

Women in Stem: the funnel and the leaky pipeline

Background Information and Statistics



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Overview

Over the past decades a considerable amount of money has been poured into supporting and encouraging girls and young women to enter and then remain in STEM.

The money ploughed in by the Federal Government alone is staggering. Four current federal programs will see a total in excess of \$200M spent by their conclusion:

- Women in STEM Cadetships and Advanced Apprenticeships Program \$25.1 million
- The Women in STEM and Entrepreneurship grants \$47.5 million
- Women in STEM (WiSTEM) \$86.4445m
- Boosting the Next Generation of Women in STEM program \$41.2 million

Add to this the money being spent by each of the State and Territory Governments and by private industry and the total investment in getting women into STEM and keeping them there is significant.

There are little to no mechanisms in place to review the effectiveness of these programs and current evidence suggests that they are having very little impact. The percentage of enrolments by women in STEM courses at Australian Universities has risen from 34% of total enrolments in 2015 to 37% in 2020, 2021 and 2022.

The pipeline is leaky. By the aged of 35, 50% of the women who complete a STEM qualification leave STEM, never to return.

What can we do to change this?

How do we widen the funnel and start to plug all the leaks?

How do we assess the growth in female employment in STEM roles?

Pink washing programs – has it worked or not? How do we know?

How do we optimise our approach/strategy to meet future recruitment targets?

How do we effectively change the perception of STEM as fields not suitable for women?

How do we attract and retain women in STEM roles?

What needs to change to allow for career gaps following maternity leave given the rapid rate of change in technology?

What follows is a snapshot of the programs, funding, data sets, news, research and analysis around the theme: Women in STEM: the funnel and the leaky pipeline

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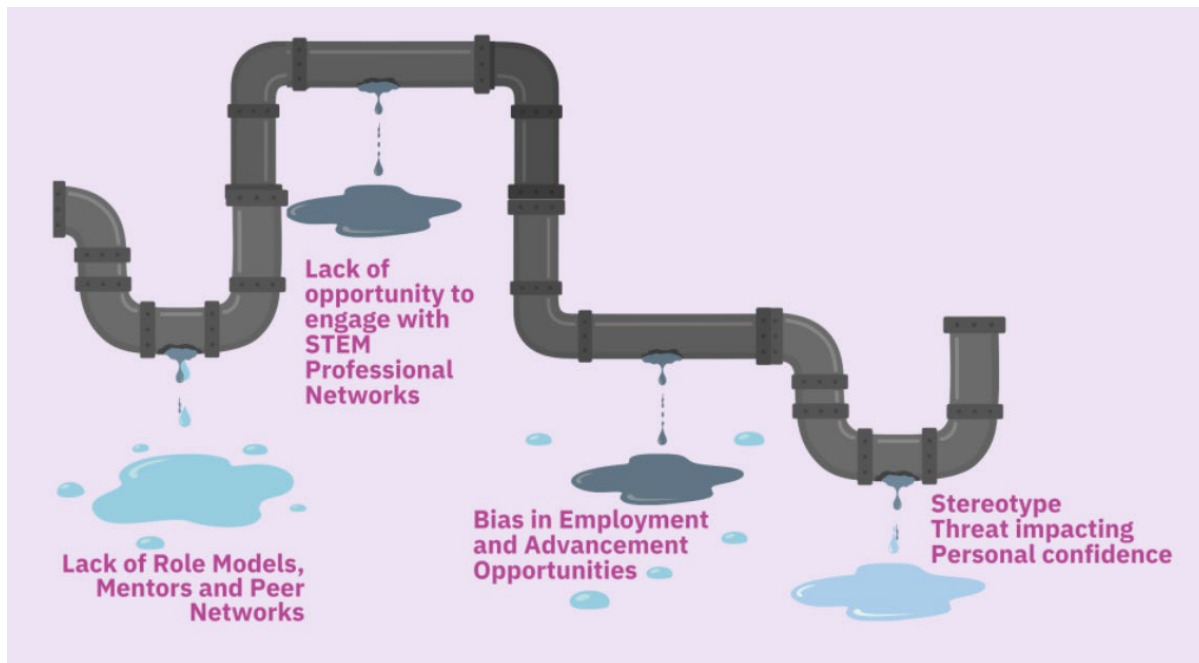
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Diagrams, Definitions and Background Information

STEM SISTERS

A really good diagram to get started and analysis of Women of colour and STEM in the USA. Where the underlying issues are no different to those in Australia

<https://stemsisters.org.au/>



What is critical mass theory?

Does this apply to workplaces as well as politics?

[https://en.wikipedia.org/wiki/Critical_mass_\(sociodynamics\)](https://en.wikipedia.org/wiki/Critical_mass_(sociodynamics))

Critical mass theory in gender politics and collective political action is defined as the critical number of personnel needed to affect policy and make a change not as the token but as an influential body. This number has been placed at 30%, before women are able to make a substantial difference in politics.

Top 10 must-know women in STEM statistics for 2025

This is not a credible source. It contains contradictions. AI Generated.

<https://www.aiprm.com/en-au/women-in-stem-statistics/>

News Articles, Opinions and Announcements

\$100m game-changer creating a STEM future for Western Sydney girls at University of Sydney

<https://www.sydney.edu.au/news-opinion/news/2025/02/05/100m-donation-creating-a-stem-future-for-western-sydney-girls.html>

This is a first of its kind 20-year program that starts in Year 7 and runs all the way through to the completion of a STEM degree at the University of Sydney. If successful, this could prove a template for all future programs.

About the program

The program's structure has three stages:

- Khuda Family Foundation Outreach Program In high schools, years 7 to 10. Working with partner schools, it will offer specialised STEM curriculum-aligned activities for boys and girls in schools and on campus to ignite an interest in physics, maths and engineering. When fully implemented, it will reach 40,000 students.
- Khuda Academy In high schools, years 11 and 12. Open to girls in partner schools through academic support and an annual bursary to enable girls to retain their STEM subjects. Includes dedicated group tutoring, mentoring by University of Sydney students and on-campus STEM activities. Aims to reach over 1200 students once fully implemented.
- Khuda Scholars Academy graduates will access a guaranteed scholarship stipend, including funds for University-owned accommodation as needed. This stage of the program offers specialised mentoring and support to participants throughout their STEM undergraduate degree. It aims to graduate a cohort and community of over 300 women.

The program is unique in guaranteeing an undergraduate place and scholarship for girls who qualify at the HSC stage. No other program in Australia has this "full pipeline" model.

ABC: Just 13 per cent of engineers are female, but push for gender parity is building on International Women's Day

From 2024. Since this was published the position of Australia's Women in STEM Ambassador has been abolished

<https://www.abc.net.au/news/2024-03-08/push-for-more-women-in-engineering-and-stem-careers/103561460>

The Engineers Australia report also found women faced substantial gender-based disadvantages in the workplace, with 55 per cent of female engineers saying they had fewer professional opportunities than men.

Although three-quarters of female engineers agreed they could "be themselves" at work, 1 in 3 said they had to act like "one of the boys" to fit in.

About 20 per cent said there was bullying or exclusion of women in their workplaces.

As Australia's Women in STEM Ambassador, Professor Lisa Harvey-Smith's vision is to make science, technology, engineering and mathematics (STEM) workplaces a safe space for everyone.

"These problems are systemic," Professor Harvey-Smith said.

"We've got to focus on the systemic changes that need to be made in workplaces and in our education system, so that we can level that playing field for everyone.

Gender diversity in technology

A look at Gender diversity in technology, mainly in the UK but the situation is the same there as it is in Australia. Using data from an Accenture study.

<https://hirestemwomen.co.uk/gender-diversity-in-technology-2/>

According to the World Economic Forum Global Gender Gap Report 2021, women make up just 14% of the workforce in cloud computing, 20% in engineering, and 32% in data and AI.

In fact, the ratio of women to men in tech roles has declined in the past 35 years, with half of women who go into tech dropping out by the age of 35, according to data from Accenture. The study attributes much of this decline to a lack of inclusivity for women in the industry.

Engineers Australia: Gender Economic Equality Study

An open letter to Jobs and Skills Australia from March 2025

<https://www.engineersaustralia.org.au/sites/default/files/2025-05/Gender-Economic-Equality-Cth.pdf>

Only 60 per cent of students who commence an engineering degree in Australia complete their studies.

Just 25 per cent of Bachelor of Engineering (Honours) students graduate within the 'minimum time' required to complete the degree.

Female engineers also report that job insecurity, less flexible working conditions than female-dominated occupations, short-term contracts, grant-dependent positions, promotion and development opportunities all play a part in their decisions to withdraw.

Is Australia going backwards on diversity in STEM?

A look at the legacy of the Women in STEM Ambassador program and asks what next?

<https://www.universityworldnews.com/post.php?story=20250613091015729>

Improving diversity in STEM is also critical to Australia's capacity for innovation, particularly as we face global challenges such as climate change, disruption from artificial intelligence, and geopolitical instability.

Diverse STEM teams are more likely to approach problems from multiple perspectives. They embody democratic values, driving innovation and strengthening resilience in the face of complex issues.

Australia has hundreds of programs to get women into science, but are they working? Time to find out

A discussion on the evaluation of STEM programs and why it needs to be done. This article is from 2020 and we are still having the same conversations.

<https://theconversation.com/australia-has-hundreds-of-programs-to-get-women-into-science-but-are-they-working-time-to-find-out-133061>

We're spending millions on initiatives, but are they having a positive impact?

The trouble is, we don't know. That's because most programs are not properly tested or evaluated.

Evaluation was one of the main recommendations of the [Women in STEM Decadal Plan](#), released in April 2019. By using data and measuring outcomes, we can target our efforts and scale up programs that are effective and proven to work.

SBS News: This key field is 'haemorrhaging women and diverse people'. What went wrong?

The story highlights the issues but there is not a lot on what to do about it.

<https://www.sbs.com.au/news/article/this-key-field-is-haemorrhaging-women-and-diverse-people/4c6nueu0c>

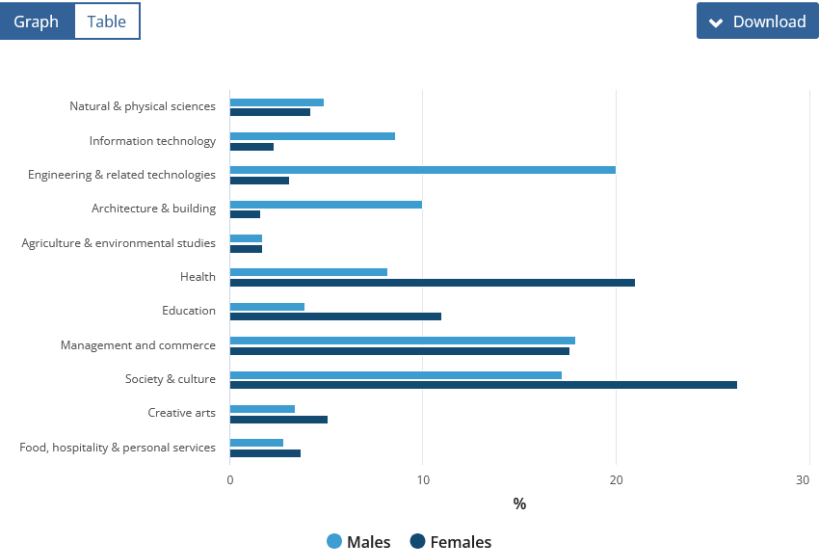
Data and Statistics

Australian Bureau of Statistics: Gender indicators

A lot of stats and facts and figures around gender, pay gap, education, work, health, crime, work-life balance etc

<https://www.abs.gov.au/statistics/people/people-and-communities/gender-indicators>

Field of current study for a non-school qualification, by sex, 2024 (a)



Data Source
[Education and Work, Australia, 2024](#)

Field of current study for a non-school qualification, by sex, 2024 (a)

Graph Table Download

	Males (%)	Females (%)
Natural & physical sciences	4.9	4.2
Information technology	8.6	2.3
Engineering & related technologies	20.0	3.1
Architecture & building	10.0	1.6
Agriculture & environmental studies	1.7	1.7
Health	8.2	21.0
Education	3.9	11.0
Management and commerce	17.9	17.6
Society & culture	17.2	26.3
Creative arts	3.4	5.1
Food, hospitality & personal services	2.8	3.7

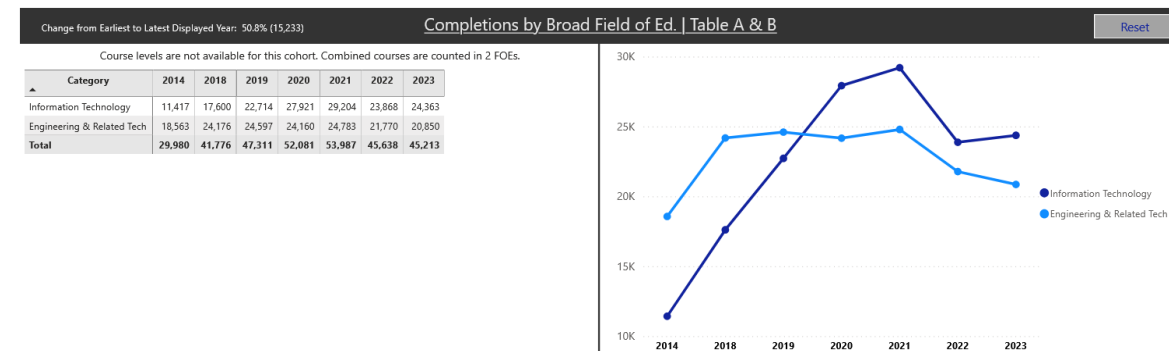
a. People aged 15-74 who were studying for a non-school qualification.

Data Source
[Education and Work, Australia, 2024](#)

Australian Government Department of Education – Selected Higher Education Statistics

Student data and analysis from 2015 to 2024.

<https://app.powerbi.com/view?r=eyJrljoiODBiZjZhZWYtMTM1Yy00ZDNjLWI4ZDAtdNDkwYTk5NTc0ZTcyliwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9>




Category	2018	2019	2020	2021	2022	2023
Natural & Physical Science	26,664	28,237	27,525	30,487	29,188	29,353
Information Technology	19,685	25,349	31,737	33,593	27,748	27,213
Engineering & Related Tech	25,360	25,870	25,353	25,840	22,776	21,648
Architecture & Building	8,408	9,121	9,974	10,422	9,791	9,764
Environment & Related	4,323	4,254	3,943	4,698	5,226	4,356
Health	59,287	64,320	63,190	71,281	74,254	71,506
Education	27,782	27,382	26,355	29,237	29,971	31,191
Management & Commerce	113,122	113,892	111,715	115,266	101,900	95,259
Society & Culture	70,475	71,326	69,980	75,216	74,060	75,541
Creative Arts	22,721	23,287	20,746	22,190	22,581	21,692
Other	129	76	112	86	124	142
Total	377,956	393,114	390,630	418,316	397,619	387,665

Workplace Gender Equity Agency 2024 Results

There is no way to break the figures down into STEM roles or defence industry. Engineering could fall under the Industry Division of Professional, Scientific and Technical Services and Mining and Manufacturing

<https://www.wgea.gov.au/Data-Explorer/Industry>

**Data Explorer - Industry**
Private sector reporting 2023 - 24

Navigation
Select to visit each page

Workforce Composition

Board / Governing Body

Equal Remuneration and Gender Pay Gap

Flexible Work and Employee Support

Employee Consultation

Sex Based Harassment and Discrimination

Dashboard filters
Filter industries by the following

Reporting period
2023 - 24

Employer size
(All)

Industry division
(All)

Industry sub-division
(All)

Industry group
(All)

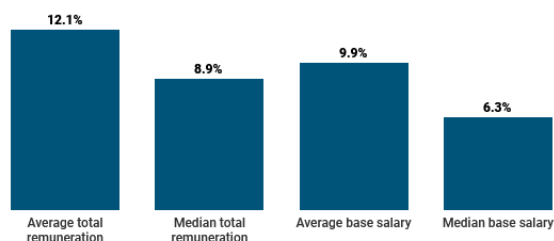
Industry class
(All)

Australian Private Sector

Sub-division: All
Group: All
Class: All
Employer size: All

Gender Equality Indicator 3: Equal remuneration and gender pay gap

Industry mid-point gender pay gap



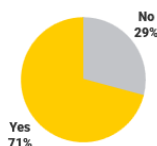
Gender composition by pay quartile

Women | Men

Quartile	Women	Men	Average total remuneration
Total workforce	51%	49%	\$116,000
Upper quartile	35%	65%	\$215,000
Upper-middle quartile	53%	47%	\$111,000
Lower-middle quartile	58%	42%	\$80,000
Lower quartile	59%	41%	\$58,000

Gender pay gaps and quartile analysis for industries with less than 5 employers are currently withheld to address privacy before employer gender pay gaps are released in 2025

Formal policy/strategy on equal remuneration between women and men

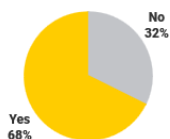


Equal remuneration policy/strategy inclusions

Proportion of employers with a formal policy/strategy on equal remuneration between women and men (multiple choice)

To ensure no gender bias occurs at any point in the remuneration review process (for example at commencement, at annual salary reviews, out-of-cycle pay reviews, and performance reviews)	86%
To implement and/or maintain a transparent and rigorous performance assessment process	62%
To achieve gender pay equity	61%
To close the gender pay gap	45%
To be transparent about pay scales and/or salary bands	39%
To ensure managers are held accountable for pay equity outcomes	38%

Conducted a gender pay gap analysis



Most recent gender gap analysis conducted

Proportion of employers that conducted a gender pay gap analysis

Within the last 12 months	90%
Within the last 1-2 years	8%
More than 2 years ago but less than 4 years ago	1%

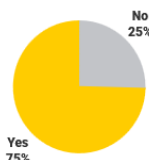
Type of gender pay gap analysis undertaken

Proportion of employers that conducted a gender pay gap analysis (multiple choice)

A like-for-like gap analysis which compares the same or similar roles of equal or comparable value	77%
A by-level gap analysis which compares the difference between women's and men's average pay within the same employee category	52%
An overall gender pay gap analysis which compares the difference between women's and men's average pay and composition across the whole organisation	62%

Took action as a result of their gender pay gap analysis

Proportion of employers that conducted a gender pay gap analysis



Actions taken as a result of the gender pay gap analysis

Proportion of employers that conducted a gender pay gap analysis and took action as a result (multiple choice)

Identified cause/s of the gaps	67%
Reported pay equity metrics (including gender pay gaps) to the executive	62%
Reviewed remuneration decision-making processes	54%
Corrected instances of unequal pay	52%
Reported pay equity metrics (including gender pay gaps) to the governing body	52%
Analysed performance pay to ensure there is no gender bias (including unconscious bias)	48%
Analysed performance ratings to ensure there is no gender bias (including unconscious bias)	40%
Analysed commencement salaries by gender to ensure there are no pay gaps	38%
Trained people-managers in addressing gender bias (including unconscious bias)	31%
Reported pay equity metrics (including gender pay gaps) to all employees	31%
Created a pay equity strategy or action plan	30%
Reported pay equity metrics (including gender pay gaps) externally	25%
Set targets to reduce any gender pay gaps	17%
Conducted a gender-based job evaluation process	7%

Completion Rates of Higher Education Students - Cohort Analysis, 2005-2022

Australian Government Department of Education. Stats are not broken down by field of study, lowest level is to an institution. What is interesting is that the higher the ATAR score the more likely it is that a student will complete their course of study. It would be interesting to see how this looks when gender is also taken into consideration.

