



THE UNIVERSITY of EDINBURGH  
Careers Service



THE UNIVERSITY of EDINBURGH

# **Choosing the PGDE: Motivations and influences for students with and without widening participation backgrounds**

Susan Whittaker, Centre for Research in Education Inclusion and Diversity,  
University of Edinburgh

May 2017



Centre for Research in  
Education Inclusion  
and Diversity

## **CONTENTS**

<b>EXECUTIVE SUMMARY</b>	<b>6</b>
<b>1. INTRODUCTION AND AIMS</b>	<b>10</b>
<b>2. LITERATURE REVIEW</b>	<b>12</b>
<b>2.1 Summary points</b>	<b>12</b>
<b>2.2 HE subject choice and social background</b>	<b>13</b>
2.2.1 Theoretical perspectives on higher education participation differences between social groups	13
2.2.2 Field of study choice and social background	14
2.2.3 Summary: field of study and social background	15
<b>2.4 Sources of information for prospective students</b>	<b>15</b>
2.4.1 Summary: information sources	16
<b>2.5 Social background of teacher education entrants</b>	<b>17</b>
2.5.1 Studies focused on undergraduates	17
2.5.2 Summary: undergraduate studies	18
2.5.3 Studies focused on postgraduates	18
2.5.4 Summary: Postgraduate studies	20
<b>2.6 Motivations for entering teacher education and becoming a teacher</b>	<b>21</b>
2.6.1 Motivations to teach: general findings	21
2.6.2 Motivations to teach and social background	23
2.6.3 Summary: motivations to teach	25
<b>3. STUDENT SURVEY</b>	<b>26</b>
<b>3.1 Survey content</b>	<b>26</b>
<b>3.2 WP indicators</b>	<b>28</b>
<b>3.3 Survey distribution and response rate</b>	<b>29</b>
<b>3.4 Analysis</b>	<b>29</b>
<b>4. CHARACTERISTICS AND UNDERGRADUATE EDUCATION OF RESPONDENTS: FINDINGS</b>	<b>31</b>
<b>4.1 Characteristics</b>	<b>31</b>
<b>4.2 Undergraduate education</b>	<b>32</b>
<b>5. STUDENTS WITH AND WITHOUT WP BACKGROUNDS: FINDINGS</b>	<b>37</b>

<b>5.1 Characteristics</b>	<b>37</b>
<b>5.2 Undergraduate education</b>	<b>38</b>
<b>5.3 Motivations for entering teacher education</b>	<b>41</b>
5.3.1 Altruistic and intrinsic motivations	41
5.3.2 Extrinsic motivations	44
<b>5.4 Influences and sources of information</b>	<b>48</b>
<b>5.5 Summary: Key findings in relation to WP indicators</b>	<b>50</b>
 <b>6. MOTIVATIONS, INFLUENCES AND SOURCES: FINDINGS FOR ALL RESPONDENTS</b>	 <b>52</b>
<b>6.1 Altruistic and intrinsic motivations</b>	<b>52</b>
<b>6.2 Extrinsic motivations</b>	<b>53</b>
<b>6.3 Influences and sources of information</b>	<b>55</b>
<b>6.4 Summary: PGDE, sex and age group differences</b>	<b>56</b>
 <b>7. CONCLUSION</b>	 <b>58</b>
 <b>REFERENCES</b>	 <b>63</b>

## FIGURES AND TABLES

Figure 1: Percentage of respondents by PGDE course, sex and age group (n=109)	31
Figure 2: Percentage of respondents by PGDE course and sex and age group	31
Figure 3: Percentage of respondents in relation to potential widening participation indicators: whether a parent has HE experience, whether entered first degree through traditional or access route, and multiple deprivation quintile of home area before entry to first degree	32
Figure 4: Percentage of respondents by university type for undergraduate degree	33
Figure 5: Percentage of respondents by main subject group of their first degree	34
Figure 6: Percentage of respondents by PGDE course and main subject group of their first degree	34
Figure 7: Percentage of respondents by year of graduation from undergraduate degree	35
Figure 8: Percentage of respondents by when they decided to become a teacher	35
Figure 9: Percentage of WP and non-WP respondents by PGDE course, sex, and age group	37
Figure 10: Percentage of respondents by IMD area, and PGDE course, sex, and age group	38
Figure 11: Percentage of WP and non-WP respondents by undergraduate institution type and subject group	39
Figure 12: Percentage of respondents by IMD area, and undergraduate institution type and subject group	39
Figure 13: Percentage of WP and non-WP respondents by year of graduation from undergraduate degree	40
Figure 14: Percentage of WP and non-WP respondents by when they decided to become a teacher	40
Figure 15: Percentage of respondent by IMD area, by when they decided to become a teacher	41
Figure 16: Percentage of WP group by strength of altruistic and intrinsic (enjoyment) motivations	42
Figure 17: Percentage of non-WP group by strength of altruistic and intrinsic (enjoyment) motivations	42
Figure 18: Percentage of respondents by IMD area who were strongly motivated by altruistic and intrinsic (enjoyment) motivations	43
Figure 19: Percentage of WP group by strength of intrinsic (satisfaction) motivations	43
Figure 20: Percentage of non-WP group by strength of intrinsic (satisfaction) motivations	44
Figure 21: Percentage of respondents by IMD area who were strongly motivated by intrinsic (satisfaction) motivations	44
Figure 22: Percentage of WP group by strength of extrinsic (job conditions) motivations	45
Figure 23: Percentage of non-WP group by strength of extrinsic (job conditions) motivations	45
Figure 24: Percentage of respondents by IMD area who were strongly motivated by extrinsic (job conditions) motivations	46
Figure 25: Percentage of WP group by strength of extrinsic (course conditions) motivations	47
Figure 26: Percentage of non-WP group by strength of extrinsic (course conditions) motivations	47
Figure 27: Percentage of respondents by IMD area who were strongly motivated by extrinsic (course conditions) motivations	47
Figure 28: Percentage of respondents by IMD area who were not motivated by extrinsic (course conditions) motivations	48
Figure 29: Percentage of WP and non-WP respondents by who influenced their decision to become a teacher	49

Figure 30: Percentage of respondents by IMD area, and by who influenced their decision to become a teacher	49
Figure 31: Percentage of respondents by use of sources of information on teacher education	50
Figure 32: Percentage of respondents by strength of altruistic and intrinsic (enjoyment) motivations	52
Figure 33: Percentage of respondents by strength of intrinsic (satisfaction) motivations	53
Figure 34: Percentage of respondents by strength of extrinsic (job conditions) motivations	54
Figure 35: Percentage of respondents by strength of extrinsic (course conditions) motivations	55
Figure 36: Percentage of respondents by who influenced their decision to become a teacher	56
Figure 37: Percentage of respondents by use of sources of information on teacher education	56
 Table 1: Percentage of WP students in the sample compared to other measures	 32
Table 2: Number of respondents by activity type before entering teacher education	35
Table 3: Percentage of respondents with and without parental HE, by who influenced their decision to become a teacher	49

## **EXECUTIVE SUMMARY**

### **Background and approach**

Research by University of Edinburgh Careers Service that compared graduates from different Schools in the university, identified that graduates from under-represented groups were almost twice as likely as other graduates to have studied in the School of Education. In addition, a higher percentage of graduates with widening participation (WP) indicators, compared to those from non-WP backgrounds, were studying for a teaching qualification (mainly the Professional Graduate Diploma in Education) six months after graduation.

