

Article How to get more people into teaching? Comparing undergraduates' and teacher trainees' motivation and perceptions of a teaching career

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Abstract: Understanding people's perceptions of teaching as an occupation, and their motivation or 7 otherwise to teach, can help identify which initiatives/policies are most promising in improving 8 teacher recruitment. Previous studies have often sought only the views of teachers/teacher trainees 9 to understand why people choose teaching as a career. Recruitment strategies based on evidence 10 from such research are therefore only appealing to those who are already interested in teaching. It 11 is the views of those who might otherwise have gone into teaching that can provide better clues to 12 what we can do to get more people into teaching. This paper compares the views of 4,469 under-13 graduate students and 788 trainee teachers in England. Our analysis goes beyond the usual ap-14 proach by comparing young people completely uninterested in teaching, those who considered 15 teaching but rejected it, those intending to be teachers and those already in training. Our study 16 found little or no difference between prospective teachers and others in terms of generic career driv-17 ers and the attraction of financial incentives, although prospective teachers tended to have lower 18 levels of qualifications, and to come from less prestigious occupational backgrounds. However, 19 those not planning to be teachers are much less concerned about teachers' workload, suggesting 20 that this is probably not a great deterrent for those considering teaching. Compared to those who 21 intend to be teachers, those who have considered but rejected teaching are less likely to view teach-22 ing as intellectually stimulating. They are least likely to see teaching as a high-status profession, 23 offering good promotion prospects and job security. Policies to improve recruitment need to make 24 teaching more attractive to the second group by addressing these issues. And these policies should 25 be distinct from policies to retain existing teachers. 26

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Copyright: © 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/). Keywords: Teacher supply; career motivation; perception of teaching; teacher trainees

1. Introduction - the teacher supply problem

Attracting people to the teaching profession has been an important policy issue for 29 many countries for several decades. Teachers are essential for the provision of an effective 30 education system (See et al., 2020) and can make a difference to children's academic and 31 lifelong outcomes (Gerritsend, Plug and Webbink, 2016; Sibieta, 2018; Sorenson and Ladd, 32 2018). 33

Despite the crucial role of teachers for each generation of new students, and the re-34 cruitment of teachers being a key policy for many governments, a widespread shortage 35 of teachers is still reported in many countries. More than half of the countries in Europe, 36 and almost all school districts in the US, have apparently reported chronic challenges in 37 recruiting and retaining teachers (Eurydice 2018, European Commission 2018). In Eng-38 land and the US, the teacher shortage has been predicted to get worse as the pupil popu-39 lation is rising for some age groups, and more teachers are leaving before retirement 40 (Hayes 2017). In England, shortages are particularly acute in some subjects and regions 41 (House of Commons 2017). 42

The shortage of teachers is reportedly partly the result of people leaving the profession prematurely. Teaching has often been characterised as an occupation with a high 44 level of turnover especially among new teachers (Ingersoll and Smith 2003). While all oc-45cupations experience some degree of turnover and career change, turnover in teaching is46particularly high in the first few years compared to many other professions (Ingersoll and47Perda 2010), and in England early attrition is particularly acute for maths, science and48languages teachers (Worth and De Lazzari 2017). Among the secondary teachers who49qualified in 2010-2012 only around 66% stayed on in state-funded schools by the fifth year,50for example (DfE 2018).51

Part of the problem may be lack of adequate preparation for dealing with the stress 52 and workload associated with teaching (CooperGibson Research 2018). In England, the 53 government have set out a series approaches including the Early Career Framework (ECF) 54 (DfE 2019a), as part of the wider Teacher Recruitment and Retention strategy, to support 55 new teachers (DfE 2019b). Studies indicate that teachers' perception of workload are 56 strong predictors of their decision to leave teaching (Lynch et al. 2016, Higton 2017). Work-57 load, policy changes and accountability pressure were among the top reasons cited as rea-58 sons for teacher attrition in a survey of over 1,000 teachers in England (DfE 2017). In 2014, 59 the Department for Education (DfE) in England launched the Workload Strategy to tackle 60 unnecessary and unproductive tasks teachers undertake in the course of their duty. The 61 Teacher Workload Survey carried out in 2019 in England by the DfE showed a reduction 62 in teachers' working hours, but workload was still a major challenge for secondary school 63 teachers (Walker 2019). Does a finding like this also mean that factors like high workload 64 are putting people off becoming teachers in the first place? 65