<https://www.education.gov.au/higher-education-statistics/resources/completion-rates-higher-education-students-cohort-analysis-20052022>

YouthInsight survey: Youth perceptions and attitudes to STEM

A survey of young people looking at their attitudes, understanding and awareness of STEM.

<https://www.industry.gov.au/publications/stem-equity-monitor/primary-and-secondary-school-data/youth-perceptions-and-attitudes-stem>

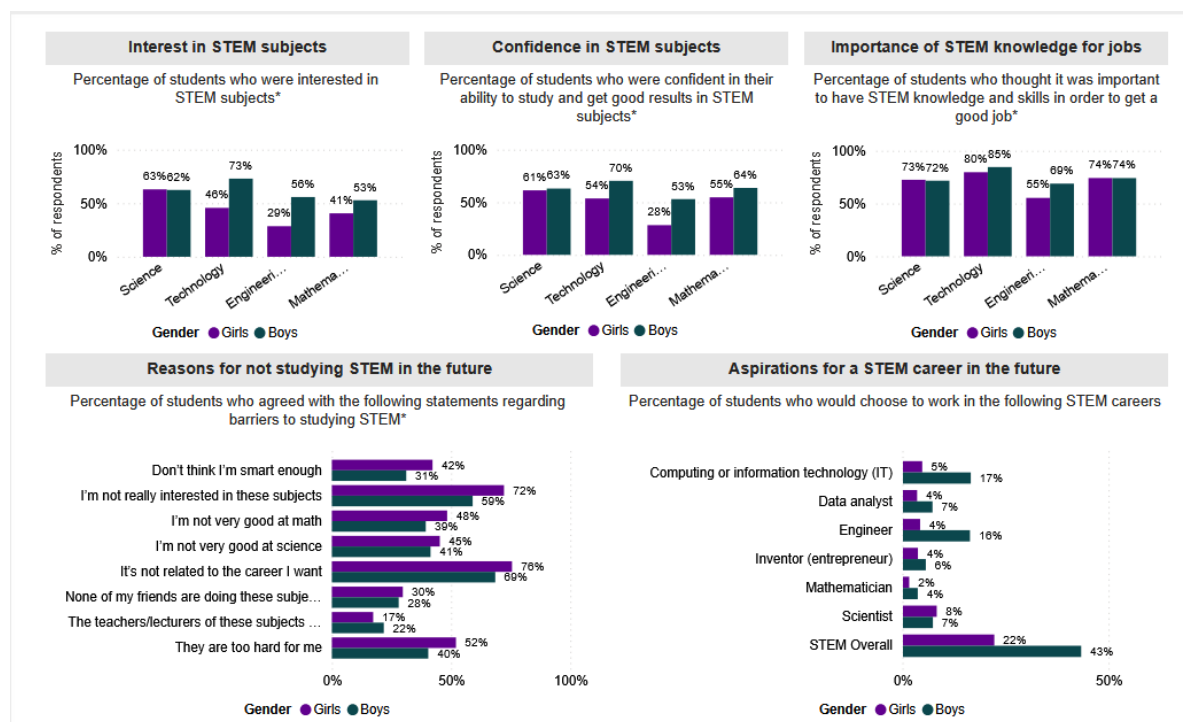
Select age cohort

- ☒ All
- ☐ 12-13
- ☐ 14-17
- ☐ 18-21
- ☐ 22-25
- ☐ 12-17 (Primary and Secondary age)
- ☐ 18-25 (Higher Education age)

Select diversity group

- ☒ All
- ☐ Low socioeconomic areas
- ☐ High socioeconomic areas
- ☐ Regional/Rural
- ☐ Metro
- ☐ CALD
- ☐ Non-CALD
- ☐ First Nations Australians
- ☐ Non-First Nations Australians

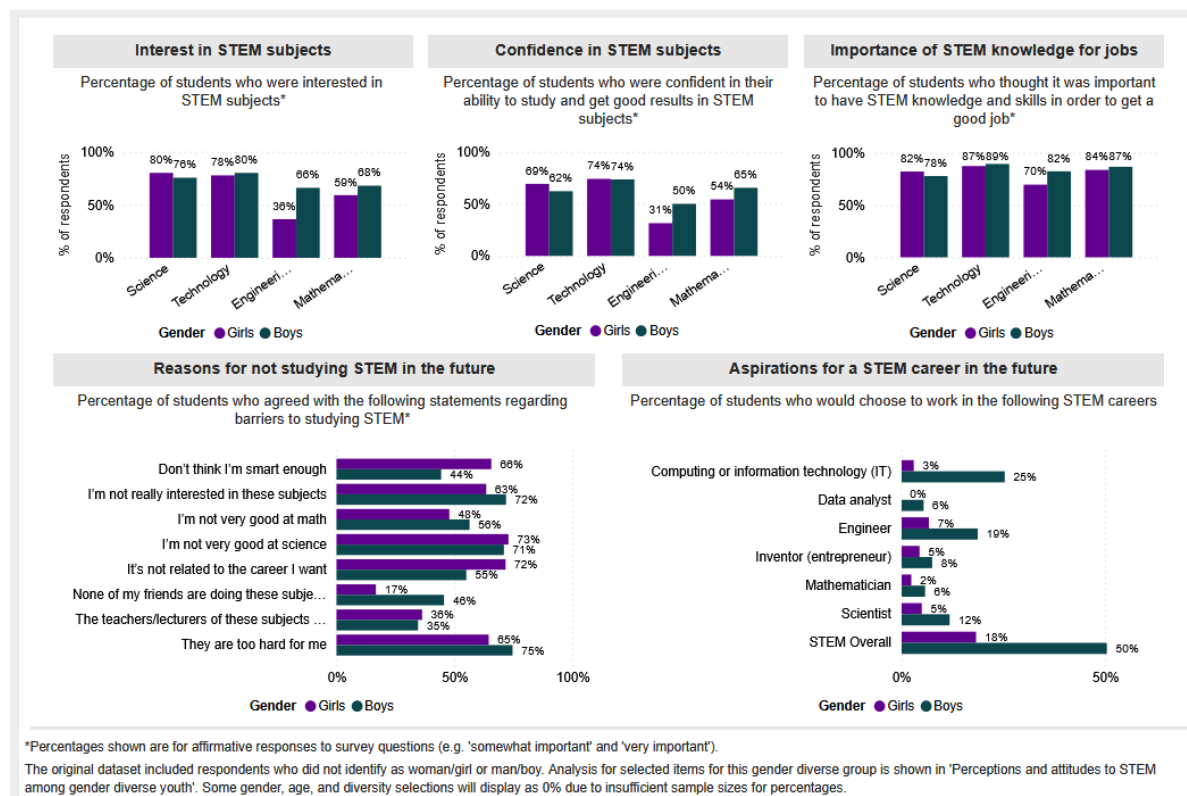
Overall findings



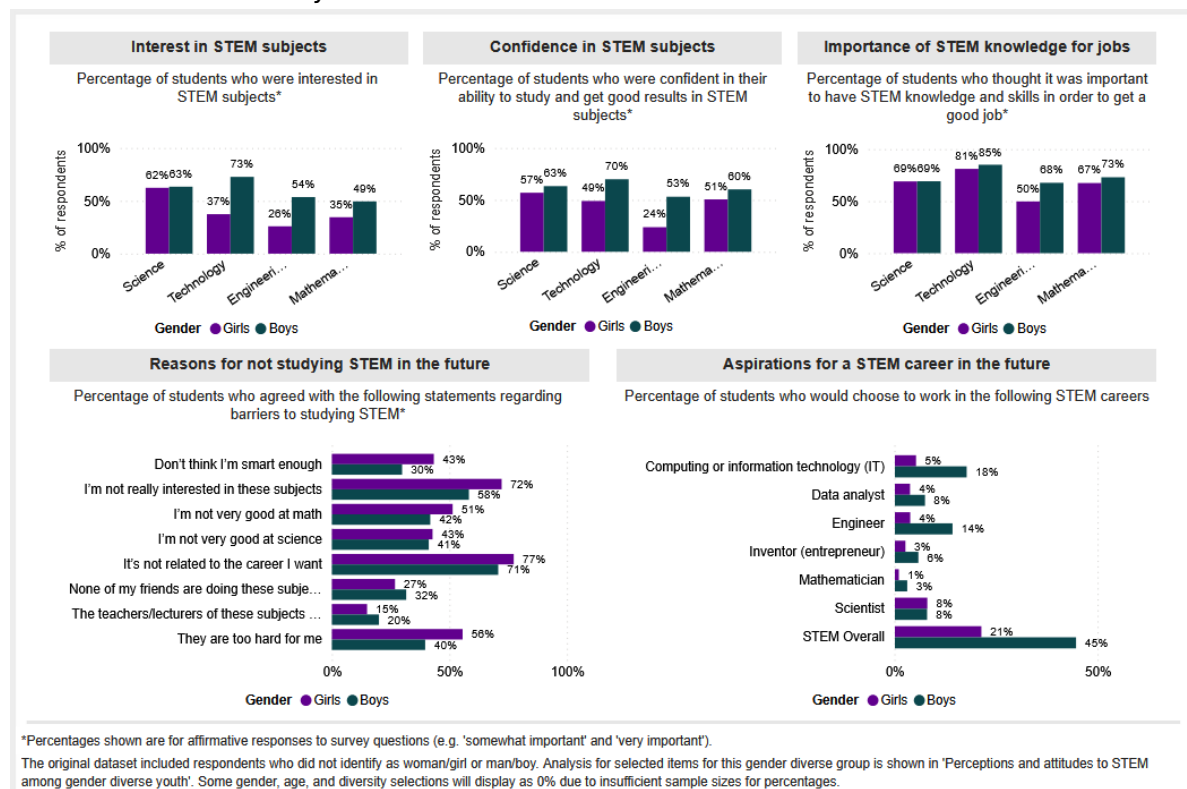
*Percentages shown are for affirmative responses to survey questions (e.g. 'somewhat important' and 'very important').

The original dataset included respondents who did not identify as woman/girl or man/boy. Analysis for selected items for this gender diverse group is shown in 'Perceptions and attitudes to STEM among gender diverse youth'. Some gender, age, and diversity selections will display as 0% due to insufficient sample sizes for percentages.

It starts here at the 12-13 age group



Looks like this for 18-21 year olds



And finally for 22-25 year olds



The STEM Equity Monitor: Youth in STEM report 2023-24

Is an analysis of the information available from the Youth in STEM report 2023-24.

<https://www.industry.gov.au/publications/youth-stem-research-project/youth-stem-report-2023-24>

School data

<https://www.industry.gov.au/publications/stem-equity-monitor#primary-and-secondary-school-data-1>

University data

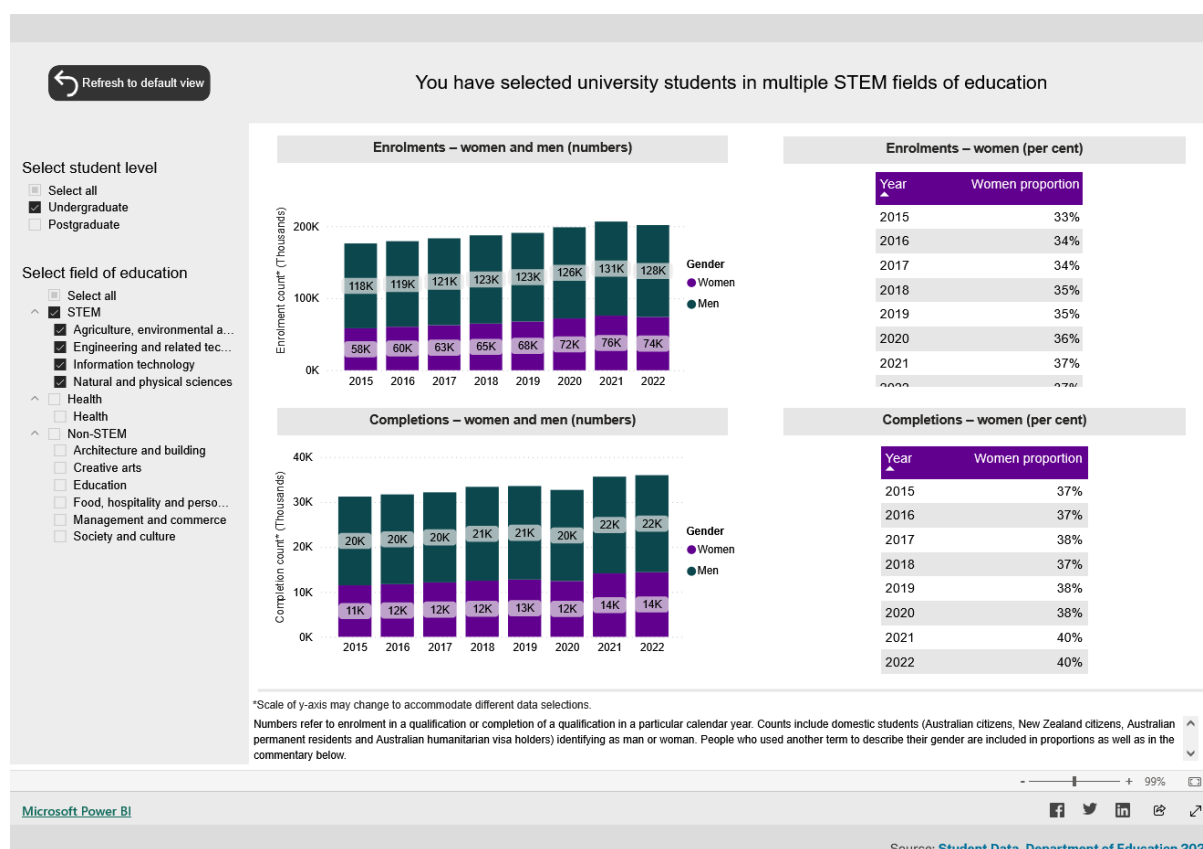
<https://www.industry.gov.au/publications/stem-equity-monitor/higher-education-data/university-enrolment-and-completion-stem-and-other-fields>

In 2022, women continued to make up over half of student enrolments and completions in:

- agriculture, environmental and related studies
- natural and physical sciences.

Women remained underrepresented in enrolments and completions for engineering and IT. Women only made up:

- 20% of engineering and related technologies enrolments
- 22% of information technology enrolments
- 19% of completions in engineering and related technologies
- 21% of completions in information technology.



Refresh to default view

You have selected university students in 'Engineering and related technologies'

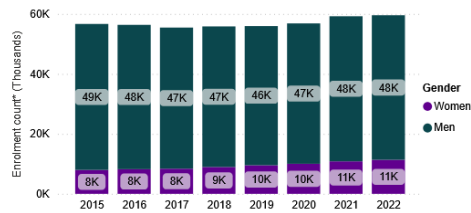
Select student level

- ☐ Select all
- ☒ Undergraduate
- ☐ Postgraduate

Select field of education

- ☐ Select all
- ☒ STEM
 - ☐ Agriculture, environmental a...
 - ☒ Engineering and related tec...
 - ☐ Information technology
 - ☐ Natural and physical sciences
- ☐ Health
 - ☐ Health
- ☐ Non-STEM
 - ☐ Architecture and building
 - ☐ Creative arts
 - ☐ Education
 - ☐ Food, hospitality and perso...
 - ☐ Management and commerce
 - ☐ Society and culture

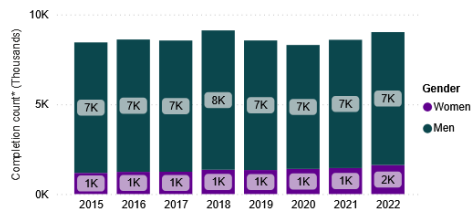
Enrolments – women and men (numbers)



Enrolments – women (per cent)

Year	Women proportion
2015	14%
2016	15%
2017	15%
2018	16%
2019	17%
2020	18%
2021	18%
2022	19%

Completions – women and men (numbers)



Completions – women (per cent)

Year	Women proportion
2015	14%
2016	14%
2017	15%
2018	15%
2019	16%
2020	17%
2021	17%
2022	18%

*Scale of y-axis may change to accommodate different data selections.

