ASSOCIATION FOR SCIENCE EDUCATION

Filling the Gap

Evaluating the impact of Government financial incentives on recruiting and retaining international physics teachers in the UK

Association for Science Education

Research funded by the Gatsby Foundation

ASSOCIATION FOR SCIENCE EDUCATION

GATSBY

Contents

ASSOCIATION FOR SCIENCE EDUCATION

GATSBY

Executive Summary

This report, based on analysis of publicly available data, advisory discussions with experts and focus group discussions, examines the efficacy and impact of Department for Education financial incentives to recruit international physics trainees from abroad. It explores some of the barriers and systemic challenges experienced by international trainee physics teachers as they progress from applying as a trainee teacher to securing a teaching position.

Key findings

Training providers were positive about the strength of applicants from overseas, reporting that students had strong subject knowledge and lower than expected drop-out rates. They also reported clear benefits for schools serving diverse communities. However, we also found that the positives are at risk of being undermined by the challenges faced by both trainees and providers. The key findings were:

- Application processes are overwhelmed, with potentially hundreds of international applications per course provider, inconsistent screening standards, and rising use of AI-generated statements.
- Financial pressures are substantial, with considerable tuition fees, high housing costs, visa fees, and loss of the International Relocation Payment. Bursary payments often arrive too late to meet upfront financial needs.
- Visa systems are fragmented, with reliance on graduate visas that may not allow completion of the induction period of the Early Career Framework, and school HR departments often unable to sponsor skilled worker visas.
- Provider challenges include unpredictable and time-consuming enrolment, late arrivals, and resource-intensive mentoring and placement matching.
- Positive outcomes include low drop-out rates, outstanding subject expertise, and added diversity that benefits students.
- Tracking gaps in government data collection mean little is known about how many international trainees with QTS secure employment, remain in teaching, or progress over time.

Measures that could improve efficacy of financial incentives

1. **Centralise** and **streamline** the application process
2. Provide **clearer information** and **guidance** for international applicants
3. Establish a **centralised trainee visa route**
4. **Strengthen financial support** for international trainees
5. Strengthen **monitoring and workforce planning**
6. Improve **mentorship, training and placement support**

Introduction

England faces an ongoing recruitment and retention crisis in science teaching, with physics most acutely affected. England has suffered for more than a decade from a persistent and severe shortage of physics teachers, driven by a combination of under recruitment and high attrition rates. Physics graduates like, maths and computing graduates, have a wide choice of career options which makes it hard for schools to attract and retain specialist teachers. The lack of specialist physics teachers means more than half (58%) of pupils studying for a science GCSE will have the physics component taught by a teacher who has not studied a physics-related subject beyond the age of 18[1].

Several initiatives have been implemented over the years to try and attract and retain physics teachers, including early career payments, subject knowledge enhancement for non-specialists and in recent years incentives to bring in physics teaches and trainees from abroad. Despite repeated incentives however, the supply of specialist physics teachers has consistently fallen well short of demand, making this one of the most entrenched teacher-supply challenges in the system.

Although the Department for Education has ended the International Relocation Payment (IRP), bursaries and scholarships of up to £31,000 remain available for those who wish to train or teach physics. With only physics and languages continuing to receive this level of targeted financial support, it suggests that the Government regards the scheme as an effective measure to boost recruitment in this area. What is not clear however, is how impactful the bursaries are; whether they alone are incentive enough to sufficiently attract and retain trainees and teachers; how many complete trainee courses and how many go on to teach physics in an English classroom.

This research aims to begin to develop a better understanding of the impact of these incentives on recruitment, whether they do have the potential to address long-standing recruitment and retention challenges or whether systemic or other barriers exist to mitigate their potential. Only by properly understanding the whole system can we ensure that such measures are effective. Our objectives for this phase of the study were to a) identify the numbers and characteristics of international trainee teachers applying to, being accepted on, and completing fee paying secondary science initial teacher training programmes through university teacher training programmes and SCITT programmes; and b) to identify the perceived challenges and/or barriers to application, acceptance and completion of training programmes and/or perceived challenges and/or barriers to application, acceptance and uptake of employment within teaching roles in the UK.

[1] Institute of Physics (2025) *The physics teacher shortage and addressing it through the 3Rs: Retention, Recruitment and Retraining (England)*. Available at: https://www.iop.org/about/publications/physics-teacher-shortage-and-addressing-it-through-3rs (Accessed: November 2025).