To maintain an adequate supply of teachers, we need to look more carefully at the 66 supply pipeline to understand why some students choose to go into teaching and others 67 do not. The perception of teaching as a favourable career or not is an important one, and 68 some of the literature suggests that an unfavourable perception is a reason why fewer 69 people choose teaching as a career. This may be due to a variety of factors including fi-70 nancial rewards (such as salary) or the demand of the role (such as workload). Studies on 71 motivation to go into teaching have also emphasised the importance of altruistic and in-72 trinsic attractors, such as the enjoyment of working with children (Goller et al. 2019), or a 73 desire to help others (General Teaching Council 2003, Kass and Miller 2018, Kyriacou et 74 al. 2003, Wang 2019). 75

Current recruitment strategies to improve teacher supply often involve rewards such 76 as bursaries and scholarships for shortage subjects, loan forgiveness, paid internships, in-77 centive payments for teaching in shortage regions, and increasingly targeted advertising 78 as well. For example, the Department for Education's (England) marketing campaign, 79 Every Lesson Shapes a Life was designed to appeal to the social utility (altruistic values) of 80 teaching because this is what most studies on teacher motivation report as important. 81 However, despite heavy investments in these strategies, recruitment to teaching has not 82 improved. 83

One reason that these approaches make so little difference is perhaps because such 84 recruitment strategies are based on evidence collected from those already in teaching or 85 who intend to enter teaching. In other words, they are "preaching to the converted". The 86 problem with almost all research on teacher motivation and perceptions of teaching is that 87 it only examines the views of teachers and prospective teachers. This ignores a large group 88 of people who have thought about teaching but have decided against it. Understanding 89 the perceptions and motivations of this group is relevant as it can help address potential 90 teachers' fears and apprehension. Omitting them in any analysis means that such factors 91 could be missed in any policy initiatives. Our most recent review (Munthe and See 2022) 92 of over 250 studies found only a few, including our own, that have asked about partici-93 pants who have made the decision not to be teachers (Adkintomide and Oluwatosin 2011, 94 Dickson 2013, Elfer et al. 2008, Gorard et al. 2021, Kyriacou and Benmansour 2002, Kyri-95 acou et al. 2003, Kyriacou et al. 2002, Kyriacou and Coulthard 2000, Lai et al, 2005, See 96 2004, See 2022, Mangieri 1984, Murnane et al. 1991). 97

Understanding existing teacher' motivations and perceptions alone is not enough if 98 we want to increase the pool of teachers. We already know quite a lot about the motiva-99 tions of those who have decided on teaching as a career because most previous studies 100 have tended to focus on the motivations of those who had already made the decision to 101 be school teachers. But we know relatively little about the motivation of those who have 102 yet to make the decision. Our previous work (Gorard et al. 2021) shows that around 60% 103 of undergraduates have considered teaching as a career. It may not be useful to focus 104policies on the 40% who have never wanted to be a teacher. These are on a different career 105 trajectory towards occupations in medicine, architecture and so on. Of the 60% who have 106 considered teaching, only 20% intended to be teachers. What is more useful then is to see 107 how we can persuade the rest of the "considered' group (the remaining 40%) to think 108 seriously about teaching. This is the group where we still have a good chance of encour-109 aging them to translate their "consideration" to "intention". 110

For this reason, this current paper will compare the views of teacher trainees and 111 those who firmly intend to be teachers with those who have considered but decided oth-112 erwise, to see how they are different and what can be done to persuade the latter group 113 to think seriously about teaching as a possible career. This new paper is a follow-up of our 114 earlier work (Gorard et al. 2021) which considered the perceptions and motivations of 115 general undergraduates with regards to teaching as a career. In this new paper we include 116 the views of actual teacher trainees as well. The aim is to investigate the possible differ-117 ences between those students who go on to become teachers and the rest. Practically, this 118 is important because it provides an indication of what might need to be done differently 119 in order to encourage a larger and wider group of people into teaching. For both research 120 and policy it is important to assess to what extent teachers and non-teachers differ. The 121 purpose here is to give a more complete account of those who do and do not want to be 122 teachers than is usual in the existing literature which is based primarily on existing teach-123 ers and prospective teachers' accounts. 124