Numbers refer to enrolment in a qualification or completion of a qualification in a particular calendar year. Counts include domestic students (Australian citizens, New Zealand citizens, Australian permanent residents and Australian humanitarian visa holders) identifying as man or woman. People who used another term to describe their gender are included in proportions as well as in the commentary below.

Microsoft Power BI

Source: [Student Data, Department of Education 2023](#)

Refresh to default view

You have selected university students in 'Information technology'

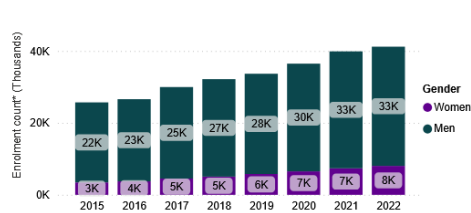
Select student level

- ☐ Select all
- ☒ Undergraduate
- ☐ Postgraduate

Select field of education

- ☐ Select all
- ☒ STEM
 - ☐ Agriculture, environmental a...
 - ☐ Engineering and related tec...
 - ☒ Information technology
 - ☐ Natural and physical sciences
- ☐ Health
 - ☐ Health
- ☐ Non-STEM
 - ☐ Architecture and building
 - ☐ Creative arts
 - ☐ Education
 - ☐ Food, hospitality and perso...
 - ☐ Management and commerce
 - ☐ Society and culture

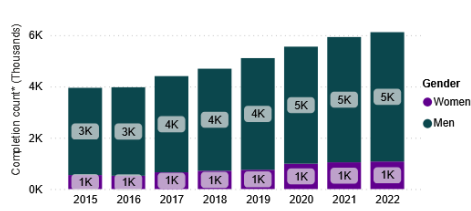
Enrolments – women and men (numbers)



Enrolments – women (per cent)

Year	Women proportion
2015	13%
2016	14%
2017	15%
2018	16%
2019	17%
2020	18%
2021	18%
2022	19%

Completions – women and men (numbers)



Completions – women (per cent)

Year	Women proportion
2015	14%
2016	13%
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*Scale of y-axis may change to accommodate different data selections.

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Microsoft Power BI

Source: [Student Data, Department of Education 2023](#)

Refresh to default view

You have selected university students in 'Natural and physical sciences'

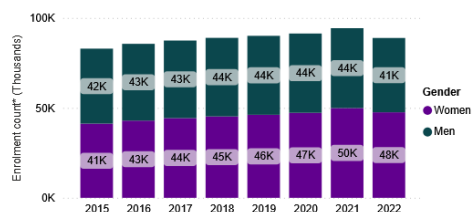
Select student level

- ☐ Select all
☒ Undergraduate
☐ Postgraduate

Select field of education

- ☐ Select all
☒ STEM
☐ Agriculture, environmental a...
☐ Engineering and related tec...
☐ Information technology
☒ Natural and physical sciences
☐ Health
☐ Health
☐ Non-STEM
☐ Architecture and building
☐ Creative arts
☐ Education
☐ Food, hospitality and perso...
☐ Management and commerce
☐ Society and culture

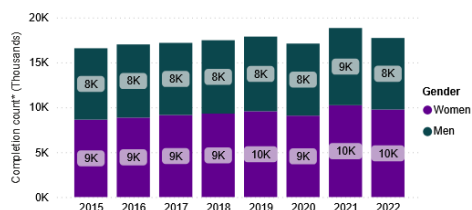
Enrolments – women and men (numbers)



Enrolments – women (per cent)

Year	Women proportion
2015	50%
2016	50%
2017	51%
2018	51%
2019	51%
2020	52%
2021	53%
2022	53%

Completions – women and men (numbers)



Completions – women (per cent)

Year	Women proportion
2015	52%
2016	52%
2017	53%
2018	53%
2019	53%
2020	53%
2021	54%
2022	55%

*Scale of y-axis may change to accommodate different data selections.

Numbers refer to enrolment in a qualification or completion of a qualification in a particular calendar year. Counts include domestic students (Australian citizens, New Zealand citizens, Australian permanent residents and Australian humanitarian visa holders) identifying as man or woman. People who used another term to describe their gender are included in proportions as well as in the commentary below.

Microsoft Power BI

Source: [Student Data, Department of Education 2023](#)

STEM Equity Monitor – Year 12 subject enrolment in STEM and other field

<https://www.industry.gov.au/publications/stem-equity-monitor/primary-and-secondary-school-data/year-12-subject-enrolment-stem-and-other-fields>

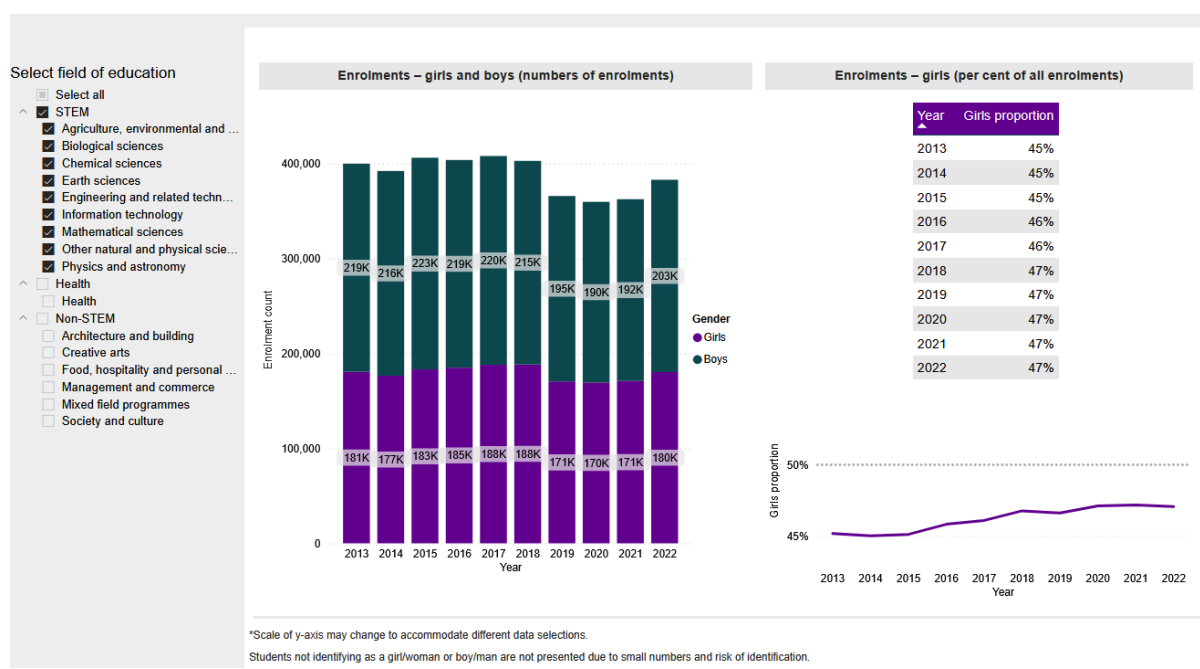
In 2022, girls made up a large proportion of student enrolments in:

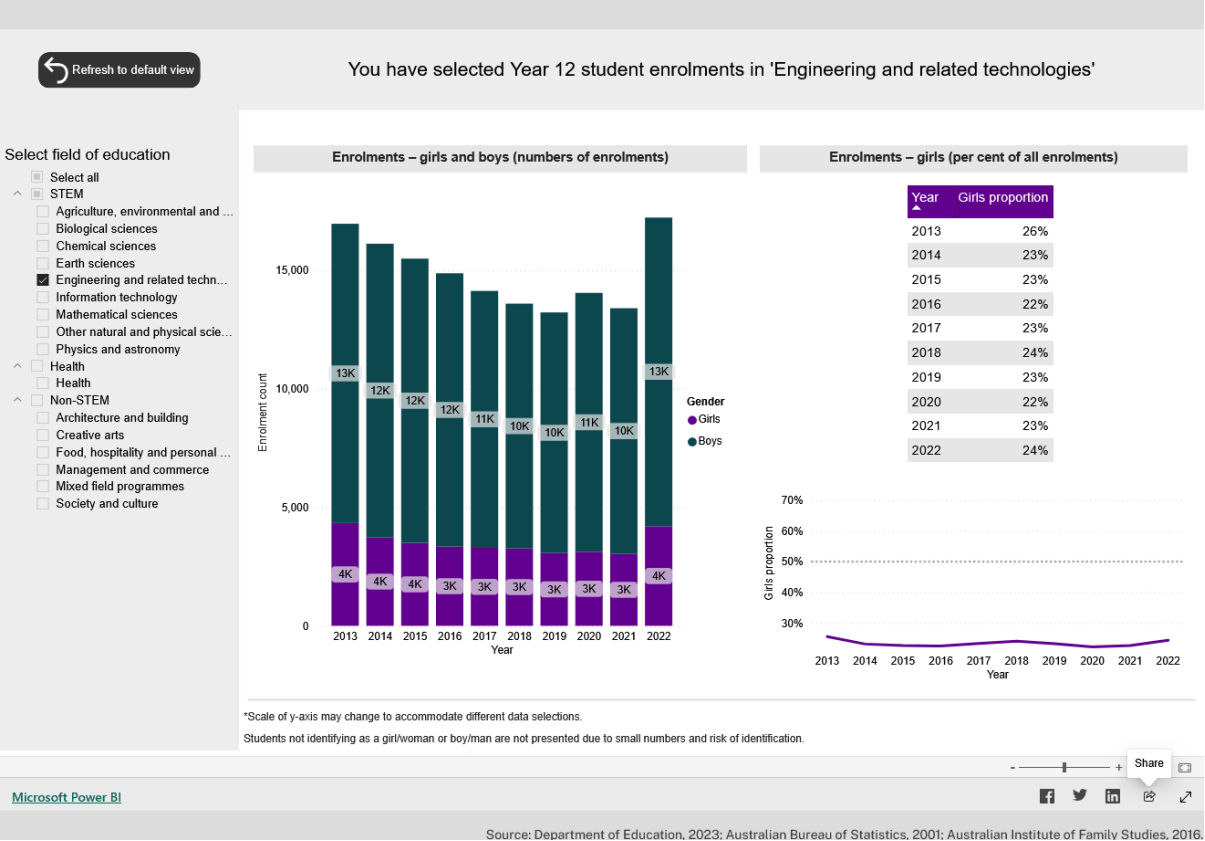
- biological sciences (65%, similar to 64% in 2013)
- other natural and physical sciences, such as general or mixed science (57%, down from 61% in 2013)
- chemical sciences (50%, similar to 49% in 2013)
- earth sciences (49%, similar to 48% in 2013)
- mathematical sciences (48%, the same as 2013)
- agriculture, environmental and related studies (48%, similar to 49% in 2013).

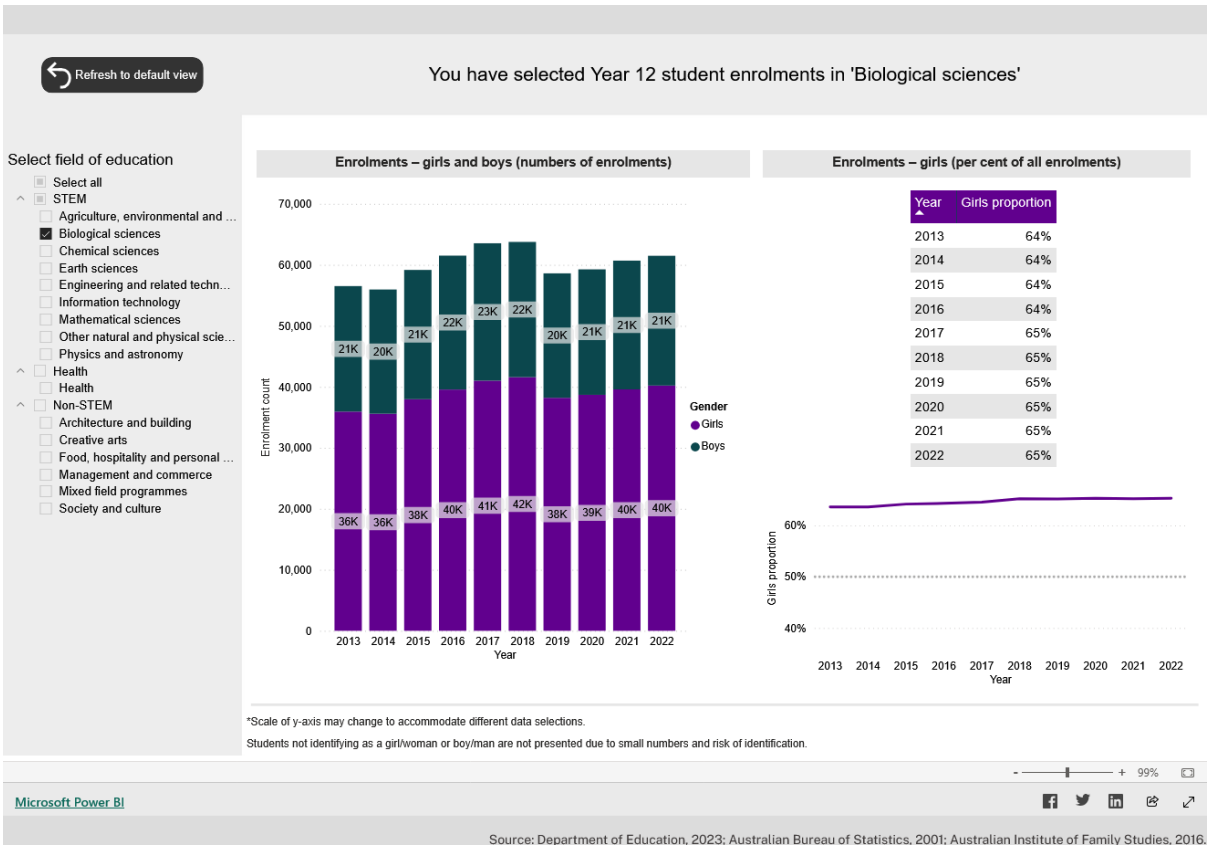
Girls remained underrepresented in:

- information technology (26% of enrolments, up from 22% in 2013)
- physics and astronomy (24%, similar to 23% in 2013)
- engineering and related technologies (24%, down from 26% in 2013).