Methodology

This report focuses on initial teacher education of international trainee physics teachers and their progress from applying as a trainee teacher to securing a teaching position. The work included:

- An analysis of publicly available data on trainees;
- Advisory discussions with experts working in initial teacher education that informed both survey and focus group work (May - July 2025);
- a survey of training providers (May-June 2025);
- focus group discussions with those working in initial teacher education (July 2025).

We drew on a mixed-methods approach, combining analysis of publicly available DfE data, expert input, and direct feedback from the teacher-training community. Because national data on international trainees is limited, we convened an advisory group of teacher educators and subject bodies to help frame the inquiry. We then conducted a sector-wide survey, followed by a series of focus groups with teacher trainers to explore themes in greater depth. While response numbers were modest, the combined evidence provides a useful insight into the experiences and challenges surrounding international trainee recruitment and progression in England.

Background to the physics teaching crisis

The Initial Teacher Training Census in 2024/25 showed that for all STEM subjects, only 61% of the Teacher Workforce Model (TWM) target of post graduate initial teacher trainees (PGITTs) was met. In 2025/26, entrants for STEM subjects saw a 21% increase compared to prior year and for the first time the overall STEM target (for all subjects) was met. However, prior to 2025/26, the picture for physics trainee recruitment was less positive, with just 16% of the target being met for two years in a row between 2022/23 and 2023/24. There was improvement in 2024/25, but the target still fell short by 70%. The latest figures, released for 2025/26 saw the highest number of physics entrants since comparable statistics began in 2014/15, representing 77% of the target figure (although the target number is much lower).

Year	Number of Postgraduate Recruits	Target Number of Recruits	Percentage of Target Achieved
2019/20	551	1,265	42%
2020/21	514	1,336	38%
2021/22	539	2,530	21%
2022/23	457	2,610	16%
2023/24	564	2,820	16%
2024/25	798	2,250	30%
2025/26	1086	1,410	77%

Figure 1: Recruitment targets and percentage of target met for physics teachers. Source: ITT Census 2025-2026[2]

Low recruitment has been compounded by high attrition rates: figures show that 13% of newly qualified entrants to the sector were not working in the sector one year after qualifying and 20% were not working in the sector two years post qualification[3].

The consequences of science teacher shortages directly impact GCSE courses with over 75% of science teachers reporting that at least one of their year 11 classes has experienced disruption because of teachers leaving or teacher absence and one-in-three science teachers reporting that GCSE classes were being delivered by a non-subject specialist in their school[4]. The National Foundation for Educational Research (NFER) annual Teacher Labour Market report[5], funded by the Nuffield Foundation, reported an increased reliance in unqualified and non-specialist teachers; a report from the Institute of Physics (IOP) on Recruitment and Retention (the 3Rs report)[6] also

[2] Department for Education (2025) Initial Teacher Training Census, academic year 2025/26. Explore education statistics. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2025-26 (Accessed: 4 December 2025).
[3] Department for Education (2023) *School workforce in England: November 2022.* Available at: https://www.gov.uk/government/statistics/school-workforce-in-england-november-2022 (Accessed: November 2025).
[4] Teacher Tapp & School Dash (2023) Teacher Recruitment and Retention in 2023: Teacher Views on Coping with Shortages, Job Attachment and Flexible Working. Available at: https://teachertapp.com/content/uploads/2023/06/Teacher-Recruitment-and-Retention-in-2023-TT_SchoolDash-Final.pdf (Accessed: November 2025).
[5] National Foundation for Educational Research (2024) *Teacher Labour Market in England: Annual Report 2024.* Available at: https://www.nfer.ac.uk/publications/teacher-labour-market-in-england-annual-report-2024/ (Accessed: November 2025).
[6] Institute of Physics (2025) The physics teacher shortage and addressing it through the 3Rs: Retention, Recruitment and Retraining (England). Available at: https://www.iop.org/about/publications/physics-teacher-shortage-and-addressing-it-through-3rs (Accessed: November 2025).

notes that figures for physics teacher recruitment are amongst the worse across all subjects with a quarter of schools lacking a physics teacher. With physics accounting for a third of science content in the National Curriculum, this means that many learners miss out on teaching from a specialist[7].

