

Rethinking the complex determinants of teacher shortages

Worldwide, many billions of pounds have been spent in attempts to resolve the issue of recurrent teacher shortages, but for many countries this remains a policy concern. Professors Beng Huat See and Stephen Gorard from the Durham University Evidence Centre for Education, and Dr Rebecca Morris, from the Department for Education Studies at Warwick University, are challenging traditional conventions with their research into the complex determinants of teacher demand and supply. Their innovative multi-pronged approach considers a range of perspectives and breaks new ground. They find that, while salary incentives or reducing workload are what existing teachers want, others have longer-term, ingrained reasons for not being a teacher: it is these that policy needs to address.

Recurrent teacher shortages have long been a policy concern for many countries. Professor Beng Huat See, Professor Stephen Gorard, and Dr Ourania Ventista from the Durham University Evidence Centre for Education (DECE), together with Dr Rebecca Morris, from the Department for Education Studies at Warwick University, are challenging traditional conventions with their multi-pronged approach to understanding the complex determinants of teacher demand and teacher supply.

RETHINKING TEACHER SUPPLY

In England and elsewhere, attracting teachers in key subjects including maths, physics and modern foreign languages, has always been difficult. Geographically remote schools or those in areas of high poverty can find themselves in educational isolation, which brings its own challenges for recruitment and retention.

Understanding the factors that influence teacher supply is crucial for finding

an effective solution to the shortage issue. Billions of pounds have been spent on approaches that just haven't worked. Professor See and her colleagues argue that we need to rethink the source of the problem. Is money really the issue – will increasing salaries encourage people to go into teaching, or attract them to teach in challenging schools? Or will reducing workloads make a difference? Why do some people just not consider teaching?

WHY CURRENT STRATEGIES FAIL

Previous research suggests the problem lies with teachers' relatively low pay and heavy workload. Strategies to address these have not succeeded to date, however, implying that much previous research is either misleading or incomplete. The DECE researchers note that most earlier work does not consider the complex interactions between the factors that influence teacher shortages, nor have they generally examined the long-term pattern of teacher supply and demand. Studying only certain factors in isolation distorts their relative importance and produces misleading results.

Until now, research into why some people go into teaching has tended to consider only those already in teaching or intending to, ignoring people who have potential to be teachers but choose not to. Non-teachers are excluded from work about why they are not teachers! Investigating this larger group produces very different findings, which means that policy interventions based on most of the existing evidence are unlikely to have long-term benefits for increasing the supply and quality of teachers.



There is no clear evidence for a shortage of people interested in teaching.

A NOVEL APPROACH

This innovative study is unique in that it uses a multi-pronged approach and synthesises evidence from a variety of sources and perspectives. The researchers have analysed policy decisions, longitudinal data on teacher numbers and vacancies, and the numbers applying to teacher training. They have also explored individuals' career decision-making processes, and rigorously reviewed the effectiveness of policy interventions.

They also investigated those who have not seriously considered teaching, and those who have considered it but rejected the notion. This is significant, as understanding who is likely to be attracted to a teaching career is a key policy consideration. Professor See and her colleagues believe that the focus should be more on those who have considered teaching but chosen another path; given the right motivation or incentives they may well choose differently.

SUPPLY AND DEMAND VARIABLES

The researchers carried out time series analyses to examine the complex interactions among the many variables relating to teacher demand and supply. They reviewed international studies and appraised the effectiveness of current approaches aimed at reducing teacher shortages based on pay, reduced workload, and widening routes to teacher training.

They believe that bringing together results from their secondary data analysis, systematic reviews, evidence on the most promising approaches, and analysis

of undergraduate career motivations, delivers a more comprehensive foundation for a targeted strategy to address the recurring teacher shortage.

WHAT MOTIVATES A TEACHER?

The analysis revealed that bursaries and scholarships are not long-term solutions because such incentives

Balancing the quantity and quality of teachers needs to be carefully considered in all policies that could affect them.