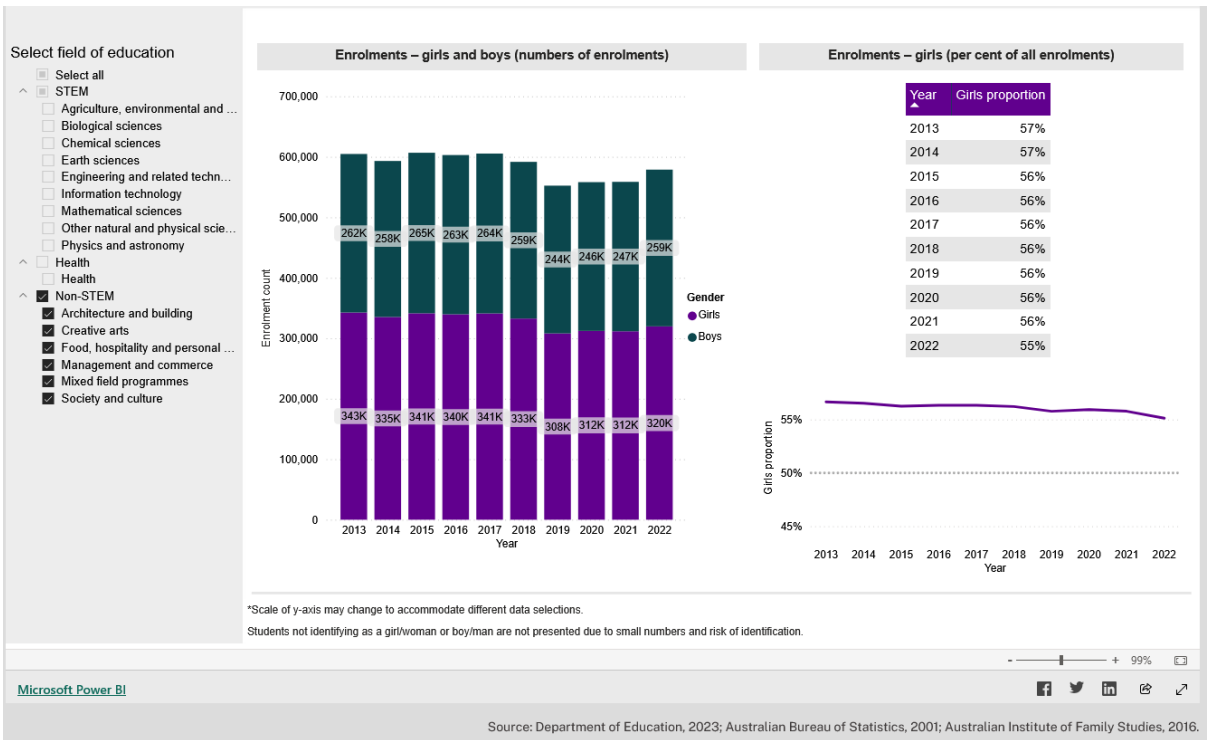
All STEM Subjects



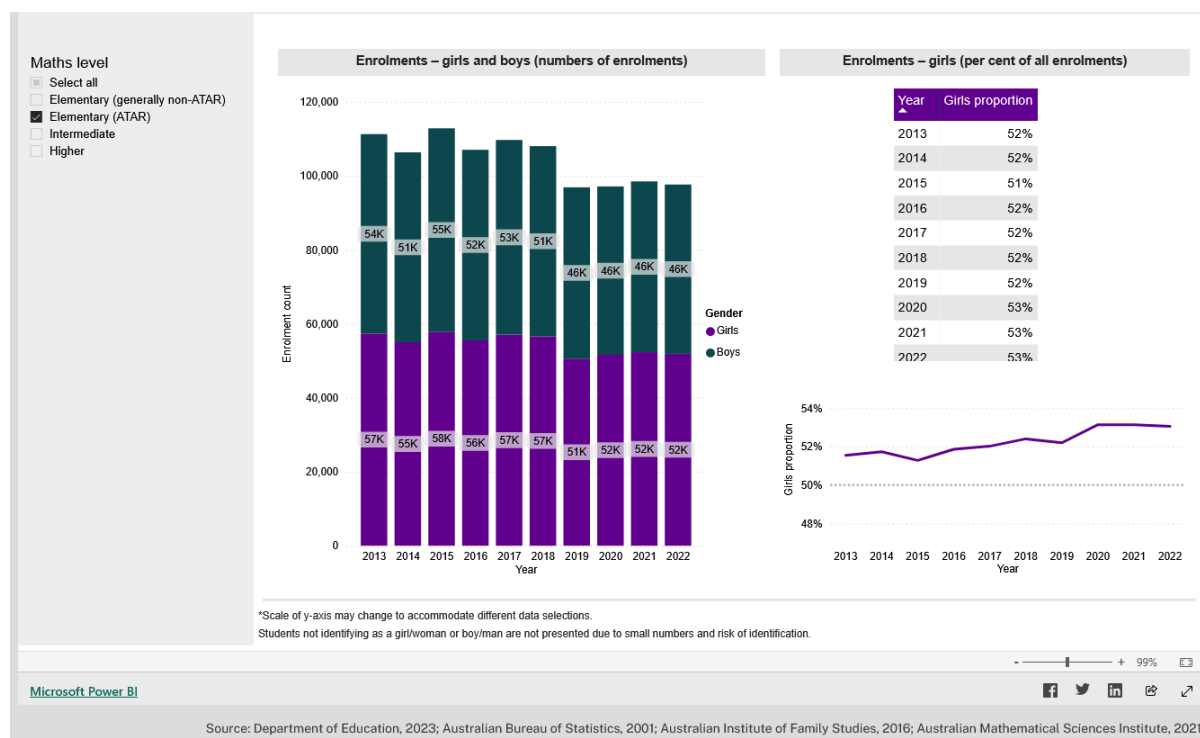
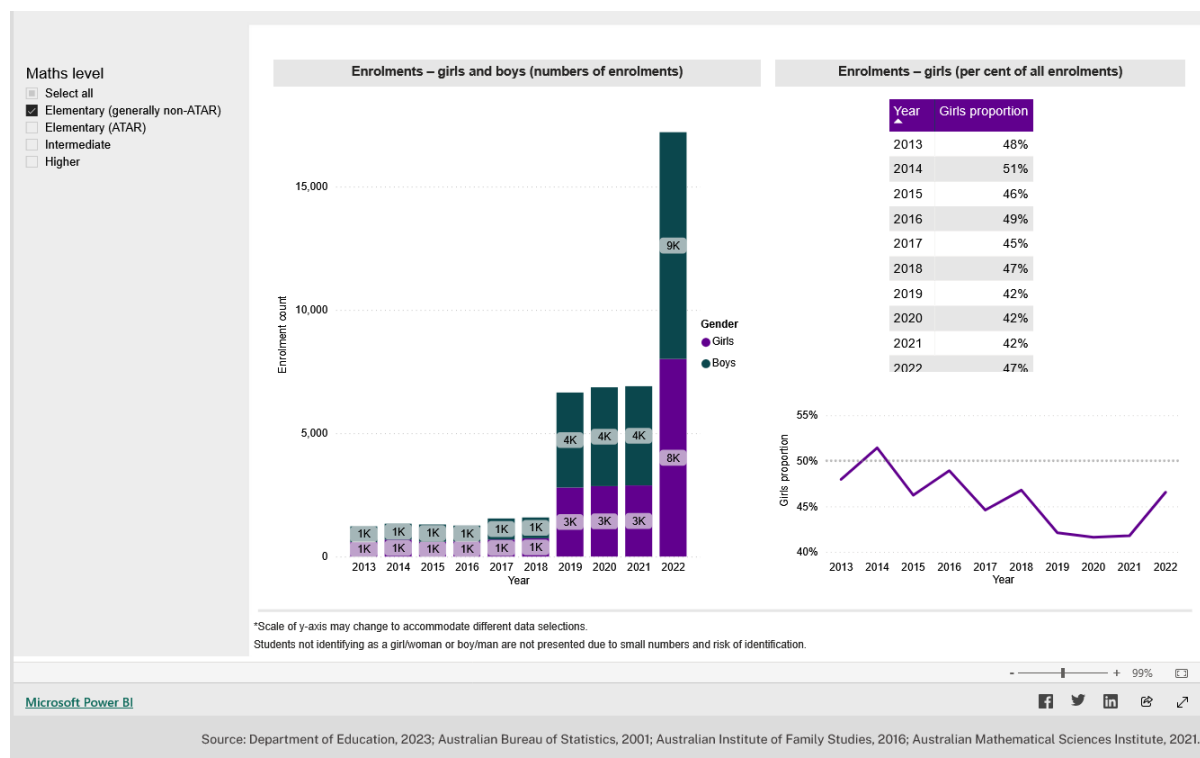




Now the Non-STEM fields



And the break down across levels on Maths:



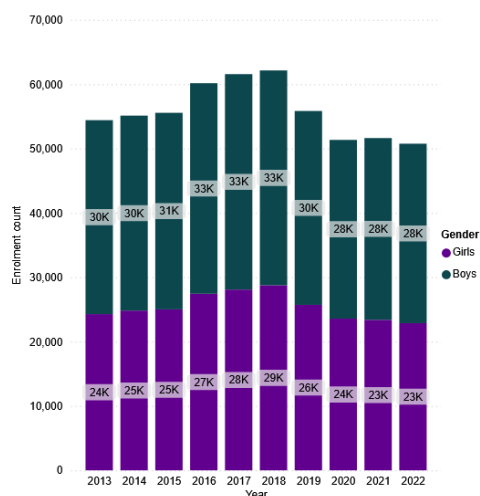
Refresh to default view

You have selected Year 12 enrolments in 'Intermediate'

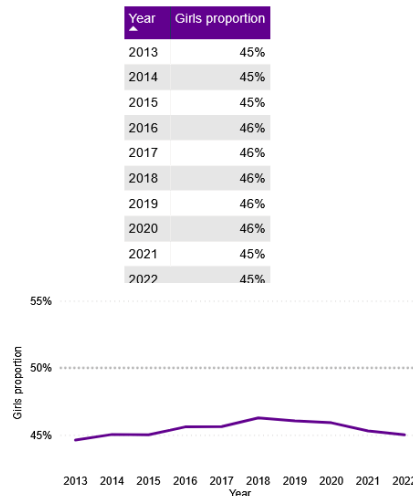
Maths level

- ☐ Select all
- ☐ Elementary (generally non-ATAR)
- ☐ Elementary (ATAR)
- ☒ Intermediate
- ☐ Higher

Enrolments – girls and boys (numbers of enrolments)



Enrolments – girls (per cent of all enrolments)



*Scale of y-axis may change to accommodate different data selections.
Students not identifying as a girl/woman or boy/man are not presented due to small numbers and risk of identification.

Microsoft Power BI

Source: Department of Education, 2023; Australian Bureau of Statistics, 2001; Australian Institute of Family Studies, 2016; Australian Mathematical Sciences Institute, 2021.

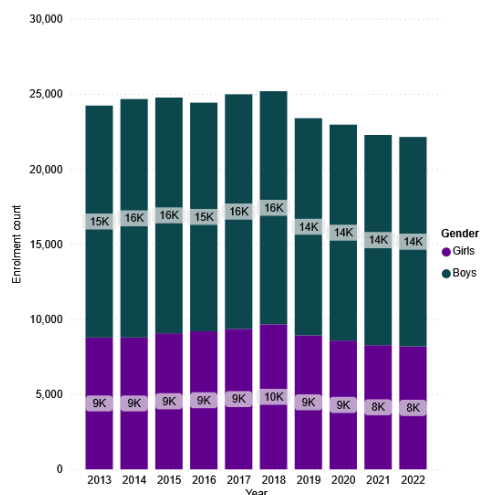
Refresh to default view

You have selected Year 12 enrolments in 'Higher'

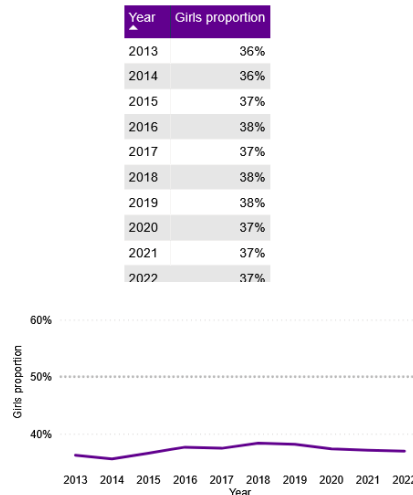
Maths level

- ☐ Select all
- ☐ Elementary (generally non-ATAR)
- ☐ Elementary (ATAR)
- ☐ Intermediate
- ☒ Higher

Enrolments – girls and boys (numbers of enrolments)



Enrolments – girls (per cent of all enrolments)



*Scale of y-axis may change to accommodate different data selections.
Students not identifying as a girl/woman or boy/man are not presented due to small numbers and risk of identification.

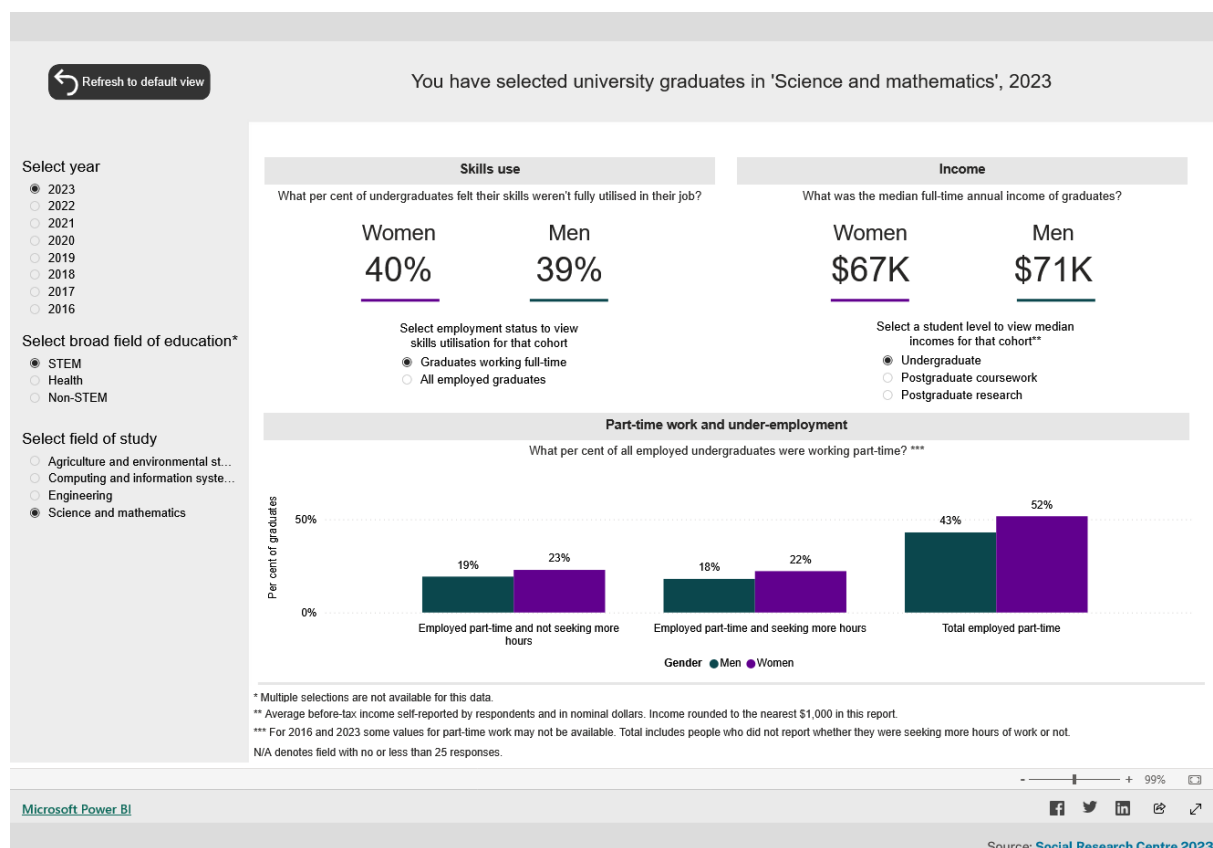
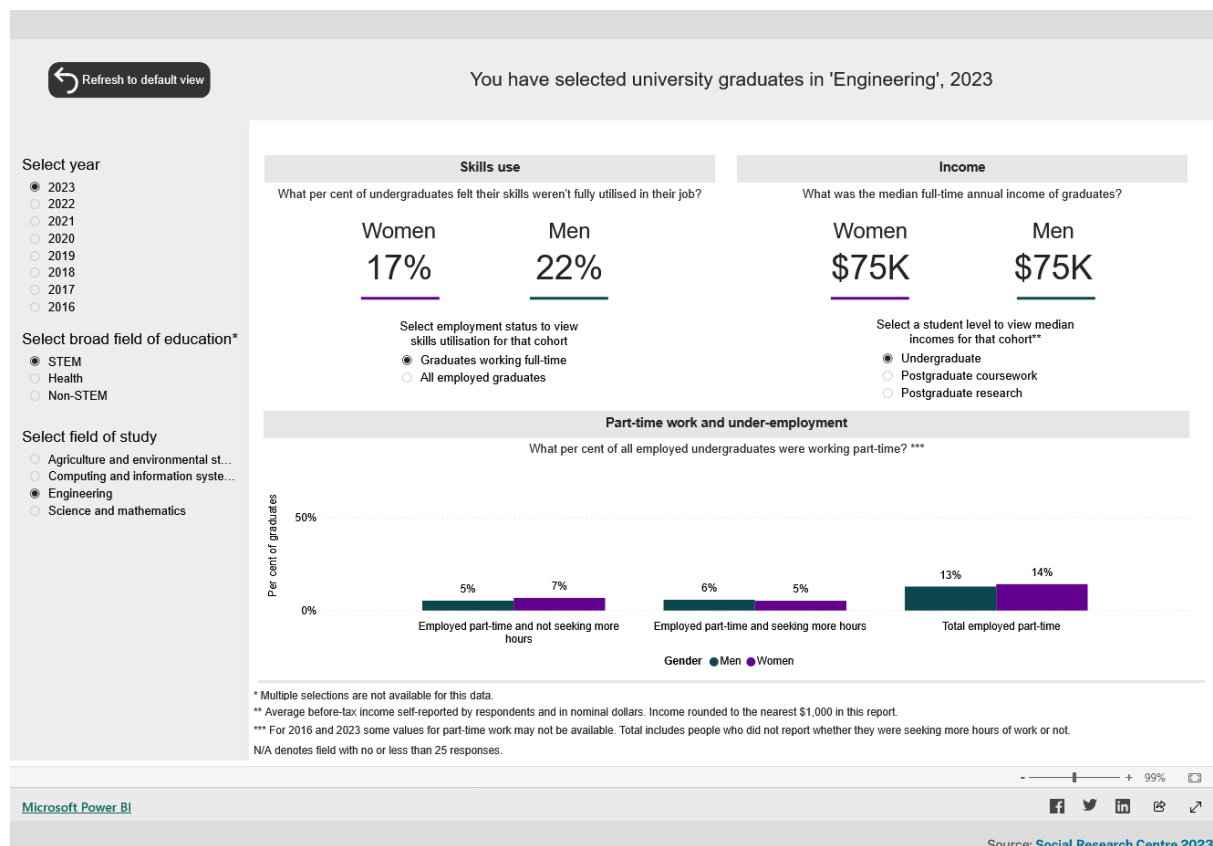
Microsoft Power BI

Source: Department of Education, 2023; Australian Bureau of Statistics, 2001; Australian Institute of Family Studies, 2016; Australian Mathematical Sciences Institute, 2021.

STEM Equity Monitor – University graduate outcomes for STEM and other fields

Evaluation of income and employment.