The consequences of the recruitment and retention crisis disproportionately affect schools and colleges in areas of high socio-economic deprivations; they are more likely to report understaffing, putting extra pressure on existing staff and an increasing risk to high quality education for the students[8].

[7] IOP (2025)
[8] Royal Society of Chemistry (RSC) (2024) *The Science Teaching Survey 2024: A Summary of the Findings*. Available at: https://www.rsc.org/policy-and-campaigning/education/the-science-teaching-survey/2024 (Accessed: November 2025).

Department for Education initiatives

The Department for Education is supporting science teacher recruitment in England through financial incentives and simplified pathways for international teachers to gain Qualified Teacher Status (QTS). Teachers from the European Economic Area and, for certain STEM shortage subjects, from countries such as India, Ghana, Jamaica, Nigeria, Singapore, and South Africa, can be awarded QTS without additional training. Accredited providers can also offer International Qualified Teacher Status (iQTS) to trainees without requiring them to visit the UK.

The government also offers a bursary to prospective physics teachers to support their initial teacher training. The bursary (£29,000, September 2025) sits alongside the current tuition fee and maintenance loans system that operates for graduate/postgraduate courses. There are also scholarships of £31,000 available which serve a similar purpose but have a different method of administration (usually through a professional body). The current bursaries are listed on the '*Get into Teaching*' website and are available for teachers from within the UK (UK citizens).

	Bursary	**Scholarship**
Amount	£29,000 (tax-free)	£31,000 (tax-free)
Eligibility	Physics or related Degree (1st, 2:1, 2:2, Master's, PhD)	Physics or related degree (1st, 2:1, Master's, PhD; 2:2 With Experience
Application Process	Automatically assessed during ITT application	Separate application to institute of physics (IOP)
Additional Benefits	None	IOP Membership, CPD Workshops, Mentoring, Resources, Networking
Selection Criteria	Academic qualification only	Academic + passion for physics + interview
Repayment Required	No	No
Availability	All eligible physics ITT trainees	175 scholarships available
Course Requirements for International Applicants	Place on a PGCE course with a university	Place on a PGCE course with a university

Figure 2: Characteristics of Bursary and Scholarship initiatives (2025-26). Sources: *Get into Teaching*[9] and Institute of Physics (IOP) scholarships guide.[10]

Recruiting PGITTs internationally appears, initially at least, to be having some impact on STEM teacher recruitment. In 2024/25, international trainees accounted for 47% of Physics PGITTs and 17% of all STEM PGITTs and helped to improve recruitment for physics education. In 2025/26, the figure jumped again - physics had the lowest proportion of UK nationals, at 37%, with nationals of non-UK, non-EEA countries

[9] Department for Education (2024) Get into Teaching: How to fund your teacher training. Available at: https://getintoteaching.education.gov.uk/landing/how-to-fund-your-teacher-training (Accessed: November 2025).

[10] Institute of Physics (2024) *Physics Teacher Training Scholarships Guide 2025-26*. Available at: https://www.iop.org/sites/default/files/2024-11/physics-teacher-training-scholarships-guide-2025-26.pdf (Accessed: November 2025).

accounting for 59% of trainees (47% in 2024/25)[11]. It is clear therefore, that the recruitment of international physics PGITTs could prove critical to solving the decades long physics teacher recruitment crisis[12].

Time period	Total postgraduates	Total undergraduates	EEA national postgraduates	UK national postgraduates	Other nationality postgraduates
2019/20	541	2	34	475	32
2020/21	496	3	31	444	21
2021/22	529	7	29	468	32
2022/23	421	5	23	358	40
2023/24	524	3	17	315	192
2024/25	752	6	29	368	355
2025/26	1035	8	46	382	607

Figure 3: Department for Education census of physics trainee teachers showing uplift in 2024 and 2025 driven by a large growth of non-EEA international students (revised)[13]

Subject	UK	EEA	Other Nationality
Modern Foreign Languages	62%	29%	10%
Physics	57%	4%	38%
Stem Subjects (Biology, Chemistry, Computing, Mathematics and Physics)	83%	6%	11%
Secondary	87%	7%	6%
Primary	94%	4%	2%
Total	90%	6%	4%

Figure 4: Proportion of new entrants to ITT by nationality and subject, 2024/25 (provisional)[14]

