

Shifting career motivations are not to blame for worsening teacher shortages

By: Dawson McLean and Jack Worth

Since the pandemic, growing numbers of secondary pupils coupled with sluggish recruitment of new teachers has led to a significant escalation of the teacher supply challenge in England. In 2023/24, DfE data showed that [recruitment to secondary initial teacher training \(ITT\) programmes reached an unprecedentedly low level relative to the number of teachers needed to meet the demand from schools](#). Meanwhile, the rate of teachers leaving the profession has risen slightly since the pandemic and shows no immediate signs of abating, meaning many schools will likely continue to face a worsening shortage of teachers, with consequent negative impacts on the quality of pupils' education.

What's driving the teacher supply crunch?

Evidence shows the dynamics of teacher recruitment and retention are complex, but ultimately, recruiting and retaining adequate numbers of teachers requires ensuring that teaching is seen as an attractive career option. By its very nature, teaching is for many graduates inherently attractive in that it is a career where one can have a positive impact on others. This 'pro-social' aspect of the teaching profession is a strong motivator for graduates to become teachers. Data from the 2018 Teaching and Learning International Survey (TALIS) showed that teachers in England [were motivated to become a teacher in part to 'influence the development of pupils' and 'provide a contribution to society'](#).

Teachers tend to be different from those who work in other occupations in this respect. In a survey of undergraduates in English universities, [respondents who were motivated by 'sharing their knowledge' and 'giving something back to society' were more likely to plan to become a teacher than those who were not](#). Conversely, those who reported they were motivated by high pay were less likely to plan to become a teacher.

At the same time, research from the United States shows that interest in teaching as a career option is weakening. For instance, [the proportion of American high school and university students planning on pursuing a career in the teaching profession has fallen significantly over the last decade](#). Over the same period, [the number of students enrolled in teacher training in the US has also fallen significantly](#). Little evidence exists documenting these trends in the UK, which faces its own unique policy context different from the US, but the persistent teacher recruitment challenge in England does suggest that similar dynamics may be at play.

On the one hand, falling interest in teaching could suggest that graduates' career preferences have fundamentally changed, with fewer graduates interested in the pro-social aspects inherent to the teaching profession. This would represent a considerable challenge for policymakers, who have little influence over graduates' career preferences.

However, on the other hand, falling interest in teaching may represent graduates' responses to a more practical challenge: less attractive pay, workload and availability of flexible working compared to other occupations. NFER research shows that, in England, [teaching has lost competitiveness relative to other jobs in these areas over the last decade](#). Indeed, even for

those young people who do hold pro-social motivations, the deteriorating attractiveness of teaching may lead them to consider instead pursuing other jobs.

Therefore, evidence showing how young peoples' motivations to enter the teaching profession have shifted over time is valuable for policymakers who seek to ensure that teaching remains an attractive occupational choice for as many graduates as possible.

Shedding light on young peoples' career motivations

The analysis below, funded by the Nuffield Foundation, uses survey data to explore the under-studied question of how shifting career motivations might be contributing to the teacher supply challenge. Overall, we find there is little evidence that young people's career motivations in the UK have significantly changed over the last decade to the detriment of teacher supply.

Our findings suggest interest in teaching among full-time students has varied over time. However, the proportion of young people who say they want to be a teacher has been generally consistent in the decade since 2011. There has also been a slight increase in the proportion of young people who consider pro-social factors such as 'helping others' and 'contributing to society' to be very important factors for their career choices.

Our analysis also shows that young peoples' career preferences are predictive of whether they become a teacher. Moreover, young people born since 1997 (i.e. Gen Z) are slightly more likely to fit the motivational profile of a future teacher than Millennials. The findings therefore suggest that there is no evidence of any significant drop in interest either in teaching or in the fundamental 'pro-social' nature of the job. Instead, the findings affirm that addressing the deteriorating attractiveness of the teaching profession is key to solving the teacher shortage challenge.

Our analytical approach

Our findings are based on analysis of data from the [UK Household Longitudinal Study \(UKHLS\)](#) and [harmonised British Household Panel Survey \(BHPS\)](#).

The data provides a rich set of information about respondents' households, jobs, upbringing, family and education and follows the same respondents over time as they enter and leave education and progress into the labour market. Our analysis was based on young people in the UK who were 16-21 years old when they responded to the survey, and we focus primarily on data collected from 2002 to 2023. Crucially, the survey records information about the job students report they wanted to pursue once they finished their education, alongside what factors (e.g. high pay, having a lot of leisure time, helping others) young people say would be an important part of their future careers.

We use these variables to determine what proportion of young people said they wanted to be a teacher each year, and what career characteristics they would consider to be an important part of their future careers. We then use each respondent's Understanding Society records from when they were 22 to 25 to determine what jobs they worked in as adults, and therefore what career motivation factors are most predictive of someone becoming a teacher once they enter the labour market.