These findings, and those on the SIMD background of Professional Graduate Diploma in Education (PGDE) students, raise the question as to why a relatively high representation of students with WP backgrounds at the University are on teacher education courses, and whether WP and non-WP students have different reasons for choosing Education.

A literature review confirmed these findings to fit with wider UK data, which show that at undergraduate level those from less advantaged backgrounds are more likely than those from more advantaged backgrounds to study Education than most other subjects. At postgraduate level they are more likely to undertake teacher education, than other types of taught and research postgraduate study.

Education at undergraduate and postgraduate level therefore appears relatively socially accessible. For women in particular it has traditionally acted as a facilitator of social mobility, helping those from less socio-economically advantaged backgrounds into professional jobs.

This research focused on PGDE students at the University of Edinburgh. It used a survey of students on the 2016-17 programme to identify their attributes, social background and first degree background, and the motivating factors and the main influences for graduates both with and without widening participation backgrounds to enter the PGDE Primary and Secondary programmes.

Identifying 'WP' students on postgraduate courses is challenging, because the experience of having completed a degree can change the relevance of some of the WP measures commonly used. This is particularly the case for the PGDE programme which attracts entrants of all ages and who may have graduated some time ago. Three WP measures were used in the survey: home postcode before entry to first degree, which was used to identify the Scottish Index of Multiple Deprivation (SIMD) (or English or Northern Irish equivalent) quintile area the student was from at that time; whether either of their parents has an HE qualification or experience; whether they entered their first degree through a widening access route. The WP group created for analysis included all respondents with one or more these indicators.

There were 109 useable responses to the survey. 66% of respondents were on the Primary PGDE and 34% on the Secondary PGDE. There was a 38% response rate (a 58% response rate for Primary and 22% for Secondary PGDE). The higher response rate for the Primary PGDE was because students were given hard copies of the questionnaire survey to complete, in addition to the on-line version. All of the Secondary respondents filled in on-line questionnaires.

## Findings

### *Characteristics and undergraduate education*

- Thirty eight per cent of respondents did not have a parent with HE experience, and 11% entered HE through an access route. Only 15% had a home postcode in the 40% most deprived areas (SIMD40) compared to 21% for the whole PGDE cohort and 22% for the whole initial teacher education (ITE) cohort. Students from deprived neighbourhoods were therefore under-represented in our sample.
- Only around a quarter of respondents were aged under 25, while around 40% were aged 30 or over. Three quarters of respondents were female. The representation of males and females overall and within the two PGDE courses aligned with wider data. The respondents on the Primary PGDE were more likely to be female and older than those on the Secondary PGDE, although the findings by course were based on different numbers and response rates.
- In terms of WP indicators, there was little difference in relation to PGDE course, sex or age groups, apart from the 30 and over group being least likely to have a parent with HE experience; and within the small number of respondents whose home address at the time of undergraduate entry was in an SIMD40 area, there was a lower percentage of males than females, and of those aged 25-29 compared to other age groups.
- Thirty eight per cent of the respondents had graduated from an ancient or Russell Group university, and only 18% from a Post-92 university. This is not in itself a WP indicator, but reflects the relatively low percentage of SIMD40 respondents. WP students were more likely than non-WP students to have studied STEM subjects, mainly biological sciences.

### *Motivations and influences*

- Respondents in the WP group were significantly more likely than the non-WP group to have made the decision to enter teacher education during their undergraduate study.
- The WP group (but not the SIMD40 group) was slightly less strongly motivated by altruistic and intrinsic factors than the non-WP group, and this was the case even after accounting for sex and age group. However, the nature of teaching as a social and public service role means that the vast majority of WP-indicated respondents were also motivated by the altruistic and enjoyment factors, and to a greater extent than by extrinsic factors.
- The potential for career development was more often a strong motivation for WP than non-WP respondents. The WP group was more often strongly motivated than the non-WP group by the responsibility of the teaching role. These findings may suggest greater long-term commitment to teaching among the WP group, while the non-WP group overall may be more confident about or may value more the expectation of challenge of the role.
- The expectation of a reasonable salary was more often a strong motivation for the WP group than non-WP group, and this was only the job condition factor by which they were more motivated than were the non-WP group.
- The expectations of security of employment, holiday entitlement, family-friendly conditions, the PGDE as a funded route to a professional career, and the short length of the course, were more often motivations for the non-WP group than the WP group. These findings in relation to job security, and course funding and length, were not expected.

- Analysis by sex showed that for males the security of employment and funded route were more often a motivating factor for the WP than non-WP group. For male WP respondents getting into employment quickly and security of employment when they get there appear particularly important, however this is noted with the caveat of a low number of male respondents, albeit they were equally distributed in the WP and non-WP groups.
- Males overall were more motivated than females by enjoyment of the subject(s) they will teach, the potential for career development, and the security of employment – females more frequently cited every other factor as a strong motivation, suggesting a greater complexity of motivations amongst females or a more positive outlook on the range of potential benefits of teaching.
- Amongst all respondents, the potential for career development was more often a strong motivation for those aged under 30. Younger entrants may therefore either be more ambitious, or expecting to have a longer teaching career, than older entrants. Those aged over 30 were the least motivated by security of employment and salary.
- Those in the 25-29 age group were more likely than other groups to be strongly motivated by the course condition factors. The few years between graduating and entering the PGDE potentially creates financial and time pressures. Therefore for some in their mid to late twenties, a short, funded qualification route and guaranteed post is important.
- Primary PGDE respondents were more likely than Secondary PGDE respondents to be strongly motivated by wanting to work with children and variety of the role, and Secondary respondents by enjoyment of the subject(s) they would teach, and responsibility of the role, the potential for career development and extrinsic job conditions.
- WP respondents were less likely than non-WP respondents to have been influenced to enter teacher education by personal contacts. These differences were due in part to differences between those with and without a parent with HE experience.
- Among the WP group, school teachers were more likely to be an influence on becoming a teacher than were parents or family members, and they differed to the non-WP group in this.
- Males overall were more likely to draw on personal contacts in deciding to enter teacher education, which may reflect teaching as a less normalised professional route for men.

