

Panasonic Trust Future Engineers Awards (PTFEA) and Future Engineers Higher Education Bursary Scheme (PTFEHE)

Monitoring and Evaluation Report

October 2023



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Introduction

The Panasonic Trust Future Engineer Awards, funded by Panasonic Trust and run by The Welsh Valleys Engineering Project¹ and the Royal Academy of Engineering, offer bursary grants to school-leavers who are pursuing STEM and engineering-related college courses at Coleg Gwent and Merthyr College². The PTFEAs have been awarded since September 2018 providing six cycles of funding for 124 students to date.

The two participating colleges offer a range of traditional A-level subjects (mathematics, physics, chemistry, biology, Information Technology, or computer science) and BTEC courses (Motor Sports Engineering, Aeronautical Engineering, Advanced Manufacturing Engineering, Diploma in Engineering, Mechanical Engineering, Electrical and Electronic Engineering). The colleges also support students who are undertaking apprenticeships alongside their studies. Students eligible for the PTFEA can take the A-level, BTEC or apprenticeship route, or a combination of these courses.

The bursary award aims to support students financially and to provide them with unique engineering opportunities that help to retain engineering-focused students to progress to higher education, apprenticeships, or careers in and around engineering. Through the PTFEA Ambassador scheme, the WVEP and college coordinators arrange opportunities for the PTFEA students to promote and support engineering activities in participating primary and secondary schools in Merthyr Tydfil and Blaenau Gwent.

In 2022, the Panasonic Trust introduced the Panasonic Trust Future Engineers Higher Education Bursary Scheme (PTFEHE) to support students to study engineering or a related course at university. This provided one student (in 2022) and two students (in 2023) with £15,000 in grant funding to support their studies at a UK university. The Higher Education bursary was aimed specifically at students from low-income families and/or those under-represented in the engineering sector.

Both bursaries help address the UK's shortage of engineers by promoting greater diversity and inclusion in Engineering.

This report will focus on the outcomes and impact of the PTFEA and PTFEHE schemes for successful students from 2018-2023

¹ The Welsh Valleys Engineering Project (WVEP) raises the profile and uptake of engineering by embedding engineering resources and enrichment activities into all primary schools and eight secondary schools in Blaenau Gwent and Merthyr Tydfil, South Wales. The WVEP has established a network of teachers and college lecturers to drive project aims.

² In year 1, 10 bursaries were granted of £2000 per year. To attract a greater number of students, the award amount was halved, but offered to more students in the subsequent years.

Bursary

The PTFEA and PTFEHE schemes are run by the WVEP and the Royal Academy of Engineering. The WVEP has established strong links with coordinator teachers in each of the eight secondary schools and the college coordinators at the two colleges. Each coordinator teacher or college lecturer promotes the PTFEA awards and targets specifically young people who are interested in engineering or STEM at college level. Students from lower-income household or those currently under-represented in the engineering sector are encouraged to apply). Applicants are assessed via criteria set by the RAEng and College coordinators. A shortlist of students who meet the criteria are invited for interview at the relevant college.

The interviewing panel for the PTFEAs consists of at least two people: the college coordinator, the WVEP project manager, other representatives from the colleges and representatives from STEM education. The interviewing panel for the PTFEHE consists of the WVEP Project manager, and two members of the RAEng education team. Successful candidates are awarded the grant in termly increments by the college or university administration team. Candidates who withdraw or change to a non-STEM/Engineering course are no longer eligible to receive the bursary.

Ambassador Scheme

The bursary students play a key role in raising awareness, spreading knowledge, and enthusing younger school pupils about engineering as part of their Engineering Ambassadorial role. Working in partnership with the WVEP, the students are invited to support participating engineering industries to deliver engineering-focused activities via the WVEP's Employer Engagement Scheme in primary and secondary schools. Additionally, bursary students can provide talks and presentations (in person or by pre-recorded video) to promote engineering in schools and to promote the awards or support extracurricular activities (such as the F1 in schools challenge).

Masterclasses, Field Trips & Opportunities

The WVEP organises opportunities for PTFEA students to learn more about engineering careers in Wales and beyond. These have included five online Engineering Masterclasses that have introduced the students to a wide range of experienced engineers from different engineering careers (23 male and female engineers were selected to illustrate the range of engineering routes and careers). The WVEP also arranges field trips to engineering companies so that the students can gain insight into a real-world engineering company in South Wales.

Additionally, networking opportunities are provided to PTFEAs and Higher Education Bursary recipients such as the Royal Academy Awards Dinner 2023³ and meeting industry representatives at events, the annual WVEP celebration event and industry meetings.

³ [Awards Dinner 2023 \(raeng.org.uk\)](https://www.raeng.org.uk)

Internships

In 2018-2019 RAEng received funding to provide summer internships to PTFEA students to gain experience in a real-world engineering context. Three students undertook internships in the summer of 2019.

Method

PTFEAs

The evaluation of the Panasonic Trust Future Engineers Awards takes the following form,

Surveys

- Start forms completed by PTFEAs.
- End of year one forms completed by PTFEAs.
- End of year two and destination data by PTFEAs
- Follow-up destination data

| PTFEA | Sample size | % of total |
|---------------------------|-------------|------------|
| Start forms | 123 | 99% |
| End of year one/two forms | 75 | 60% |
| Destination data | 63 | 77%* |

*Calculated on the number of students graduated from college only

Focus Group

- Focus groups with PTFEAs to establish the impacts, and recommendations for improvements.

Interviews

- End of year interviews with coordinator teachers and college coordinators⁴

PTFEHE

- The three PTFEHE students were interviewed to establish the impact of the award, the student's pathway to engineering and to assess whether any changes or adaptations to the award could be made in the future.

⁴ This is undertaken as part of the evaluation of the WVEP, where coordinators are asked to feedback on the PTFEA scheme.

PTFEA demographics

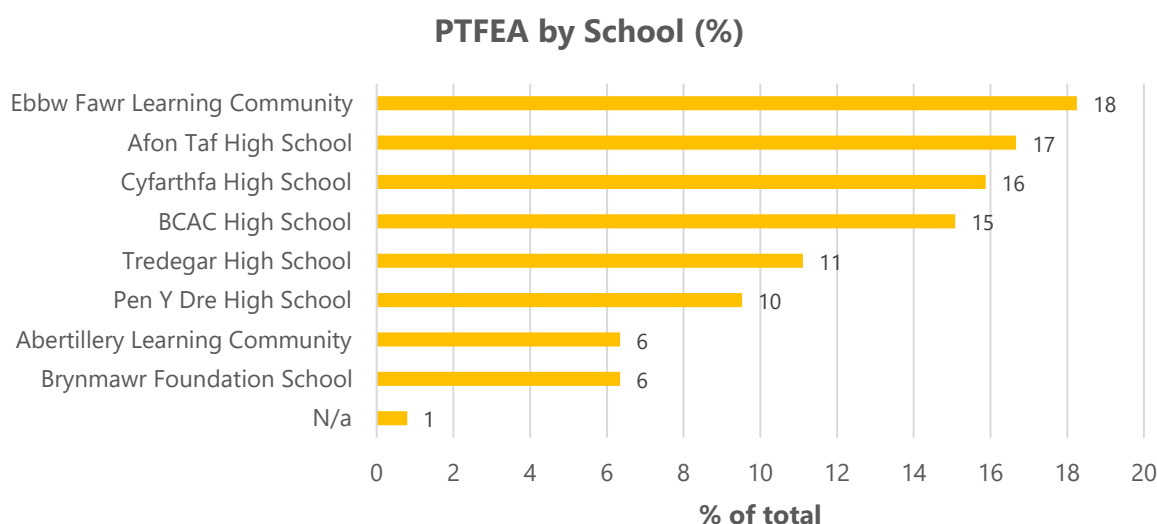
Panasonic Trust awarded 124 Future Engineer Awards since 2018. 45% have been awarded to students attending Coleg Gwent and 55% to students attending Merthyr College. Coleg Gwent awarded slightly fewer awards due to the lack of suitable candidates in 2019 and 2021 (this was partially as a result of the impact of the covid pandemic on students' attainment).