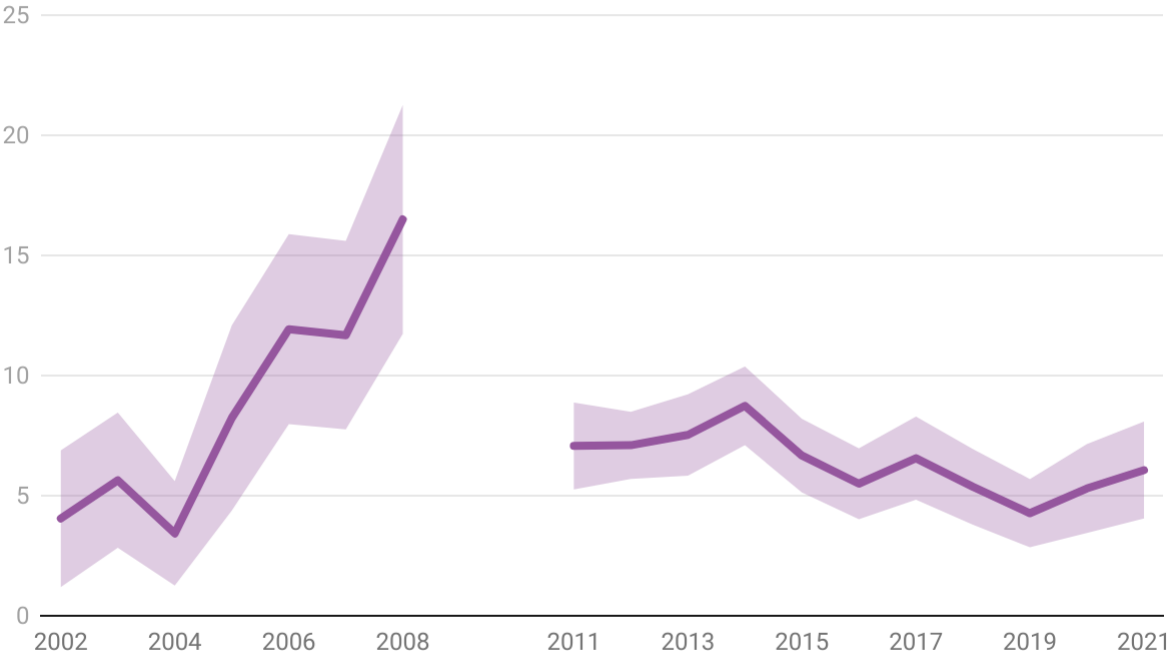
Finally, we use the data to show how interest in teaching, and interest in ‘pro-social’ careers have changed over time, and what this implies about the number of graduates likely to be motivated to enter teaching. Further detail on our approach is available in a separate methodology appendix.

Young people’s reported interest in teaching in the UK has not changed dramatically over the last decade

The data shows that interest in teaching among young people in the UK has varied over time. In 2002, around four per cent of full-time students aged 16-21 who knew what career they wanted to pursue after finishing their education said they wanted to be a teacher.

Figure 1: Interest in teaching has not changed significantly since 2011

Proportion of 16-21 year old full-time students who said they want to be a teacher



Year represents the year the interview took place. Excludes students who reported they did not know what career they wanted to pursue or whose desired career was otherwise missing. Shaded area represents the 95 per cent confidence interval for each estimate.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

This grew substantially throughout the 2000s, reaching 16 per cent in 2008. While it is not clear exactly what drove this increase, several factors may have helped contribute. For instance, [teacher pay growth more closely matched average earnings growth in the early 2000s than in the 2010s](#). This coincided with a series of advertising campaigns promoting the teaching profession which also ran throughout the early 2000s and could have influenced the career aspirations of young people.

The increase may even have been an artifact of how the data was collected, as young people’s desired career was coded using a different occupational coding frame (SOC 2000 versus SOC 90) starting in 2006.