<https://www.industry.gov.au/publications/stem-equity-monitor/graduate-outcomes-data/university-graduate-outcomes-stem-and-other-fields>

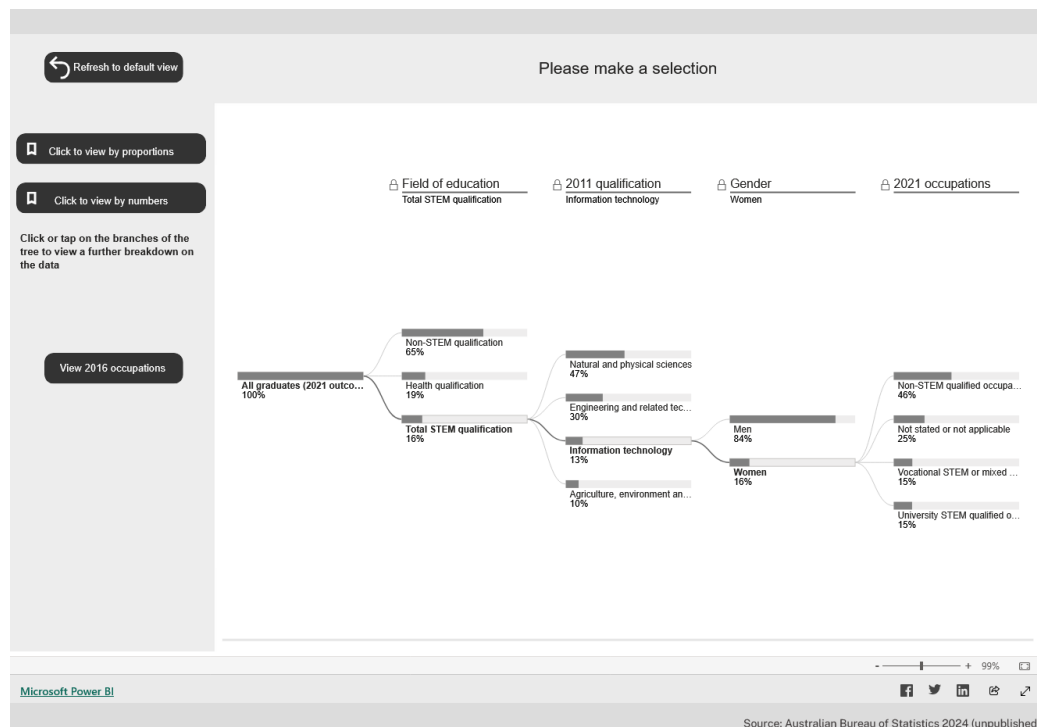


STEM Equity Monitor – Occupation, industry and income outcomes for graduates of STEM and other fields

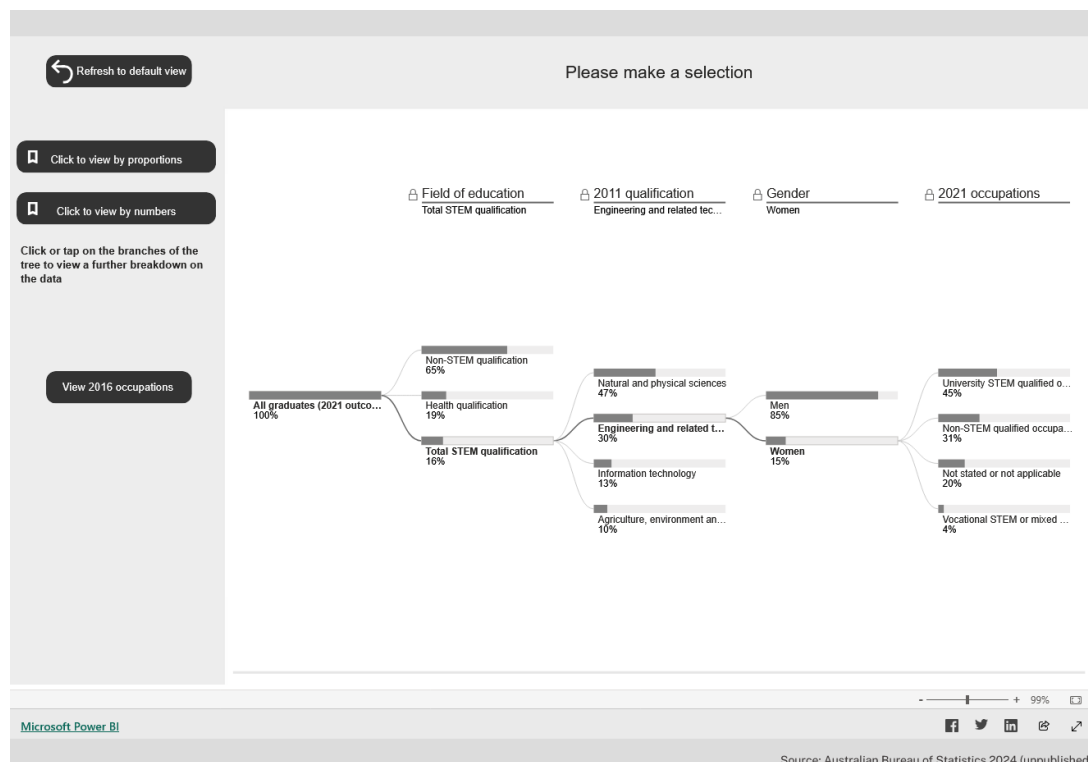
A break down of where the STEM graduates were employed 10 years after graduating.

<https://www.industry.gov.au/publications/stem-equity-monitor/graduate-outcomes-data/occupation-industry-and-income-outcomes-graduates-stem-and-other-fields>

IT



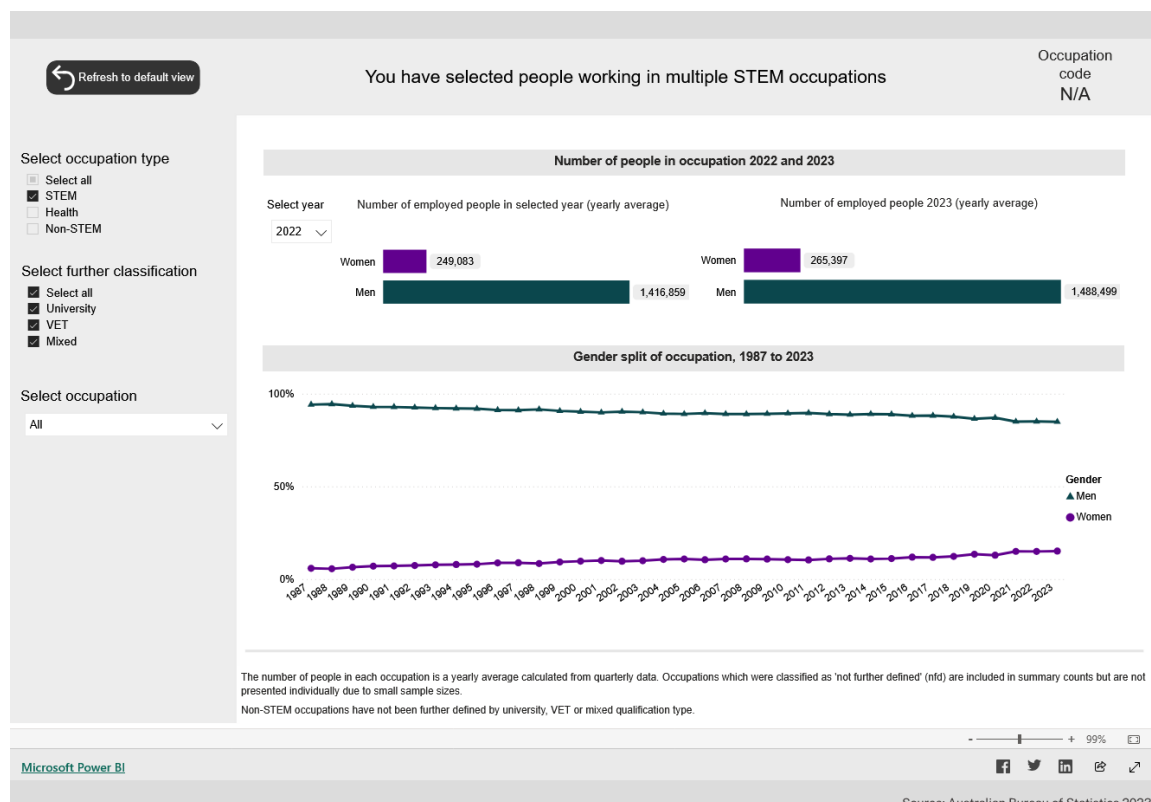
Engineering



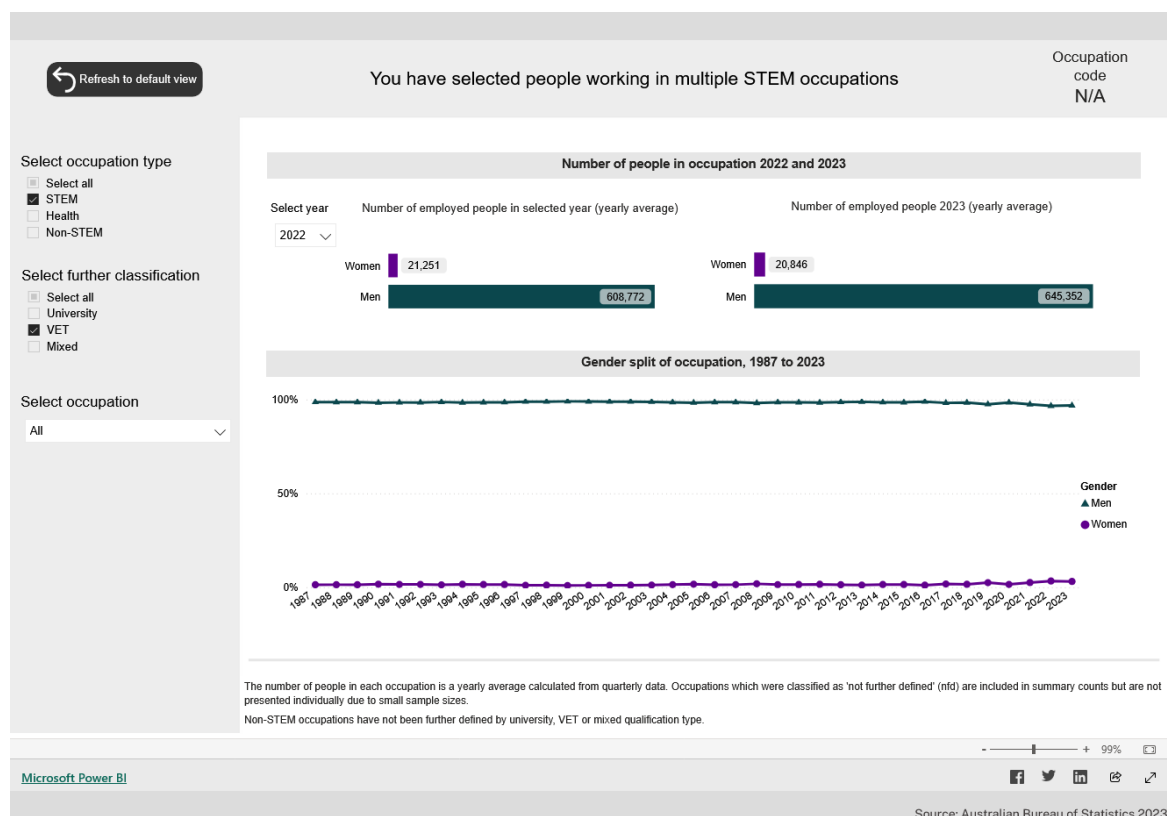
STEM Equity Monitor – STEM-qualified occupations

Looking at the change in gender balance over time

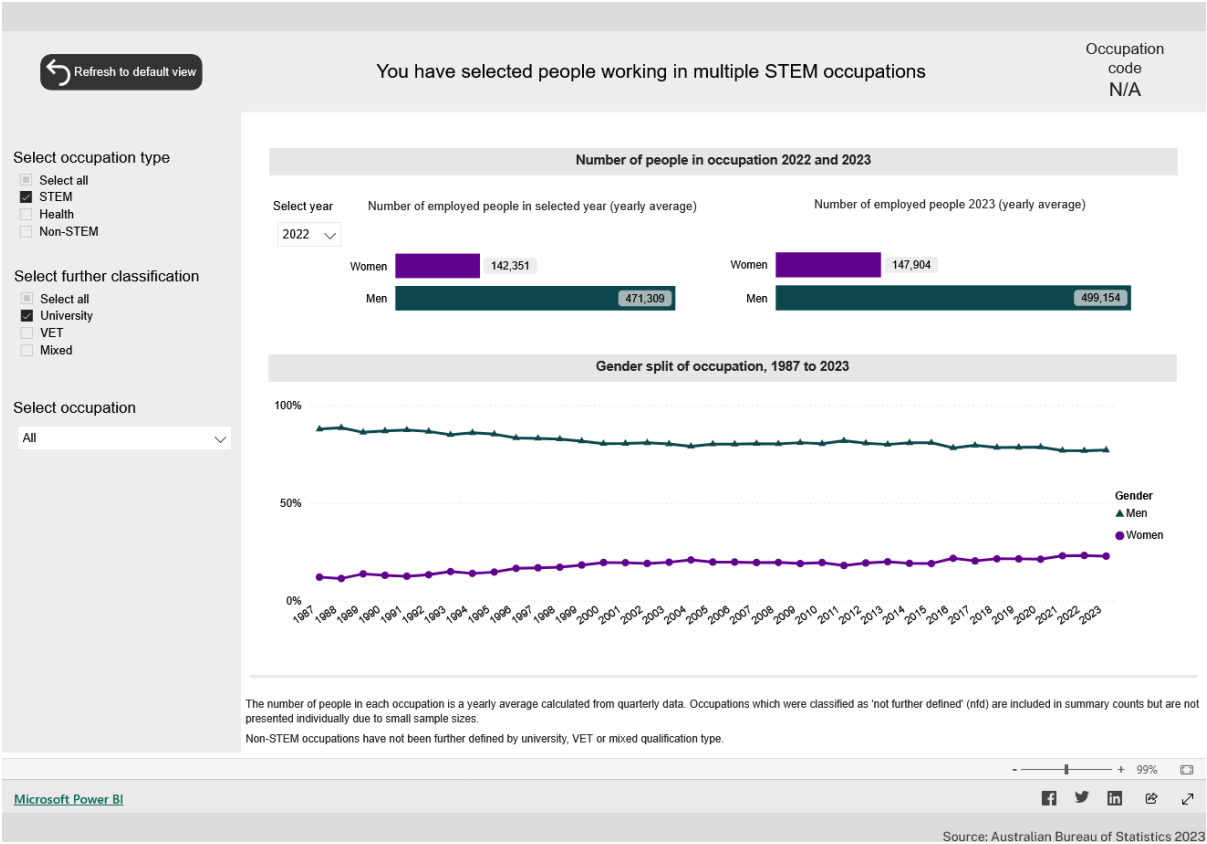
<https://www.industry.gov.au/publications/stem-equity-monitor/workforce-data/stem-qualified-occupations>



Occupations where most of the workforce has VET STEM qualifications (like aircraft maintenance engineers, cabinetmakers, electricians and motor mechanics) have shown extremely low gender balance over time.



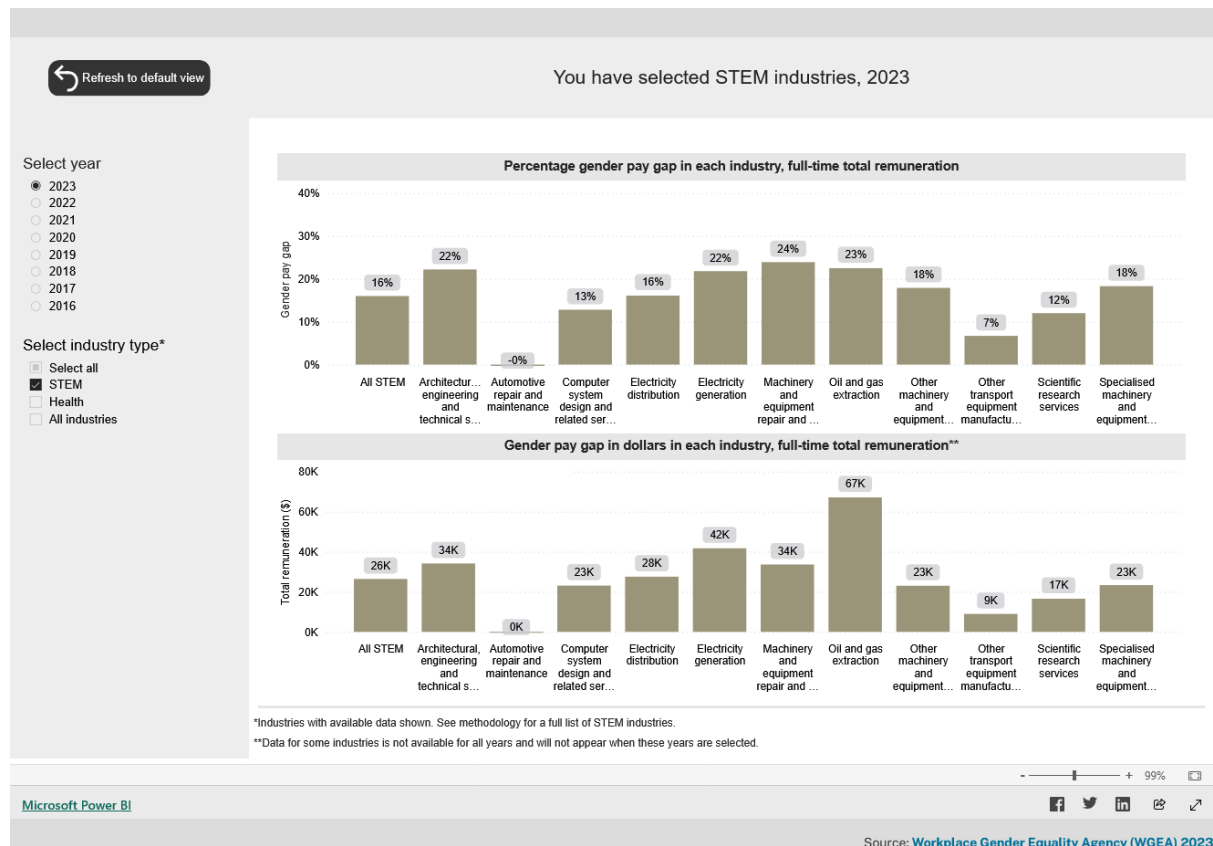
From 2013 to 2023, the proportion of women increased from 20% to 23% in university STEM-qualified occupations, like actuaries, mathematicians, statisticians, civil engineering professionals, computer network professionals, environmental scientists and medical laboratory scientists.