## Conclusions

- The respondents in the sample were more socially advantaged than amongst the PGDE and ITE cohorts, in relation to the SIMD40 measure. Within the sample there was little difference in relation to WP indicators amongst the Primary and Secondary respondents. However, within the cohort, Primary PGDE students are a little less likely to be from a SIMD40 area. The skew of the sample towards Primary PDGE students may therefore explain the lower percentage of SIMD40 respondents in the sample compared to the cohort. Entry to the Primary PGDE is also more competitive than entry to the Secondary PGDE.
- However in the context of the University of Edinburgh the percentage of respondents originally from a SIMD40 neighbourhood was nonetheless high, reflecting the relatively accessible nature of teacher education programmes at the university. Furthermore, a relatively high percentage did not have an HE-experienced parent, allowing comparison to be made between a group with at least one WP indicator and a group with no WP indicators.



- It was found that people enter the PDGE at Edinburgh University from a wide range of previous institutions and fields of study, often some time after they first graduated and having had other life experience first. Wider research shows the relatively high participation of mature students (those over 21) in undergraduate teacher education, and applying a higher age threshold for identifying mature students in this survey shows them to be strongly represented at postgraduate level.
- The findings suggest that teaching can either be a career idea that people mature into, or be more valued as an option after other experiences, or for some be a fall-back choice after trying other options. Whether or not they are from backgrounds under-represented in HE as a whole may be less of a factor due to the delayed entry to the PGDE in most cases, and the fact they have completed an undergraduate degree.
- One of the potentially important ways the WP and non-WP groups differed however was in relation to when they graduated and when they decided to enter teacher education. The findings suggest the non-WP group were willing or able to delay their entry into teacher education until their mid to late 20s, while WP students were more likely than non-WP students to enter soon after graduation. In relation to the wider literature on the perceptions of employability and of accessibility of teaching as a career, the findings suggest that those classified as WP in this study are less likely to have financial and social resources to either delay entry to the workplace or to have social networks that open up a wide range of options.
- In terms of motivations, the findings show firstly that while teacher education is most strongly being pursued because it is seen as a worthwhile, varied and enjoyable role, the reasons can be more complex.
- There was variation in motivations by WP group - notably the WP group were more likely than the non-WP group to be motivated by expectations of a reasonable salary - but the differences between WP and non-WP students were not in all cases in the direction nor as strong as expected. The limitations of using WP indicators in relation to postgraduate students may be a factor. Other factors such as sex and age group were more important in relation to some of the motivation measures. Knowing more about financial circumstances of PGDE students, expectations about how long they plan to be a teacher and their hopes for their teaching career, may help further explain the findings.

## 1. Introduction and aims

This project was undertaken by the Centre for Research in Education Inclusion and Diversity (CREID), Moray House School of Education, on behalf of Edinburgh University Careers Service. The University of Edinburgh recognises the need to improve access of widening participation (WP) students from less advantaged social backgrounds. For all universities, the Commission for Widening Access (2016) has set demanding aims for the sector to increase the percentage of students who have widening participation indicators<sup>1</sup>. In the School of Education there is a relatively high percentage of students classified as WP, as 23% of students are from the 40% most deprived communities as measured by the Scottish Index of Multiple Deprivation (SIMD40) (and 22% of students on undergraduate initial teacher education programmes including the PGDE). This compares to College-wide measures between 13% and 19%. Teacher education courses are also amongst the few courses at the University of Edinburgh which cater predominantly for those from the local community.

The starting point for the research was provided by the findings of the analysis by Edinburgh University Careers Service (2011, 2015) of data on the early post-graduation outcomes and paths of graduates from the University of Edinburgh who had widening participation (WP) backgrounds compared with those who did not. Indicators of WP background include coming from a school with below average academic attainment or progression to HE; entering the university through a widening access programme; coming from a family where neither parent attended university; or coming from a neighbourhood of high multiple deprivation. It was found in the analyses by the Careers Service, which identified WP-indicated students mainly on the basis of attending a below average progression secondary school or entering through an access programme, that:

- Comparing graduates from different university Schools, graduates from under-represented groups were almost twice as likely as other graduates to have studied in the School of Education. This indicates that the School of Education has been more successful than other schools in attracting those from less advantaged backgrounds to undergraduate programmes, including undergraduate initial teacher education degrees.
- A higher percentage of WP graduates, compared to those from non-WP backgrounds, were studying for a teaching qualification six months after graduation.
- The majority of the WP group graduates from the University of Edinburgh who entered a Professional Graduate Diploma in Education (PGDE) did so at the University of Edinburgh.

These findings, and those on the SIMD background of PGDE students, raise the question as to why a relatively high representation of students with WP backgrounds at the University are on teacher education courses, and whether WP and non-WP students have different reasons for choosing Education.

As postgraduate options are of particular concern to the work of university careers services, and because there is relatively little research on postgraduate students with WP backgrounds, this research focuses on PGDE students at the University of Edinburgh. The PGDE is an intensive one-year teacher education course, undertaken by postgraduates, which prepares its students to teach either at Primary or Secondary education level. Successful students qualify as probationary teachers, and

---

<sup>1</sup> For example, the Commission on Widening Access (2016) recommended that by 2021 students from the 20% most deprived backgrounds should represent at least 16% of full-time first degree entrants to Scottish HEIs as a whole.

have a guaranteed one-year probationary or induction post, after which they are qualified to apply for teaching posts in schools.

The research seeks to identify the factors which motivated graduates both with and without widening participation backgrounds to enter the PGDE Primary and Secondary programmes at the University of Edinburgh. Specifically the project aims to provide evidence with regard to:

- The attributes, social background and first degree background of PGDE students;
- When PGDE students decided to train as a teacher;
- Their reasons for deciding to train as a teacher;
- Who influenced their decision to train as a teacher;
- Whether these factors differ in relation to student characteristics that indicate that they were widening participation students when they entered their first degree.

A rapid literature review and a student survey were carried out. The literature review is provided in section 2. The survey approach and content is set out in section 3. An overview of respondents' characteristics and undergraduate education is provided in section 4. The findings for respondents with and without widening participation backgrounds are in section 5. Motivations and influences for all respondents are in section 6. Section 7 provides a concluding discussion.

## 2. Literature review

This section summarises research findings identified through a brief literature review, covering UK publications since 2000. The aim of the literature review was to identify evidence on the relationship between entering teacher education and the social background of teacher education entrants, and how motivation to enter teacher education is associated with social background. Social background factors can include social class based on parental occupation (for young students); the type or HE participation rate of secondary school attended; the level of deprivation or HE participation rate of the student's home area; entry to HE through a widening access route; whether or not the student is the first generation in their family to study at HE level; and family income. In the literature identified, measures of social background were mainly represented by parental social class, the deprivation level of the home area and to a lesser extent accessing HE through a widening access route. As the literature available specific to teacher education and social background is limited, the review starts by summarising wider evidence on the relationship between HE subject choice and social background, and sources of information in HE choice. This literature primarily concerns entry to undergraduate study, and much more limited evidence on entry to postgraduate study. Research literature on the social background of teacher education entrants, including those entering undergraduate Education courses, is then summarised, followed by evidence on the motivations for entering teacher education (among undergraduates and postgraduates) or considering teaching as an option after graduation (among undergraduates), again in relation to social background.