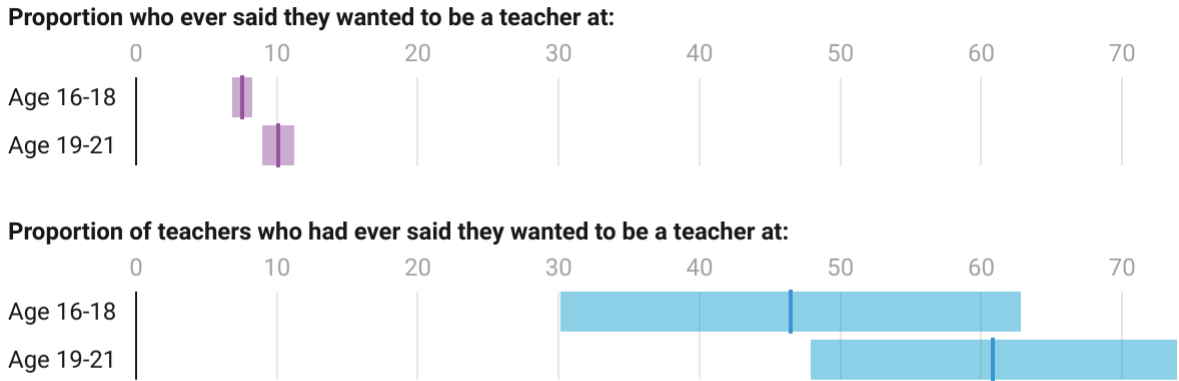
The survey did not ask respondents about their desired career in the wave of data covering 2009 and 2010. However, in 2011, there were about seven per cent of full-time 16-21 year old students who said they wanted to be a teacher, lower than in 2008. This did not dramatically change over the 2010s – in 2021 it was about six per cent, which was not statistically significantly different from 2011.

Interest in teaching increases with age and appears to be strongly predictive of actually becoming a teacher

Young people’s career preferences tend to change as they grow older, and the data shows that interest in teaching tends to increase with age. Specifically, among full-time students in the sample aged 16-18, about eight per cent said they wanted to be a teacher, while among 19–21-year-olds, it is 10 per cent.

The data also shows that most young people who had ever worked as a teacher by age 25 wanted to be a teacher when they were younger. Specifically, of those who became a teacher by the age of 25, 61 per cent had said that they wanted to be a teacher when they were 19-21. Among those who had never worked as a teacher by 25, only seven per cent had said they wanted to be a teacher when younger.

Figure 2: Interest in teaching is predictive of whether a young person becomes a teacher



Based on the sample of those who responded to at least one wave of the young adult and adult BHPS/UKHLS surveys. Proportion who said they wanted to be a teacher excludes those whose desired career was missing, 'not applicable' or who reported 'don't know.' Reflects the proportion of respondents who ever said they wanted to be a teacher where they responded to the survey multiple times in the same age group. Shaded area represents the 95 per cent confidence interval of the estimates.

Chart: NFER • Source: UKHLS and British Household Panel Study • Created with Datawrapper

Wanting to be a teacher also tends to become more predictive of becoming a teacher with age. Only 47 per cent of teachers had ever said that they wanted to be a teacher when they were 16-18, about 15 percentage points lower than for 19-21 year olds.

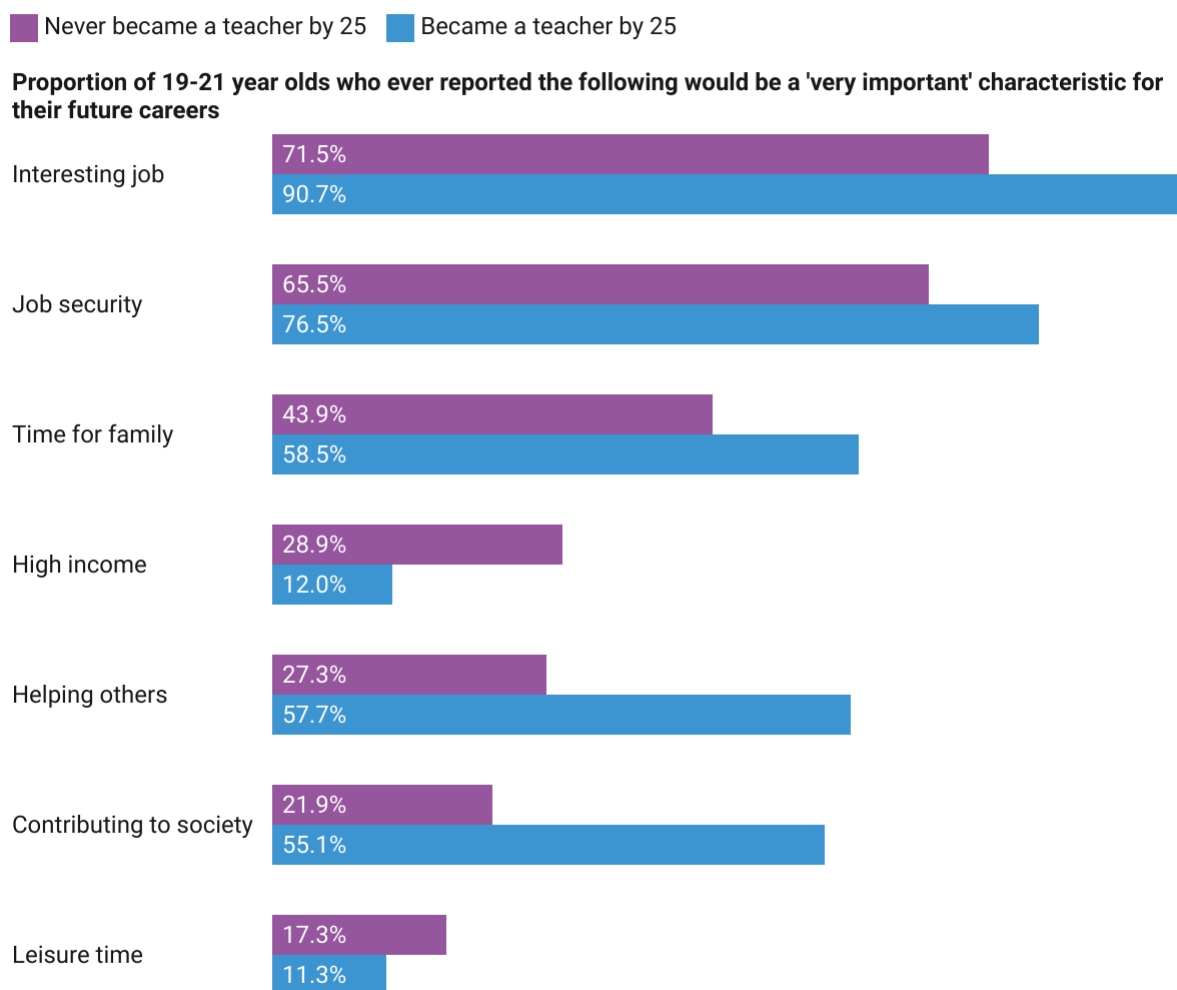
Teachers tend to have had different career preferences when younger than those in other careers

