WHAT PARENTS KNOW ABOUT ENGINEERING AND TECHNOLOGY

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Introduction

EngineeringUK have historically run the Engineering Brand Monitor (EBM) among young people, parents, and teachers. In 2023, we instead ran the Science Education Tracker with the Royal Society. This was the third in a tracking series using the National Pupil Database to create a nationally representative survey of all young people in state-funded education in England. Because of this pivot, we have run research with teachers¹ and parents separately this year. This report focuses on parents, using some of the key questions from the old EBM.

We know from the Science Education Tracker² that parents are the most consulted source of careers information by young people. Nearly two-thirds (64%) reported getting careers advice from their parents – with all other sources being lower than 45%. It is therefore essential that we understand how parents feel about engineering and technology, and their knowledge about these jobs and the routes in.

This report explores parents' perspective on engineering and technology. It covers the appeal of their child exploring careers in the sector, their confidence in providing career advice, and their awareness of education routes.

Methodology

The findings used in this report are based on a survey conducted for EngineeringUK by YouGov plc from 4 to 9 July 2025. The total sample size was 4,503 adults, weighted to be representative of all UK adults, resulting in a sample of 1,017 parents or guardians of children aged 18 and under. All findings, unless otherwise specified, are based on this survey.

The survey was designed by the EngineeringUK research team, with input from the YouGov team. Analysis for this report was conducted by the EngineeringUK team.

All demographic comparisons reported are statistically significant unless stated otherwise.

Throughout this report we have used 'parents' to describe the sample, but this covers all parents, guardians, and others responsible for children. It covers everyone who selected an age 18 or under for the question: "Are you the parent/guardian of children of any of the following ages?". For simplicity, we have also referred to male parents as 'dads', and female parents as 'mums', but these again are shorthand for the wider definition.

¹ www.engineeringuk.com/schoolreport

² www.engineeringuk.com/set

Engineering attitudes

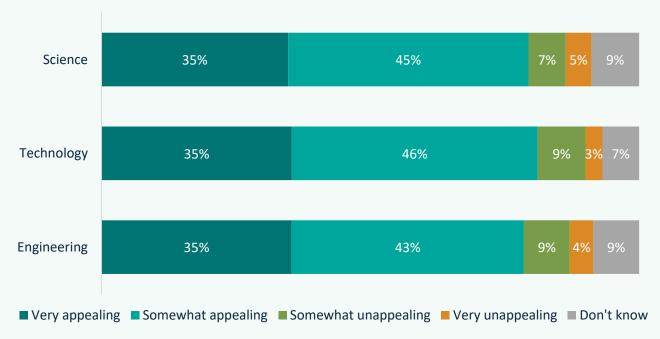
General perceptions of engineering

Most parents see engineering in a positive light. The majority (74%) agree that engineers command respect, and that engineering skills are transferable (77%).

Appeal of STEM careers

The vast majority of parents find the idea of their child following a STEM career appealing. Eight in 10 parents said they would find the idea of their child pursuing science (79%), technology (81%), or engineering (79%) appealing. 87% said at least one of these areas would be appealing, and only 6% felt that all 3 were unappealing.

Figure 1: Appeal of STEM careers to parents



Source: EngineeringUK parents research, July 2025. Base: all parents, n=1,017.

The appeal of the 3 career types is high among parents of both girls and boys, but we see some small gender differences. For science, 80% of parents of boys and 78% of parents of girls find the career appealing, though there is a small but significant difference in the proportion who find it a very unappealing option (3% for boys, 6% girls). For technology, 81% of parents of both find the career appealing, but parents of boys are more likely to find it very appealing (38% vs. 30%) and less likely to find it somewhat appealing (43% vs. 52%). For engineering, parents of boys are more likely to say it is very appealing (39% vs. 30%), while parents of girls are more likely to find it very unappealing (6% vs. 3%) – though this is still a very low unappealing rate.

Engineering appeal reasons

Among parents who think that engineering is an appealing career for their child to pursue, the top 3 reasons were:

- good earning potential (73%)
- can work in many different industries (63%)
- interesting work/profession (61%)

This echoes what we saw in the Science Education Tracker, where enjoyment was the top reason for interest in an engineering career, followed by high pay, and a wide range of career options³.

Engineering as well-respected and having job security are also important factors of the appeal to parents. Some parents wrote reasons into the 'other' option – these were predominantly around a family history within the sector, or that they want their child to do whatever they want or would make them happy.



Figure 2: Reasons for engineering being an appealing career for their child

Source: EngineeringUK parents research, July 2025. Base: parents who find engineering appealing for their child, n=804

There was only one significant difference between parents of boys and girls – parents of girls were more likely to cite solving important problems (51% vs. 43%).

