below.
Please select up to 5 subjects.

25. Please select from the below list which elective subjects you are considering choosing for years 11 and 12.
[ASK STUDENTS IN YEARS 9 AND 10. Q7 = CODE 4-5]
Please note that different states and schools offer different choices of electives, so please select the elective subjects that best describe the ones you are considering from the list below.
Please select up to 7 subjects.

26. Please select from the below list which course(s) you are considering after high school.
[ASK STUDENTS IN YEARS 11 AND 12. Q7 = CODE 6-7. INCLUDE CODE FOR NOT CONTINUING WITH STUDY]
Please note that different tertiary education providers offer different choices of courses, so please select the subjects that best describe the ones you are considering from the list below.
Please select up to 2 courses. *

    Includes option for 'Not Continuing Study'

SECTION 3: CAREER ASPIRATIONS

Great, thanks. Now in this next section we would like to ask you some questions **about your career aspirations.**

27. Thinking about what type of career you want after you finish school, which of the following best describes you?
If you have finished your studies and are already working, please answer this based on your level or certainty of whether your current career is the career you want to pursue or if you are still uncertain.

    [ASK ALL. SC.]

Very certain: I definitely know what I want to do.	1
Fairly certain: I'm pretty sure I know what I want to do.	2
Hardly certain: I have an idea of what I might do but nothing is decided/I'm likely to change my mind.	3
Not at all certain: I have no idea what I want to do.	4

28. And what type of career would you like to have in the future?
Select up to 3 choices.
[ASK ALL.MC. RANDOMISE ORDER.]

		STEM RELATED
Accountant	1	
Advertising or marketing consultant	2	
Architect	3	
Artist	4	
Banker or finance	5	
Business owner	6	
Clerical and administration (office support)	7	
Community and personal service (aged care, childcare)	8	
Computing or information technology (IT)	9	STEM
Corporate management	10	
Data analyst	11	STEM
Economist	12	
Emergency services (police, fire or ambulance)	13	
Engineer	14	STEM
Farmer	15	
Hairdresser or beauty therapist	16	
Hospitality	17	
Inventor (entrepreneur)	18	STEM
Labourer (construction, grounds maintenance, factory worker)	19	
Lawyer	20	
Machinery operator or driver	21	
Mathematician	22	STEM
Medical doctor	23	

Nurse	24	
Pharmacist	25	
Professor or lecturer	26	
Public servant (includes Defence Force - Army, Airforce, Navy)	27	
Public transport operator (bus driver, train conductor)	28	
Retail worker	29	
Salesperson	30	
Scientist	31	STEM
Social worker	32	
Stay at home parents	33	
Taxi driver or ride share driver	34	
Teacher	35	
Technician or trade worker (mechanic, electrician, carpenter)	36	
Don't know	98	
Other (specify)	99	

29. You mentioned that you are interested in becoming a scientist in the future. From the list below what kind of scientist would you like to be?
[ASK IF SELECTED SCIENTIST (CODE 31) AT Q28. SC.]

Biologist	1
Chemist	2
Physicist	3
Earth or environmental scientist	4
Other (specify)	5

29A. [NEW FOR 2025] You mentioned that you are interested in becoming an engineer in the future. From the list below what kind of engineer would you like to be?

[ASK IF SELECTED ENGINEER (CODE 14) AT Q28. SC.]

Civil engineer	1
Mechanical engineer	2
Electrical engineer	3
Software engineer (including AI engineer and data engineer)	4
Chemical engineer	5
Biomedical engineer	6
Aeronautical engineer	7
Other (Specify)	8
Don't know	9

30. From the below list, which **factors** influence the **career** you aspire to? Please select up to 3 factors which influence you the most.
[ASK ALL. MC.]

TV show/movie	1
Activities outside of school/study	2
Books/magazines	3
YouTube	4
My own skills and abilities	5
Work experience	6
Childhood dream	7
Personal interests	8
The kind of jobs people in my family have	9
Potential earnings	10
Potential to be famous	11
Ambition to change the world	12
Social media/content creators	13
Conversations with others (e.g. friends, family and teachers)	14
Other (please specify)	98

None of the above	99

31. [REMOVED FOR 2023]

32. And which of the below **people** influence the **career** you aspire to? Please select up to 2 groups of people who influence you the most.
[ASK ALL. MC.]