Subject	UK	EEA	Other Nationality
Modern Foreign Languages	57%	27%	15%
Physics	37%	4%	59%
Stem Subjects (Biology, Chemistry, Computing, Mathematics and Physics)	77%	5%	17%
Secondary	83%	7%	10%
Primary	91%	5%	4%
Total	86%	6%	8%

Figure 5: Proportion of new entrants to ITT by nationality and subject, 2025/26[15]

[11] Department for Education (2025) Initial Teacher Training Census, academic year 2025/26. Explore education statistics. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2025-26 (Accessed: 4 December 2025).
[12] Department for Education (2024) *Initial Teacher Training Census: Academic Year 2024-25*. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2024-25 (Accessed: November 2025).
[13] Department for Education (2025)
[14] Department for Education (2024) *Proportion of new entrants to ITT by nationality and subject, 2024/25 (provisional)*. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2024-25#releaseHeadlines-tables (Accessed: November 2025).
[15] Department for Education (2025) Initial Teacher Training Census, academic year 2025/26. Explore education statistics. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2025-26

Teachers from outside the UK who wish to become physics (or modern foreign languages) teachers can also apply for the bursaries, although they do need to have a visa to live and work in the UK. Brief guidance is provided on the '*Get into Teaching*' website, but requirements can vary depending on the country of origin.

Visa requirements for international trainee teachers and qualified teachers

The visa system is complex and often difficult to navigate. Depending on routes to study, visa requirements will be different and have different restrictions. Most student applicants will require a student visa to study in the UK, which would expire within two years and not allow dependents into the country, and some may later apply for a graduate visa to remain and work after their studies. Those in salaried training positions will require a skilled worker visa with salary requirements. Those completing training but staying on in the UK to work will also require a skilled worker visa.

State schools are unable to sponsor student visas meaning that school centred initial teacher education (SCITT) is unable to admit international applicants unless they have an arrangement with a higher education establishment that does.

Schools who wish to employ teachers from overseas (either those who qualified in the UK or who hold international QTS equivalent qualifications) must offer a sponsored role – this will be a skilled worker visa.

Visa type	Length of validity	Key requirements	Work rights	Pathway to settlement	Cost (approx.)
Student visa	Duration of course + 1–4 months	Offer from licensed sponsor (e.g. University); English language proficiency; financial proof for tuition & living costs	Limited: part-time during term, full-time in holidays	No direct route; must switch visas	£490 + £1,035/year healthcare surcharge
Graduate visa	2 years (3 for PhD holders)	Completed eligible UK degree; must apply from within UK before student visa expires	Full-time work allowed; no sponsorship needed	No extension; must switch to skilled worker or other	£880 + £1,035/year healthcare surcharge
Skilled worker visa	Up to 5 years (renewable)	Job offer from licensed sponsor; role meets skill & salary thresholds; English proficiency; certificate of sponsorship	Full-time work in sponsored role only	Eligible for indefinite leave to remain after 5 years	£719–£1,500 + £1,035/year healthcare surcharge

Figure 6: Comparisons between different visas[16] Source: Guidance for accredited training providers

(Accessed: 4 December 2025).

[16]Department for Education (2024) *Guidance for accredited training providers: recruit trainee teachers from overseas – accredited ITT providers*. Available at: https://www.gov.uk/guidance/recruit-trainee-teachers-from-overseas-accredited-itt-providers (Accessed: November 2025).

Survey findings and study Insights

This section draws on survey responses from individuals with roles in initial teacher education alongside expert advisers in initial teacher education and focus group discussions with initial teacher training tutors.

The data shows that the number of applicants from within the European Economic Area (EEA) is extremely low, whereas there were far more applications from outside the EEA, with physics attracting significantly higher numbers than biology or chemistry. However, the data also shows that high numbers of applications has so far translated into far fewer interviews, and ultimately into a much smaller number of places being offered and taken up.

Course tutors and training providers identified four main obstacles to completing the journey from student to teacher outlined in more detail below:

i. Complex application process and visa entry requirements;
ii. Financial pressures for both trainees and qualifying teachers;
iii. Heavy administrative and staffing burden of processing large volumes of applications and conducting interviews;
iv. Cultural and pedagogical challenges of adapting to science education in England.

Despite these difficulties, focus groups revealed that tutors were overwhelmingly positive about international trainees and were frustrated that systemic issues limited the programme's effectiveness. Their suggestions for reform stemmed from a clear desire to improve outcomes for both trainees and providers.