The table below presents a breakdown of the PTFEAs awarded each year.

| Year of Award (start and finish date) | PTFEAs awarded at Coleg Gwent | PTFEAs awarded at Merthyr College | Total number of PTFEAs awarded | Number of students who withdrew |
|---------------------------------------|-------------------------------|-----------------------------------|--------------------------------|---------------------------------|
| Cycle 1 (2018 - 2020) | 5 | 5 | 10 | 1 |
| Cycle 2 (2019 - 2021) | 8 | 17 | 25 | 4 |
| Cycle 3 (2020 - 2022) | 15 | 15 | 30 | 2 |
| Cycle 4 (2021 - 2023) | 6 | 10 | 16 | 0* |
| Cycle 5 (2022 - 2024) | 12 | 11 | 23 | 2 |
| Cycle 6 (2023 - 2025) | 10 | 10 | 20 | 0 |
| Total | 56 | 68 | 124 | 9 (4 female/5 male) |
| Percentage | 45% | 55% | 100% | 7% |

*One student withdrew before starting in this year

There are eight secondary schools included in the project (this represents all the secondary schools in the two counties). The table below presents the PTFEA students awarded bursaries from each of the eight schools. The top three schools where the students are successful in achieving awards had all offered GCSE Engineering for several years before the WVEP started.

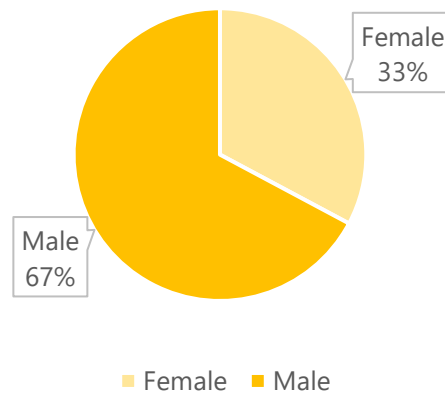


Gender

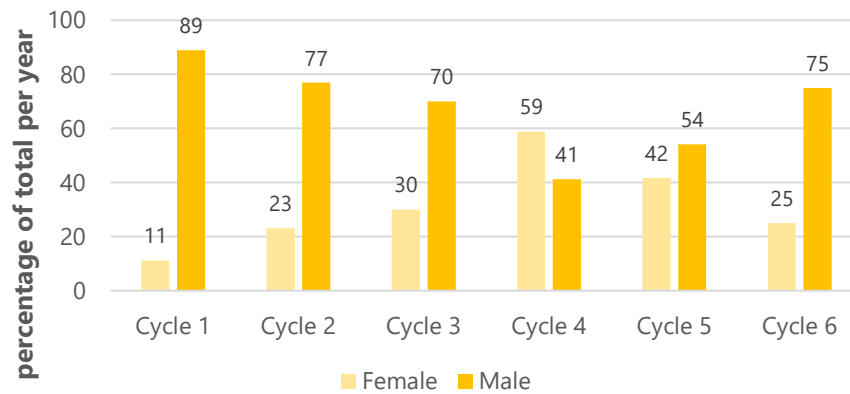
Research shows that in the UK, 16.5% of engineering roles are undertaken by women, with numbers growing each year⁵.

In total, 33% of the PTFEAs have been awarded to female students from 2018-2023. In cycle 4, the gender split for female awardees exceeded that awarded to males. Other than cycle 1, the PTFEA has exceeded the national figure for women engineers each year. This is illustrated in the chart and table below,

PTFEA gender split (2018-2023)



Gender split of PTFEA students per year



Proportionally, more female students withdrew from college or an engineering pathway than male students. 10% of the total number of female students have withdrawn versus 6% of the total number of male students⁶. Most of the withdrawals occurred during the COVID lockdown years of 2019-2021 (cycle 2).

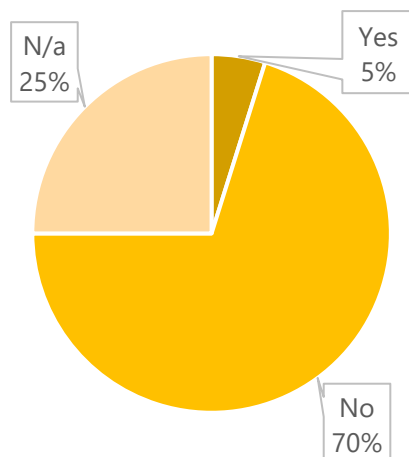
⁵ Figures from 2021 - [Women in Technology | Women in engineering - Women in Technology Women in engineering - EngineeringUK | Inspiring tomorrow's engineers.](#)

⁶ three of the male students withdrew to take up paid work on the railways or as an apprentice.

Free school meals

5% of PTFEAs received free school meals (FSM) at some point during their time at school. 70% did not receive free school meals and 25% did not respond to this question.

PTFEAs receiving free school meals (%)



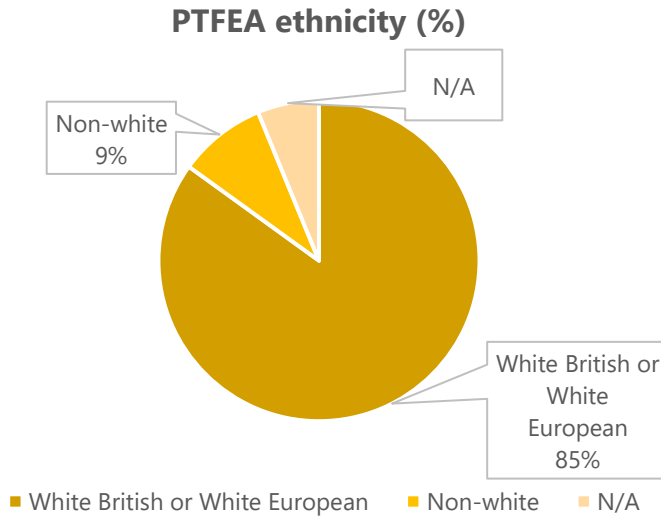
Only one of the known FSM students withdrew from college. Three had to undertake retakes following two years of college and one entered university to do Mechanical Engineering. Although a small sample, the monitoring indicates that FSM students face additional challenges that impact their education and achievement.

The college and school teachers involved in the project have noted that many of their students are from low-income families that just miss out on qualifying for free school meals. Both colleges are located in areas of high multiple deprivation.

Ethnicity

9% of the students who received the PTFEA awards are from non-white ethnic backgrounds. Statistics collated by the Welsh Government in 2022 show that 11.9% of the total Welsh population are from Black, Asian, and Minority Ethnic backgrounds⁷. This figure is 9.3% in Merthyr Tydfil and 5.5% in Blaenau Gwent (figures from 2021). This demonstrates that the PTFEAs are awarded to proportionally more students from non-white backgrounds than in the school population for Blaenau Gwent and, proportionally, about the same number of students from non-white backgrounds as in the school population of Merthyr Tydfil.

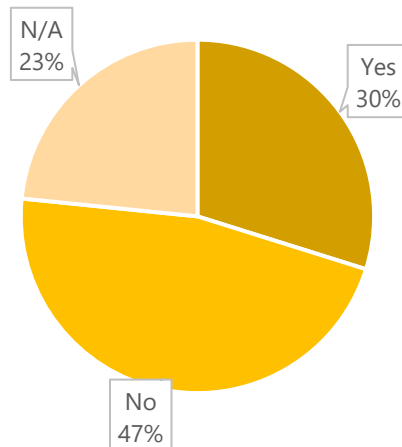
⁷ <https://mylocalschool.gov.wales/>



GCSE or BTEC Engineering

30% of the students who received the PTFEA had undertaken GCSE or BTEC engineering at school (figure for those known only, $n=95$). At the start of the project, only four out of the eight secondary schools offered GCSE or BTEC engineering, in 2023 seven out of the eight secondary schools had offered GCSE or BTEC engineering to students. Due to this increase, 50% of the awardees in 2023 had taken GCSE or BTEC engineering in school.