STEM Equity Monitor – Gender pay gaps in STEM and other industries

A look at the gender pay gap across a number of STEM industries

<https://www.industry.gov.au/publications/stem-equity-monitor/workforce-data/gender-pay-gaps-stem-and-other-industries>



Engineers Australia: The engineering profession: a statistical overview, 15th edition

A statistical look at the Engineering profession. A great report if you have not yet had enough numbers and statistics.

<https://www.engineersaustralia.org.au/publications/engineering-profession-statistical-overview-15th-edition>

Table 3: Distribution of the engineering qualified labour force between men, women and birth location and change between censuses.

Census Year	2016		2021		2016-2021	
Component of Labour Force	Number	% of LF	Number	% of LF	Growth	% Growth of LF
Male, Indigenous Australian	648	0.2%	1,088	0.3%	438	67.6%
Male, born Australia	126,045	37.1%	146,779	33.9%	20,734	16.4%
Male, born overseas	167,893	49.4%	217,375	50.2%	49,482	29.5%
Male total	293,938	66.4%	364,154	84.0%	70,216	23.9%
Female, Indigenous Australian	46	0.0%	82	0.0%	36	23.9%
Female, born Australia	13,366	3.9%	17,979	4.1%	4,613	34.5%
Female, born overseas	32,802	9.6%	51,220	11.8%	18,418	56.1%
Female, total	46,168	13.6%	69,199	16.0%	23,031	49.9%
Indigenous Australian total	694	0.2%	1,168	0.3%	474	68.3%
Australian total	139,411	41.0%	164,758	38.0%	25,347	18.2%
Overseas born total	200,695	59.0%	268,595	62.0%	67,900	33.8%
Total	340,106	100.0%	433,353	100.0%	93,247	27.4%

More than getting girls into science: The lifecycle approach to gender equity in STEM

A little bit of plug for SAGE (Science in Australia Gender Equity) but it does have a good analogy for the problem that is not a leaky pipeline rather a road full of potholes.

<https://www.dca.org.au/news/blog/more-than-getting-girls-into-science-the-lifecycle-approach-to-gender-equity-in-stem>

For the last 15 years or so, STEM workplaces with gender equity problems (i.e., almost all of them) have taken this phrase as gospel and tackled the challenge with gusto. “What girls need”, the thinking goes, “is role models”.

And sponsorships! Mentorships. Scholarships, educational programs, outreach to schools, awareness-raising campaigns.

We call these initiatives “attraction” – programs that seek to inspire young women and girls to want to get into the sciences, and giving promising individuals the tools to get there. Sadly, I have bad news for you: it isn’t working.

Journal articles and Reports

Western Sydney University: Vice-Chancellor's Gender Equity Fund Final Report 2019

A survey: Why Western Women are Choosing STEM ...or Not

https://www.westernsydney.edu.au/__data/assets/pdf_file/0010/1784467/Why_Western_Women_are_Choosing_STEM_or_Not.pdf

STEM occupations are forecasted to grow at a higher rate (11.5%) in Australia as compared to other jobs (7.5%) over the next five years

The state of STEM gender equity in 2024

The monitor is a national data resource on women's and girls' participation in STEM. It captures the state of STEM gender equity in Australia and measures changes and trends.

<https://www.industry.gov.au/news/state-stem-gender-equity-2024>

The 2024 monitor shows small improvements across some indicators, while others remain the same.

Improvements over the past few years include:

- The gender pay gap improved for STEM industries. In 2023, the gap between women's and men's pay in STEM industries was 16%, compared to 17% in 2022.
- The numbers of women enrolling in university STEM courses and working in STEM jobs have increased. However, only 37% of university STEM enrolments are from women, and women represent 15% of all people working in STEM jobs.

There is still more to do before Australian girls and women have an equal opportunity to learn, work and engage in STEM:

- Girls continue to make up only one quarter of year 12 enrolments in information technology, physics and engineering subjects.
- The 2023–24 Youth in STEM survey shows no improvement in girls' ratings of the importance of STEM knowledge for their employment in future.
- Following the cohort of STEM university graduates from 2011 shows that, in 2021, 31% of women were working in STEM occupations compared to 56% of men.

Pathway to Diversity in STEM Review final recommendations report

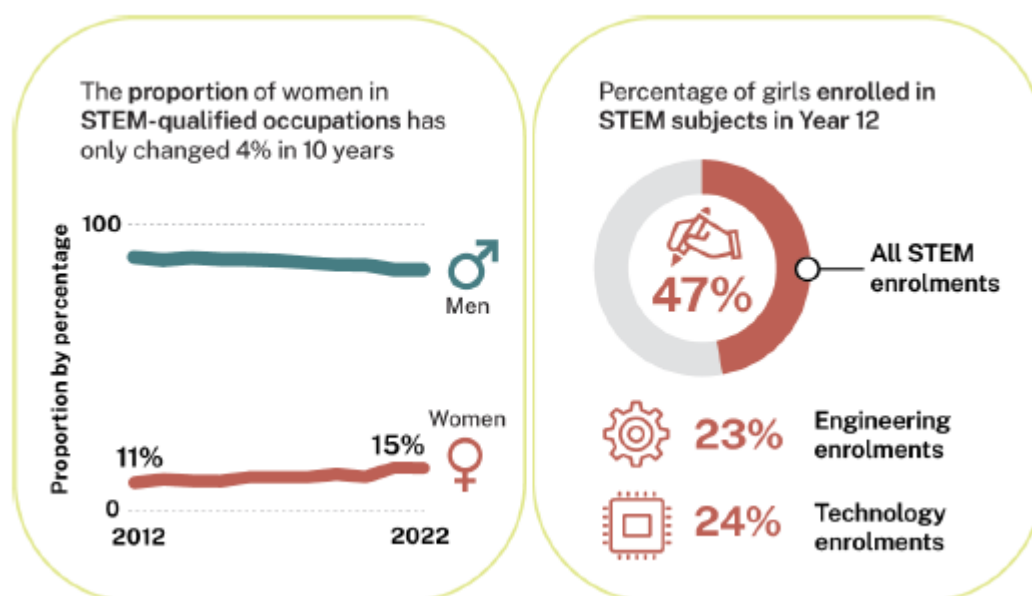
A set of recommendations on what needs to be done to increase diversity in STEM in Australia

<https://www.industry.gov.au/publications/pathway-diversity-stem-review-final-recommendations-report>

<https://www.industry.gov.au/sites/default/files/2024-02/pathway-to-diversity-in-stem-review-final-report.pdf>

This report contains 11 detailed recommendations to create structural and cultural change to increase the diversity of Australia's STEM system. In summary, these are:

1. The Australian Government committing to a whole-of-government, long-term strategy to increase diversity and inclusion in STEM. This includes establishing a dedicated advisory council supported by dedicated government resources.
2. The Australian Government establishing a suite of diversity in STEM programs, as detailed in the Diversity in STEM Program Strategy in the final section of this report. This includes embedding best-practice program design elements across programs, making changes to the current Women in STEM program suite, and establishing new programs that address barriers for underrepresented cohorts.
3. Every Australian organisation employing STEM workers committing to the elimination of bullying, harassment and discrimination, including racism.
4. Every Australian organisation employing STEM workers adopting, making public and implementing a plan to increase attraction, retention and promotion of underrepresented cohorts.
5. The Australian Government making Australian STEM workplaces safer, more diverse and inclusive by changing grant and procurement processes for STEM-related programs. This includes providing guidance to help organisations implement the recommendations in this report, and examining the need for further changes, such as legislation or changes to other financial arrangements.
6. The Australian Government including a focus on STEM in implementing any strategies in response to the 2023 Review of the Migration System.
7. The Australian Government working with states and territories to improve participation and achievement in STEM skills and subjects in schools.
8. The Australian Government preparing and supporting educators to teach STEM in a way that is responsive to the needs of diverse cohorts.
9. The Australian Government working with states and territories to ensure that national tertiary education reforms increase access, participation and attainment of underrepresented cohorts in STEM education.
10. The Australian Government preferencing First Nations scientists and researchers applying for government funding for projects that affect or draw from First Nations Knowledges and knowledge systems, and working with First Nations communities to develop further ways to elevate First Nations Knowledges. The Learned Academies working with the academic community and Traditional Knowledge holders to build respect, awareness and better practices to weave First Nations Knowledges into science and research systems.
11. The Australian Government developing a communication and outreach strategy to increase awareness, visibility and importance of diversity in STEM to emphasise the opportunities and potential for careers in STEM.



Reducing duplication, filling gaps and sharing information

Governments, academia, industry, community and education sectors are supporting hundreds of initiatives to increase diversity in STEM in different sectors or stages of the pathway.

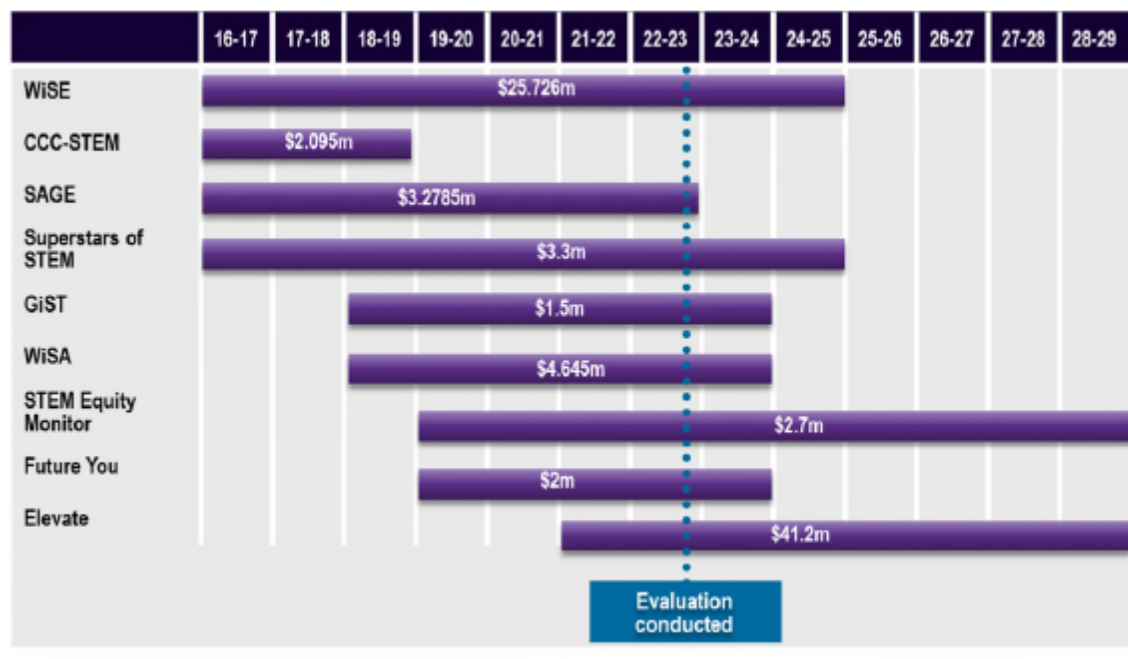
In 2022, the Department of Industry, Science and Resources conducted an environmental scan of programs to support women in STEM. The scan found more than 350 programs aimed at supporting women in STEM alone.

Table 2.1 Overview of the WiSTEM initiatives

WiSTEM initiative	Overview
WiSE	A competitive grants initiative funding community-driven projects to deliver lasting systemic change and support girls and women by eliminating barriers to participation in STEM education, careers, and entrepreneurship.
CCC-STEM	An organisational capability-building initiative, designed to recruit established industry leaders in the STEM sector to drive the cultural change required to improve the participation of women in STEM.
SAGE	An organisational cultural change and capability-building initiative that intends to address the underrepresentation of women in STEM-based careers in academia and research by driving cultural change.
Superstars of STEM	A mentorship and media training initiative that seeks to address the underrepresentation of women STEM experts in the Australian media by building a critical mass of high-profile women and non-binary role models in STEM and giving them communications training and media opportunities.
GiST	An educational initiative delivered via a website that provides girls with tools for understanding how their existing skills and interests can link to STEM careers and study pathways.
WiSA	An awareness-raising initiative that seeks to address drivers of underrepresentation of girls and women in STEM, including limited role models and visibility, poor workplace attitudes, and limited evidence base, best-practice tools and expert advice.
STEM Equity Monitor	A national data resource on the current state of STEM gender equity in Australia and changes over time. It seeks to address gaps in the availability of a centralised and provide a consistent evidence base to inform decision-making.
Future You	An early intervention initiative that seeks to address drivers of underrepresentation of girls and women in STEM by improving awareness and visibility of diverse female role models. Future You is funded by the WiSTEM NARI grant.
Elevate	An education initiative that awards undergraduate and postgraduate scholarships to women in STEM and provides them with additional mentoring, networking, internship, leadership development and research opportunities.

Source: ACIL Allen

Figure 2.2 Funding and timeframes for the 9 WiSTEM initiatives



Source: ACIL Allen, various sources

Women in STEM: longitudinal employment outcomes analysis

A study of employment outcomes for STEM graduates 10 years after graduation

<https://www.industry.gov.au/publications/women-stem-longitudinal-employment-outcomes-analysis>

The Women in STEM longitudinal employment **Labour force outcomes of 2011 STEM graduates in 2021**

- Across all fields of education, a large majority of male and female graduates were employed in 2021.
- A smaller proportion of female STEM graduates were employed (89.3%) than male STEM graduates (93.6%).
- A larger proportion of female STEM graduates were not in the labour force (8.7%), than male STEM graduates (4.5%).
- A slightly smaller proportion of female STEM graduates were employed (89.3%), than female health graduates (92.3%).
- A larger proportion of STEM graduates aged 30 years or older at graduation were not in the labour force in 2021 (15.4% of women and 8.9% of men), than those aged 15-29 years (7.5% of women and 3.6% of men).
- Among STEM graduates who were employed in 2021, a larger proportion of women (28.7%) worked part-time than men (10.8%).
- A similar proportion of female (37.7%) and male (36.3%) STEM graduates provided unpaid child care in 2021. However, the provision of unpaid childcare differed by gender when labour force status was taken into account.
- Among employed STEM graduates, a similar proportion of men (37.6%) and women (35.9%) provided unpaid care for children.
- However, among STEM graduates who were not employed, a much larger proportion of women (53.1%) provided unpaid childcare than men (18.1%).

Labour force outcomes of 2011 STEM graduates in 2021

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- However, among STEM graduates who were not employed, a much larger proportion of women (53.1%) provided unpaid childcare than men (18.1%).

World Economic Forum – The Future of Jobs report 2025

A look at where the jobs will be from 2025 to 2030.

<https://www.weforum.org/publications/the-future-of-jobs-report-2025/>

1.1 Expected impact of macrotrends on business transformation

FIGURE 1.1 **Macrotrends driving business transformation**

Share of employers surveyed that identify the stated trend as likely to drive business transformation.