My teachers/lecturers	1
My parents	2
Career advisor	3
Celebrities	4
My friends	5
Successful business people	6
Famous scientists	7
Other family (uncles, aunts, cousins)	8
Social media influencers/content creators	9
No one	10
Other (please specify)	98

33. [REMOVED FOR 2023]

34. How important are each of the following factors when choosing a career?
[ASK ALL AGED 14+. SC PER ITEM. RANDOMISE ORDER.]

	Not important at all	Not very important	Neither	Somewhat important	Very Important
Job security	1	2	3	4	5
Is in an industry that is growing	1	2	3	4	5
Lots of roles available	1	2	3	4	5

Offers a lot of variety within the role	1	2	3	4	5
Is in an industry that is constantly evolving	1	2	3	4	5
Uses lots of technology	1	2	3	4	5
Has lots of opportunities for on-the-job training and learning new skills	1	2	3	4	5
High salary	1	2	3	4	5
Allows you to be creative	1	2	3	4	5
Subject matter is interesting	1	2	3	4	5
Positively impacts society	1	2	3	4	5
Helping people	1	2	3	4	5
Is in an industry that is sustainable	1	2	3	4	5
Provides structure and consistency	1	2	3	4	5
Has good working conditions	1	2	3	4	5
Is in an industry that has existed for a long time	1	2	3	4	5
Is a fun environment to work in	1	2	3	4	5
Provides an opportunity to travel/move overseas	1	2	3	4	5
Solving a major world problem	1	2	3	4	5

SECTION 4: UNDERSTANDING AND PERCEPTIONS OF STEM

Great, thanks. Now in this next section we would like to ask you some questions **about your understanding and perceptions of STEM.**

35. Please write below what you believe the terms ‘STEM’ stands for.
    [ASK ALL. OE]

_____
_____
_____

36. What type of jobs do you think you would be able to get if you have a STEM degree or certificate?
    [ASK ALL. OE]

1. _____
2. _____
3. _____
4. _____
5. _____

EXPLANATION ONLY: STEM stands for **science**, **technology**, **engineering** and **mathematics.**

In this survey, science means things like biology, chemistry, physics, and earth and environmental sciences. It doesn’t include medicine, nursing, psychology or health sciences.

Technology means things like information technology and programming, mechanics, electronics, and all other types of technology. Some technology courses could also be called engineering.

There are many types of engineering, like aerospace and environmental engineering, and many types of mathematics, such as geometry, logic and statistics.

37. Thinking about conversations you have with your **parents or guardians**, which of the following opinions/views have you heard from them about careers that need science, technology, engineering and maths skills?
    Choose any which may apply from the below list. If NONE of these apply to you, please select the option ‘I haven’t heard them talk about this’ and move onto the next question.
    [ASK ALL. SC PER ROW.]

These jobs offer job security		These jobs do not offer job security
These are well paid jobs		These jobs are not well paid
There are lots of jobs in these fields		There are very few jobs in these fields

These jobs positively impact society		These jobs have no impact on society
These jobs have good working conditions		These jobs have poor working conditions

I haven't heard them talk about this [EXCLUSIVE]

38. Thinking about your **teachers or careers advisors**, which of the following opinions/views have you heard about careers that need science, technology, engineering and math skills?

    Choose any which may apply from the below list. If NONE of these apply to you, please select the option 'They don't talk to me about this' and move onto the next question.

    [ASK ALL. SC PER ROW.]

These jobs offer job security		These jobs do not offer job security
These are well paid jobs		These jobs are not well paid
There are lots of jobs in these fields		There are very few jobs in these fields
These jobs positively impact society		These jobs have no impact on society
These jobs have good working conditions		These jobs have poor working conditions

I haven't heard them talk about this [EXCLUSIVE]

39. How interested are you in each of the below subjects?
    [ASK ALL. SC]

	Not at all interested	Not really interested	Neither	Somewhat interested	Very interested
Science	1	2	3	4	5
Technology	1	2	3	4	5
Engineering	1	2	3	4	5
Maths	1	2	3	4	5

40. Thinking about **getting a good job in the future**, how important do you believe it is to have knowledge and skills related to each of the subjects that make up STEM: science, technology, engineering and mathematics?
[ASK ALL. SC]

	Not important at all	Not really important	Neither important or unimportant	Somewhat important	Very important
Science	1	2	3	4	5
Technology	1	2	3	4	5
Engineering	1	2	3	4	5
Maths	1	2	3	4	5

41. You mentioned that it **was not important** to have knowledge and skills in [insert subject] to get a good job. Why do you think that?
[ASK THOSE WHO SAID 'NOT IMPORTANT AT ALL' OR 'NOT REALLY IMPORTANT' TO EACH SUBJECT. MC]