GCSE or BTEC Engineering at school

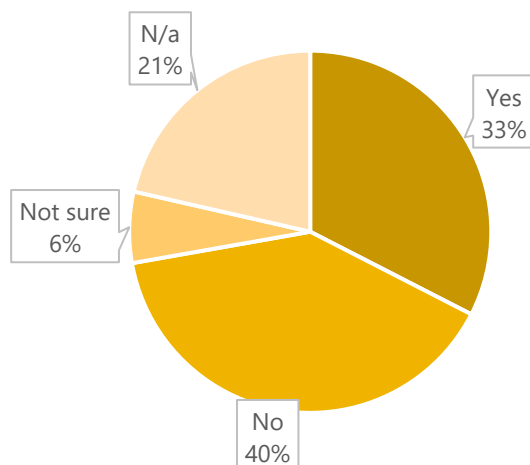


| | Cycle 1 | Cycle 2 | Cycle 3 | Cycle 4 | Cycle 5 | Cycle 6 |
|--|---------|---------|---------|---------|---------|---------|
| Students who undertook BTEC or GCSE Engineering at school (data from those known only $n=95$) | 40% | 28% | 23% | 37% | 13% | 50% |

Engineers in close family and friends

Around 33% of awardees had close family or friends who were engineers. 40% did not have engineers in their close friends or family group. This indicates that the awards can attract both students who are from 'engineering families' and those who are not, as demonstrated below,

Engineers in close family/friends

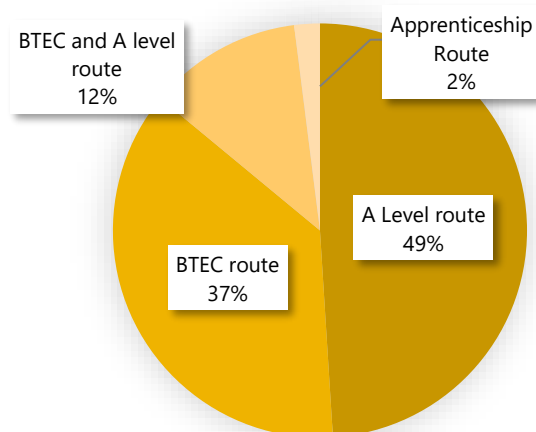


| | Cycle 1 | Cycle 2 | Cycle 3 | Cycle 4 | Cycle 5 | Cycle 6 |
|---|---------|---------|---------|---------|---------|---------|
| Students who have close family or friends who are engineers | 44% | 34% | 23% | 56% | 30% | 30% |

Routes into Engineering

The awards can support students with a range of routes into engineering. 49% of the PTFEA students who were selected for the awards were taking the A-level route into engineering, 37% were taking the BTEC route and 12% were a combination of BTEC and A Levels. Only 2% were doing apprenticeship courses at the colleges, as shown below.

PTFEA routes into Engineering at College

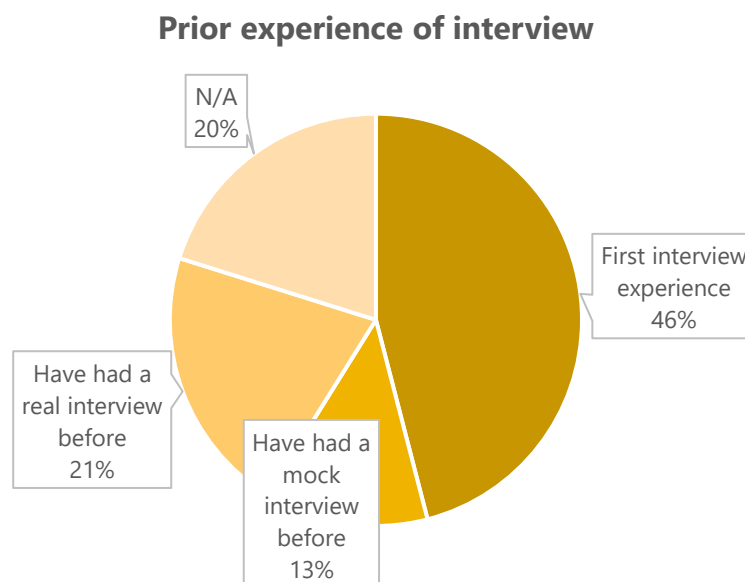


Impact of the Awards

The impacts of the awards encompass soft skills, hard skills, self-efficiency and confidence as well as supporting students financially and providing them with opportunities to connect with industries and become ambassadors for engineering. The students who gained the most out of the awards were the ones who engaged in more activities with primary and secondary schools and engaged with experiences offered through the WVEP and through the colleges.

Confidence and experience building

For over half of the PTFEA awardees, the PTFEA interview was their first experience of a 'real' interview (46% had never had an interview before, and 13% had practised with a mock interview). This illustrates that the PTFEA structure can provide new skills for students progressing to college in interview techniques.

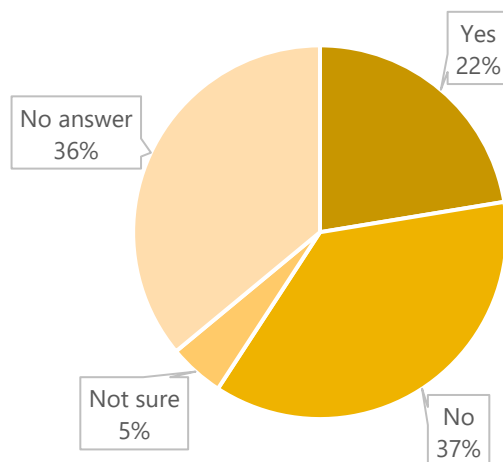


Nearly all the students reported that the application and interview process was manageable and fair. One student reported, *"I thought the interview was fair and a really great learning experience"* (PTFEA 2022-24) and another reported, *"At first walking to the interview was very nerve-racking because there was lots of competition however talking with the interviewers made me feel more confident and freer in my speech. I think the interviewing process was fair they introduced me to lots of ideas through a plethora of questions that allowed the interviewer to understand who really needs this bursary"* (PTFEA 2021-23)

Encouragement to pursue engineering.

22% of the students were influenced by the PTFEA to pursue engineering. 37% were already on a STEM or engineering trajectory and would have pursued this pathway with or without the PTFEA.

Did PTFEA Influence decision to take engineering?



For some of the students the PTFEA provided an opportunity to explore the various engineering opportunities at the college that they had not explored previously.

"I have always been very interested in subjects like chemistry and maths. The Panasonic Future Engineer Award helped me refocus my career interests into engineering" (PTFEA student, 2021-23).

"During the process of the interview, I was able to extend my knowledge on how vast the field of engineering is and how well you can do by choosing this career path. I was already certain I wanted to do engineering as I am so passionate about it however the bursary made me strive to achieve my goals even further" (PTFEA student, 2021-23)

"They helped me to understand the broader industries of engineering because now I'm very eager to choose a path which involves creativity and also helping. I want my goal for a job to be something which can benefit the future or others in a socially justified way, which is why engineering is a great route for jobs and job opportunities for me especially! (PTFEA student 2023-25)

For others, the PTFEA was the final push to pursue engineering or STEM,

"I was considering taking engineering but wasn't too sure until the future engineer's award was presented as an option" (PTFEA student, 2020-22)

"I wanted to take STEM subjects because of the Future Engineers Award". (PTFEA student, 2020-22)

“Before finding out about this opportunity I was looking at going straight into an apprenticeship, this changed my outlook on college” (PTFEA 2021-2023).