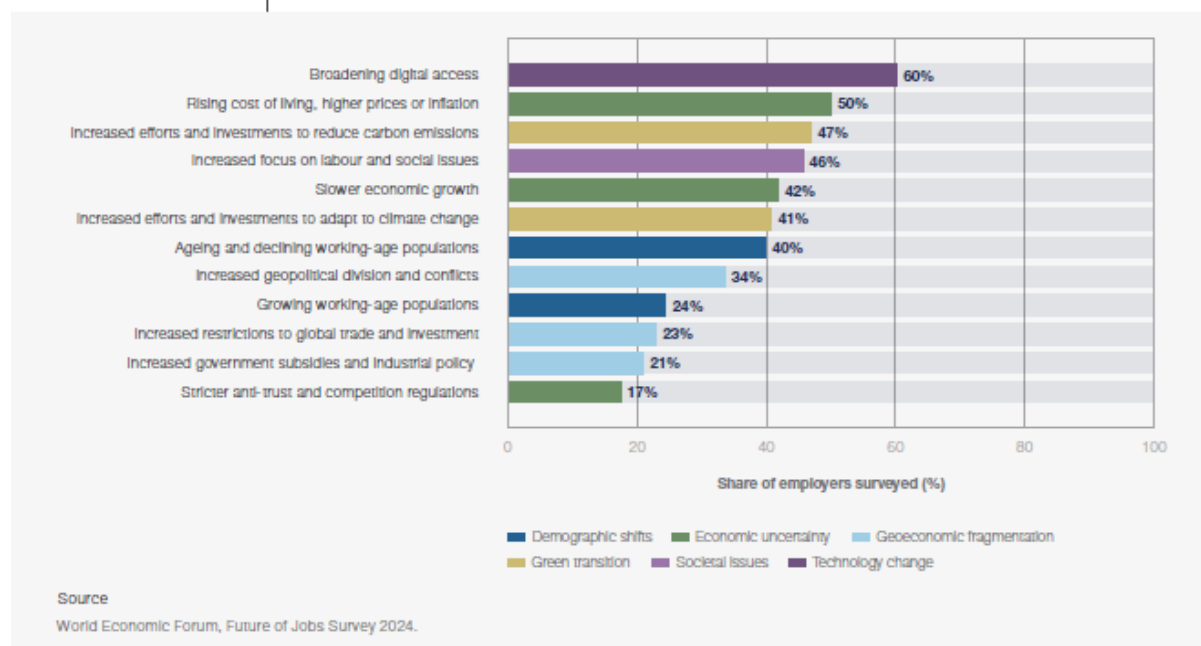


FIGURE 1.2 **Technology trends driving business transformation, 2025-2030**

Share of employers surveyed that identify the stated technology trend as likely to drive business transformation.

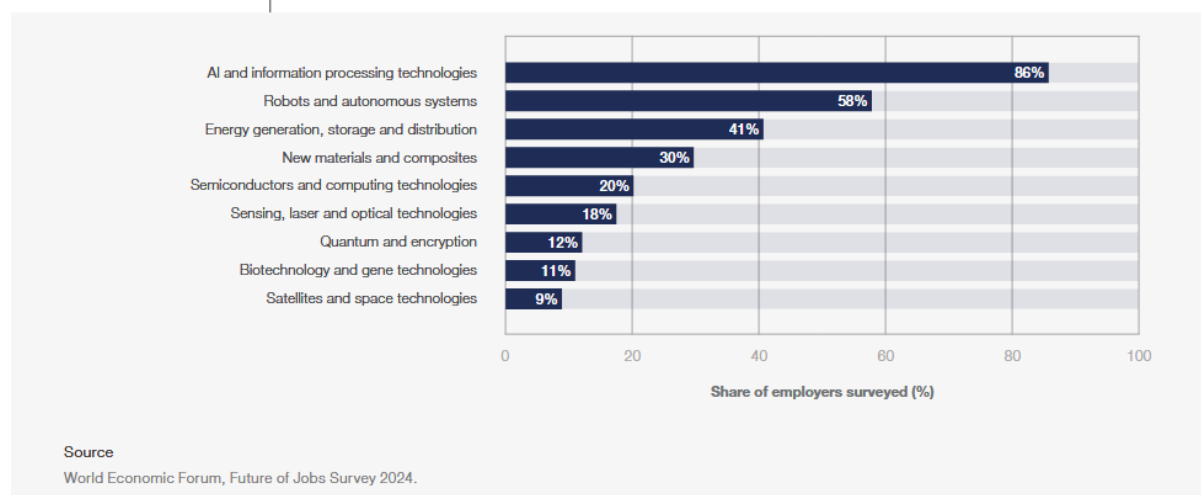
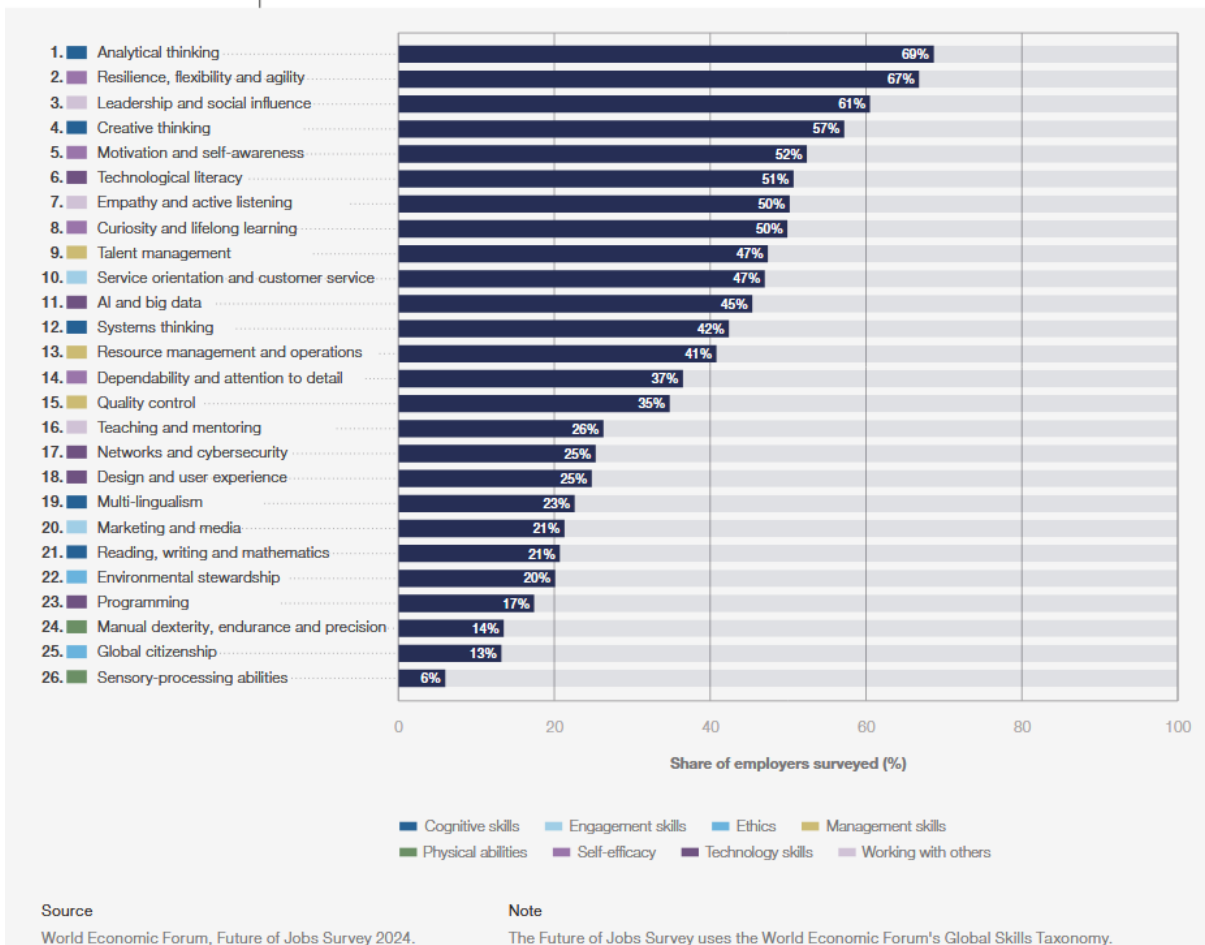


FIGURE 3.3 Core skills in 2025

Share of employers who consider the stated skills to be core skills for their workforce.



nature: When do girls fall behind in maths? Gigantic study pinpoints the moment

It appears that there is very little link between gender and ability in Maths before children start school but the gaps between boys and girls start to appear rapidly after they start school. This is study of almost three million French school children.

<https://www.nature.com/articles/d41586-025-01831-4>

Around the world, teenage boys outperform girls on mathematics tests, and men are more likely to pursue related careers — despite baby boys showing no superior sense of numbers or grasp of logic. Now, a gigantic study of schoolchildren in France pinpoints that this ‘mathematical gender gap’ appears during the first year of school. The finding could help to focus efforts to stop girls from falling behind.

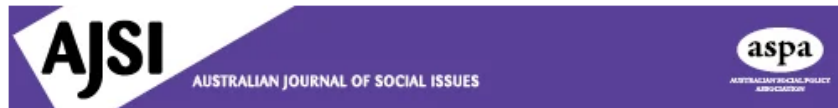
The absence of evidence of the effectiveness of Australian gender equity in STEM initiatives

A look at how STEM programs are evaluated – short answer - generally they are not. If they are it is not qualitative rather than quantitative analysis.

<https://onlinelibrary.wiley.com/doi/abs/10.1002/ajs4.142>

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Original Article

The absence of evidence of the effectiveness of Australian gender equity in STEM initiatives

Merryn McKinnon 

First published: 15 November 2020 | <https://doi.org/10.1002/ajs4.142> | Citations: 8

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Abstract

This paper explores the range of initiatives offered across Australia to support the attraction, retention and progression of girls and women to science, technology, engineering and mathematics (STEM) studies and careers. A mapping exercise, conducted by the author as part of the development of the Decadal Plan for Women in STEM for the Australian Academy of Science, provided an overview of 337 programmes and initiatives offered nationally, the majority of which were university scholarships. Academia, industry and government are the main providers of these initiatives, with collaborations common between all the different stakeholder groups identified. Of all the initiatives mapped, only seven had publicly facing evaluation data, of which one went beyond self-reports of satisfaction and enjoyment. The myriad initiatives show a concerted effort to engage girls and women in STEM, but the absence of any meaningful evidence of impact means we simply do not know whether these initiatives are benefiting girls and women and achieving the desired policy outcomes or not.

Women in STEM initiatives evaluation report

A review of STEM initiatives funded by Department of Industry, Science and Resources. It is a 166 page report that can be summarised by the quote below.

<https://www.industry.gov.au/publications/women-stem-initiatives-evaluation-report>

At a system level, the limited coordination results in missed opportunities for initiatives to learn and build from each other. There is a clear need for engagement across government and industry to support a strategic approach that addresses the diverse drivers of underrepresentation. Given the multifaceted barriers to participation, no single initiative or stakeholder will be able to generate the systemic change required.

[Initiatives for Workplace Equity and Inclusion: A series of rapid systematic reviews of the peer-reviewed literature](#)

Trends in International Mathematics and Science Study (TIMSS) 2023

TIMSS is an international sample study that assesses the mathematics and science achievement of Year 4 and Year 8 students every four years.

https://research.acer.edu.au/timss_2023/1/

Year 4 mathematics performance and proficiency

- Male students outperformed female students by 23 points, and also outperformed female students in the proportions who attained the NPS and the percentages of very high and very low performers.

Year 8 mathematics performance and proficiency

- Male students outperformed female students by 13 points, and also outperformed female students in terms of the proportions who achieved the NPS and the percentage of very high performers.

STEM Career Pathways report

This report was commissioned to look at the barriers to commencing a STEM career.

<https://www.chiefscientist.gov.au/STEM-CareerPathways>

Key findings from the report:

- Job insecurity is a barrier to retention in STEM careers, particularly in Australia's STEM research sector.
- Even among PhD graduates who have been in the workforce for 15 years or more, 25% were on fixed-term contracts.
- Short-term research funding and job insecurity damages workplace culture and job satisfaction.
- Women are less likely to have permanent full-time work, and more likely to be on fixed-term contracts.
- 78% of men who responded to the survey were on permanent full-time contracts; the figure for women was just 58%.

Additional diversity in STEM program reviews report

This is a review into just five programs: Curious Minds, Indigenous STEM Education Project, Indigenous Girls' STEM Academy, RLabs, Maths Multiplies Your Choices.

<https://www.industry.gov.au/publications/additional-diversity-stem-program-reviews-report>

Key findings

The key findings from these reviews include:

- longer-term commitment and funding of initiatives is needed to support people across the whole STEM pathway
- ongoing monitoring and evaluation, from design phase through the program lifecycle, is needed to ensure programs are fit-for-purpose
- better data collection and capture of long-term outcomes is needed (such as retention and career progression), to inform investment in programs that work
- initiatives that are community-led and/or are designed in collaboration with the communities and people they aim to support, lead to greater engagement and likely success
- a range of flexible forms of support, that consider local circumstances, are needed to address individual barriers and needs. For example, supporting teachers and parents to build relationships between community, schools and industry will require different support structures for different communities and schools.

Engineers Australia: Women in Engineering June 2022

A survey of women in Engineering in Australia and what steps can be taken to increase the number

<https://www.engineersaustralia.org.au/publications/women-engineering>

Women constitute just 16% of Australian engineering graduates – and only 13% of the engineering workforce.

Engineers Australia: Strengthening the engineering workforce in Australia

A study into what is needed to strengthen the engineering workforce in Australia

<https://www.engineersaustralia.org.au/publications/strengthening-engineering-workforce-australia>

Around 60 per cent of qualified engineers in Australia work in an engineering role.

Ninety per cent of women who didn't choose engineering as their field of further study either didn't consider engineering at all, or, only barely considered it. Lack of familiarity with engineering was the most cited reason for women not choosing engineering as their field of further study.

Non-inclusive workplace culture and unequal opportunities remain issues for many female engineers (these reasons were listed as the case for leaving the profession by two-thirds of female engineers who left engineering roles).

Girls' Future – Our Future, The Invergowrie Foundation STEM Report.

This report focuses on three areas: STEM for the under 8-year-olds, mentoring and role models for girls in STEM and STEM careers advice for girls

<https://invergowrie.org.au/2020stem/>

The following recommendations could contribute to progress in the areas that were the focus of the present study:

- In early childhood and primary education there is a clear general need for professional learning for teachers and educators, focused on STEM knowledge and on effective learning approaches, in particular with acknowledgement of gendered framings. Initiatives focused on this, potentially including both preservice and in-service teachers, should be a high priority.
- A lot of organisations provide programs for mentoring and role modelling for girls in STEM. Several programs have demonstrated a positive impact, for instance, improved attitudes towards maths and science among low SES students. The role of teachers, however, is not always prominent in these programs. Connecting teachers with STEM practitioners or students could potentially increase the impact of these programs.
- New government policies for careers advice provide opportunities to strengthen the work in this area and improve the status of careers advice in schools. It is recommended that careers advisors and STEM teachers work together into providing enhanced STEM career information. Also, primary schools are recommended to develop initiatives aimed to increase awareness about STEM careers for teachers, students and parents.

Office of the Chief Scientist: Australia's STEM workforce

In depth study of all facets of the Australian STEM workforce. It is a consolidation of a lot of the information above.

https://www.chiefscientist.gov.au/sites/default/files/2020-07/australias_stem_workforce_-_final.pdf

STEM qualified females who had a child between 2011 and 2016 were significantly less likely to remain employed than females who did not have a child. Nearly one-third (30%) of VET qualified females and nearly one-fifth (19%) of university qualified females who had a STEM qualification and were working full time in 2011 left the labour force after having a child.

The driving forces behind women's underrepresentation in STEM are many and varied, but a lack of interest or aptitude in STEM is not the culprit.

Programs

Investments to support a thriving, skilled and diverse STEM workforce

Another funding announcement from 2024

<https://www.industry.gov.au/news/investments-support-thriving-skilled-and-diverse-stem-workforce>

The government has released details of additional funding for its diversity in STEM measures, first announced as part of the 2024-25 Federal Budget. The funding aims to help meet the growing demand for STEM workers by attracting and retaining more people from diverse backgrounds in STEM education and careers.

This will ensure we make the most of opportunities across growing industries in line with the government's vision for a Future Made in Australia.

Supporting opportunities in STEM

The additional funding will scale up existing programs that are already driving positive change:

- The Women in STEM and Entrepreneurship grants will receive an additional \$8.5 million from 2025-26 to fund long-term projects that support women. This includes First Nations women and women from regional and rural locations. It brings the total funding commitment for this program to \$47.5 million.

Grants to boost participation of girls and women in STEM and entrepreneurship

This is round four of this program. With a total of \$47.5 million budgeted over the life of the program.

<https://business.gov.au/grants-and-programs/women-in-stem-and-entrepreneurship>

Grants between \$500,000 and \$1,000,000 for projects that increase women's and girls' participation in STEM and entrepreneurship.