The UKHLS and BHPS surveys record the importance young people attribute to seven characteristics of their future careers: having an ‘interesting job’, ‘job security’, having

'adequate time for family', 'earning a high income', 'helping others', 'contributing to society', and having 'a lot of leisure time'.

We use these seven characteristics to determine what motivates people to become a teacher, focussing on how teachers and non-teachers differed in their reported career preferences when they were 19-21. We focus on reported career preferences when respondents were 19-21 because older respondents' interest in teaching tends to be a stronger predictor of actually becoming a teacher than for younger respondents.

Figure 3: Teachers tend to have had systematically different career motivations when they were 19-21 than those who worked in other jobs



Based on the sample of those who responded to at least one wave of the young adult and adult BHPS/UKHLS surveys. Proportion who said they wanted to be a teacher excludes those whose desired career was missing, 'not applicable' or who reported 'don't know'.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

The results show the biggest difference between teachers and non-teachers in career motivations when they were younger is in the two 'pro-social' factors ('helping others' and 'contributing to society'). Among those who became a teacher by age 25, 58 per cent had said that 'helping others' would be 'very important' factors in their careers when they were

younger, compared to 27 per cent of those who never worked as a teacher. For ‘contributing to society’, 55 per cent of teachers considered this factor to be ‘very important’, compared to 22 per cent of those who never worked as a teacher.

The other significant difference is the importance respondents attribute to ‘earning a high income’. Among teachers, 12 per cent had said that ‘earning a high income’ would be a ‘very important’ part of their career when they were younger. This was less than half the proportion of those who never became a teacher (29 per cent).

A higher proportion of teachers than non-teachers also say that having ‘an interesting job’, having ‘job security’ and having ‘adequate time for family’ are ‘very important’. Conversely, a lower proportion of teachers than non-teachers say that having ‘a lot of leisure time’ is ‘very important’. These differences are all statistically significantly different, however the relative magnitudes of the differences are smaller than for the ‘pro-social’ and high-income factors.

All else equal, having a ‘pro-social’ career motivation increases the likelihood a young person becoming a teacher

The differences in career preferences suggest that young people’s career motivations might be linked to the likelihood that a young person becomes a teacher. We use regression analysis to investigate just how predictive career preferences are of both wanting to be a teacher and actually becoming a teacher by age 25.

The importance young people ascribe to ‘contributing to society’ tends to be highly correlated with the importance they ascribe to ‘helping others’. For the modelling, we therefore combine the two factors into one ‘pro-social’ motivations measure. We consider a respondent to have strong ‘pro-social’ career motivations if they say that either ‘helping others’ or ‘contributing to society’ is ‘very important’.