And for some, it was an opportunity that provided further opportunities,

“It influenced my decision as I felt it was a great opportunity to study engineering and it would give me a much better opportunity to get an apprenticeship through engineering” (PTFEA student, 2020-22)

And for others, the bursary funding was an incentive,

“I come from a family in a low socio-economic area. Both my parents are part-time minimum-wage workers. The award of the grant and the computer is very helpful to me and a great motivation, so it did influence my decision” (PTFEA student, 2022-24)

Impact of bursary funding

The PTFEA students felt that the funding received through the bursary (£2000 over two years) and the loan of a laptop (from year one to the end of college) was an impactful addition to their college education, relieving financial stress and enabling them to focus on their studies. The students reported that money had been spent on study equipment, computer software and hardware, travel costs (public transport, driving lessons and a contribution to a car), living costs and some managed to save the bursary to aid in their university studies. Following the first year of their studies, 17% of the students suggested that they had not had to seek additional part-time work because of the bursary funding and 18% were not working (elected). The students commented,

“The funding has helped to reduce the dependence on jobs and worrying about the lack of jobs I have found” (PTFEA student 2019-21).

“Having the bursary has allowed me to look into what engineering had to offer, and now I have the opportunity to travel around the universities in the UK to see what they have to offer” (PTFEA student, 2021-23).

“I wouldn’t have been able to afford all of the trips I’ve been on without the funding and wouldn’t have been able to afford a touchscreen laptop that I could draw diagrams and calculations on which has been really helpful in my studying for my exams” (PTFEA student, 2021-23).

Following the first year of their studies, 24% of the students reported that they would not have been able to afford the items they purchased (or their daily costs – transport/food etc.) without the finding being in place⁸.

Ambassadorial Role

Approximately 45% of the PTFEA students were able to play an ambassadorial role while in their first or second year of college. The ambassadorial role varied by college and student availability but generally covered the following:

- Presentations to others about engineering – in college or schools (including assemblies)
- Supporting industry delivering WVEP Employer Engagement Strand activities in primary and secondary schools
- Supporting engineering and STEM college staff to promote engineering at open days and college events.
- Developing and supporting STEM clubs within the colleges (MARS club, Rocket Club, F1 club and motor-sports clubs)
- Supporting women in STEM with talks and ‘women into engineering’ statements
- Supporting maths and extracurricular clubs in schools
- Integrating engineering into Welsh Baccalaureate projects to inspire others.

The opportunity to act as an ambassador for engineering was beneficial to the PTFEA students as it was able to raise their confidence and self-belief in their engineering capabilities and also gave something back to their local community by promoting engineering to the next generation. Those who took part in the ambassador scheme were able to network with industry during the school sessions. Industries involved in the WVEP are, Concrete Canvas, General Dynamics, Safran Seats, Thales (NDEC), Continental Teves, Nexperia, Future Valleys Construction, Morgan Sindall, Panasonic (Toughbooks and manufacturing), Zimmer Biomet, JC Moulding, TATA Steel, Wild Connect, ORE Catapult and Lightsource BP.

Field Trips

The PTFEA students were offered the opportunity to attend field trips to engineering industries organised by the Welsh Valleys Engineering Project. Trips included Future Valleys Construction and Panasonic Manufacturing. Future trips are planned with Safran Seats and Concrete Canvas.

⁸ This calculation is based on 105 Responses – 24% said they would not have afforded items without bursary, 27% said they would have purchased them using parents’ donations, 11% would have used part time work to afford items and 38% gave no answer.

Destination data

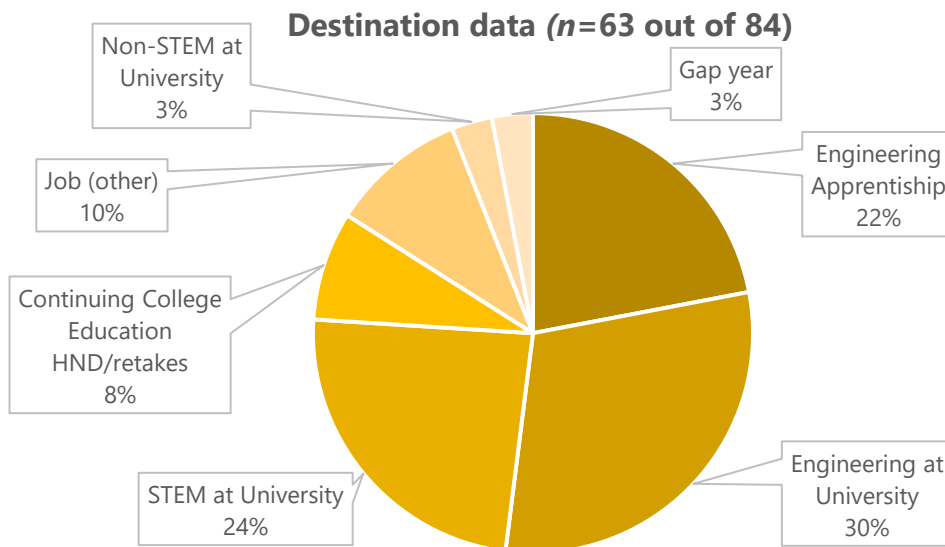
Four cycles of PTFEAs have graduated from college and progressed to further education, apprenticeships, or work (this equates to 82 PTFEAs).

63 PTFEAs have provided their destination data (77% response rate). 8 students who graduated in 2023 or before withdrew from the college or PTFEA scheme and 11 PTFEA students did not provide destination data. A full list of destination data and including university and apprenticeship destinations and courses is provided in Appendix A.

The destinations of those that provided data is as follows,

- **30%** have taken engineering degrees at university.
- **24%** have taken STEM subjects at university.
- **22%** are pursuing engineering apprenticeships.
- **10%** have gone into employment (non-engineering)
- **8%** are continuing with HNC/HND Engineering at college (or doing retakes)
- **3%** have taken non-STEM degrees at university.
- **3%** are taking gap years to work or travel.

The destination data shows that to date, **84% of the PTFEA students'** progress to engineering apprenticeships, STEM or Engineering Higher Education or HND/HNC qualifications within two years of finishing college.



Focus

This section will focus on 6 PTFEA students and highlight their progression.

Archie Williams (PTFEA 2018-2020)

Archie is reading civil engineering with master's at Swansea University. Achieved an ICE Quest Engineering Award that funded HE studies. Has undertaken three summer placements with Mott MacDonald in Cardiff. Mott MacDonald will provide a graduate job at the end of his course. Archie commented about the PTFEA award,

"The PTFEA definitely helped towards me attaining this scholarship. Without the PTFEA my application for the QUEST scholarship would've been much weaker. The scholarship led to three summer placements in engineering and a graduate job lined up. This was invaluable in starting my professional engineering career".

Luke Protheroe (PTFEA 2018-2020)

Luke progressed straight from college to an apprenticeship at General Dynamics in Merthyr Tydfil. Luke was an active advocate for the ambassador scheme, working in schools to promote automotive engineering through the F1 in schools' project. Luke received the student of the year award in 2020 from Merthyr College. Luke commented,

"The Panasonic Trust Engineers Awards helped massively with my educational and career development. The bursary helped me to fund my college education prior to getting an apprenticeship and allowed me to get everything required for the course i.e equipment, safety boots, overalls, stationary etc. It also helped with travel to and from college everyday".

Ma. Katharina Villanueva (PTFEA 2019-2021)

Ma. Katharina has progressed to University College London to read Chemical Engineering after gaining A* A-levels in Chemistry, Physics and Maths. She said of the award,

"Being a PTFEA gave me the opportunity to learn more about engineering through industry visits and projects that I have been exposed to because I expressed my interests in engineering through this programme. I think the PTFEA scheme is effective in exploring career paths in engineering as it's not commonly mentioned within secondary schools. With this scheme, pupils are given the chance to spread their knowledge and experiences of engineering and perceive it as a career path that can be for anyone".

Krystian Paciepnik (PTFEA 2020-2022)

Krystian has continued his passion for engineering at Coleg Gwent with an HND and HNC qualification in advanced engineering and manufacturing. Krystian is looking to be a chartered engineer in aeronautical engineering through a degree-apprenticeship. He comments,

“The PTFEA award allowed me to purchase a computer that I could use at home with CAD software. This has been vital for me to progress my studies during the lockdown. I wouldn’t have been able to afford this without the money as I am from a low-income family. Receiving the PTFEA boosted my confidence and advanced my interest in engineering. It is really important to support students, especially in Blaenau Gwent because there is a lack of opportunities and lots of low-income families. I know firsthand that a bit of extra support and money can make a big difference”.