It is also the case that many recruitment strategies tend to be based on a 'universal' 125 human capital theory of motivation. They are often introduced without clear and com-126 plete understanding of people's concerns about the profession. In reality, not everyone is 127 similarly motivated. Yet, successive governments in England and those in many other 128 countries have emphasised these so-called targeted recruitment incentives. Shortages are 129 often attributed to the relatively poor pay of teachers. Consequently, many policy initia-130 tives have addressed shortages through financial incentives to attract more people into 131 the teaching profession. There is some evidence that these approaches can be effective, at 132 least in terms of attracting people who were already considering teaching anyway (Dolan, 133 Metcalfe and Navarro-Martinez 2012; See et al. 2021; Rosen 2012; Sisouphanthong et al. 134 2020). However, financial incentives are not enough to keep teachers in schools once the 135 payments are removed. And official government data has consistently shown that aca-136 demically strong prospective teachers are less likely to progress through the teacher sup-137 ply pipeline than their academically weaker peers (Bowsher 2016). To those who have no 138 intention to be teachers, such incentives are not likely to alter their career decisions (Bueno 139 and Sass 2018). 140

For this reason, our new study also considers the social-economic background of respondents, their demographic background and academic profile, because much of individuals' career choice might also be influenced by these factors, although they are seldom explored in previous work. The question, therefore, is how we can appropriately encourage those who might otherwise have gone into teaching to translate their earlier interest in teaching into reality. Our new study addresses all of these issues and more. 141 142 143 144 145

2. Methods used in this study

This is a cross-sectional study involving a nation-wide survey of undergraduate stu-148dents and of teacher trainees. Our study extends current knowledge in this area in its149coverage of types of institutions and disciplines. Most previous studies are located within150

one institution (usually the researchers' own institution) and cover only one or few disci-151 plines (e.g., only science and maths students). Including a range of institutions and disci-152 plines allows us to get a more representative and thus less biased view from students 153 about their career choice. Unlike most previous research, which seek the views of only 154 those who have indicated interest in teaching, we have also included the general under-155 graduate population. In addition, we surveyed teacher trainees who were completing 156 their postgraduate certification in education (PGCE) in a sample of teacher training pro-157 viders. This allows us to see if those who have apparently made firm decisions to be teach-158 ers are, in any way, different to those who said they wanted to be teachers, or those who 159 have considered and rejected teaching. 160

The whole sample included 4,469 undergraduate students in 53 universities of all 161 types and 788 trainee teachers from 10 teacher training institutions, in England. Students 162 were recruited via personal contacts and emails to head of departments, university career 163 advice centres and careers fairs. The number of cases represents those who responded. 164 The focus in this paper is on the teacher trainees, and how their responses differ from the 165 more general student population. 166

2.1. The instrument

Our questionnaire instrument included items identified in previous studies as factors 168 influencing general career choice and people's perceptions of teaching as a career. Many 169 of these items were adapted from those previously used and validated by See (2011). The 170 questionnaire asked about students' background, their current education (e.g. subject ma-171 jor at university, entrance qualification and expected degree classification), what they look 172 for in a career, sources of information they have found useful in choosing a career, 173 whether they have considered teaching, and which factors attract them to, or deter them 174 from, teaching. It addressed the relative level of qualifications of respondents, and 175 whether they felt that they could easily find a range of jobs. It also included items on the 176 issues that policy is often intended to address (such as workload and monetary incen-177 tives). 178

Students were invited to complete the questionnaire on-line, by post, or face-to-face, 179 or at the start or end of a lecture. Most responses were collected in-person, and often al-180 lowed some discussion as well. Notes were made on such discussions and some example 181 comments by respondents are presented below. 182

Responses to some items are categorical, such as subject of study at university, and 183 many are ratings on a scale from 0 (no importance) to 10 (most important), such as how 184 important pay is when choosing a career. 185

The two questionnaires used for undergraduates and trainees are largely similar with 186 a difference in one question, which asked about their teaching intention. Unlike the survey 187 for undergraduates where we asked if they have considered teaching and if they intend 188 to be teachers, for the teacher trainees we asked how likely they are to go on to be a teacher. 189 In this way we can compare the motivations and perceptions of four groups of people: 190 those who have not considered teaching, those who have considered but decided against 191 it, those who have indicated interest in teaching and those who have made firm decisions 192 to be teachers (these will be the teacher trainees). Such comparative analysis enables a 193 more sophisticated understanding of the determinants of teaching as a career and what 194 can be done to increase teacher supply. 195

2.2. Analysis

The categorical variables are summarised as frequencies and percentages, and cross-197 tabulated with the four categories of students who did not consider, considered and re-198 jected, considered and intended to teach, and teacher trainees. For most categorical varia-199 bles, any of the few missing values were recoded as "not known", or not known to be so 200 for any category. The exception was parental occupation, mostly because the question 201

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asked for two parents/carers and many respondents only reported for one. Where re-	202
sponses for two parents/carers were given, we recorded the most prestigious of the re-	203
sponses using the following categories:	204
	205
 University lecturer, doctor, dentist, solicitor, scientist (or similar) 	206