42. You mentioned that it **was important** to have knowledge and skills in [insert subject] to get a good job. Why do you think that?
[ASK THOSE WHO SAID 'SOMEWHAT IMPORTANT' OR 'VERY IMPORTANT' TO EACH SUBJECT. MC]

This subject helps us understand how the world works	1
Skills are transferrable to other areas	2
It prepares you for good jobs	3

This subject teaches you critical thinking skills	4
[Show for tech] Technology is shaping the future/constantly evolving	5
You have to use these skills in the workplace	6
This subject teaches problem solving skills	7
This subject teaches analysis skills	8
Gives you a wide range of careers options	9
This subject teaches you creativity skills	10
This subject teaches you how to be innovative	11
This subject teaches you logical thinking	12
It is an essential life skill	13
These skills are needed for well-paying jobs	14
These skills are in high demand	15
Other (please specify)	98

43. How **confident** do you feel that you can study and get good results in each of the following subjects?
[ASK ALL. SC]

	Not confident at all	Not really confident	Neither confident or not confident	Somewhat confident	Very confident
Science	1	2	3	4	5
Technology	1	2	3	4	5
Engineering	1	2	3	4	5
Maths	1	2	3	4	5

44. Why do you think you don't feel confident with the [insert subject]?
[ASK THOSE WHO SAID 'NOT CONFIDENT AT ALL' OR 'NOT REALLY CONFIDENT TO EACH SUBJECT'. MC]

I'm not very good at it	1
I'm not interested in it	2
I don't like it	3
It's too hard/difficult	4
I don't understand it	5
I'm not very smart	6
I have failed at this subject before	7
It's boring	8
I haven't studied it before	9
It's always changing	10
It requires Maths skills which I'm not good at [SHOW FOR SCIENCE, TECH, ENG]	11
It involves Chemistry skills which I'm not good at [SHOW FOR SCIENCE ONLY] [NEW FOR 2025]	12
It involves Biology skills which I'm not good at [SHOW FOR SCIENCE ONLY] [NEW FOR 2025]	13
It involves Physics skills which I'm not good at	14
Other (please specify)	98

45. And what about outside of school/study, how confident do you feel you understand science and technology when people are talking about it or when you watch or read about on TV or online (e.g. a new discovery on the news, documentary on TV etc.) [ASK ALL. SC]

Not confident at all	1
Not really confident	2
Neither confident or unconfident	3
Somewhat confident	4
Very confident	5

46. Are you considering studying any STEM-related subjects in the future? `

If you are already studying at a tertiary level, please answer based any further studies such as a postgraduate degree, PHD, branching into different areas of STEM or any other education qualification.
STEM stands for Science, Technology, Engineering and Maths, but it also includes subjects such as biology, chemistry, physics, computing, programming, coding, mechanical and electrical trades and other related subjects.
[ASK ALL. SC]

Yes	1
No	2
Not sure	3

47. Why are you considering studying subjects related to STEM in the future?
[ASK IF YES ABOVE. MC]

I'm interested in a specific STEM career (specify)	1
I have a general interest in STEM	2
It is important for future job opportunities	3
Because I'm good at it	4
Because I enjoy it	5
It will give me important skills for the future	6
I already work in/study STEM	7
It's fun	8
Other (please specify)	98
Don't know	99

48. Why are NOT you considering studying subjects related to STEM in the future?
[ASK IF NO ABOVE. MC]

It's not interesting	1
It's too hard/difficult	2
I prefer creative subjects	3
I'm interested in something else	4

I'm already studying something else	5
It's boring	6
I'm not smart enough	7
I don't need STEM skills	8
I want to pursue a different career path	9
I already finished my studies	10
I am already working in another area	11
I'm not interested in future study	12
Other (please specify)	98
Don't know	99

49. [REMOVED FOR 2023]

49a. [REMOVED FOR 2025]

50. [REMOVED FOR 2023]

50a. [REMOVED FOR 2025]

51. Below are some statements people have made about reasons which prevent them from studying subjects related to STEM? Thinking about yourself, how much do agree or disagree with these statements.
[ASK IF NOT CONSIDERING FURTHER STUDY IN STEM. SC PER ITEM.]