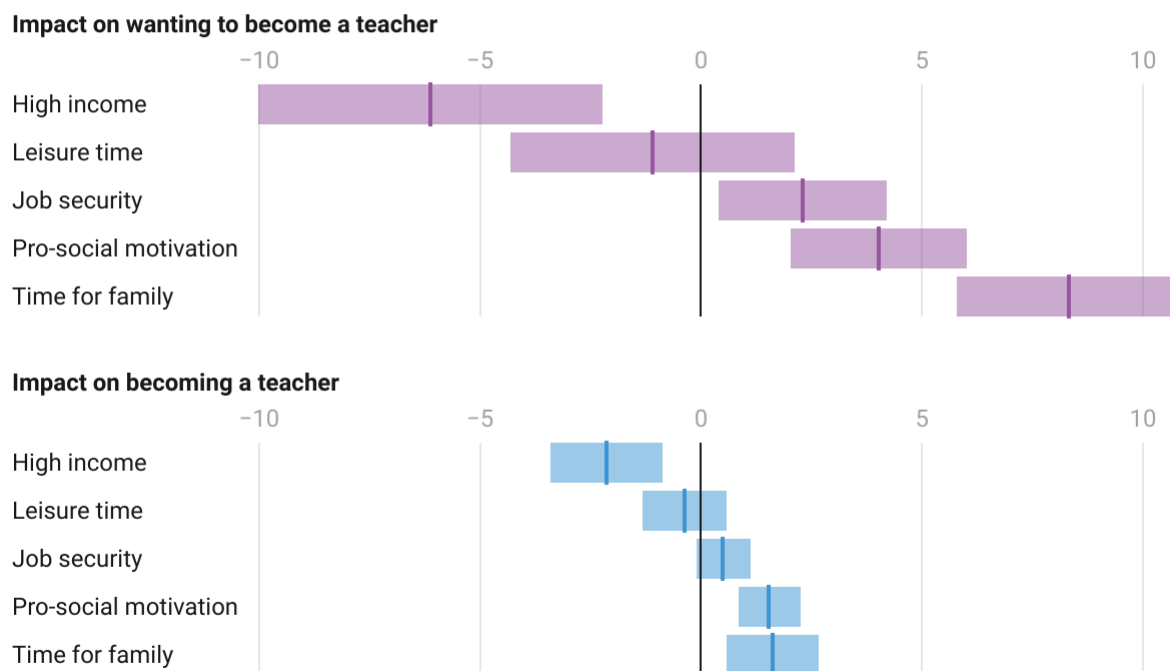
The analysis shows that career preferences do appear to be associated with the likelihood that a young person both wants to be a teacher and actually becomes a teacher. Specifically, Figure 4 shows young people with strong ‘pro-social’ motivations are four percentage points more likely to report they wanted to be a teacher and two percentage points more likely to become a teacher than those without.

Those ascribing high importance to ‘time for family’ are also more likely to both want to be a teacher and become a teacher, while ‘job security’ is positively correlated with wanting to be a teacher but not with becoming a teacher. Conversely, those who consider ‘earning a high income’ are six percentage points less likely to want to be a teacher and two percentage points less likely to become a teacher.

Our modelling controls for differences in demographics (such as age, gender and whether the respondent is working (in any job) when they respond to the survey). Therefore, these estimates reflect the impact of career preferences holding constant these attributes (e.g. impacts are not driven by gender differences in the likelihood of reporting strong ‘pro-social’ motivations).

Figure 4: Having pro-social career preferences increases the likelihood of both wanting to be a teacher and becoming a teacher

Impact (in percentage points) of reporting each of the following career characteristics would be 'very important' for a young person's future career on the likelihood they want to be a teacher (top) and actually become a teacher (bottom)



Based on those who responded to at least one wave of both the young adult and adult BHPS/UKHLS survey. Shaded areas represent the 95 per cent confidence interval of each estimate.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

The importance attributed to having 'a lot of leisure time' does not appear to be related to either wanting to or becoming a teacher, which is somewhat surprising given that [high workload is the biggest reason why teachers leave the profession](#). However, this can potentially be explained by research which shows that [high workload, and the types of day-to-day tasks teachers tend to actually perform, is often not aligned with new teachers' expectations](#).