- University lecturer, doctor, dentist, solicitor, scientist (or similar) Technical, health, welfare, education professional (or similar) 207
- Clerical, administrative assistant, secretary (or similar)
- Craft related jobs •
- Small employer
- Not usually employed. •

For the 11-point ratings, a small number of missing values were noted, and replaced 213 by the overall mean score. This retains the important information from other variables of 214 any case missing a specific value but does not disturb the mean of the achieved sample 215 (Gorard 2020). 216

3. Findings

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Our findings illustrate what potential teachers are like, what motivates them, and 218 whether there are differences by geographic region, training route, or phase of teaching. 219

3.1. What are the characteristics of potential teachers?

Potential teachers in England appear to be disproportionately female (Table 1). Fe-221 males are more likely to have considered teaching; they are even more likely to express 222 intention to teach, and to be training as teachers. 223

Table 1. – Percentage of each sex considering, intending, and training to be a teacher.

Reported sex	All	Considered	Intend	Teacher trainees
Female	58	61	69	65
Male	36	33	26	31
Other	6	6	5	4

Trainee teachers tended to be White in ethnic origin. South Asian students are least 225 likely to training to be teachers, to have considered teaching or expressed an intention to 226 be a teacher. This may be simply due to the nature of our sample, but there is an indication 227 that ethnic minority students, like male students, are somewhat less likely to follow 228 through on their intention to become a teacher. 229

Table 2. – Percentage of each ethnic group considerin	g, intending, and training to be a teacher.
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Percentages	All	Considered	Intend	Teacher trainees
South Asian	18	15	18	9
Black	2	4	2	3
East Asian	3	2	3	1
White	69	69	69	79
Mixed	2	4	2	3
Other	7	6	7	5

Undergraduates who have considered teaching are slightly less likely to have parents 231 with a degree and those who intend to be teachers, and teacher trainees, are less likely to 232 have at least one parent with a degree (Table 3). To some extent, teachers come from less 233 educated families. 234

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Percentages	All	Considered	Intend	Teacher trainees
Parent(s) has a degree	56	52	44	45
Parent(s) does not have a degree	37	41	49	52
Not known	7	7	7	3

Table 3. - Percentage of students considering, intending, and training to be a teacher, by parents having a degree.

Similarly, those intending to be teachers, and trainee teachers, are slightly less likely 238 to be from professional and higher managerial families, and are more likely to come from 239 families with no known occupation. The difference, however, is small. 240

Table 4. – Percentage of students considering, intending, and training to be a teacher, by occupa-241 tional group of parents. 242

Percentages	All	Considered	Intend	Teacher trainees
University/college lecturer, doctor, dentist, solicitor, scientist,	32	29	24	28
Technical, health, welfare or edu- cation professionals	28	30	30	28
Clerical, administrative assistant, secretary, dent	16	17	17	17
Craft related jobs	10	11	14	11
Small employer (under 10 employees)	3	3	2	1
Not usually employed including home-makers, long-term unemployed, never worked	1	1	2	3
Don't know	11	10	11	12

Compared to the general sample, intending and trainee teachers are much less likely 243 to have entered their undergraduate degree programme with A-levels or International 244 Baccalaureate (Table 5). They are more likely to have unspecified prior qualifications. Alt-245 hough undergraduates with vocational qualifications are more likely to report intending 246 to be teachers, this is not reflected in our sample of trainees. 247

Table 5. - Percentage of students considering, intending, and training to be a teacher, by university 248 entrance qualification. 249

Percentages	All	Considered	Intend	Teacher trainees
A-level	67	68	58	50
International Baccalaureate	6	5	4	2
BTEC, GNVQ, vocational	7	8	15	4
Access diploma	4	4	6	5
Scottish qualification	0	0	0	1
Other or unspecified	16	15	17	38

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A clearer pattern emerged when we looked at degree outcomes (Table 6). Compared 251 to the overall sample, those who considered teaching and those who intended to teach 252 expected or had received lower class degrees. Teacher trainees were much more likely to 253 have 2:2 degree results than their peers who are not continuing to pursue teaching (as far 254 as it is possible to tell). 255

Porcontagos	A11	Considered	Intend	Teacher
Percentages	All	Considered		trainees
1st	31	29	27	22
2:1	53	55	57	58
2:2	3	4	5	15
3 rd or pass	1	1	1	2
Other or not classified	12	11	11	3

Table 6. - Expected degree class of undergraduates and degree class teacher trainees.