Recipient Organisation	Project Description	Grant (excl. GST)	Expected Total Investment (excl. GST)	Project Locations
University of Melbourne	Building on the success of Australian Mathematical Sciences Institute's (AMSI) national postgraduate internship program's focus on female STEM participation in industry-based research internships, this project will place 113 female STEM postgraduate research students into industry internships over three years. The project will also deliver an annual Careers and Entrepreneurship Masterclass, available to all female STEM research students, to build their research commercialisation skills. AMSI's APR. Intern will manage the intern placements, which will be enhanced by a \$7,500 rebate for industry participants. This rebate will drive industry demand for interns and aim for an increase in female postgraduate STEM participation in industry internships from the current 41% to 45% by 2025. https://aprintern.org.au/student-info/women-in-stem-internships-training/	\$998,108	\$2,410,608	Vic
University of Western Australia	Quantum Girls expands Einstein-First science education by combining with UWA/Pawsey Quantum Computing to create a national education program designed to enhance female participation in all aspects of modern quantum science which underpins the STEM economy. Einstein-First already proved its ability to reverse the decline in teenage female attitudes to STEM. Quantum Girls will train 200 female teachers online, who will teach Einstein-First plus quantum computing to 11-15 year olds, coordinate afterschool Quantum Girls STEM clubs, and national Quantum Girls Hackathons supported by a team of role model inspirers. Combined with new micro-credential teacher training, evaluation of this 100-school program will define a path to future expansion. https://www.quantumgirls.org	\$878,977	\$933,977	WA
University of Technology Sydney	This project collates best practice across 3 interstate universities (The University of Technology Sydney, The University of Adelaide and RMIT University) for impactful, sustainable and scalable engagement across the Women in STEM (WiSTEM) pipeline. These universities deliver multi-touchpoint school outreach with embedded evaluation reaching students (primary/secondary) and their key influencers (families/educators). Programs incorporate diverse role models and industry mentors including gender, location, LGBTQIA+ and socioeconomic status. We will collaboratively develop and freely share multi-touchpoint STEM school outreach experience, foster a community of practice and integrate industry experience. This will enable national scaling of evaluated outreach programs and long-term change to address the STEM gender gap.	\$995,664	\$1,427,471	NSW, Vic & SA
RBG Enterprises Pty Ltd	WILD OnBoard is an Australia-first initiative that will launch the board careers of female leaders in STEM. Building on successful delivery of the WILD Program pilot, WILD OnBoard will foster homegrown talent and provide opportunities for 50 female leaders to attain board positions, thereby delivering much needed improvements in diversity on Australian boards. The program achieves impact at the individual level via greater visibility, board connections, professional coaching and immersion in boardroom culture; and drives cultural change by helping companies overcome stereotypes and bias, and realise the benefit of diverse perspectives on decision making and business performance. https://wildforstem.com/	\$999,322	\$999,322	Vic

Austmine Limited	<p>The project establishes a structured process to increase participation of women in the Mining Equipment, Technology & Services (METS) sector and enhance career development through leadership opportunities, work experience, skills development and engaging in new networks. The opportunity is for STEM female graduates to contribute to this innovative sector which currently has low female participation and a shortage of STEM skills critical to meet growing technology challenges. Activities are designed to improve the perception of the METS sector with female university students studying STEM while also addressing barriers to female participation. A vibrant Women in METS community will connect students and the sector beyond the project.</p> <p>https://austmine.com.au/Public/public/Programs/Student_Program.aspx</p>	\$649,159	\$793,259	NSW
Women in Technology WA (Inc.)	<p>Women in Technology WA (WiTWA) developed Techtrails Incursions and the Careers Discovery Platform as a result of WISE grant funding in 2017. This delivered proven and successful STEM initiatives that increase girls participation in STEM education.</p> <p>There is scope to further our reach through our proposed WiTWA+ Techtrails Future STEM Skills Initiative to include parents, educators and the wider community in education that promotes systemic change, reducing the barriers female students face when pursuing STEM education.</p> <p>This project will expand on delivering increased Techtrails School Incursions in metro and regional WA, advisory workshops to parents and educators, and further careers on discovery platforms and resource development.</p> <p>https://www.techtrails.org.au/</p>	\$785,120	\$785,120	WA
GMIC Limited	<p>This project will strengthen the Geelong Manufacturing Council's (GMC's) highly successful Women in Manufacturing Network (WIMN) Mentoring & Girls Leading Advanced Manufacturing (GLAM) initiatives, into the multi-touchpoint Seed to STEM (S2S) Program.</p> <p>GMC will formalise partnerships with schools, VET institutions, employment agencies and industry groups, engage on-ground facilitators to bolster regional enrolment (>300%), attract diverse program mentorship and expand regionally (Bendigo/Ballarat/Colac).</p> <p>Women facing intersectional barriers, incl. First Nations/low-income/refugee women will receive sponsored enrolments, and regional data regarding systemic issues facing women in STEM will be collected/disseminated to the community.</p> <p>https://www.geelongmanufacturingcouncil.com.au/programs/geelong-future-leaders-of-industry-girls-leading-advanced-manufacturing</p>	\$954,000	\$1,029,000	Vic
Flinders University	<p>Our 'STEM Enrichment Academy- Phase II' will build STEM capabilities in Year 9 girls and teachers from regional and suburban schools in SA and NT. Our previous STEM Enrichment Academy I reached hundreds of SA schoolgirls, reversing attitudes on STEM and driving enrolment (91%) in year 11/12 STEM subjects. We propose to engage a further 1000 girls and also build capability in the STEM teaching workforce through a specifically designed STEM enhancement course. Our program will include monthly hands-on skills-enrichment workshops (including industry visits), mentorship by female STEM role models, a 3-day STEM Enrichment conference with industry immersion and hands-on workshops focused on physics, and a STEM skills development day for teachers.</p> <p>https://www.flinders.edu.au/study/schools-teachers/stem-enrichment-academy</p>	\$996,144	\$996,144	SA & NT
Settlement Services International Limited	<p>Ignite Female Founders (IFF) will see the expansion SSI's successful IGNITE program in locations across Australia. This expansion will see IFF support 400 women including from refugee, CALD and Indigenous communities, regions and women with disability to go from business concept to successfully trading via the provision of tailored support and female led mentoring.</p> <p>https://ignite.ssi.org.au/programs/ignite-female-founders/</p> <p>Ignite facilitates business creation through up to 36 months of support focusing on practical business assistance and developing the characteristic and traits of entrepreneurs. SSI will engage with women with entrepreneurial aspirations who are unable to access traditional small business support reducing their barriers to and increasing their engagement in entrepreneurship.</p>	\$750,000	\$1,063,361	NSW & Vic

Code Like a Girl Pty Ltd	<p>Leveraging Code Like a Girl's success in educating, placing, upskilling & supporting hundreds of women in tech, we are expanding our Partner Program & scaling our School of Code. This will expand our course range; internship placement positions & capacity to deliver gender informed change management programs within industry. This will directly & impactfully increase the education pathways & employment outcomes for diverse women experiencing multiple & overlapping barriers to accessing positions of employment & leadership in the sector where our future is being designed. We will also be sharing our learnings, failures, & intellectual property from 5 years of supporting women, girls & industry leaders in tech, through our Partner Summit.</p> <p>https://www.codelikeagirl.com/</p>	\$880,000	\$1,857,500	Vic
The University of Wollongong	<p>The LIFT program will expand and connect existing strengths in women's STEM and Entrepreneurship (STEM-E) education, participation and leadership in the Illawarra. LIFT will target all stages of the pipeline: inspiring and training STEM pre-service and active teachers, building a diverse STEM-E pipeline, supporting leadership and wider innovation ecosystem participation. All aspects of LIFT will engage each other and the broader community, with participants paying it forward as active role models.</p> <p>Together with our industry partners, the LIFT program will empower STEM-E women to rise to new heights, encouraging a "lift as you climb" legacy, eliminating barriers and expanding influence on future generation of girls and women in STEM.</p> <p>https://www.uow.edu.au/media/2023/lift-as-you-climb-1m-funding-for-women-in-stem--entrepreneurship-.php</p>	\$997,891	\$1,179,891	NSW
STEM Sisters VIC Incorporated	<p>This project aims to drive lasting systemic change by supporting Women of Colour (WOC) to overcome the intersectional barriers of gender and racial bias to increase the participation of WOC in STEM education and careers and increase their representation in STEM decision-making positions. It will see the expansion of the successful STEM Sisters program in Victoria to provide more Women of Colour across Australia with STEM Sisters' high impact programs to support WOC at all levels of their careers in STEM. Key activities are career development and mentoring programs, and the creation of a network that connects WOC in STEM to each other, to career opportunities and provides a safe space to foster a sense of belonging for WOC in STEM.</p> <p>https://stemsisters.org.au/</p>	\$1,000,000	\$1,210,000	Vic
KAEA Pty Ltd	<p>The geospatial industry in Australia is experiencing significant growth underpinned by increasing demand for geospatial data, with data and digital skills dominating the fastest growing emerging skills across the economy. However, numerous reports point to the looming skilled labour shortfall. This proposal brings together and builds upon successful programs that target girls in late primary school and into secondary school, to foster a stronger connection to the geospatial and space sectors. It takes already successful initiatives, and forms a collaborative ecosystem connected to industry, research, and education to develop a pipeline of girls excited about and ready to build an education and career in the space and spatial industry.</p> <p>https://shemaps.com</p>	\$997,700	\$997,700	Qld, NSW, Vic
Food Futures Company Pty Ltd	<p>This scaleup project expands current work aimed at increasing participation of Indigenous women in the native agrifood sector (currently <2%). The intersectional approach addresses multiple barriers experienced by Indigenous women. Expansion includes 15 regional Project Hubs nationally and increased number of participants from 80 to >700 in STEM & Entrepreneurship Pathways support initiatives. Outcomes include: increased awareness and capability; growth in number and success of new ventures led by Indigenous women; more Indigenous girls in STEM and entrepreneurship education; visibility of Indigenous role models; strong support networks. A sustainable business model will ensure capacity to deliver long term systemic change.</p> <p>https://www.foodfutures.com.au/indigenous-women-stem</p>	\$975,000	\$1,495,000	SA, Qld, NSW & Vic
Indigenous Entrepreneur Network Ltd	<p>The We Mean Business (WMB) project is designed to actively empower Indigenous women entrepreneurs. By addressing the distinct intersectional barriers to participation faced by Indigenous women and girls over centuries, the WMB project will seek to dismantle the paradigm that undervalues strong family, culture and community connection in the marketplace. The Indigenous-led project will combine culturally-appropriate confidence building and coaching sessions with business accelerator training anchored in the innovation ecosystem to support the establishment of business networks that enable the existing and enduring entrepreneurial spirit of Indigenous women and girls to thrive.</p> <p>https://www.firstinnovators.org/we-mean-business-program</p>	\$951,400	\$996,400	Qld, SA, Tas, NSW and NT

Macquarie University	<p>The Girls to Graduates (G2G) project delivers a cohesive, integrated and sustainable approach to address under-representation of girls and women from equity backgrounds in STEM. Extending existing award-winning initiatives, the project captivates and engages girls in primary school in STEM; encourages girls in high school to be confident and build capacity; enables their transition to higher education STEM courses; and empowers and supports their University learning journey by reducing financial barriers, providing opportunities to engage with academic, research and industry mentors, partners and the community of G2G participants and facilitating the move to STEM research, career or entrepreneurship. G2G delivers a pathway to STEM success.</p> <p>https://www.mq.edu.au/faculty-of-science-and-engineering/news/news/\$1-million-for-girls-to-graduates</p>	\$971,747	\$1,352,857	NSW
STEM Education Group Australia Pty Ltd	<p>Street Science SISTA is a national STEM engagement project which works to harness a love of learning in girls aged 5 to 15 through the provision of a series of targeted opportunities to get hands-on and investigate the crucial role that Science and Technology plays in their lives. This project is one of the largest STEM Engagement opportunities ever provided to girls in Australia, and uses a series of uniquely engineered programs which allow repeated access to world class female educators who provide exhilarating and contextualised presentations and hands-on activities to link their learnings to real world outcomes. This project provides girls with access to female scientists and mentors to look up to for years to come.</p> <p>https://streetscience.com.au/</p>	\$1,000,000		

- Science in Australia Gender Equity will receive an additional \$7.1 million over 5 years from 2024-25 to deliver an expanded diversity in science accreditation framework for Australia. This will help create safe, diverse and inclusive workplaces in the higher education, research and vocational education sector and combat discrimination in all its forms. It brings the total funding commitment for this program to \$10.9 million.
<https://sciencegenderequity.org.au/>
- Superstars of STEM will receive an additional \$3.8 million over 7 years from 2024-25. This will boost the number of diverse role models who can positively influence and inspire people to pursue STEM education and careers. It brings the total funding commitment for this program to \$7 million.
<https://scienceandtechnologyaustralia.org.au/what-we-do/superstars-of-stem/>
- The Girls in STEM Toolkit will receive an additional \$2.0 million over 5 years from 2024-25 to create a toolkit that supports diversity more broadly. The current toolkit provides resources for students, parents and teachers to encourage girls' interest in STEM and STEM careers. The additional funding will be used to expand the resources to reach young people from other underrepresented cohorts in STEM through primary and secondary education. This brings the total funding commitment for this program to \$3.8 million.
<https://www.thegist.edu.au/>

No new news under news tab since February 2024

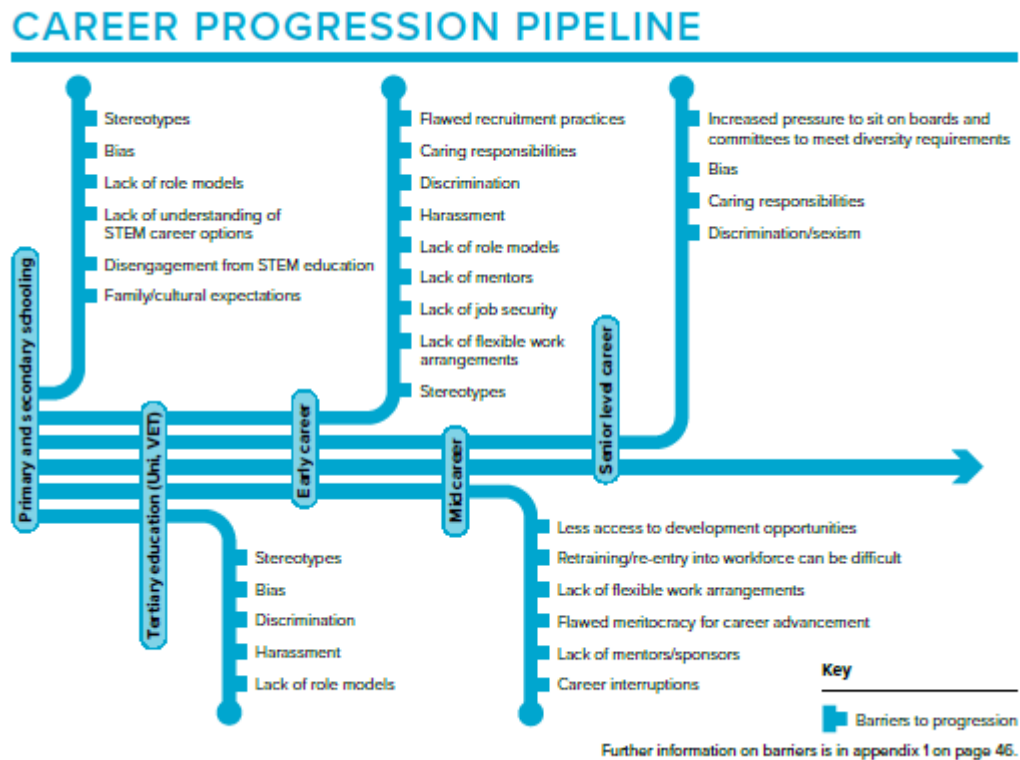
- STEM Equity Monitor will receive an additional \$0.7 million over 6 years from 2024-25. This will facilitate data collection and compilation on additional underrepresented groups in STEM education and organisations. It will also facilitate data-based evaluation of the impact of the department's diversity programs. This brings the total funding commitment for this program to \$3.4 million.
<https://www.industry.gov.au/publications/stem-equity-monitor>
- National Youth Science Forum will receive an additional \$1.8 million over 4 years from 2024-25 to encourage more young people from diverse backgrounds to pursue STEM education and careers. It brings the total funding for this program to \$5.1 million.
<https://www.nysf.edu.au/>
- Elevate: Boosting Women in STEM program will be extended to 2031-32 to allow part-time scholars to finish their study. The program will be renamed to Elevate: Boosting Diversity in STEM.
<https://www.atse.org.au/what-we-do/pathways-into-through-stem/elevate/>

Women in STEM Decadal Plan

Women in STEM Decadal Plan is vision on what needs to be done to attract, retain and progress girls and women in STEM education and careers. It is a 10-year roadmap. It was started in 2019 and the last review report was completed in 2021.

<https://www.science.org.au/support/analysis/decadal-plans-science/women-in-stem-decadal-plan>

The Women in STEM Decadal Plan was developed via in a national consultation process undertaken by the Australian Academy of Science and the Australian Academy of Technology and Engineering.



Mapping Australian STEM participation initiatives for girls and women

This is a list programs STEM programs. The programs are not just for girls/women and includes programs that are co-ed because girls/women are part of the “co” part of co-ed. A lot of these programs no longer exist.

<https://www.science.org.au/files/userfiles/support/reports-and-plans/2019/gender-diversity-stem/mapping-australian-stem-participation.pdf>

The Women in STEM Ambassador program

<https://www.unsw.edu.au/science/engage-with-us/women-stem-ambassador-program>

<https://www.industry.gov.au/news/thanks-we-farewell-women-stem-ambassador>

The initiative ended on May 31st 2024.

The government invested \$4.8 million in the program from 2018-19 to 2023-24.

Claims: Between 2018 and 2022, the number of women working in STEM-qualified industries in Australia increased by 38%. Women enrolling in STEM courses also increased by 18% between 2018 and 2021.

No evidence sited.

The Women in STEM Ambassador program ended because of recommendations from an independent review, the Pathway to Diversity in STEM Review. The review, commissioned by the [Department of Industry, Science and Resources](#), concluded that the program's objectives would be pursued through other initiatives within the government's broader suite of women in STEM programs.

Starportal

Was set up to be the one stop shop for all STEM activities across Australia. It is not active.

<https://starportal.edu.au/>

If you're a student or parent or teacher looking to find an entertaining and engaging STEM activity, the [STARportal](#) is the answer.

STARportal is a collection of the fantastic extracurricular STEM activities happening around Australia. The activities have been developed by individuals, corporations, governments and non-profit organisations, and are designed to support young people who are interested in science, to keep the flame of their curiosity burning.