The drop-out rate for international trainees was reported to be low—often lower than for home students. Schools in more culturally diverse areas particularly valued the presence of international physics teachers, noting the positive impact on students who could identify with teachers sharing cultural similarities. Furthermore, institutions reported that they had trained some outstanding physics teachers with deep subject knowledge, who have the potential to be a lasting asset in the classroom.

Complex application process and visa entry requirements

Teacher training providers reported receiving extremely high volumes of international applications for physics, with hundreds of applicants being typical and some providers receiving more than 500 in a single cycle. Many of these applicants came from countries such as Nigeria, Ghana and India, and the applicant pool was often male dominated. This surge in applications is a relatively recent trend, coinciding with government initiatives to recruit overseas teachers into physics training courses.

Applicants frequently applied to multiple providers, leading to cases where candidates accepted an offer elsewhere and subsequently withdrew.

In the absence of clear guidance from the Department for Education, screening practices varied considerably between institutions. Common checks included verifying subject-relevant degrees, assessing English language proficiency, and running structured interviews. Universities also differed in how they balanced inclusivity with quality control: some only admitted strong physicists with pure physics degrees, while others made offers conditional on completing Subject Knowledge Enhancement (SKE) courses, delivered either in-house or by external providers. Some training providers welcomed previous teaching experience whilst others did not accept applicants with previous teaching experience. Screening was often resource intensive, requiring detailed transcripts and close evaluation of applications. Concerns were raised that, in managing such large volumes, some strong candidates may inadvertently be overlooked.

The growing use of AI-generated personal statements presented further complications. Many statements lacked the necessary UK-specific context or reflective depth, making it difficult to judge applicants' suitability on paper. As a result, providers relied heavily on interviews, which themselves demanded substantial staff time. For example, one university needed to run 17 separate interview days in a year, with a third of interview slots filled by international applicants.

Interview formats also varied widely but were generally conducted online through platforms such as Microsoft Teams or Zoom, where technical difficulties sometimes disadvantaged candidates. The content ranged from subject knowledge tasks (such as concept cartoons, diagnostic questions, or curriculum-based scenarios) to teaching simulations, lesson planning discussions, and safeguarding or behaviour management questions. Interviews were also used to probe candidates' motivations, prior experience, and understanding of UK education. In some cases, additional steps were taken to reduce reliance on AI, such as requiring candidates to share their screen during interviews to verify the authenticity of their responses.

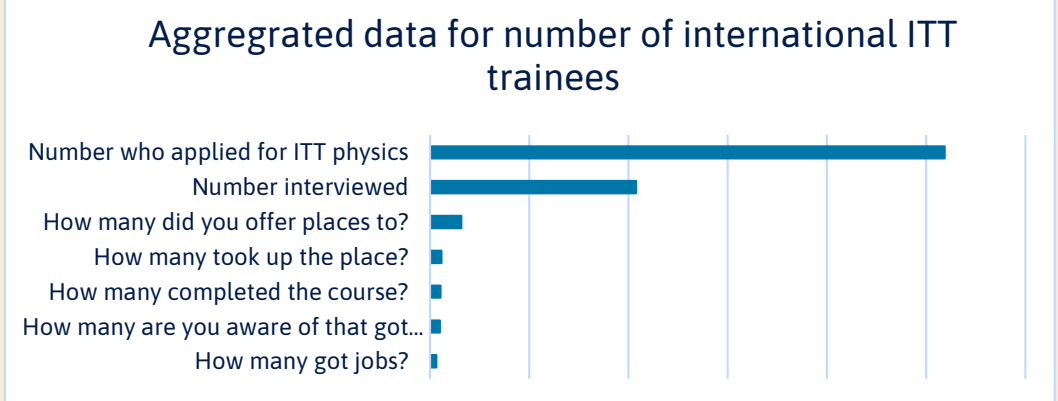

Figure 7: Data provided by the trainee providers through the survey and focus groups

Financial Pressures

Financial pressures for trainees

For many international trainee teachers, the financial pressures of undertaking training in England are considerable. Course fees, accommodation, travel and living expenses can outweigh the value of available bursaries, leaving trainees with significant upfront costs. Where bursaries are offered, payments often begin after the start of the course, creating an initial gap that some trainees cannot afford to bridge. The additional cost of securing a visa along with mandatory fees such as the Immigration Health Surcharge (£776 for those on student visas and £1,035 for other visa categories) adds to the overall financial burden.