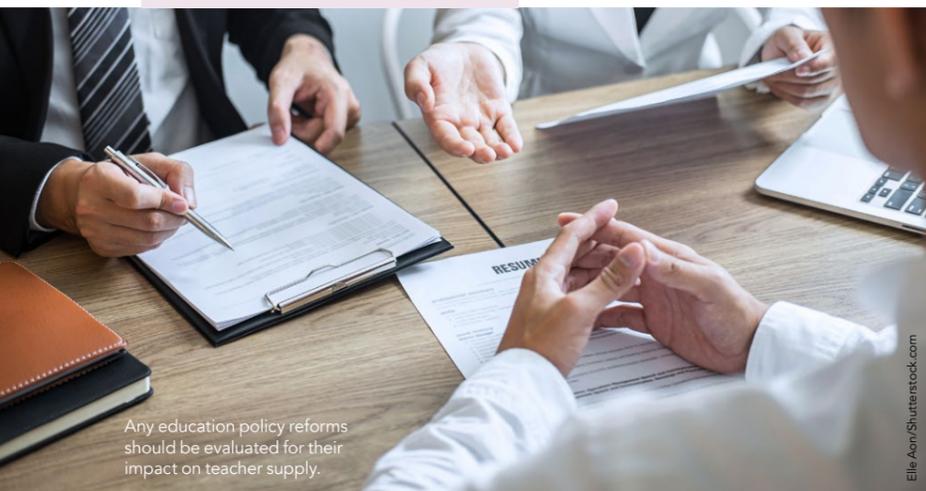
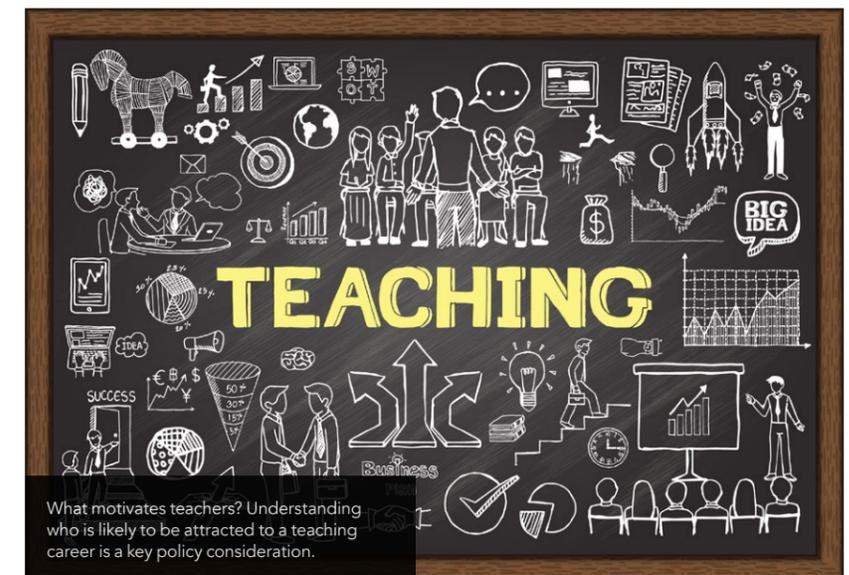
are only important to people who are already considering teaching: they do not change people's decision to teach or not. Students in high-demand subjects receive the largest bursaries, but those attracted by money are least likely to enter teaching after qualifying, and

most likely to leave. In contrast, students who were not awarded bursaries were more likely to enter teaching after their training and least likely to leave.

The status of teachers may be a bigger issue than salaries. Starting salaries for newly qualified teachers are comparable to those of similar professions. Perhaps teachers just do not feel it, because they are unappreciated in other ways.

What, then, does attract people into teaching? Professor See and her colleagues discovered that students' career trajectories are generally mapped out by the time they are undergraduates. Surveys found that students' choice of subjects, entry qualifications, predicted degree classification, and family background are determining factors. Unfortunately, recognising this offers little help, since little can be done to change them. The findings suggest that graduates choose teaching as a career for deeper, structural, and personal reasons that are not easily swayed by later financial manipulation.

Contrary to many studies, the team found that factors including teacher salaries, working hours, job security, workload, poor discipline, long holidays, academic status, working with young people, own school experience, and intellectual stimulation are immaterial to people deciding



Any education policy reforms should be evaluated for their impact on teacher supply.

to teach, when other factors are considered. This study confirms that a primary influence on a person's choice of career is the longer-term identity created by their socio-economic and cultural background. Changing this presents a greater challenge.

HOW BIG IS THE PROBLEM?

The existence of teacher shortages is somewhat subjective. Some countries have larger class sizes and higher pupil-teacher ratios than in England, but do not consider these as indicators of a teacher shortage. In England, teacher vacancies are counted as the number of posts advertised, yet schools with more money can afford to advertise more posts without actually having a shortage of teachers.

The fact is, there is no clear evidence of a shortage of people interested in teaching. Around 25%–30% of applicants a year are rejected because they do not meet the admissions criteria, or institutions exceed their trainee quota, or there is a lack of practice schools willing to accept trainees within commuting distance of applicants' homes. The researchers believe this could be addressed by having a consistent set of admissions criteria across all initial teacher training (ITT) providers, while ensuring that minimum quality criteria are applied to maintain standards, or even that the application and placement process could be nationally rather than institutionally planned.

GOVERNMENT POLICY INTERVENTIONS

The researchers also argue that government policies on education have a greater and more direct effect than salaries and peoples' perspectives of teaching. For instance, the proposed ITT reform intends to reduce the number of training providers, thereby potentially further limiting the number of trainees. Almost overnight government policies can increase or decrease teacher demand and supply. Changes in mandatory class sizes and pupil-teacher ratios, increasing the entry requirements for teacher training, limiting the number of teacher-training places, adjusting school funding, and increasing the number and diversity of schools, can all result in an apparent teacher shortage. Yet governments take these decisions without consideration of their impact on the number of teachers; policy is not joined up. Balancing the quantity and quality of

teachers needs to be carefully considered in all policies that could affect them. The focus of actions and new research should be more on those who have considered teaching but rejected it.

WHAT CAN BE DONE?