Brady Dawson (PTFEA 2020-2022)

Brady completed his BTEC-engineering course and progressed straight to a design engineer apprenticeship with Safran Seats in Cwmbran.

Chloe Knapp (PTFEA 2021-2023)

Chloe achieved high grades at A Level and progressed to Swansea University to read Medical Science followed by a master’s in biomedical engineering. Chloe said of the award,

“The PTFEA was a huge help, and I couldn’t recommend it enough for all future college students. I wouldn’t have been able to explore different universities without it. It also allowed me to be an ambassador for engineering at college by doing talks and open evenings showing students that there isn’t only one pathway through engineering, and that engineering is the building block of many things in life”.

A full list of destinations is available in Appendix A

Future Engineers Higher Education Bursary Scheme

Panasonic Trust awarded its first Future Engineers Higher Education Bursary in 2022. In 2023 it awarded two further awards (due to the high quality of candidates). The PTFEHE bursary provides engineering support and opportunities (through the WVEP and RAE) and financial support for three years (£15,000). Interviews with the three recipients of the awards show that the award not only provided much valued funding, but also boosted confidence, provided them with validation and increased motivation. The three recipients case studies are presented below,

Elis Thomas



PTFEA Award 2020-2022 - Merthyr College, BTEC Engineering

Higher Education Award 2022 – 2025, Cardiff University, Mechanical Engineering Foundation + degree

My dad was a big influence on me, although he is not an engineer – he works as a caretaker in a primary school and is a qualified plumber. He always threw himself into any projects needed at the school, including making props for the school plays and equipment for the classrooms. Because of his enthusiasm, I was drawn into the garage to help him from a young age – this helped to build my confidence to make things. My interest in engineering developed in year 11 at school when we got to incorporate maths and use hi-tech equipment, like lathes. My secondary school is very strong in engineering, and I selected GCSE engineering, computer science and electronics as my options. All of these have helped to develop my interest and skills in engineering.

I applied for the PTFEA award at secondary school to help with my college education and I was successful. Applying for the PTFEA award helped me to decide, for definite, on a career in mechanical engineering. So, with the bursary to support me, I took BTEC Level 3 Engineering at college, where I learnt more skills like welding. I worked part-time through my college studies so the extra money from the bursary really helped to boost my savings for university and enabled me to purchase a laptop that was essential for my college work. Being a PTFEA also allowed me to work with primary and secondary schools to support the industries that are delivering activities through the Welsh Valleys Engineering Project's

Employer Engagement Strand. The primary children responded really positively, and we worked hard to make it fun for the secondary school pupils too, so that as many as possible joined in. It was interesting to see how the different age groups engaged and responded – I hope that we were good role models for them to go into engineering because we were closer to their age, and we could offer advice about the different routes into engineering too.

I heard about the Panasonic Trust Higher Education Award through college, I applied because I thought that it would be an amazing opportunity to work alongside Panasonic and build my networks. Panasonic is such a prestigious organisation and I feel honoured to have been selected. I'd love to continue to build networks through this award and get some summer internships too. The money that I received through the bursary meant that I didn't have to borrow as much for my living costs as I originally thought I would – this will take the pressure off when I start repaying the student loans. I intend to keep most of the bursary for equipment or travel needed to advance my engineering studies and work experience. Now, because of the additional money, I have been able to focus totally on my studies and have not had to work part-time to supplement them.

I was lucky to be invited to the Royal Academy Dinner 2023 which was an incredible event, where I got to network with engineering companies and meet people involved in the electric car industry. Having both PTFEA and the Higher Education Award has directed me more towards engineering and made me more confident in my abilities. It provides a great validation for the pathways that I have chosen, and I feel like I have accomplished something – even more so because the awards have come from a prestigious organization like Panasonic.

After University, I'd like to work in the electric vehicle industry. This is a growth industry and one where they are going to need skilled engineers. The PTFEA provides a great opportunity for students from Merthyr and Blaenau Gwent to focus on engineering and promote engineering to others in those areas. It is great to be part of this scheme.

Uriel Rivera



Panasonic Trust Future Engineer Award - Merthyr College, A-level Route (Maths, Further Maths, Physics and Engineering).

Panasonic Trust Higher Education Award - University Heriot-Watt Edinburgh reading Aerospace Engineering.

I have always had a passion for engineering and astronomy. My grandmother has been my biggest inspiration – she was brought up and lived in the Philippines. She was an engineer, but because she was a woman, she was only able to work as an engineer’s secretary. That didn’t stop her though, as she invented so many things for her own house – like an automatic dog feeder and she made lots of her own furniture. She inspired me to want to do the same but at a higher level.

I have always had a fascination with space, aerodynamics, and artificial intelligence (AI), and I have an interest in what Space X and NASA are doing. I’m specifically interested in plans to send drones to Mars and using technology to further our knowledge of space and the planets – there is so much still to find out!

I received the PTFEA award at college level initially. This provided me with so many opportunities and not just financial. The bursary was really useful as it helped to contribute to a high-spec Legion laptop that has CAD and runs high-functioning software, and I also purchased an iPad. Both of these were crucial to continuing my studies, especially through the Covid years when everything moved online. With the bursary, I was also able to fund an online AI course that helped me to further my knowledge in this field.

Being a PTFEA also provided opportunities to connect with local primary and secondary schools to support engineering activities. This was an amazing opportunity that was so much fun, one school we helped to build their Formula 1 kit car. It was wonderful to be able to inspire the younger generation in all the different types of engineering. I had nothing like this when I was in primary school. I felt that I was able to bust some myths about engineering being about construction work done by men!

I also started up the MARS society at Merthyr College and through the networks I made being a PTFEA I was able to connect with the primary schools and support astronomy activities for some of them. This society is still running in Merthyr College.

Receiving the higher education bursary award from The Panasonic Trust has been amazing. Without it, I would not have been able to pursue my first choice of studies in Edinburgh. The additional funds meant that I could look outside of Wales as it helped to pay for me to live away from home. My parents have only been able to provide a minimal donation to my studies, so this funding will be crucial to help with my living costs and the equipment I'll need for my studies across the three years.

I'm keen to get more experience working in engineering companies in the summer holidays as I see this as key to my future development and a great way to build networks.

In five years, I hope I can be fully qualified with a master's degree and then I'll be looking to work for one of the big aerospace companies like Airbus, General Dynamics or even NASA.

These awards have given me financial security and have helped me to build up my confidence and skills in delivering engineering to inspire others. At my university interview, I had so much to talk about because I had engaged in the PTFEA ambassador scheme at college. This award made me realise that when I was growing up, I didn't have many opportunities offered to me, outside of my family, to encourage me to pursue engineering – it is great that this is being done now through the Welsh Valleys Engineering Project in primary and secondary schools. Being a PTFEA has been such a great experience for me, and I am excited for the opportunities it brings to others too.

Daniel McAleer



Panasonic Trust Future Engineer Higher Education Award 2023. University of Bath reading Maths and Physics.

I have had two amazing teachers who have inspired me to pursue maths and physics. I was originally on a humanities route, but my maths teacher brought maths alive to me and during lockdown, I was able to study subjects at my own pace and it was then that physics clicked with me. I didn't take triple science at GCSE, so I had to work very hard myself to do well enough to be able to take A-level physics at college. My college physics teacher was brilliant and guided me towards a joint honour's degree in maths and physics. At college, I got involved in the Rocket Society and I took part in the Scholars Programme where I was able to look into dark matter with a PhD tutor. College also took us to Cern which was an incredible experience and enabled me to see first-hand how mathematicians and physics experts work with engineers on huge projects and shared problems. This has inspired me to look at both the practical and the theory-based aspects of how I could apply maths and physics to engineering – especially in areas like fusion which I am interested in.