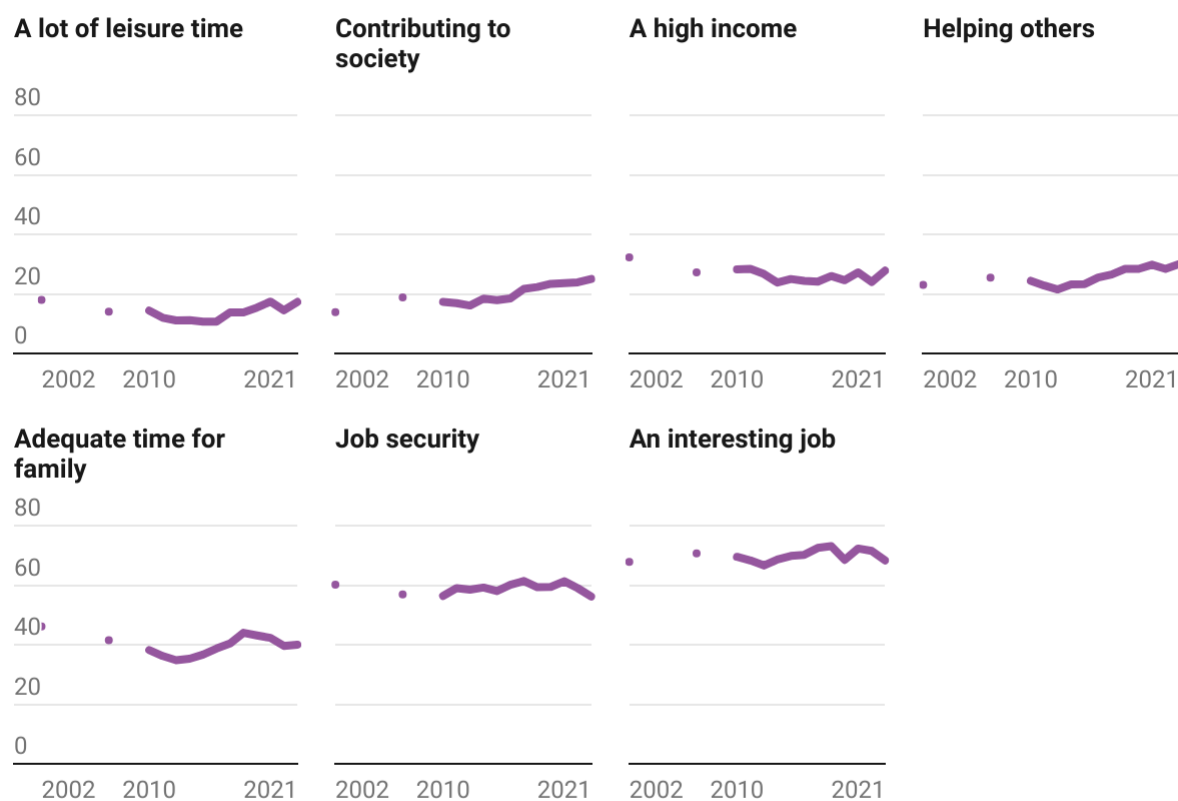
Overall, however, these results are strongly in line with the literature showing [the importance graduates place on the pro-social aspects of their career, alongside the importance placed on high earnings, are predictive both of interest in teaching and actually becoming a teacher](#).

Young people's career preferences have been broadly stable over the last decade

Comparing how young people's career preferences have changed over time shows little change for most characteristics. On average, 16-21 year olds are most likely to report that having 'an interesting job' is 'very important' for their future careers. This is followed by 'job security' and having 'adequate time for family'.

Figure 5: Young people's career preferences have not changed dramatically over time

Proportion of 16-21 year olds who said each characteristic is 'very important'



Years represent year of response to the survey. Based on young people aged 16-21 who responded to at least one wave of the young adult survey where the career characteristics data was collected. Estimates represent the proportion of those with valid responses each year who said each characteristic is 'very important'. Those who responded 'don't know' to any characteristic are omitted.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

In 2011, 'contributing to society', 'earning a high income' and 'helping others' were considered 'very important' by around one-fifth of respondents. However, this has increased for the 'pro-social' characteristics over time. Specifically, the proportion of young people who said that 'contributing to society' is 'very important' increased from 17 to 25 per cent between 2010 and 2021, while the proportion of young people who said that 'helping others' is 'very important' increased from 24 to 30 per cent. These are the only factors where a statistically significantly higher proportion of young people said they were 'very important' in 2021 than in 2010.