The researchers make several further suggestions for how the challenge could be addressed:

- Decide if the UK actually has a teacher shortage.
- Avoid thinking about the challenge of teacher supply as a shortage, but as a matter of balancing demand and supply.
- Distinguish between factors affecting initial supply of teachers and those, often very different ones, affecting retention in the profession.

The focus of actions and new research should be more on those who have considered teaching but rejected it.

If supply is not deemed to meet demand, shorter-term measures include:

- Simplify applications to teacher training (fewer routes).
- Remove quotas for teacher training providers to allow them to admit all who qualify – with minimum quality criteria for teacher training to maintain consistent standards across institutions.
- Move to a national or regional process for application and assignment to institutions, where applicants with the minimum national requirements enter

- a ballot to be allocated to a training provider in their region. This would ensure better distribution and mixing of trainees across areas and schools.
- Increase the number of schools available for placements to avoid potential trainees being declined if none are available near their home.
- Schools could be incentivised, or even required by law, to take in new trainees.

Longer-term measures include:

- Any education policy reforms, even where these policies are not ostensibly about teachers, should be properly evaluated on their implications for teacher supply.
- If there are implications, it should be a requirement that plans are put in place

and in good time to deal with them. For example, the latest ITT reform initiative does not appear to have considered properly how it might impact on the supply of teachers.

- Teaching should be an occupation more people could try, or one they could move to and from.
- Nationwide work is needed to enhance the perceived status of teachers, using a wide range of improvements from politicians' and press announcements, through in-service sabbaticals, to careers services.



Changes in mandatory class sizes and pupil-teacher ratios can result in apparent teacher shortages.

Monkey Business Images/Shutterstock.com

Behind the Research



Professor Beng Huat See

E: b.h.see@durham.ac.uk
T: +44 (0)191 334 8419
W: [Prof Beng Huat See – Durham University](http://www.durham.ac.uk/people/beng-huat-see)



Professor Stephen Gorard

E: s.a.c.gorard@durham.ac.uk
W: [Prof SA Gorard – Durham University](http://www.durham.ac.uk/people/stephen-gorard)
W: [Durham University Evidence Centre for Education](http://www.durham.ac.uk/evidence-centre-for-education)



Dr Rebecca Morris

E: rebecca.e.morris@warwick.ac.uk
W: [Dr Rebecca Morris – Warwick University](http://www.warwick.ac.uk/people/dr-rebecca-morris)

Research Objectives

The systematic review and synthesis of evidence in education, and evaluation of education programmes and policies.

Detail

Address

School of Education
Leazes Road, Durham University
Durham DH1 1TA

Bio

Beng Huat See is Professor of Education Research at Durham University's Evidence Centre for Education, and Fellow of the Academy of Social Sciences. Her research focus is on getting good reliable evidence for policy/practice. She leads

this ESRC-funded study investigating challenges in teacher supply, and ways to address them.

Professor Stephen Gorard is Director of Durham University's Evidence Centre for Education, and a Fellow of the Academy of Social Sciences. His research is on improving education and reducing inequality. He is a widely cited methodologist, consulted

by central and local government on the design of rigorous evaluations.

Rebecca Morris is Assistant Professor at the Department for Education Studies at Warwick University. Her research involves teachers and teacher education, education policy, educational inequalities, and research methods.

Funding

Economic and Social Research Council

References

- Gorard, S Ventista, O Morris, R and See, BH (2021). Who wants to be a teacher? Findings from a survey of undergraduates in England. *Educational Studies*. doi.org/10.1080/03055698.2021.1915751
- See, BH Gorard, S Morris, R and Ventista, O (2021). Rethinking the complex determinants of teacher shortages. In Menter, I. (Ed.) *Palgrave Handbook of Teacher Education Research*, London: Palgrave
- See, BH Morris, R Gorard, S and El-Soufi, N (2020). What works in attracting and retaining teachers in challenging schools and areas? *Oxford Review of Education*, 46(6), 678–697. doi.org/10.1080/03054985.2020.1775566
- See, BH and Gorard, S (2020). Why don't we have enough teachers?: A reconsideration of the available evidence, *Research Papers in Education*, 35, 4, 416–442. doi.org/10.1080/02671522.2019.1568535
- See, BH Gorard, S Morris, R and el-Soufi, N (2020). How to recruit and retain teachers in hard-to-staff areas?: A systematic review of the empirical evidence, in Ovenden-Hope, T. and Passy, R. (Eds.) *Exploring teacher recruitment and retention*, Abingdon: Routledge

Personal Response

What are your plans for future research towards a solution to the teacher shortage problem?

Where possible, future research will consider:

1. How the status/image of teachers could be improved, and evaluation of most promising approaches
2. Trialling a regional teacher application and assignment system
3. A longitudinal study to track how many students who indicated an interest actually become and remain teachers
4. A trial offering teachers sabbatical leave after three years of service, as is done in other countries
5. More work on people who decide not to become teachers
6. Interviews with stakeholders/policymakers to assess how to encourage them to consider the impact of any new proposals on teacher supply.