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
I'm not really interested in these subjects	1	2	3	4	5
Don't think I'm smart enough	1	2	3	4	5
None of my friends are doing these subjects	1	2	3	4	5
They are too hard for me	1	2	3	4	5
I'm not very good at science	1	2	3	4	5
I'm not very good at math	1	2	3	4	5
The teachers/lecturers of these subjects are not very good	1	2	3	4	5
It's not related to the career I want	1	2	3	4	5

52. In your opinion, who is better at the following subjects:
[ASK ALL. SC PER ITEM]

	Boys are much better than girls	Boys are a bit better than girls	Neither girls or boys are better	Girls are a bit better than boys	Girls are much better than boys
Maths	1	2	3	4	5
Science	1	2	3	4	5
Technology	1	2	3	4	5
Engineering	1	2	3	4	5

53. Below is a list of careers, based on your understanding do you think these jobs are more for boys, more for girls or for both?
[ASK ALL. SC. THIS QUESTION IS SPLIT INTO TWO PAGES FOR RESPONDENT EXPERIENCE.]

	More for boys	More for girls	For either	Not sure
Accountant	1	1	1	1

Advertising or marketing consultant	2	2	2	2
Architect	3	3	3	3
Artist	4	4	4	4
Banker or finance	5	5	5	5
Business owner	6	6	6	6
Clerical and administration (office support)	7	7	7	7
Community and personal service (aged care, childcare)	8	8	8	8
Computing or information technology (IT)	9	9	9	9
Corporate management	10	10	10	10
Data analyst	11	11	11	11
Economist	12	12	12	12
Emergency services (police, fire or ambulance)	13	13	13	13
Engineer	14	14	14	14
Farmer	15	15	15	15
Hairdresser or beauty therapist	16	16	16	16
Hospitality	17	17	17	17
Inventor (entrepreneur)	18	18	18	18
Labourer (construction, grounds maintenance, factory worker)	19	19	19	19
Lawyer	20	20	20	20
Machinery operator or driver	21	21	21	21
Mathematician	22	22	22	22
Medical doctor	23	23	23	23
Nurse	24	24	24	24
Pharmacist	25	25	25	25

Professor or lecturer	26	26	26	26
Public servant (includes Defence Force - Army, Airforce, Navy)	27	27	27	27
Public transport operator (bus driver, train conductor)	28	28	28	28
Retail worker	29	29	29	29
Salesperson	30	30	30	30
Scientist	31	31	31	31
Social worker	32	32	32	32
Stay at home parents	33	33	33	33
Taxi driver or ride share driver	34	34	34	34
Teacher	35	35	35	35
Technician or trade worker (mechanic, electrician, carpenter)	36	36	36	36

53a. [REMOVED FOR 2025]

53b. [REMOVED FOR 2025]

54. Below is a list of statements people have made about **science** and **technology**. Please indicate, how much you agree with each of these statements.
[ASK ALL. SC PER ITEM]

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
My parents think it's important to learn about science and technology	1	2	3	4	5
I talk about science and technology at home with my family	1	2	3	4	5
My friends are interested in science and technology	1	2	3	4	5
I like to watch shows about science and technology	1	2	3	4	5
Scientists make a positive difference in the world	1	2	3	4	5
I would like to be a scientist one day	1	2	3	4	5
Learning about science and technology is exciting	1	2	3	4	5
I will need to know about science and technology to get a good job in the future	1	2	3	4	5
STEM skills are important when considering employment opportunities	1	2	3	4	5

SECTION 5: ENABLERS, BARRIERS AND INFLUENCERS

55. From the below list, which **factors** influence your decision of the **subjects you choose** to study? Please select up to 3 factors which influence you the most.
[ASK ALL. MC.]

TV show/movie	1
Activities outside of school/study	2
Books/magazines	3
YouTube	4
My own skills and abilities	5
Work experience	6
Childhood dream	7

Personal interests	8
The kind of jobs people in my family have	9
Potential earnings	10
Potential to be famous	11
Ambition to change the world	12
To help with my ATAR score	13
Social media/content creators	14
Conversations with others (e.g. friends, family and teachers)	15
Potential future career [NEW FOR 2025]	16
Other (please specify)	17
None of the above	98

56. [REMOVED FOR 2023]

57. And which of the below **people** influence your decision of the **subjects you choose** to study? Please select up to 2 groups of people which influence you the most. [ASK ALL. MC.]