I applied for the Panasonic Trust Future Engineers Higher Education Bursary for two reasons. The bursary money helps to relieve the financial pressure of university but also the appeal was the opportunity to go into schools to share my passion for maths and physics with others. I was also interested in the opportunities that partnering with the Royal Academy of Engineering would bring, especially because I am not taking an engineering degree at university – I see this as an opportunity to pursue further funding opportunities, internships and training where offered. I'd be interested to find out how to network more with Panasonic and other industries too. I am from a single-parent family on a low income, so the funding has removed the stress of the financial implications of university education. It has meant that I can focus on my studies and not have to find part-time work to supplement my income. Receiving this award has helped me to focus more on finding out about engineering opportunities and also provided me with a support network through the Welsh Valleys Engineering Project and Royal Academy of Engineering that is invaluable.

Coming from Merthyr Tydfil I am aware that opportunities for some people might be missed. I believe that you can encourage young people to see that engineering and STEM are possible and accessible with good teaching and encouragement. Traditionally, there has not been much information about what is available around engineering in Merthyr. The Welsh Valleys Engineering Project helps to encourage young people in STEM and for them to see not just what is there, but also that it is possible for them to have these jobs is amazing. I'd love to give back to young people from my area what was given to me by the two amazing teachers I had and hopefully inspire the next generation.

Impact on Schools and Colleges

The PTFEA awards have been well-received by the teachers and provide an incentive and an opportunity to highlight engineering opportunities that are available in the colleges to STEM-Engineering focused students. One teacher commented,

"I think the PTFEA awards have really helped this for the year 11 pupils who are going on to college I know that some of them have gone onto university to study engineering now. it has been a real incentive for some of our students to get involved in engineering" (Coordinator Teacher)

The HE awards and PTFEA have also been well-received by the colleges. The coordinators from the colleges commented,

"The project has increased motivation for all students involved in all phases of education. The PTFEA finance has assisted students to achieve potential that would not have been previously possible. Most of the learners say they owe their success this year to the funding. The funding has also been a good advertisement to year 11s showing the value placed on studying an engineering pathway" (Coleg Gwent Coordinator)

And,

"The WVEP and PTFEA scheme has provided us with a brilliant vehicle to advertise the college and its engineering opportunities to primary and secondary schools and has helped to network students with industries. These networks are now starting to develop into tangible opportunities for our students in terms of internships, trips, and placements. We saw an upsurge in students wanting to take engineering and this has helped in the plans to develop a new advanced manufacturing and engineering facility that will focus on renewable and environmentally focused engineering (hydro electrics, hybrid vehicles and solar) – the WVEP and PTFEA has played a massive role in this by helping to promote engineering and get students hooked in and enrol on engineering courses" (Merthyr College Coordinator)

Improvements and suggestions

The following improvements or suggestions were offered from the teachers, college coordinators and recipients of the HE and PTFEA awards,

Teachers and college coordinators

- The PTFEA was felt to be a successful scheme. The teachers have welcomed the HE PTFEA information pack and would appreciate a similar pack for the PTFEA college bursary to advertise more effectively in school in a timely manner.
- The colleges have worked hard to integrate the ambassadorial scheme especially when supporting the WVEP Employer engagement strand – although this is different in each college (MC finding this easier due to geographical distance of the schools to the college). Advise a discussion with both colleges to find out how to engage PTFEAs who have not engaged in the scheme.

PTFEA

- Better advertising in schools for the awards (in earlier years)
- PTFEAs would like more opportunities to network with industry and have site visits or career talks (focusing on the different aspects of engineering). Many students are unsure what the different types of engineering entail at HE level and would appreciate clarity on this before they decide their post-college destination.
- PTFEAs would appreciate opportunities like summer schools, internships, apprenticeship advice etc.
- More in-person communication from the WVEP and Royal Academy (where possible)
- Providing connections to industry for college staff to pursue.
- Application and Interview: a couple of students had missed emails detailing the interview times and some had struggled more to write the application form. The decision-making process was delayed in year 2022 resulting in some students waiting a while to hear about the results of the interview.
- For the Ambassador scheme – a short training session (or presentation event) is needed for the PTFEAs to connect with the industries and fully understand the challenges and their role in delivering these challenges. This will strengthen the links between students and industries and build confidence. It will also enable more effective use of the PTFEA students. At a minimum a booklet with the challenges and key learning areas that PTFEAs can prepare for.
- Ensure that some ambassadorial activities are outside of college hours so that pupils don't miss lessons.

- Encourage more PTFEAs to get involved in being an ambassador as there is a disproportional workload for those that get involved and those that do not.
- **Computer Loan Scheme** – some students reported that the loaned computers would not run high spec software needed for the courses. Students also reported that they would prefer to own their own laptop than have a loaned one (many used their bursary funding for this)

HE PTFEAs

- Better promotion of the scheme in college
- The HE PTFEAs appreciate the support and advice offered by the WVEP and RAE that comes with this award. They would like to continue to learn and network with companies and be offered mentoring support (where needed/from the right person).
- Increased networking and internship opportunities – through Panasonic and others.
- Students would appreciate the opportunity to apply for an additional year's funding if on a foundation+ or four-year degree or degree + masters.

Conclusion

The PTFEA and PTFEAHE awards have been able to attract a broad cross-section of students from diverse backgrounds who were following a range of engineering pathways.

The evaluation shows positive feedback from PTFEA students, the coordinator teachers and college coordinators. All see the PTFEA as an incentive or an additional boost to pursue an engineering pathway and a scheme that has increased interest in engineering at school and college level.

In addition to the funding and laptop loan, the awards provided the opportunity for PTFEAs to engage in site visits, masterclasses, and the chance for students to work alongside industry delivering engineering challenges to primary and secondary schools. It was clear from the students' comments and interviews that all these elements of the award, built confidence, and self-efficacy and provided positive evidence about their achievements moving forward to apprenticeship, university, or further funding opportunities.

Improvements were suggested to improve the advertising of the awards at colleges and schools, and to offer more opportunities to PTFEA students that help them to understand the range and breadth of engineering careers, training, and degrees open to them. It was also suggested that encouragement and exploration into why some students do not engage with the ambassadorial scheme would be fruitful to maximize this valuable aspect of the scheme.

Overall, 84% of the students progressed into STEM-Engineering following the awards.

Press releases

[Cardiff University Student Receives Prestigious Bursary – India Education | Latest Education News | Global Educational News | Recent Educational News \(indiaeducationdiary.in\)](#)

[Elis wins bursary to study engineering \(student-circuit.com\)](#)

[Prestigious bursary for student engineer | myScience / news / wire](#)

[Elis wins bursary to study engineering \(raeng.org.uk\)](#)

RAE LinkedIn (21) Post | [LinkedIn](#)

Twitter/X: [Royal Academy of Engineering on X: "We're delighted to announce that the first recipient of a Panasonic Trust higher education bursary is Elis Thomas. The bursary has been awarded as part of our Welsh Valleys Engineering Project. Find out more: https://t.co/UgjRS6XAUR https://t.co/BWyjnk6e8l" / X \(twitter.com\)](#)

Application guide document

[wvvp-application-guidance-document.pdf \(raeng.org.uk\)](#)

Welsh Valleys Engineering Project

[Welsh Valleys Engineering Project \(raeng.org.uk\)](#)

Welsh Valleys Engineering Project homepage: [Welsh Valleys Engineering Project \(raeng.org.uk\)](#)