### 2.1 Summary points

- HE access and subjects entered at undergraduate level are shaped by social background and the perception of options and expected outcomes, maintaining overall differences in HE participation by groups differentiated by measures of advantage.
- Those from less advantaged backgrounds, and those who may be identified as 'widening participation' students, are somewhat more likely to enter fields of study that are expected to increase their chances of subsequent employment, and less likely to enter a field mainly for enjoyment reasons, than those from more advantaged backgrounds for whom entering HE is the 'normal' thing to do. Mature students may prioritise employability more strongly than young students.
- Those from less advantaged backgrounds are more likely than those from more advantaged backgrounds at undergraduate level to study Education than most other subjects. At postgraduate level they are more likely to undertake teacher education, than other types of taught and research postgraduate study. Education at undergraduate and postgraduate level therefore appears relatively socially accessible. For women in particular it has traditionally acted as a facilitator of social mobility, helping those from less socio-economically advantaged backgrounds into professional jobs.
- Differences have been found in the likelihood of entering postgraduate teacher education between men and women in relation to their subject at undergraduate level. For example, humanities or maths and computing graduates have been found to be more likely to enter teacher education if women than if men. Amongst males, graduates of natural sciences were found to be the most likely to enter teacher education.
- Those from less advantaged backgrounds, including those from non middle-class backgrounds, those who went to a non-selective school and those who do not have an HE-experienced parent, may have access to less encouragement and information on HE options

than other potential students. This may be less of an issue for postgraduate students entering a relatively well-known course such as the PGDE.

- Altruistic motivation (the social value of teaching) and intrinsic motivations including the wish to work with children and young people, enjoyment of the subject and the variety, challenge and responsibility of the role, tend to be stronger motivations for those wishing to become teachers than are extrinsic motivations. However a mix of intrinsic and extrinsic motivations is common. Extrinsic motivations include perceptions of job security, relatively generous holiday entitlement, and the potential of teaching to fit with family life. Some student teachers perceive negative aspects of the job in relation to status, workload and pay for example, but may not rate these factors as important in their career decisions as those not wishing to be teachers.
- Motivations can also vary overall in relation to those wanting to be Primary or Secondary teachers (for example higher importance given to working with children for the former and enjoyment of subject for the latter); gender (intrinsic motivations and the extrinsic factor of family friendly conditions may be stronger amongst females); age (love of working with children may be more important to younger students and career options more important to older students). Career changers may be motivated by a wish for a more varied or secure career, or to make a social contribution.

## **2.2 HE subject choice and social background**

### ***2.2.1 Theoretical perspectives on higher education participation differences between social groups***

There is a wide body of literature on the social background differences of young people in relation to whether they qualify for HE, consider HE to be a feasible option, and the HE options that potential students apply for and take up. Prior attainment has been found to explain much of the difference in socio-economic background and likelihood of participating in HE, but differences remain (Chowdry et al., 2010; Hunter Blackburn et al., 2016; WISERD, 2015). There are theoretical perspectives which seek to explain why there are persistent differences in the likelihood of entering HE and in the forms of HE undertaken, in relation to students' socio-economic background and their ethnicity, even after attainment is accounted for. For example Breen and Goldthorpe's (1997) perspective, described as relative risk aversion, is that educational transitions are decision points, and at the aggregate level, educational and occupational options at these points are identified as feasible and desirable in relation to the social class background of the person. The authors propose that this background shapes the resources they have to pursue HE and their perceptions of their likely success. It also motivates them to make choices that will allow them to enter occupations at the same occupationally-determined social class status as their parents, or in other words to avoid downward social mobility. For young people from working class backgrounds, HE may be considered too much of a risk, in terms of the financial cost and the possibility of failure, unless they have very high attainment levels. For young people from middle class backgrounds, entering HE may be required to maintain their social position, and the risks of failure are lower for those whose families can absorb the costs of failure and have the resources to support or create alternative opportunities (Goldthorpe, 2010).

An alternative perspective on the issue of social background differences at education transition points is based on cultural reproduction theory (Bourdieu and Passeron, 1977), adapted to explain

transitions into HE in the UK (Archer and Hutchings, 2000; Ball et al., 2002). The cultural reproduction perspective is concerned with issues of identity, socialisation, and the cultural as well as financial resources that an individual has to draw on when identifying and deciding to pursue the HE option. Social class is again central to this process of decision-making at transition points, but this is both culturally and occupationally defined. For Ball et al. (2002) HE 'choice' concerns students matching perceptions of their ability and attainment to the entry requirements of institutions, but is also shaped by students' perceptions of their fit with the social and cultural environments of institutions (Ball et al., 2002). Neither the relative risk aversion nor cultural reproduction perspective explains outcomes for all individuals, but do provide possible explanations for aggregate level differences between people from different broad social class backgrounds. In both perspectives, the role of social class in participation is argued to be in the cultural, social and financial resources it provides, and the extent to which these resources are perceived to be compatible with being an HE student at all, and if so with being able to enter and succeed in different types of institution and different fields of study. Differences in knowledge may affect understanding of the risks of HE participation, and of different types of HE participation.

In addition to social class, direct and indirect influence of family on HE decisions is more common for those from families with experience of HE and more strongly associated with accessing more selective institutions (Ball et al., 2002; Davies et al., 2014; Purcell et al., 2008). There are also differences in the association between school type attended and accessing HE, and the selectivity of the institution entered (Crawford, 2014; Sutton Trust, 2011; Purcell et al., 2008), not all explained by educational attainment.

Differing perceptions of risks, or costs and benefits, in relation to socio-economic background are therefore associated with differing expectations of HE outcomes and therefore potentially the purposes that HE is seen to serve, which may be reflected in both field of study or institution type entered. The majority of research has however focused on institution types rather than fields of study. The more limited literature on field of study in relation to social background is summarised next, followed by sources of information and influence.