Note: for the first three columns the degree class is what was expected, usually in the 2nd year. For teacher trainees, the degree class was their actual result.

In summary, while some differences are small and some may be due to the nature of 259 the two samples, when compared to undergraduates generally, trainee teachers are more 260 often female, with less educated parents working in less professional occupations, who 261 entered undergraduate courses with alternative or unspecified qualifications, and who 262 left with somewhat lower class degrees, on average. This extends and confirms the anal-263 ysis in our earlier paper (Gorard et al. 2021). 264

Trainee teachers and those intending to be teachers also appear less likely to have 265 studied science and maths than the more general sample, and are more likely to have 266 studied languages including modern foreign languages, English, and classics (Table 7). 267 What is interesting is that 13% of trainees had a degree in medicine and dentistry. This 268 group is similar in their career motivations to teachers. They are more likely to emphasise 269 the social utility or altruistic values of a career as key drivers. 270

Table 7. - Subject major of undergraduates and teacher trainees.

Percentages	All	Considered	Intend	Teacher trainees
Physical and mathematical sciences	34	31	21	16
Medicine, dentistry	7	5	2	13
Sports-related	6	7	13	8
Business	3	2	2	1
Social studies	32	36	44	28
Languages	8	9	10	24
Creative arts, media studies	7	8	8	3
Law, architecture	4	2	1	1
Other	0	0	0	7

3.2. General career drivers

Previous research suggests that teachers did not usually choose teaching as a fallback 273 career or because of fewer options available to them (Davies and Hughes 2018, Watt and 274 Richardson 2007). Our new study shows that while most undergraduates feel that they 275 could get a job, other than teaching, relatively easily with their existing or planned degree 276 (83%), those intending to be teachers were less likely to think so, and actual trainees were 277 even less so (Table 8). This suggests that perhaps the chosen subject area of prospective 278

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teachers offered them less freedom in their choice of career. Of course, it is possible that 279 some intending teachers made the decision before university and thus chose a subject of 280 study more open to a teaching career. 281

Table 8. – Ease of entry to a job other than teaching for undergraduates and teacher trainees.

	All	Considered	Intend	Teach traine	-
Ease of getting a job other than teaching	8	3	83	79	67

In terms of financial incentives, undergraduates are largely impartial about the dif-283 ferent types of financial incentives for training, rating them between 6.6 and 6.9 (out of 10 284 points), but the importance of incentives is greater for those considering and intending to 285 become a teacher (Table 9). Teacher trainees are least likely to consider these incentives as 286 important (column 4). Those intending to be teachers are more likely to rate being paid a 287 salary while training as important, while teacher trainees do not consider this as important 288 at all. Overall, those who have decided on teaching are less likely to admit being attracted 289 to teaching by such monetary inducements. Here we can see how studies that only sur-290 veyed teachers or pre-service teachers are likely to downplay such monetary incentives, 291 while those that only considered the views of intending teachers might highlight the im-292 portance of such incentives. 293

 Table 9. – Importance of financial incentives to undergraduates and teacher trainees (ratings).

	All	Considered	Intend	Teacher trainees
Being paid a salary while receiving training	6.9	7.3	7.9	1.6
Tax free bursary or scholarship for training to teach	6.8	7.3	7.9	5.8
A loan to cover your tuition fees	6.6	7.0	7.8	6.2
A loan to support your living expenses	6.7	7.1	7.8	4.8

Considering only the responses of teacher trainees, intriguingly, we found that 295 trainee teachers in receipt of any kind of incentive do not value it highly (Table 10). Inter-296 estingly, those receiving loans would prefer salaries or bursaries to train. But those with 297 salaries or bursaries to train appear to prefer having loans. The table shows that those 298 training in shortage subjects (thus receiving bursaries and scholarships) would rather 299 have loans and those on certain routes into teaching (e.g. School Direct and postgraduate 300 teaching apprenticeships) prefer loans to cover expenses and fees. We suspect that most 301 trainees would prefer to have salaries/bursaries as well as loans. 302

	Salary while training	Bursary for training	Loan for tuition fees	Loan for living expenses
Being paid a salary while receiving training	1.1	5.4	6.0	4.7
Tax free bursary or scholarship for training to teach	1.0	1.1	5.2	4.7
A loan to cover your tuition fees	1.8	5.5	1.4	1.4
A loan to support your living expenses	1.5	6.0	3.8	1.5

Table 10. – Relative importance of financial incentives to trainees, compared to actual receipt of304incentives.305

Comments from some of the trainees show that funding is important to them and enables them to undertake the training. For example:

I am studying PE and receive no funding, so therefore have to work around my PGCE which is difficult due to the workload at school.