PGCE course fees for international students vary widely across institutions, ranging from around £12,600 at Middlesex University to over £37,000 at the University of Cambridge, with other examples including £15,000–£17,725 at universities such as Leeds Trinity, Liverpool Hope, Sheffield Hallam, Teesside, and Gloucestershire. Even relatively lower tuition fees are often paired with high accommodation costs, limited availability, or expensive housing markets. According to the 2025 *Save the Student* survey[17], the average student rent was £563 per month, rising to £812 in London. For a 12-month period, this amounts to £6,756 outside London and £9,744 in London, representing a substantial portion of trainees' funding.

Expectations from international students are sometimes unrealistic, partly due to limited detailed guidance on the *Get into Teaching* website[18]. Delays in obtaining visas can exacerbate these challenges, and some universities close applications for international trainees earlier in the year to allow sufficient processing time. Tutors reported that financial pressures are a key reason for trainees withdrawing before the course begins or arriving late while sourcing funding, creating uncertainty for universities in planning tutor hours, mentoring, and school placements.

Previously, the government offered an International Relocation Payment (IRP) of £10,000 to assist with expenses such as visas, the NHS surcharge, and relocation costs. Trainees in the 2024–2025 academic year were no longer eligible for this support. According to the Department for Education's *International Teacher Recruitment* report (June 2025)[19] recipients of the IRP indicated that it had been crucial in enabling them to move to England, and tutors in our focus groups reported that the removal of this support left some trainees struggling to make ends meet.

[17] Save the Student (2025) *National Student Money Survey 2025 – Results*. Available at: https://www.savethestudent.org/money/surveys/student-money-survey-2025-results.html (Accessed: November 2025).
[18] Department for Education (2025) *Get into Teaching*. Available at: https://getintoteaching.education.gov.uk/ (Accessed: November 2025).
[19] Department for Education (2025) *International teacher recruitment research report*. Available at: https://www.gov.uk/government/publications/international-teacher-recruitment (Accessed: November 2025).

Financial implications for qualifiers progressing into employment

Financial and systemic barriers continue after qualification, particularly around visa sponsorship. We have worked with SchoolDash to analyse school websites and we cannot find evidence on school websites or in their recruiting pages that they are open to sponsoring visas. Schools are hesitant to act as sponsors, even for strong candidates, because of the complexity of the system and the costs involved. HR teams in schools frequently lack expertise in navigating visa requirements, and sponsorship fees are charged annually, incentivising schools to offer shorter contracts and shorter visas to minimise costs. Multi-academy trusts may achieve economies of scale by sponsoring across several schools, but many individual schools are unable to shoulder the expense.

As a result, visa sponsorship by schools remains rare. Our data suggests that a high number of international teachers who gain QTS struggle to secure employment - although it is difficult to establish an exact number due to limitations in data tracking. Vacancy platforms do not always enable users to filter for visa sponsorship, leaving the Government's *Teaching Vacancies*[20] site as the primary source of information. Data collected weekly by ASE from 9 May to 19 September 2025 indicates that science teaching posts with visa sponsorship are a small proportion of the posts advertised.

Figure 8: Data 09/05/25 to 19/09/25 Source: gov.uk teaching vacancies

Between 09/05/25 and 19/09/25, only there were only 23 unique employers offering to sponsor vacancies. Their locations are shown on the map above.

Some trainees secure graduate visas instead, which allow them to work for two years after training. However, this pathway brings its own challenges. Completing the two-year induction period of the Early Career Framework within that timeframe is difficult, and government proposals in the Restoring control of the immigration system white paper

[20] Department for Education (2025) *Teaching Vacancies*. Available at: https://teaching-vacancies.service.gov.uk/ (Accessed: November 2025).

(May 2025)[21] to reduce graduate visas from two years to 18 months risk making this route unviable. Restrictions on dependents, introduced in 2024, also limit family accompaniment, reducing the attractiveness of teaching.

Training providers in our focus groups consistently described government systems as fragmented and misaligned with workforce needs. In focus groups, tutors emphasised that there is a moral duty to support teachers who are actively recruited to train in England, and they called for a more joined-up, coherent approach to ensure these teachers can remain in the system once qualified.