Appendix A - Destination data table

| | PTFEA | Initials of student | Gender | School | College (MC or CG) | Route | Destination location | Subject or Company | Code | Additional Notes – follow up destination |
|---|---------------------|---------------------|--------|------------------------------|--------------------|------------------------|---|------------------------|----------------------------|---|
| 1 | Cycle 1 (2018-2020) | AW | Male | Cyfarthfa High School | MC | BTEC and A level route | Swansea University | Civil Engineering | Engineering at University | Awarded HE funding through ICE Quest. Completed 3 x summer placements with Mott MacDonald in Cardiff. Graduate job with Mott McDonald guaranteed. |
| 2 | Cycle 1 (2018-2020) | CA | Male | Bishop Hedley RC School | MC | BTEC and A level route | Apprenticeship or employment in engineering related field | N/A | Engineering at University | |
| 3 | Cycle 1 (2018-2020) | HJ | Female | Ebbw Fawr Learning Community | CG | A level route | St Andrews University | Maths Degree + Masters | STEM at University | |
| 4 | Cycle 1 (2018-2020) | IM | Male | Afon Taf High School | MC | BTEC and A level route | Cardiff University | Mechanical Engineering | Engineering at University | |
| 5 | Cycle 1 (2018-2020) | JP | Male | Ebbw Fawr Learning Community | CG | A level route | Swansea University | Business Management | Non-STEM at University | |
| 6 | Cycle 1 (2018-2020) | KO | Male | Ebbw Fawr Learning Community | CG | A level route | University of Bath | Chemistry | STEM at University | |
| 7 | Cycle 1 (2018-2020) | LP | Male | Afon Taf High School | MC | BTEC route | Apprenticeship | General Dynamics | Engineering Apprenticeship | Working at General Dynamics. |
| 8 | Cycle 1 (2018-2020) | MG | Male | Brynmawr Foundation School | CG | A level route | Swansea University | Software Engineering | Engineering at University | Scheduled to start as a manufacturing graduate software engineer at Renishaw in September. |
| 9 | Cycle 1 (2018-2020) | TB | Male | Pen Y Dre High School | MC | A level route | Swansea University | Mechanical Engineering | Engineering at University | Post University will be applying for GE robotics in Bristol my dream is to be working for somewhere like NASA or Boston dynamics |

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|----|---------------------|-----|--------|----------------------------|----|------------------------|----------------------------|------------------------|--------------------------------------|
| 10 | Cycle 2 (2019-2021) | AL | Female | Pen Y Dre High School | MC | BTEC and A level route | N/A | N/A | Withdrew from college |
| 11 | Cycle 2 (2019-2021) | AB | Male | Cyfarthfa High School | MC | BTEC and A level route | Retakes at College | N/A | Continuing College Education/Retakes |
| 12 | Cycle 2 (2019-2021) | AA | Male | Afon Taf High School | MC | BTEC route | N/A | N/A | Withdrew from college |
| 13 | Cycle 2 (2019-2021) | BB | Male | Afon Taf High School | MC | BTEC ROUTE | Swansea University | Civil Engineering | Engineering at University |
| 14 | Cycle 2 (2019-2021) | BJ | Male | Afon Taf High School | MC | BTEC and A level route | N/A | DISTMERT | N/A |
| 15 | Cycle 2 (2019-2021) | CL | Male | Afon Taf High School | MC | BTEC route | Apprenticeship | N/A | Engineering Apprenticeship |
| 16 | Cycle 2 (2019-2021) | CM | Male | Tredeggar High School | CG | BTEC route | Additional year at college | N/A | Continuing College Education/Retakes |
| 17 | Cycle 2 (2019-2021) | CD | Male | Bishop Hedley RC School | MC | BTEC and A level route | University of Bath | Aerospace Engineering | Engineering at University |
| 18 | Cycle 2 (2019-2021) | DDR | Male | Bishop Hedley RC School | MC | BTEC and A level route | Swansea University | Electrical Engineering | Engineering at University |
| 19 | Cycle 2 (2019-2021) | EJ | Male | Brynmawr Foundation School | CG | BTEC route | Apprenticeship | Engineering (rails) | Withdrew from college |
| 20 | Cycle 2 (2019-2021) | EP | Male | Afon Taf High School | MC | BTEC and A level route | University of South Wales | Mechanical Engineering | Engineering at University |
| 21 | Cycle 1 | N/A | Female | N/a | CG | BTEC route | N/A | N/A | Withdrew from college |

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|-----------|---------------------|-----|--------|--------------------------------|----|---------------|--------------------|---------------------------|----------------------------|--|
| | (2018-2020) | | | | | | | | | |
| 22 | Cycle 2 (2019-2021) | HMO | Female | Tredegar High School | CG | BTEC route | N/A | N/A | Withdrawn from college | |
| 23 | Cycle 2 (2019-2021) | JIR | Male | Cyfarthfa High School | MC | BTEC route | Apprenticeship | GE Aviation or Open Reach | Engineering Apprenticeship | |
| 24 | Cycle 2 (2019-2021) | JF | Male | Cyfarthfa High School | MC | BTEC route | Apprenticeship | DISTMERT | Engineering Apprenticeship | |
| 25 | Cycle 2 (2019-2021) | JP | Male | Brynmawr Foundation School | CG | BTEC route | Apprenticeship | | Engineering Apprenticeship | |
| 26 | Cycle 2 (2019-2021) | JZ | Female | Bishop Hedley RC School | MC | A level route | University of Bath | Maths Degree | STEM at University | |
| 27 | Cycle 2 (2019-2021) | KJH | Male | Ebbw Fawr Learning Community | CG | BTEC route | Employment | Manufacturing | Job (other) | |
| 28 | Cycle 2 (2019-2021) | KJ | Male | Abertillery Learning Community | CG | BTEC route | Swansea University | Mechanical Engineering | Engineering at University | |
| 29 | Cycle 2 (2019-2021) | KNP | Male | Tredegar High School | CG | A level route | Cardiff University | Mechanical Engineering | Engineering at University | |
| 30 | Cycle 2 (2019-2021) | LR | Female | Cyfarthfa High School | MC | BTEC route | Employment | N/a | Job (other) | |
| 31 | Cycle 2 (2019-2021) | LT | Male | Tredegar High School | CG | BTEC route | Apprenticeship | Crown Garage | Apprenticeship (other) | |
| 32 | Cycle 2 (2019-2021) | MKV | Female | Bishop Hedley RC School | MC | A level route | University | Chemical Engineering | Engineering at University | |

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|----|---------------------|----|--------|--------------------------------|----|------------------------|---------------------------|--|----------------------------|---|
| 33 | Cycle 2 (2019-2021) | RC | Male | Bishop Hedley RC School | MC | A level route | University of South Wales | Mechanical Engineering and I am a part time apprentice at G.O.S tool and engineering services Ltd. | Engineering at University | |
| 34 | Cycle 2 (2019-2021) | SM | Male | Pen Y Dre High School | MC | A level route | University of South Wales | Quantity surveying and commercial management/Chartered Surveying | STEM at University | |
| 35 | Cycle 2 (2019-2021) | TP | Male | Afon Taf High School | MC | BTEC and A level route | Swansea university | Civil Engineering | Engineering at University | |
| 36 | Cycle 3 (2020-2022) | AR | Female | Bishop Hedley RC School | MC | A level route | Cardiff University | Psychology w/ placement (clinical) | STEM at University | |
| 37 | Cycle 3 (2020-2022) | BD | Male | Afon Taf High School | MC | BTEC route | Apprenticeship | Safran Seats (designer) | Engineering Apprenticeship | https://www.adsgroup.org.uk/knowledge/meet-apprentices-from-across-safran-naw2023/ |
| 38 | Cycle 3 (2020-2022) | CW | Male | Afon Taf High School | MC | A level route | University of Bath | Maths Degree | STEM at University | |
| 39 | Cycle 3 (2020-2022) | CW | Male | Pen Y Dre High School | MC | A level route | N/A | N/A | Withdrew from college | |
| 40 | Cycle 3 (2020-2022) | CF | Female | Tredeggar High School | CG | A level route | N/A | N/A | N/A | |
| 41 | Cycle 3 (2020-2022) | DH | Male | Abertillery Learning Community | CG | BTEC route | N/A | N/A | N/A | |
| 42 | Cycle 3 (2020-2022) | DH | Female | Bishop Hedley RC School | MC | A level route | N/A | N/A | N/A | |
| 43 | Cycle 3 (2020-2022) | DT | Male | Tredeggar High School | CG | BTEC route | N/A | N/A | N/A | |