### ***2.2.2 Field of study choice and social background***

Routes to fields of study at university start in primary school (van de Werfhorst et al., 2003) or early secondary education (Iannelli, 2013; Iannelli et al., 2015), as earlier attainment and school subject choices set the boundaries for choices at HE level. Future employability has been found to be more of a concern to those from working class backgrounds (Archer, 2003; Connor et al., 2001; Purcell et al., 2008), and choosing a field of study because it is enjoyed somewhat more common for more advantaged students (Connor et al., 2001; Purcell et al., 2008). A study by the Sutton Trust and BIS (2012) found that high achievers who chose not to apply to the most selective universities showed a greater concern for whether the course would improve their employment prospects than did those who applied to more selective universities. In relation to ethnicity, Connor et al. (2004) found that the extent to which the course can be expected to lead to employment is a greater factor overall for Black and Minority Ethnic (BME) students compared to White students. In terms of age, Purcell et al. (2008) found employability concerns to be stronger for older applicants for whom study choices are often related to employment or career change or development (also Million+ and NUS, 2012), while younger applicants were more likely to choose subjects they enjoy or consider themselves to be good at. Having a clear career direction at the point of entry to HE has also been found to be

stronger for females (Purcell et al., 2008). There is evidence also in Purcell's et al.'s (2008) large scale survey of HE entrants, that the least career direction was shown by those who had attended independent schools or were from a higher managerial or professional background, for whom HE is arguably an expected stage in their lives that does not require a great deal of consideration about where it will lead (Purcell et al., 2008). The normality of the HE route for more advantaged young people fits the cultural perspective on student choice (Archer and Hutchings, 2000; Ball et al., 2002).

In terms of expected earnings, Jerrim (2008) found that students at all institution types had unrealistic expectations. However expectations were closer to reality for some subjects studied, and it was those studying Education (at undergraduate level) who were closest in their estimations. Those studying sciences, languages and humanities had the largest average over-estimation gap between expectation and reality. Although there is evidence from a large scale longitudinal study that those from a low socio-economic status (SES) background may expect to gain an earnings premium by gaining a degree, this has been found to be a lower level of expectation than those from high income backgrounds (Delavande and Zafar, 2013). Qualitative research suggests that students from low socio-economic status (SES) backgrounds, unlike those from high SES backgrounds, may be more aware of the risks of HE study and do not necessarily assume they will gain financially (Christie and Munro, 2003; Gilchrist et al., 2003). They have been found to be less motivated by salary and less likely to enter high premium subjects (medicine, maths and computing, law and some aspects of business studies) (Davies et al., 2014).

### ***2.2.3 Summary: field of study and social background***

The aggregate differences in what to study suggest differences in expectations and goals in relation to socio-economic background that perpetuate differences in participation and subsequent outcomes. Those with backgrounds and characteristics that fit within the definition of widening participation (WP) groups are more likely to be constrained in their choices – whether HE is a feasible option at all, and if so what sort of HE they seek to enter - by prior attainment, school attended and school qualifications taken, to a greater extent than young people not in widening participation groups. Furthermore, even where prior attainment and qualifications gained are similar to those in non-WP groups, those in WP groups are more likely to be constrained in their choice of field of study (as well as institution type). They are somewhat more likely to enter fields of study that are expected to increase the chances of subsequent employment (and choose institution types in relation to expectations of success, fitting in and location), to reduce the risks that becoming an HE student carries. In relation to this project, Education may be perceived by students as one these fields.

## **2.4 Sources of information for prospective students**

Sources and quality of information, advice and guidance, from formal, informal, familial or peer sources, can also be a variable influence on prospective students in relation to their social background. Slack et al. (2014) categorise three types of source: 'cold' knowledge (prospectuses, university guides, league tables), 'warm' knowledge (first-hand knowledge acquired through casual meetings with strangers perceived as similar to the person making the decision, such as students at open days), and 'hot' knowledge (information and known experiences of those within their social network, often seen as most trustworthy). Ball et al. (2002) differentiate between those making HE choices as 'contingent choosers' who place most *value* on a small number of sources of hot knowledge, but because of their limited social networks have to rely more on cold knowledge than

do the 'embedded choosers'. This latter group have wider social networks with knowledge and experience of HE and draw on a wide range of both hot and cold knowledge. It is therefore the case that a range of other people – family, friends, subject teachers, careers officers – can influence HE decisions, though to differing extents and levels of importance in relation to social background (Connor et al., 2004; Moogan and Baron, 2003). There is large scale survey evidence that HE entrants from lower socio-economic backgrounds were more likely to report inadequate information (Purcell et al., 2008). Applicants to Russell Group universities had received advice from a more diverse range of people than those applying to other types of HEI (Purcell et al., 2008).

An implicit form of influence on applications and entry decisions can come from growing up with the sense that entering HE was 'the normal thing to do', and is more common for the middle classes or those from a family with an HE background (Ball et al., 2002; Davies et al., 2014; Purcell et al., 2008), or those who went to independent school (Purcell et al., 2008). Second generation applicants were more likely than first generation applicants to have got encouragement from their parents to apply (Purcell et al., 2008). Even without parental experience of HE, knowing siblings, other relatives and friends who had been in HE could encourage participation as it showed a path they could follow (Connor et al., 2001). What is important is the greater knowledge and experience that some students can draw on to reduce the perception of risks of HE entry. In relation to ethnicity, British Asian applicants were the most likely to have given parental encouragement as the reason for applying to HE (Purcell et al., 2008) and this appears to be because British Chinese and British Indian students are more likely than other ethnic groups to be high achievers moving straight from school into HE. Connor et al. (2004) found that all BME groups identified family influence as more important in applying for HE than did White applicants.

Mellors-Bourne et al. (2014) note that much of the literature on decision-making and sources of information, advice and guidance is focused on entry to undergraduate (UG) study, and that a mature returner to education entering postgraduate (PG) study is likely to follow a different decision-making process. This is due to higher likelihood of having more responsibilities and more fixed location, funding may be more limited, and decisions may be more 'purposeful'. The authors expect the role of families in decision-making will be less strong for mature PG entrants, although family context may affect decisions, but there is a lack of research on this. The importance of financial factors suggests a financial cost-benefit evaluation of the decision to undertake PG study. Individual HEI websites were identified in a survey of those considering returning to PG taught study as the most useful source of information; while those they most expected to consult were course faculty, followed by professional associations and friends and family. This suggests greater use of 'cold' and 'warm' than 'hot' knowledge amongst this applicant group. However a relatively low percentage expected to make use of career services. What has been identified more broadly is a lack of easily accessible information on PG study (Higher Education Commission, 2012).

#### ***2.4.1 Summary: information sources***

Amongst undergraduates, family circumstances and experience of HE as well as access to information sources from school and wider networks can broadly differ by social group, and can disadvantage those from less privileged backgrounds. For those entering a PGDE, who already have completed first degrees, have had access to potential information and guidance as undergraduates as well as before entering HE, and have chosen a course with a clear occupational destination available in a limited number of institutions, the more general issues of difficulty accessing



information on postgraduate studies may not be as relevant (compared to for example finding information on other types of taught courses). It is also possible that unless training as a teacher was the plan when they entered their first degree, the importance of school and family influence on the decision to train as a teacher are less strong in relation to social background than may be the case for those applying for undergraduate courses. Evidence on these issues was not found in the timescale available for the literature search.