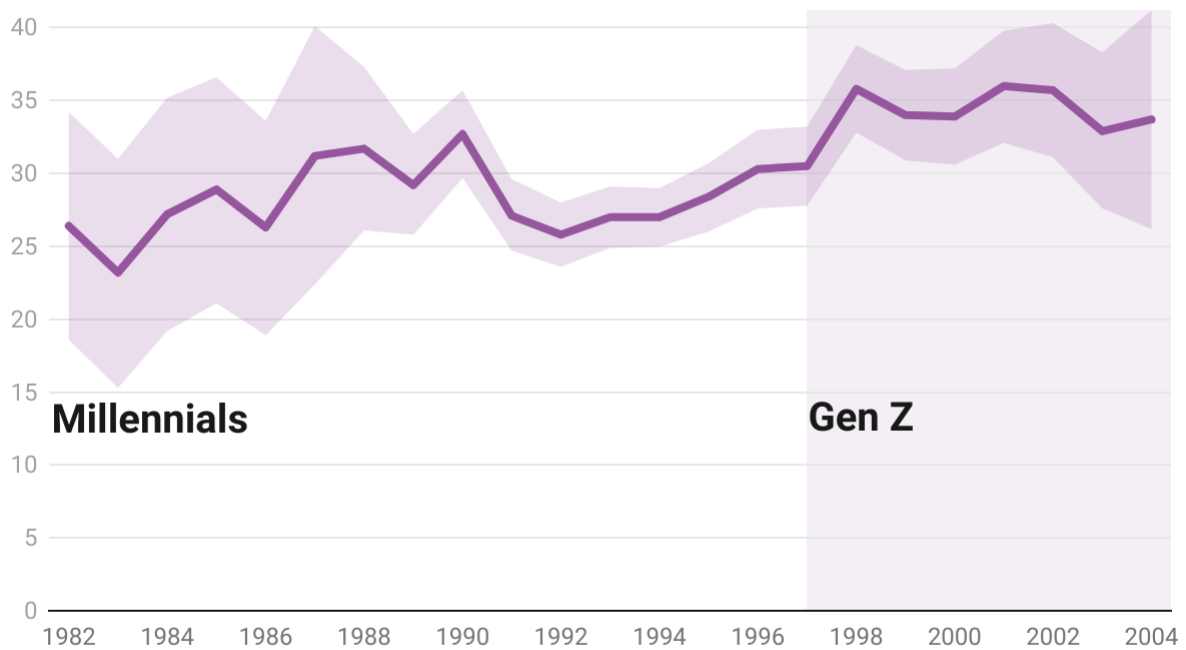
'Gen Z' slightly more likely to place high importance on 'pro-social' factors than millennials

Having 'pro-social' career motivations (i.e. our combined measure of 'helping others' and 'contributing to society') is slightly more prevalent among young people in recent years. The proportion of young people born in 1997 and later (corresponding to commonly-used definitions of 'Gen Z') who attribute high importance to 'pro-social' motivations is about ten

percentage points higher than for those born in the 1980s and 1990s (commonly defined as 'Millennials'). This increase is statistically significant when comparing Gen Z to those born in the early 1990s, but not when comparing Gen Z to birth cohorts from the 1980s. This mainly reflects a smaller sample size of respondents who were born in the 1980s in the survey.

Figure 6: The proportion of young people seeking 'pro-social' careers has increased slightly over time

Years represent year of birth



We define 'pro-social' as those who reported that either 'helping others' or 'contributing to society' would be 'very important' characteristics of a young person's future career. Based on young people aged 16-21 who responded to at least one wave of the young adult survey where the career characteristics data is collected. The shaded area represents the 95 per cent confidence interval of the estimate.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

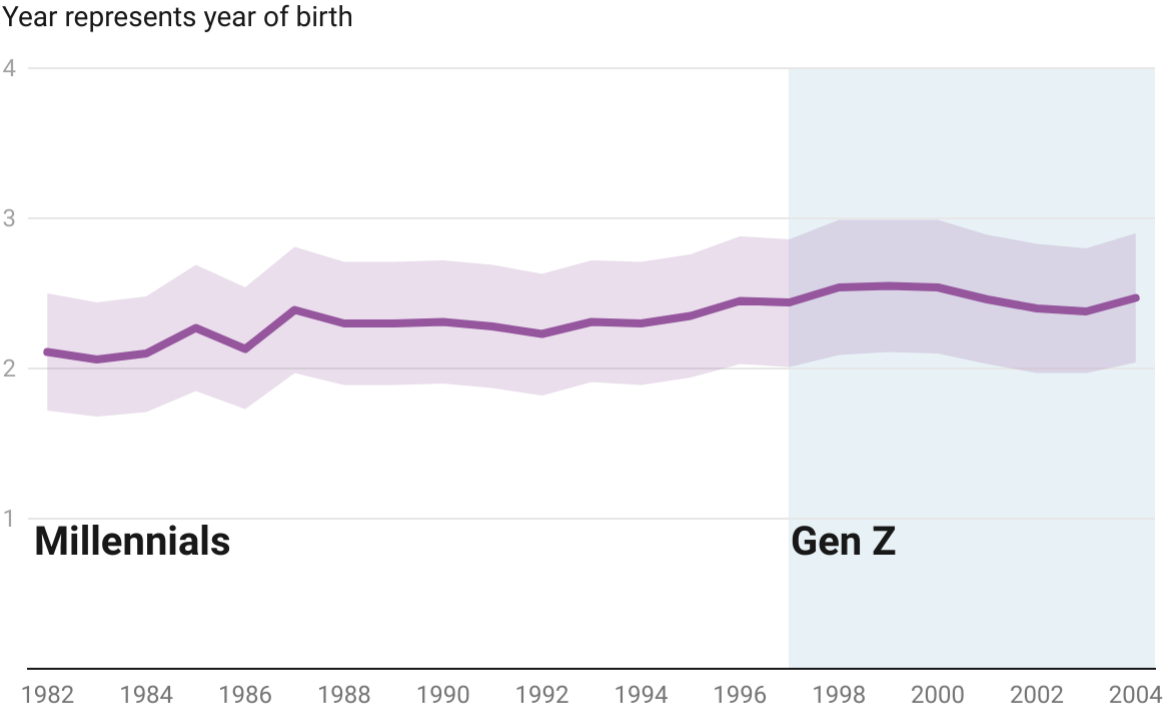
Changing career motivations are therefore unlikely to be the driver of persistently sluggish teacher recruitment