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|----|---------------------|----|--------|------------------------------|----|---------------|-----------------------------------|---|--------------------------------------|--|
| 44 | Cycle 3 (2020-2022) | EJ | Female | Ebbw Fawr Learning Community | CG | A level route | N/A | N/A | N/A | |
| 45 | Cycle 3 (2020-2022) | ET | Male | Cyfarthfa High School | MC | BTEC route | Cardiff University | Mechanical Engineering (foundation+) | Engineering at University | Awarded Panasonic Trust Future Engineers HE Bursary 2022. Awarded British Education Award in 2023 for his outstanding academic results and extracurricular achievements. |
| 46 | Cycle 3 (2020-2022) | EG | Male | Afon Taf High School | MC | BTEC route | Apprenticeship | Railway Engineer - Protech Rail Engineering | Engineering Apprenticeship | |
| 47 | Cycle 3 (2020-2022) | EW | Male | N/a | CG | A level route | Swansea university | Pharmacy | STEM at University | |
| 48 | Cycle 3 (2020-2022) | FD | Male | Cyfarthfa High School | MC | BTEC route | Employment followed by University | Rail track maintenance operator. Mechanical Engineering Degree | Engineering at University | During gap year applied to GE AVIATION for Apprenticeship scheme - got through to testing phase but not selected. |
| 49 | Cycle 3 (2020-2022) | HM | Male | Cyfarthfa High School | MC | A level route | Exeter University | Mechanical Engineering | Engineering at University | |
| 50 | Cycle 3 (2020-2022) | JL | Male | Tredeggar High School | CG | BTEC route | Coleg Gwent | HND and HNC Advanced Engineering | Continuing College Education/Retakes | |
| 51 | Cycle 3 (2020-2022) | JJ | Male | Cyfarthfa High School | MC | BTEC route | University of South Wales | UNCONFIRMED: Network 75 University of South Wales. | Engineering at University | |
| 52 | Cycle 3 (2020-2022) | JH | Male | Bishop Hedley RC School | MC | A level route | UCL | Mathematics Degree | STEM at University | |
| 53 | Cycle 3 (2020-2022) | JJ | Male | Cyfarthfa High School | MC | BTEC route | Employment followed by University | Currently working on railway network planning on starting at USW Network 75 | Job (other) | |
| 54 | Cycle 3 (2020-2022) | KP | Male | Brynawr Foundation School | CG | BTEC route | Coleg Gwent | HND and HNC Advanced Engineering/Aeronautical | | |

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|----|---------------------|----|--------|--------------------------------|----|---------------|-----------------------------------|---|----------------------------|--|
| 55 | Cycle 3 (2020-2022) | LW | Male | Abertillery Learning Community | CG | N/A | Coleg Gwent | HNC engineering | N/A | |
| 56 | Cycle 3 (2020-2022) | LG | Male | Abertillery Learning Community | CG | BTEC route | Employment | TBC: Ambulance service | Job (other) | |
| 57 | Cycle 3 (2020-2022) | LP | Female | Ebbw Fawr Learning Community | CG | A level route | Exeter University | Biology Degree | STEM at University | |
| 58 | Cycle 3 (2020-2022) | MM | Male | N/a | CG | A level route | Swansea University | Computer Science | STEM at University | |
| 59 | Cycle 3 (2020-2022) | MP | Male | Pen Y Dre High School | MC | BTEC route | Employment followed by University | UNCONFIRMED: gap year working Looking into Network 75 at USW | Job (other) | |
| 60 | Cycle 3 (2020-2022) | MD | Female | Abertillery Learning Community | CG | N/A | Employment followed by University | Working in care, starting nursing training next year | Job (other) | |
| 61 | Cycle 3 (2020-2022) | RH | Female | Bishop Hedley RC School | CG | BTEC route | N/A | N/A | N/A | |
| 62 | Cycle 3 (2020-2022) | RH | Male | N/a | CG | N/A | N/A | N/A | N/A | |
| 63 | Cycle 3 (2020-2022) | SP | Male | Afon Taf High School | MC | BTEC route | Univesity of South Wales | Degree Apprenticeship with Network 75 | Engineering Apprenticeship | |
| 64 | Cycle 3 (2020-2022) | SJ | Female | Tredegar High School | CG | N/A | N/A | N/A | Withdrew from college | |
| 65 | Cycle 3 (2020-2022) | SP | Female | Afon Taf High School | MC | A level route | Apprenticeship | Welding at Mollart Engineering company while attending Neath college on a welding course. | Engineering Apprenticeship | |

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|----|---------------------|-----|--------|--------------------------------|---------|----------------------|-----------------------------------|---|--------------------------------------|---|
| 66 | Cycle 4 (2021-2023) | BR | Male | Pen Y Dre High School | MC | A level route | Apprenticeship | Colas Rail | Engineering Apprenticeship | |
| 67 | Cycle 4 (2021-2023) | AV | Male | Bishop Hedley RC School | MC | A level route | Loughborough University | Computer Science | STEM at University | |
| 68 | Cycle 4 (2021-2023) | LK | Male | Cyfarthfa High School | MC | Apprenticeship Route | MC | Retakes and new course being pursued | Continuing College Education/Retakes | |
| 69 | Cycle 4 (2021-2023) | ED | Female | Cyfarthfa High School | MC | A level route | Apprenticeship | UNCONFIRMED: Renishaw electrical engineering apprentice | | |
| 70 | Cycle 4 (2021-2023) | CO | Female | Cyfarthfa High School | MC | A level route | York University | Physics and Astrophysics (year abroad and masters) | STEM at University | |
| 71 | Cycle 4 (2021-2023) | LP | Female | Afon Taf High School | MC | BTEC route | Apprenticeship | Apprenticeship and college | Apprenticeship (other) | |
| 72 | Cycle 4 (2021-2023) | AM | Female | Bishop Hedley RC School | MC | A level route | Cambridge University | Maths Degree | STEM at University | Brilliant Club Graduate |
| 73 | Cycle 4 (2021-2023) | JK | Male | Pen Y Dre High School | MC | Apprenticeship Route | N/A | N/A | N/A | |
| 74 | Cycle 4 (2021-2023) | ED | Male | Afon Taf High School | MC | A level route | N/A | N/A | Withdrew from college | |
| 75 | Cycle 4 (2021-2023) | MJC | Female | Pen Y Dre High School | MC | N/A | N/A | N/A | Withdrew from college | |
| 76 | Cycle 4 (2021-2023) | UR | Female | Bishop Hedley RC School | MC | A level route | University Heriot-Watt, Edinburgh | Aerospace Engineering | Engineering at University | Awarded Panasonic Trust Future Engineers HE Bursary 2023 |
| 77 | Cycle 4 | CW | Female | Abertillery Learning Community | CG (CK) | A level route | Cardiff University | Medicine | STEM at University | |

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|-----------|------------------------|-----|--------|------------------------------|----|---------------|-------------------------|---|---------------------------|---|
| | (2021-2023) | | | | | | | | | |
| 78 | Cycle 4 (2021-2023) | CK | Female | Ebbw Fawr Learning Community | CG | A level route | Swansea University | Medical sciences and master's in biomedical engineering | Engineering at University | |
| 79 | Cycle 4 (2021-2023) | AJB | Male | Ebbw Fawr Learning Community | CG | A level route | Cardiff University | Architecture | STEM at University | |
| 80 | Cycle 4 (2021-2023) | DB | Male | Ebbw Fawr Learning Community | CG | A level route | Gap year | Travel - South America | Gap year | |
| 81 | Cycle 4 (2021-2023) | ML | Female | Ebbw Fawr Learning Community | CG | A level route | Gap year | N/A | Gap year | |
| 82 | Cycle 4 (2021-2023) | ES | Female | Ebbw Fawr Learning Community | CG | A level route | Chelsea College, London | Fine Art Degree | Non-STEM at University | |
| 83 | Was not a PTFEA | DM | Male | Cyfarthfa High School | MC | A level route | Bath University | Physics and Maths Degree | STEM at University | Awarded Panasonic Trust Future Engineers HE Bursary 2023 |