As I have a young family and a mortgage, I would not have been able to complete this course without the bursary or the student loans.

There was some resistance to the idea of recruitment incentives only being available	314
for some teachers or only in some subjects:	315

I believe all subjects should be paid to complete their training, not just those with recruitment issues. As this suggests that some subjects are more important than others. 319

3.3. What motivates people become a teacher or not?

This is an important question as it helps guide policy on what aspects of teaching to 321 focus on in recruitment drives. First, there are some generic factors that are considered 322 important or not in an individual's career choice, regardless of whether they have consid-323 ered, or are intending or actually training to be a teacher (Table 11). These are job satisfac-324 tion or enjoyment, job security, career prospects and an opportunity to develop skills in 325 that career. All groups are interested in these job characteristics. Similarly, there is very 326 little difference between prospective teachers and others in what they considered less im-327 portant in the career choice (e.g. length of working day, holidays and autonomy). These 328 are all rated under 7.0. Despite prior studies emphasising workload as a specific issue and 329 barrier for those thinking of becoming a teacher, this does not appear as a key determinant 330 here. 331

Table 11. – What people look for in a career - Ratings from 0 (not important) to 10 (most important). 332

	All	Considered	Intend	Teacher trainees
Job satisfaction, enjoyment	8.8	8.8	8.9	8.7
Job security	7.5	7.5	7.8	7.9
Career prospects	7.6	7.5	7.4	7.8
Opportunity to develop skills	7.6	7.6	7.6	7.7
Kinds of people I will be working with	7.0	7.2	7.5	7.1

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Intellectual stimulation	7.0	6.9	6.6	7.1
Job responsibility	6.6	6.6	6.9	7.0
Job that suits my temperament	6.9	7.0	7.2	7.0
Autonomy, scope for initiative	6.5	6.5	6.4	6.8
Length of working day, holidays	5.7	5.9	6.1	5.9
Family tradition	2.1	2.0	2.3	1.8

However, some factors are slightly more attractive to prospective teachers. As shown 333 in previous studies, they include more intrinsic motivators, being more interested in their 334 subject, and sharing that interest with others (Table 12). 335

Table 12. - What career influences are more attractive to likely teachers.

	All	Considered	Intend	Teacher trainees
Interest in my subject area	7.7	7.8	8.1	8.3
Chance to give something back	6.8	7.1	7.7	8.2
Chance to share my knowledge	6.3	6.5	7.1	7.8
Chance to use academic knowledge	6.3	6.4	6.7	7.4

Consistent with previous research prospective teachers report being less interested 337 in extrinsic motivation like higher pay, and in the status of the job, or having an internship 338 (Table 13).

Table 13. – Which career influences are less attractive to likely teachers.

	All	Considered	Intend	Teacher trainees
Pay, salary	7.3	7.1	6.8	5.8
Status, public perception of the job	4.4	4.2	4.2	3.8
Opportunity for internship	4.8	4.6	4.3	2.1

There are some clear differences in the perceptions and attractors for prospective 341 teachers and others (Table 14). The comparison is between the whole undergraduate sam-342 ple, the subsets who consider teaching and either rejected it or intend to teach, and the 343 sample of trainee teachers. Some of the differences reported are very substantial. For ex-344 ample, prospective teachers are more likely to see teaching as a career for those who enjoy 345 working with young people, allowing them to give something back to society and pursue 346 their academic interest and that is intellectually stimulating. They also report being en-347 couraged by a positive school experience or having teachers in their own family. Prospec-348 tive teachers have a more positive perception of teaching. They are more likely to see 349 teaching as a secure job with good promotion prospects. 350

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	All	Rejected teaching	Intend	Teacher trainees
Teachers' salaries are not high enough	7.5	7.6	7.5	8.1
It's for those who enjoy working with young people	6.3	7.0	7.2	8.1
It allows you to give something back to society	6.5	7.5	7.9	8.1
Teaching offers intellectual stimulation	5.3	6.0	7.1	7.8
Good teachers at school can encourage people to go into teaching	4.7	7.5	7.8	7.7
A good experience at school can encourage people to go into teaching	6.4	7.1	7.5	7.6
The long holidays are attractive	7.8	7.8	7.7	7.4
Teaching has high job security	2.2	6.4	6.8	7.2
It allows you to continue your academic interest	4.8	6.2	7.1	7.2
It has good career/promotion prospects	2.9	5.3	6.5	7.1
Learning to teach makes you more employable	7.0	5.5	6.2	6.4
It is a high-status profession	7.3	5.0	5.7	5.8
There is a problem with poor discipline in schools	6.2	6.6	6.1	5.5
People who have teachers in their family are more likely to go into teaching	2.0	2.0	2.0	5.2
Working hours in teaching are family friendly	6.9	6.2	6.3	4.9
Teachers' workload is manageable	5.0	4.5	4.8	3.9
It's for people who are academic stars	5.4	3.0	2.9	2.0
It's a more suitable career for women	7.4	4.9	4.5	1.0
It's for those who can't do anything else	6.0	2.0	1.4	0.9