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³ www.engineeringuk.com/set

For those who find engineering an unappealing career for their child, by far the main reason was that it doesn't align with their child's interest (49%). A small number felt it was too demanding (14%), boring (12%), or felt there were limited jobs available (10%). The numbers are small, so the results should be treated with caution, but parents of girls were more likely to say gender imbalance concerns contributed to finding the career unappealing than parents of boys (14% vs. 2%).

Suitability of a career in engineering for their child

More parents agree (48%) than disagree (12%) that their child would be well-suited to an engineering and technology career, indicating that at least some understanding of the breadth of opportunities within the sector. Parents of girls are more likely to disagree with this statement (15% vs. 9%).

A quarter (27%) of parents think their child would be unlikely to achieve a career in engineering even if they wanted to follow this path. This compares to 47% who believe their child could become an engineer if they wanted to. Parents of boys are more likely to believe their child could become an engineer if they wanted to (53% vs. 40%), and parents of girls are more likely to say their child would be unlikely to actually become an engineer, even if they wanted to (30% vs. 22%).

Encouragement

77% of parents would encourage their child to consider a career in engineering, with a quarter actively encouraging and 52% suggesting engineering as one career among others. Only 1% would actively discourage their child from considering engineering, but 10% say they wouldn't share their opinions on career choices for their child at all.

Parents of boys and girls are equally likely to encourage their child to consider a career in engineering and technology, but parents of boys are more likely to actively encourage their child (29% vs. 18%), while parents of girls are more likely to suggest it as one possible choice (59% vs. 48%).

Confidence in careers advice

Half (50%) of parents are confident in discussing science careers with their child, compared to 46% who are not confident. Parental confidence increases when advising on technology careers (56% confident, 41% not confident). Confidence is lower when it comes to engineering, with 55% not confident – 23% of parents not at all confident – but 41% still feel confident in giving engineering careers advice.



Figure 3: parental confidence in providing STEM careers advice

Source: EngineeringUK parents research, July 2025. Base: all parents, n=1,017

There are only small and non-significant differences between confidence among parents of girls and boys. Dads, however, are much more confident about giving STEM careers advice than mums. We see this across all three areas we asked about, with the largest gap being for engineering (58% of dads being confident, compared to 25% of mums). The smallest gap was for science, though this is still a 22-percentage point gap (61% and 39%). Confidence in providing advice for careers in technology also had a large (30%p) gap – 71% for dads and 41% for mums.

Qualification awareness

General qualification awareness

There is greater parental knowledge of university degrees as an educational route – 42% say they know a lot about this option, compared to 20% for apprenticeships, 15% for other vocational qualification, 12% for BTECs, and just 5% for T levels.

Looking at broader knowledge (knowing at least a little), university degrees (82%) and apprenticeships (80%) are well understood.

Over two-fifths (43%) of parents in England said they either hadn't heard of T levels or were unsure if they had. A further 29% said they had heard of them but didn't know much about them.

University degree 42% 40% 14% 1%3% Apprenticeship 20% 60% 16% T levels 5% 29% 23% 37% 6% **Btecs** 12% 47% 31% Other vocational 54% 15% 25% qualifications ■ Know a lot ■ Know a little bit ■ Heard of but don't know much about ■ Haven't heard of ■ Don't know

Figure 4: parental knowledge of qualifications

Source: EngineeringUK parents research, July 2025. Base: all parents, n=1,017. T levels filtered for England only, Btecs filtered for England, Northern Ireland and Wales.

Knowledge of routes into engineering

There is still some work to be done around supporting parents to improve their understanding of how to get into engineering. While 48% said that they understood the subject requirements to follow an engineering career path, a quarter (24%) disagreed, and the remainder were unsure. While there weren't differences by gender of the child, dads (59%) are much more confident they understand the subject requirements than mums (39%).

Gender representation

Women continue to be significantly underrepresented in engineering and technology roles, making up just 16.9% of the workforce⁴. Nearly a quarter of parents (22%) believe natural differences between men and women are responsible for this imbalance. However, 53% identify societal barriers as the main obstacle to women getting ahead in engineering and technology, with the remaining 26% unsure or thinking there was a different reason.

Perhaps unsurprisingly, women were more likely to say they thought society was to blame (65%, compared to 41% of men). Men were more likely to both say that there are natural differences impacting engineering uptake (28%), and that it was something else or they weren't sure (31%).

Parents of boys are more likely to say that nature is responsible (24% vs. 17%), but parents of girls are only marginally, and not statistically, more likely to say that it is society (53% vs. 49%). Dads of boys drive the 'nature' view – with 30% of them saying so, and 35% thinking it is societal factors. Dads of girls lean more towards society, but still less so than mums. 43% of dads of girls blame society, and 19% think it is nature. There are no significant differences between mums of boys and mums of girls.

engineeringuk.com

⁴ https://www.engineeringuk.com/research-and-insights/our-research-and-evaluation-reports/engineering-and-technology-workforce-may-2025-update/