My teachers/lecturers	1
My parents	2
Career advisor	3
Celebrities	4
My friends	5
Successful business people	6
Famous scientists	7
Other family (uncles, aunts, cousins)	8
Other (please specify)	98

58. [REMOVED FOR 2023]

SECTION 6: STEM EXTRA CURRICULAR ACTIVITIES

Great, thanks. Now in this **last** section we would like to ask you some questions **about your extracurricular activities.**

59. [REMOVED FOR 2023]

60. Have you participated in any activities related to science, technology, engineering or maths outside of school/study in the past 12 months?
    This could be anything from a fair or a visit to the museum, an expo, a competition, reading a magazine or website related to STEM or any other event related to STEM.
    [ASK ALL. SC]

Yes, I've participated in a few	1
Yes, I've participated in one	2
No, haven't participated in any	3

61. And which of the below events, activities or resources have you heard of?
    [ASK IF CODE 1 OR 2 SELECTED IN Q60. SHOW A-Z]

Girls in STEM Toolkit	1
STAR Portal	2
Maths or Informatics Olympiad	3
Australian Science Olympiad	4
4x4 in schools	5
Space camp	6
FIRST Robotics	7
ConocoPhilips Science Experience	8
BHP Billiton Science and Engineering Awards	9
National Indigenous Science Program	10
Bebras Challenge	11
Young ICT Explorers	12
Curious Minds	13
digIT program	14
National Science Week	15

F1 in Schools	17
National Youth Science Forum	18
Questacon	19
Questacon Smart Skills	21
Questacon Science Circus	22
Careers with STEM – Magazine	23
Days of STEM	24
Google Science Fair	25
Lego First Competition	27
AMSI Choose Maths	28
NXplorers [WA RESPONDENTS ONLY]	31
Governor's School STEM Awards	32
RoboCup Junior	33
RMIT EnGenius [VIC RESPONDENTS ONLY]	35
SciTech	36
Future You	37
DeadlyScience [NEW FOR 2025]	38
Other (specify)	98
None of these	99

62. And which of the below events or activities have you participated in within the last 12 months? This also includes magazines or websites you might have read.
[INSERT RESPONSES FROM ABOVE – EVENTS OR ACTIVITIES AWARE OF. ONLY ASK IF NONE OF THESE NOT SELECTED]

63. How would you describe your experience of these activities/events/resources?
[ASK IF PARTICIPATED IN ABOVE SCIENCE EVENTS. INSERT EACH OPTION IF SELECTED ABOVE. SC]

INSERT EVENTS MENTIONED ABOVE	I hated it	I didn't really like it	Didn't like or dislike	It was ok	I really enjoyed it
National Science Week	1	2	3	4	5
F1 in Schools	1	2	3	4	5
Other events and activities participated in in the past 12 months	1	2	3	4	5

64. [REMOVED FOR 2023]

65. [REMOVED FOR 2023]

STEM CAREERS EXPLANATION*:* There are a huge variety of industries you can work in with a STEM degree. Just a few examples include: information technology; mining; construction of cars; aeroplane and rocket design; medical instrument design; wind turbine and solar panel design and construction; environmental contaminant testing; fisheries; curating natural history exhibitions; 3D printing; sustainable fashion; and mathematical modelling of the impact of humans on the planet.

66. Based on this information, has your interest in getting a STEM degree changed? [ASK ALL 15+]

Much more interested	1
A bit more interested	2
About the same as before	3
A bit less interested	4
Much less interested	5

Here is some more information about AI. Artificial intelligence, or 'AI', is the ability for a computer to think and learn. With AI, computers can perform tasks that are typically done by people, including processing language, problem-solving, and learning. AI is a tool, much like other types of new technologies.

Generative AI is a type of AI system capable of generating text, images, or other media in response to prompts, for example ChatGPT.

67. [NEW FOR 2023] Do you believe that Generative AI tools will have a significant impact on work and careers in the future?
[ASK ALL. SC]

Yes	1
No	2
Unsure	3

68. [NEW FOR 2023] Have Generative AI tools or AI overall made you reconsider your current or future study or career prospects?
[ASK ALL. SC]

No	1
Unsure	2
Yes, reconsidering my study	3
Yes, reconsidering my career/job	4
Yes, reconsidering BOTH my study and career/job	5

69. [NEW FOR 2025] Has using Generative AI changed how confident you feel with each of the following STEM subjects?

[ASK ALL. GRID, SC PER ROW]

Generative AI has made me feel…	Much less confident	A little less confident	My confidence is the same	A little more confident	Much more confident	Not relevant to me/I don't use AI for this
Science	1	2	3	4	5	99
Technology	1	2	3	4	5	99
Engineering	1	2	3	4	5	99
Maths	1	2	3	4	5	99