Table 14. – Perceptions of teaching as a career.

Of particular interest is the group that have considered but rejected teaching. Com-353 pared to those who intend to be teachers, they are less likely to view teaching as intellec-354 tually stimulating or as allowing one to pursue their academic interest. They are less likely 355 to see teaching as a high-status profession, offering good promotion prospects and job 356 security. This is interesting. 357

There is little difference in the perceived attractiveness of school holidays, discipline problems in schools, or the level of teachers' pay. Intending teachers are no more concerned about teacher pay than those no interested in teaching. This suggests that these issues are not key determinants of becoming a teacher or not. And this is contradiction to some previous work (see above).

Until people are in teacher training, there is less concern that the job may not be family friendly.

Non-teachers are much less concerned about teachers' workload, meaning that this 365 is probably not a great deterrent for those considering teaching. They are much more 366 likely to believe that teaching is more appropriate for women or for those unable to get 367 any other job. This is a major problem of perception that relates partly to the status of 368 teachers in society (and is presumably also linked to their lower average attainment and 369 less prestigious family background in the overall sample). However, non-teachers are 370 more likely to report that teaching is a high-status profession, despite the perceived lack 371 of promotion opportunities. And trainee teachers report that their training leads to more 372 than one possible occupational outcome. For example:

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I decided to do my Primary PGCE, mostly because you don't need to directly go into 375 teaching to use this qualification. I am definitely considering the other opportunities avail-376 able for example working in a prison, library, becoming an education officer and even 377 working in education psychology roles. Basically, I think the PGCE is an attractive quali-378 fication because there is more to it than classroom teaching. 379

3.4. Differences between routes and areas

As additional analyses, we also compared teacher trainees on school-based training 381 routes and PGCE (university-based) students, those training to teach in different phases, 382 and in different parts of the country. We found few differences between them in terms of 383 what attracts them to teaching. Their ratings are very similar whether they are following 384 the university PGCE route, or a school-based route such as a SCITT (School Centred Initial 385 Teacher Training) (Table 15). Similarly, there is little difference between those training for 386 the primary sector and those planning for posts in the secondary sector. 387

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	PGCE students	SCITT/School Direct	Primary (n = 158)	Secondary (n = 630)
It allows you to give something back to society	8.2	8.0	7.7	8.0
It's for those who enjoy working with young people	8.1	8.2	8.1	8.3
Teachers' salaries are not high enough	8.1	7.9	8.0	7.9
Teaching offers intellectual stimulation	7.8	7.8	7.7	7.8
Good teachers at school can encourage people to go into teaching	7.7	7.5	7.8	7.4
A good experience at school can encourage people to go into teaching	7.6	7.5	7.5	7.5
The long holidays are attractive	7.3	7.7	7.0	7.9
It allows you to continue your academic interest	7.2	7.1	7.1	7.1
Teaching has high job security	7.2	7.1	6.9	7.2
It has good career/promotion prospects	7.1	7.2	7.1	7.3
Learning to teach makes you more employable	6.5	6.2	5.7	6.3
It is a high status profession	5.8	5.6	5.9	5.5
There is a problem with poor discipline in schools	5.5	5.6	5.1	5.7
People who have teachers in their family are more likely to go into teaching	5.3	4.7	4.0	4.9
Working hours in teaching are family friendly	4.9	4.8	5.3	4.7
Teachers' workload is manageable	3.9	4.0	4.2	4.0
It's for people who are academic stars	2.1	1.9	1.1	2.1
It's a more suitable career for women	1.0	0.9	0.7	0.9
It's for those who can't do anything else	0.9	0.7	0.5	0.8

Table 15. - Comparison of perceptions of teaching between school-led and university trainees.

Finally, there is little evidence that views on teaching vary much for those training or 389 planning to teach in different regions in England (Table 16).