An increase in the prevalence of 'pro-social' career motivations, coupled with our analysis showing that such motivations are predictive of young people entering teaching, suggests there might be a generational difference in the proportion of young people who fit the motivational profile to be a teacher. We test this by combining our estimates of career preferences among each birth cohort with our regression estimates showing how career preferences impact the likelihood that person becomes a teacher.

The results show the proportion of young people whose career preferences predict they might become a teacher is indeed slightly higher among Gen Z than among Millennials, but the difference is small. Among 16–21-year-olds in full-time study born before 1985, reported career preferences predict that about two per cent of respondents would become a teacher

by 25. Among those born in 2004, this is 2.5 per cent, although this difference is not statistically significant.

Figure 7: The proportion of young people whose career preferences predict they might become a teacher is generally flat over time



Based on young people aged 16-21 who responded to the young adult survey in at least one wave where the career preferences data is collected. Predictions are based on career preferences data combined with our regression modelling results. Shaded areas represent the 95 per cent confidence intervals of the estimates. Confidence intervals of the prediction are based on bootstrapped standard errors.

Chart: NFER • Source: UKHLS and BHPS surveys • Created with Datawrapper

For those in our analysis who were born before 1998, we tested the accuracy of our prediction model by comparing our predicted estimates with the proportion of respondents in each cohort who actually did become a teacher by 25. Our predictions generally tend to be a bit lower than the outturn estimates – for instance, among 16-21 year-old students who responded to the survey in 2010 (and therefore who were born between 1989 and 1994), three per cent had become a teacher by age 25, which is one percentage point higher than our prediction for the same cohort.

This difference might be driven by numerous factors, such as how our model focusses only on reported career preferences or longitudinal attrition from the survey. Therefore, rather than being a robust prediction of the number of young people likely to enter teaching, our predictive model is most useful as a bellwether of how changing trends in young peoples' career preferences might be expected to drive changes in interest in teaching.

Policy action is urgently needed to address the wider attractiveness of teaching

Taken together, our modelling and analysis suggests there is little evidence graduates have become less interested in 'pro-social' careers in recent years. This means shifting career preferences, over which policymakers have little control, are unlikely to be a significant factor underpinning persistent teacher under-recruitment. Instead, it is much more likely factors such as increasingly uncompetitive pay, high workload and a lack of flexible working options which are driving prospective graduates away from the teaching profession. These are factors over which policymakers, and the sector more broadly, have some degree of influence.

Indeed, recruiting more teachers has been a key priority for Government and was a strong theme in the lead up to the recent general election, particularly with the Labour party's pledge to recruit 6,500 teachers. Meeting this ambition will require strengthening the attractiveness of teaching to ensure it remains a competitive career option when compared to other jobs.

Moreover, the data also shows there is not an infinite supply of socially-motivated people entering the workforce either, while teaching is not the only job that might be attractive to young socially-motivated people. For instance, the UKHLS and BHPS surveys show, outside of teaching, young people who rate 'helping others' or 'contributing to society' as 'very important' often move into jobs in nursing, healthcare and caring occupations (e.g. home carers). Many of these jobs, especially in healthcare, tend also to face recruitment challenges, which could be a reflection of these 'pro-social' occupations drawing their recruits from the same fixed pool of socially-motivated people entering the workforce.

Improving the attractiveness of the teaching profession could therefore help to expand the pool of graduates that can be recruited from. For instance, while some graduates may feel less strongly about the pro-social nature of teaching, they could still be interested in teaching as a career, provided they viewed it as an interesting, stable and well-paid job with a manageable workload. Expanding the pool of potential new recruits interested in teaching could also have the added benefit of reducing recruitment pressures for other socially-oriented public service jobs.

Therefore, ensuring teaching remains competitive with other jobs in pay and workload should be a central plank of the new Government's plans to address teacher recruitment. Maintaining the status quo risks further entrenching the teacher supply crisis and deteriorating the quality of education provided to pupils.