## **2.5 Social background of teacher education entrants**

This section draws on the limited evidence available on social background of those who are considering or have chosen to train as teachers. This limited evidence contrasts with research undertaken on gender in relation to teaching (e.g. Braun, 2015; Riddell and Tett, 2006) and on the availability of gender and age data in official statistics. Gender issues are however relevant to the question of socio-economic background of participants which is the focus of this section, and more so to the issue of motivation for entering teacher education, which will be addressed in the next section.

### ***2.5.1 Studies focused on undergraduates***

Initial teacher education can be studied at UG level in the form of a B.Ed or equivalent, at PG level in the form of a Professional Graduate Diploma in Education (PGDE) (in Scotland) or Postgraduate Certificate in Education (PGCE) (elsewhere in the UK), or through alternative PG training routes (such as Teach First). 'Education' as a discipline is one of the 19 main undergraduate field of study groupings reported in official data, and incorporates education studies which do not necessarily give qualified teacher status. At a UK-wide level, HESA (2016) report that amongst full-time first degree entrants to Education in 2014/15, 41% were in NS-SEC 4-7 (based on parental social class for entrants aged under 21, and own social class for mature entrants), that is they were not in the managerial and professional classes but in social classes which are overall under-represented in HE. This is the highest percentage among all field of study groups, with only Computer Science having a similar level of entrants at these SEC levels. Amongst young entrants, Education also has the highest percentage of entrants from areas in the lowest quintile of HE participation rate (POLAR3), at 15% of entrants. However for mature entrants, the percentage of entrants to Education from POLAR3 lowest quintile areas is in the middle of the range at 17% (the field of study with the highest rate is Social Studies at 21%). Woodfield's (2014) analysis of 2010/11 HESA data showed that mature students were overall more likely to be from lower socio-economic groups than were young students, and more likely to be female and White. In Scotland only, the SFC's (2014a) Learning for All report shows that compared to students in other disciplines, Education at UG level at Scottish HEIs has one of the highest percentages of mature students (77.3%), a low percentage of BME students (3.3%), a medium level percentage of students from the 20% most deprived neighbourhoods (10.3%), but a relatively high percentage of students from the 40% most deprived neighbourhoods (26%). Similarly, the Futuretrack study (Purcell et al., 2008), which followed a large sample of entrants to UK HEIs, found that of all UG subjects, those studying Education were the least likely to be from a high socio-economic background (11%). Their average age (22) was second only to Subjects Allied to Medicine students (23.7). Comparing Asian, Black and White entrants, White students were much more likely to be enrolled on Education UG courses.

Drawing on two national surveys of graduates from UK HEIs in the 1990s, Purcell et al. (2005) found that those who undertook a B.Ed had lower average attainment than other graduates and were also

more likely to be from a lower socio-economic group (lower supervisory and technical, routine and semi-routine groups), perhaps due to the higher percentage of mature students who may not have entered with traditional qualifications or through traditional routes. It was further identified that those living at home as students had been much more likely to be enrolled on UG Education courses than were those who moved out of home (7% to 2.5%) (HECSU, 2014). Furthermore, in relation to gender and widening participation, Hartshorn et al. (2005) identified in a literature review that the percentage of males entering teacher training in Scotland through the access route is higher than through traditional routes; and mature students are more likely to enter via access courses than are young students. Amongst those entering access courses that could lead to a primary education degree, half of men and a quarter of women had left full-time employment to enter the access programme.

Evidence on social background and whether undergraduates plan to teach is provided by Ferrie et al. (2006) who carried out a survey of biology and social science undergraduates in three Scottish universities. Of the 60% of respondents who had considered a career in teaching, those in the least deprived areas were less likely to have considered teaching as an option than those in more deprived areas. In a survey of undergraduates in four institutions in South-West England and Wales, See (2004) found that those whose mothers had A levels or higher qualifications were less likely to be definitely planning to enter teaching than those whose mother's qualifications were unknown. In the specific context of Edinburgh University, Edinburgh University Careers Service (2015) analysed HESA Destinations of Leavers from Higher Education (DLHE) data on outcomes for graduates who had widening participation indicators. They found that graduates from under-represented groups were almost twice as likely as other graduates to have graduated from the School of Education.

### ***2.5.2 Summary: undergraduate studies***

At undergraduate level, therefore, entrants to Education have a less socio-economically advantaged profile and are less likely to be traditionally young, middle-class students compared to most other fields of study. They may also have relatively low prior attainment compared to other fields of study, and are relatively unlikely to be BME students. The expected links of studying Education to employability, and of Education as a subject area or occupational destination that carries less risk for under-represented or less advantaged students may be a factor here, as the theoretical perspectives above suggest. However amongst BME entrants to HE, the expected benefits of studying Education, or the positives of teaching as a career, may not be perceived to be as strong as entering other types of degree and professional occupation. These possibilities cannot be measured directly with this study, but provide an interesting wider context for the findings.

### ***2.5.3 Studies focused on postgraduates***

Turning to postgraduate teacher education, the starting point, and it is indeed for the whole study, is provided by the findings of the analysis of DLHE data by Edinburgh University Careers Service (2011, 2015), on the early post-graduation outcomes and paths of graduates from the university who had widening participation (WP) indicators, such as coming from a school with below average academic attainment or progression to HE, or entering the university through a widening access route. A higher percentage of WP graduates, than graduates from non-WP backgrounds, were studying for a teaching qualification 6 months after graduation. The majority of the WP group graduates from the university who entered a PGDE did so at University of Edinburgh. How well does this WP finding fit with other research evidence?

Moran (2008) examined widening participation in teacher training in Northern Ireland. Amongst entrants to postgraduate teacher training in 2004/05, the largest social class group of student teachers' fathers was skilled manual and intermediate non-manual, and amongst mothers was intermediate non-manual and junior manual. However she identified that none of the young people who entered the access initiative 'Step-Up' (similar to England's AimHigher programme or the Scottish Wider Access Programme) had managed (at the time of reporting) to get a place in postgraduate teacher education programmes. Although she accepts this may be explained by the high application rates to teacher training in Northern Ireland she comments that it is disappointing that they will not get the chance to become role models for young people who may have been similarly unlikely to progress to higher education.

On a wider UK scale, Wakeling (2009) examined HESA data on the social class of entrants to postgraduate courses between 2001/02 and 2004/05. Compared to the other postgraduate groups (research degree, taught higher degree, other PG courses) only PGCE entrants were more likely to be in SEC 6 and 7 (semi-routine and routine occupations) than SEC 1 and 2 (higher and lower managerial and professional occupations) (these social class data subject as always to a degree of missingness and unreliability). Those who had been to independent school were much less likely than those who went to state school to enter a PGCE regardless of social class background, which contrasts with their greater likelihood of entering research degrees and taught higher degrees. Graduates of 'generalist HE colleges' were more likely to enter a PGCE than were graduates from other HEI types, a further difference compared to PG degrees. Entrants to PGCE were more likely to have a second class than first class honours degree, and again this differentiates them from research and taught higher degrees. Purcell et al. (2005) identified similar findings with regard to social class of origin, institution type and degree grade amongst 1999 graduates from a sample of UK HEIs who gained a teaching qualification.