	London, East, Southeast England	Northeast, Northwest England	West Midlands	Yorkshire, Humber	East Midlands
Teachers' salaries are not high enough	8.8	7.8	8.1	8.3	8.0
It allows you to give something back to society	8.2	7.9	8.2	8.1	8.6
It's for those who enjoy working with young people	8.1	8.2	8.0	8.4	8.0
Good teachers at school can encourage people to go into teaching	7.8	7.7	7.5	7.8	7.7
Teaching offers intellectual stimulation	7.7	7.7	7.8	8.0	7.6
The long holidays are attractive	7.2	7.2	7.5	7.5	7.8
A good experience at school can encourage people to go into teaching	7.2	7.5	7.5	7.6	7.9
Teaching has high job security	7.0	6.9	7.6	6.7	7.3
It allows you to continue your academic interest	7.0	7.1	7.3	7.6	6.7
It has good career/promotion prospects	6.9	7.1	7.3	7.1	7.0
Learning to teach makes you more employable	6.4	6.3	6.4	6.5	6.5
It is a high-status profession	6.2	5.7	5.9	5.5	5.7
There is a problem with poor discipline in schools	5.6	5.6	5.3	5.6	5.9
People who have teachers in their family are more likely to go into teaching	5.5	5.1	4.9	5.4	5.6
Working hours in teaching are family friendly	5.2	4.5	5.0	5.3	4.7
Teachers' workload is manageable	4.3	4.0	4.1	3.7	3.4
It's for people who are academic stars	1.3	2.1	2.0	2.2	1.8
It's a more suitable career for women	0.8	0.9	1.2	0.9	0.7
It's for those who can't do anything else	0.6	0.9	1.0	0.8	0.7

Table 16. – Ratings of influences on choice of teaching, comparing students training in different392economic areas.393

In summary, there is little difference in the motivations of trainee teachers from different areas and on different training routes. The key differences in this paper are between prospective or trainee teachers and those who considered but rejected a career in teaching. 396

4. Discussion

The research described here is unusual in that it involves teachers, those interested 398 in teaching and those not interested in teaching. In several respects, this alters the kinds 399 of findings produced by standard research based only on the views of teachers and in-400 tending teachers. In attempting to improve the recruitment of new teachers, a key consid-401 eration for policy and research must be about who is intended to be attracted to teaching. 402 This paper looks at four main groups - those never considering teaching, those consider-403 ing and rejecting teaching, those who intend to become teachers, and those in training. 404 Presumably the first group is not a fruitful area for new recruitment. A lot of these stu-405 dents are studying subjects at university like accountancy, law, medicine, architecture and 406 engineering, which have their own clear professional or vocational outcomes. A lot are 407 planning a career in their specialist subject area, at this stage at least. At the other extreme, 408 a focus only on those firmly intending or training to become teachers would lead to the 409

same, probably misleading, answers as standard research in this area, that does not have 410 a suitable comparator.

In general, teaching is currently disproportionately attracting students from less ed-412 ucated families with less prestigious occupational backgrounds, who have somewhat 413 lower attainment prior to, and at, university. Prospective teachers also tend to come from 414 some of the most generic subject areas (like sport, English, classics, and history). However, 415 in the short term, student background characteristics, prior experiences and course 416 choices such as these are not malleable, and so these differences do not help much in de-417 ciding how to attract more people into teaching. 418

The key distinction lies in the views of intending teachers and those who express 419 some interest in teaching, but do not now intend to become teachers. This distinction is 420 important as it provides clues to how to attract more people into teaching. Research on 421 the first group tends to emphasise the concerns of those in the profession, but theses con-422 cerns had clearly not deterred them from becoming teachers. For the second group, it is 423 job satisfaction, job status, job security, career/promotion prospects and intellectual stim-424 ulation that seem to be more important. 425

Many of the issues that teachers/trainees report as negative (e.g. heavy workload, 426 and poor student discipline) do not discriminate between prospective teachers and others. 427 Such headline-grabbing factors simply disappear when a genuine comparative design is 428 used, as here. 429

Policy-makers and other stakeholders therefore need to learn the lesson that teacher 430 supply will not only (or at all) be addressed by tackling the largely bureaucratic issues 431 that existing teachers complain about. The reason why most students do not intend to 432 become teachers is probably much deeper and long-standing. And the key difference lies 433 in the prestige that young people see, or do not see, in teaching as an occupation. Policies 434 need to be devised to make teaching more attractive to this "possible" group, totally dis-435 tinct from policies to try and retain existing teachers. Working towards these is the next 436 step in our project. 437

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