Administrative burdens for training providers

Training providers reported systemic and logistical challenges in supporting international trainees, which begin even before courses start. Many universities offer pre-arrival support—such as visa advice, admissions guidance, peer mentoring, or induction programmes introducing English culture, professional expectations, and practical information. However, unrealistic expectations remain common, in part due to limited information on the Department for Education's *Get into Teaching* website. Some trainees arrive unprepared for UK classroom norms, email-based communication, or professional dress codes, while others face delays caused by visa processing.

During training, providers offer additional support in placement matching, preparing school mentors, providing language and terminology guidance, subject knowledge enhancement, and orientation in English teaching pedagogies. Universities also adapt by offering flexible fee payment schedules and by advising trainees on navigating the complex visa system when transitioning into employment.

In providing this extra support, providers face additional operational strain. High volumes of international applications require extensive administrative work, including qualification checks and multiple rounds of interviews. Enrolment numbers remain unpredictable until the course begins, as trainees may withdraw late or arrive after funding or visa issues are resolved. This uncertainty makes it difficult to plan tutor hours, secure school placements, and allocate mentors effectively.

Variation in entry requirements across institutions further complicates the process. Without clear national guidance, providers apply different standards—some admit only candidates with pure physics degrees, while others make offers conditional on Subject Knowledge Enhancement courses. Screening practices also differ in their treatment of prior teaching experience, raising questions of consistency and fairness.

Maintaining quality assurance is another challenge. The rise of AI-generated personal statements has made written applications harder to assess, increasing reliance on resource-intensive interviews. Online platforms such as Teams or Zoom introduce further complications, with technical issues disadvantaging some candidates. Providers also must balance safeguarding, behaviour management, and subject knowledge

[21] Home Office (2025) *Restoring control over the immigration system – White Paper*. Available at: https://www.gov.uk/government/publications/restoring-control-over-the-immigration-system-white-paper (Accessed: November 2025).

checks during interviews. Some institutions now require screen-sharing to reduce reliance on AI or external support.

These challenges place significant strain on providers' capacity to deliver consistent support and threaten to undermine the effectiveness of international teacher recruitment.

Cultural and pedagogical challenges of adapting to science education in England

As well as the financial burdens of relocation, training providers also reported challenges that suggests students were struggling or withdrawing from courses due to difficulties in adapting culturally to a life in England and teaching science in English schools.

Pedagogical differences, inquiry verses instruction, curriculum guidance, teacher autonomy, resources, equipment, technology, course structures, class sizes, practical lessons, assessment approaches, contextual knowledge and examples, terminology - all areas of difference and forming steep learning curves for international students.

All add to the pressure that can lead to a loss of confidence and some candidates withdrawing from training If they feel unprepared or unsupported.

Conclusion and suggestions for further measures

The aim of this study was to try and build a better understanding of whether Government financial incentives could be an effective measure to address the physics teacher shortage. Our initial findings suggest there is significant potential here but that broader systemic challenges remain that are limiting the scope and impact of the scheme. Research suggests that financial incentives on their own are not enough to attract and retain international students. The overly complex system, financial burdens and cultural challenges faced by applicants and training providers or employers are likely limiting impact and reach.

The survey responses and discussions identified several measures that could help to improve the efficiency and return on investment of these initiatives leading to a more coherent, supportive, and efficacious system that successfully attracts, trains, and retains high-quality teachers in shortage subjects like physics.

The first five measures could help to reduce administrative burdens for both students and institutions and reduce complexities that create barriers and an unlevel playing field. The sixth seeks to address the cultural and pedagogical challenges that students face when in the country and might lead to withdrawing from the course or teaching, despite initial entry and potential for completion of training.

Additional research and further stakeholder consultation would be needed to evaluate the cost-effectiveness, practicability, and broader implications of these measures.

Centralise and streamline the application process. For example, this might include:

- Introducing a centralised screening system for international (and domestic) applicants.
- Enabling universities to apply their own consistent filters against their entry requirements.
- Establishing an early, automated eligibility sift across all providers, reducing unsuitable applications and enabling single-application submissions.
- Conducting structured qualification checks centrally before interviews.