However Wakeling (2009) also found that the relationship between social class and entry to PGCE remains when subject of first degree, institution of first degree, and degree attainment are accounted for (for research degrees and taught higher degree these factors explain most of the social class variation). He proposes that this shows that for working class students teaching as a professional route is less of a risk than seeking to enter other postgraduate careers. He further identified that this social class pattern existed for both female and male entrants to PGCE. However for men, this tendency to be lower social class was stronger compared to male entrants to other PG courses, than it was for women PGCE entrants compared to female entrants to other courses. He suggests this is because entrants to professions not normally associated with their gender will show greater class differences. Class differences were not as strong as gender differences however.

Education, at undergraduate and postgraduate level, does of course have a very high percentage of female entrants. The reasons for and impact of this gender differentiation is discussed in detail in Riddell and Tett (2006) and in Braun (2015), and the section on motivations will summarise some of those issues. In relation to social background, we can note that historically teaching has "always been interlinked with gendered dynamics and it was women in general and men from working class backgrounds for whom teaching presented a 'good' choice and room for social mobility" (Braun, 2015, p260). In the 20<sup>th</sup> century, higher class background women entered teaching in growing numbers due to fewer private governess positions, and because more single-sex schooling and subsequently higher education opportunities opened up for women (Braun, 2015). More teachers

were graduates, and these women challenged the status, professional recognition and job conditions of teaching, a fight for professional status which is argued to continue today (Braun, 2015; Riddell and Tett, 2006). Teaching, as the research evidence suggests, does remain a relatively accessible occupational route for intermediate and working class women and men. In her interviews with secondary school teacher trainees, Braun (2015) identified “a manifestation of teaching as occupying a ‘borderland’ position, a middle class profession with a fair number of working class recruits” (p265).

In terms of undergraduate field of study and subsequent postgraduate teacher training, Purcell et al. (2005) in their follow-up survey of 1999 graduates found that graduates in languages, arts and humanities were more likely than others to enter a PGCE. Men who graduated in natural sciences were much more likely to enter a PGCE than men from other disciplines (one fifth of all male PGCE holders) but also relatively likely to do so if they had graduated in social sciences (16%) or education (13%). For women, graduating with a humanities degree was the most likely to lead to entering a PGCE (22% of PGCE holders), and they were more than twice as likely to do so than were male humanities graduates. Female graduates in maths and computing were also much more likely to enter a PGCE (19%) than male maths and computing graduates (2%). Those who graduated in Education (but without attaining qualified status) and then went onto a PGCE course tended to do so straight after graduating, as did those who graduated in natural sciences and arts. Those in the humanities who entered a PGCE did so at some point during the 3 years after graduation, rather than doing so predominantly immediately after graduation. Law, business, medicine and engineering graduates were the least likely to undertake a PGCE. These findings were not related further to social background or ethnicity as potential additional explanatory variables for the differences in entering a PGCE by field of study, and field of study in relation to gender. However as noted above, Wakeling’s (2009) research suggests that the relationship between field of study and gender may only partly explain social background differences.

Finally it can be noted that further social background differences among postgraduate teacher trainees and undergraduates in Education have been found. HECSU’s (2014) study of UK graduates, showed that unlike undergraduate Education courses, there was little difference in intention to train as a teacher at postgraduate level between those living at home as students and those who lived away from home. However similarly amongst undergraduates and postgraduates, BME students are relatively under-represented, reflected in the low percentage of BME teachers in Scotland relative to the population (Scottish Government, 2016).

#### ***2.5.4 Summary: Postgraduate studies***

At the postgraduate level of teacher education there is evidence that social background continues to be a factor which differentiates Education as a subject area from others, although the clear professional training role of a PGCE/PGDE compared to other PG courses may also be a factor. Other WP indicators such as living at home as a student may become less strong at PG than UG level. Teacher education is a route followed predominantly by women, but as suggested by Braun (2015) and in Wakeling’s (2009) research, for men it may be a route taken even more strongly by those from lower social class groups. The highest degree attainment does not appear to result in taking the teacher education option, nor do some fields of study but this varies by gender. This study examines several of the factors identified in this literature: gender, subject studied at undergraduate level,

institution type attended for first degree and some WP measures. The range of other factors provide context for our findings.

## **2.6 Motivations for entering teacher education and becoming a teacher**

There are numerous studies that ask prospective trainees and teachers-in-training why they followed the teacher education route. Not all provide the same findings, and studies which relate motivations to the social background of the respondents appear to be rare. Firstly the findings about motivations in general are provided, and then in relation to social background.

### ***2.6.1 Motivations to teach: general findings***

Three categories of motivations to train as a teacher have been identified: altruistic (which concerns the perception of the social good that can be contributed as a teacher), intrinsic (the personal satisfaction and development that teaching is expected to bring) and extrinsic (the perceptions of the conditions of the job and employment environment). Across a range of literature from different countries, Moran et al. (2001) identified that the altruistic and intrinsic motivations were stronger for most, but in some cases extrinsic motivations were the main driver. The importance of these factors varies between individuals (Heinz, 2015; Moran et al., 2001).

Amongst PGCE students at an English university, Kyriacou et al. (2003) found that the majority were confident they would do a socially worthwhile job, would feel positive about pupil achievement and would have enough holidays, factors which fall under the three categories of motivation. For the majority, the opportunity to teach children and young people was more important than the opportunity to teach their subject. However only a small percentage were sure they would have enough time to do their job well. A negative perception of aspects of the job was also reported in Ferrie et al. (2006) who found that the undergraduates surveyed who had considered teaching were *less* likely to agree with the statement that teachers command a high level of public respect. See (2004) surveyed undergraduates at four Welsh and South-West HEIs who were planning to teach. Those definitely planning to be teachers were more likely than others to have the view that teaching is a rewarding career, has good career prospects and job security, but also identified negative aspects of teaching in relation to workload, pay, working hours and status. These factors were not though rated as important as they were for non-teachers, which may explain why those planning to teach did so despite these negative aspects. Overall it was found in See's (2004) study that undergraduates and postgraduates planning to teach were more likely than those not planning to teach to identify important factors in career choice as: chance to share knowledge, job satisfaction, length of holidays, chance to continue interest in own subject, and job security. They again demonstrated a complexity of reasons across the different types of motivation. Although those planning to teach identified extrinsic factors however, they were less likely than non-teachers to value factors like salary, promotion opportunities, and job status. The factors valued by those planning to teach were also valued by social scientists and females to a greater extent than comparator groups. See (2004) also found that financial incentives to enter teaching were not as great as the values placed on the role. However of the financial incentives on offer those that might attract marginal teachers were training salaries and fee exemption.