Provide clearer information and guidance for international applicants. For example, by:

- Creating an enhanced information portal with model applications and reflective statement guidance.
- Providing clear information on cultural and pedagogical differences in teaching in England.
- Highlighting in one place financial realities, including accommodation, living costs, visa charges, and NHS surcharges.

- Offering visa advice and structured prompts throughout the application and acceptance process.
- Developing induction resources covering UK banking, transport, professional norms, and everyday practicalities.
- Considering cost-sharing by aligning with similar initiatives for MFL teacher recruitment.

Establish a centralised trainee visa route to ease administrative burdens on institutions. This might include:

- Introducing a bespoke PGCE/teacher trainee visa spanning training to early career teaching, with an automatic pathway into Skilled Worker status.
- Requiring early application deadlines to ensure visas are secured before courses begin.
- Linking visas to individuals, not schools, to allow flexibility and reduce HR burdens.
- Reviewing family accompaniment rights and exemptions from additional surcharges.

Strengthening financial support for international trainees for example by:

- Reviewing bursary levels or targeted funding in recognition of the financial hardship faced by many trainees.
- Releasing funding earlier to prevent financial hardship and permit bursaries to cover upfront visa and relocation costs.
- Reinstating or replacing the International Relocation Payment, focusing on fewer but better-supported trainees.
- Exploring structured loans or advance payments for high-cost periods.
- Developing housing partnerships to secure affordable accommodation for trainees and early career teachers.

Strengthening monitoring and workforce planning, for example by:

- Implementing a longitudinal tracking system to evaluate value for money and inform future policy and long-term workforce modelling.
- Tracking international trainees from application for teacher training to progressing into physics teaching over five plus years, capturing data on trainee applications and completions, employment, and retention.

Improve mentorship, training and placement support through:

- Establishing of national mentor training standards that reflect the specific needs of international trainees.
- Preparing school-based mentors to address cultural and financial challenges.
- Prioritising placements in schools with strong diversity and inclusion practices.

Acknowledgements

The ASE would like to thank the Jenni French and the Gatsby Foundation for supporting this project, all interviewees, survey respondents, and the following individuals for their valuable contribution to this work.

This report does not necessarily reflect their views or those of their organisation.

Name	**Organisation**
Robert Campbell	St Mary's University, Twickenham London
Andy Chandler-Grevatt	University of Brighton
Daniel Cottle	University of Birmingham
Rachel Davies	Kings College London
Jenni French	Gatsby Charitable Foundation
Annette Farrell	Royal Society of Chemistry
Emma Hollis	National Association of School-Based Teacher Trainers
Anna Holbrook	Bath Spa University
Caroline Neuberg	Leeds Trinity University
Simon Neville	University of Bristol
James Noble-Rogers	Universities Council for the Education of Teachers
Sarah Poore	University of Brighton
Chris Shepherd	Institute of Physics
Sheeba Viswarajan	University of East London
Victoria Wong	University of Exeter

About the Association for Science Education

The Association for Science Education (ASE) is an active membership body that has been supporting all those involved in science education from pre-school to higher education for over 100 years; members include teachers, technicians, teacher educators, researchers and others involved in science education. We play a significant role in promoting excellence in teaching and learning of science in schools and colleges. Working closely with the science professional bodies, industry and business, we provide a UK-wide network bringing together individuals and organisations to share ideas and tackle challenges in science teaching, develop resources and foster high quality continuing professional development.

We are a Registered Charity with a Royal Charter, owned by our members and independent of government. We seek to create a powerful voice for science education professionals to make a positive and influential difference to the teaching and learning of science throughout the UK and further afield.

Gatsby Education champions a world-class education and skills system that drives opportunity for all young people, boosts productivity and growth, and supports a future-facing economy. We seek to align the skills people develop with those most needed across the economy through a stable system of high-quality technical education underpinned by occupational standards.

Working with government, educators, employers, and partners, we deliver innovative projects and foster lasting collaborations, which help inform national policy.
Our focus on systemic, long-term change – ensuring impact which endures beyond our direct involvement.

www.gatsby.org.uk/education

The Association for Science Education,
483 Green Lanes, London, N13 4BS
T: 01707 283000
E: info@ase.org.uk
W: www.ase.org.uk

VAT number: GB 230 3753 93
Royal Charter: ROC 000805
Patron: HRH The Princess Royal
Registered Charity: 313123 / SC042473

GATSBY

ASSOCIATION FOR SCIENCE EDUCATION