Kyriacou and Coulthard (2000) similarly surveyed undergraduates at one institution, which included those not intending to teach. Teaching was positively perceived to provide opportunities to work with children, make a contribution to society, and have a job with responsibility. For the anti-

teaching group, promotion prospects and high career earnings were more important than for the pro-teaching UGs. Pro-teaching UGs were more concerned with a job which makes a social contribution and where they can care for others, and important factors in a career were working with children, responsible job, job mobility, enjoyable job, secure job, and intellectual challenge. Influences on teaching were also identified as long holidays, sharing knowledge and for half the respondents, having no PGCE fees to pay. They did not find many differences by sex, subject studied, prior attainment, and expected degree result. However an interest in secondary school teaching was more associated with being motivated to use their subject knowledge and primary school teaching as providing a job with responsibility.

Amongst teacher trainees in Northern Ireland, Moran et al. (2001) also identified motivation differences between those preparing for primary teaching (through a B.Ed) and secondary teaching (through a PGCE). Those following the PGCE (Secondary) rather than B.Ed (Primary) were more strongly motivated by intellectual stimulation and love of subject, and the B.Ed students more motivated by wanting to work with children and a sense of teaching as a vocation. Those over 25 rejected more strongly that they were motivated by training accessibility and working environment factors than were those under 25; while those under 25 were more motivated by love of children than were those over 25. Those who gave up full-time employment to train as teachers were less attracted to teaching due to a love of children than were first-career teachers, and more due to ease of training.

Hayes (2004) also compared B.Ed and PGCE students, but in this case they were all training to be primary school teachers. Using cluster analysis he identified three groups of trainees: 'nurturers' who were most motivated by the opportunity to influence children and would be more interested in the early primary phase; 'diversifiers' who were motivated by the variety in the job and the opportunity to be flexible and creative; and 'indeterminates' who did not have a clear motivation for wanting to teach, and this included not being motivated strongly by the idea of working with children and did not fit the altruism found in other studies. Although some may drift into teaching, the author was surprised that this accounted for 15% of respondents in his survey. Men and those intending to teach junior age children were more likely to be in this group.

However, Thornton et al. (2002) interviewed undergraduate and postgraduate primary teacher trainees and found almost all were pulled towards primary teaching for positive and often altruistic reasons. It was seen as rewarding and challenging. However for a minority its fit with family life was an additional factor (more common among female than male trainees), or because they wanted to change from an unsatisfactory career (more common among male than female trainees). Work placements for young students and becoming parents for mature students made some interviewees positively disposed to teaching. Their concerns about teaching related to their own ability to do the job well, attitudes of the media and government towards teachers, and concerns about workload.

Purcell et al. (2005) drew on two national surveys of graduates from UK HEIs in the 1990s, supplemented by a smaller number of interviews with teachers to provide motivation data. Intrinsic and altruistic reasons were central for many who trained as a teacher. Although working with children was identified as a strong motivation for many, this was mentioned more as a positive once they were in the job rather than one that had driven their wish to become a teacher in the first place. Although the extrinsic factors of holiday length (though not necessarily the inflexible nature of

holiday times), flexibility and family-friendly conditions primarily motivated few of the respondents, these extrinsic factors were considered plus points for some. Job security was however mentioned frequently as a motivating factor. Dissatisfaction with the career options of previous employment, or entering teaching due to lack of other options, were push factors for some. Overall the authors conclude that the interviewees had shown more practicality than altruism in their decision to become a teacher, and for most a combination of factors were important.

A further study on postgraduates and teaching was carried out by Jarvis and Woodrow (2005) who surveyed two cohorts of PGCE students and found that the most commonly given main reason that they chose to train as a teacher (through an entirely open question) was that teaching would provide a stable, challenging and rewarding career (45% of respondents). This career-related motivation was much stronger than subject-driven motivation (16%) and the motivation of working with and inspiring children and young people (12%). The findings varied however by discipline. For example, religious education and maths trainees were more likely to be motivated primarily by career factors than were physical education trainees. Although only 4% overall were seeking to change career as the main reason for training, this was the case for 16% of mathematics trainees. The author suggests that the advertising on shortage subjects may have played a role in this. 68% of trainees had considered a different career and only 10% of respondents gave their primary reason for training as a teacher as having always wanted to teach, but this was much more strongly the case for female than male trainees. The authors suggest social conditions, that is the stronger expectation among women that their careers will need to fit with family life, may explain this.

### ***2.6.2 Motivations to teach and social background***

Evidence on social background and motivation comes from Wakeling's (2009) research which compared entrants to PGCE courses with other postgraduate courses through an online survey of over 2000 PG students, and through analysis of HESA's First Destinations Survey. Most PG students entered PG courses to improve career options or improve their skills. PGCE students were a little more likely to state career options as a motivation than those entering PG research and taught higher degrees, and much less likely to give developing specialist skills as a motivation. There was very little social class difference in motivation responses to PG study in the First Destinations Survey, but changing or improving career options was a stronger motivator for those in SEC 5 (lower supervisory and technical) and SEC 6 (semi-routine) than other classes. Those in SEC 6 were also the most likely to be motivated by developing skills and by enjoyment of the subject and of studying. Those in SEC 7 were the most likely to say they entered PG study because they could not find a suitable job. The author concludes that at the PG level, social class differences in relation to instrumentalism versus intrinsic motivation are not strong. He suggests this does not give strong support to either the relative risk aversion or cultural theories of differences at transition points into education and occupation outcomes.

Research by Edinburgh University Careers Service (2011) identified, as was the case in Wakeling's research, that those from WP groups were more likely than those from non-WP groups to say they entered PG study to change or improve their career options; they were also a little more likely to have been motivated by gaining specialist skills, and because they could not get a suitable job (but the latter applied only to a relatively small percentage of respondents). Those from more traditional student backgrounds were more likely to say their motivation was enjoyment of the subject and studying (no graduates from under-represented groups gave this response) and less likely to state

that they wanted to study to avoid job hunting. They were also likely to say that their motivation was that of interest in the content of the course. However these findings do not provide data specific to PGDE students.

Career changers into teaching have also been the subject of research. Through in-depth interviews with trainees in England who had entered teacher training after a period of post-graduation activity, Priyadharshini and Robinson-Pant (2003) found motivations related to the expected security, flexibility and variety of teaching as a career, and for some due to the potential to make a social contribution and find more purpose in their work. Career changers were prompted by having a young family, dissatisfaction with previous careers and jobs, or a change in perspective of what they wanted from a job. In a few cases the trainees who had entered a degree as a mature student and then decided to become teacher felt they could help young people struggling at school and perhaps influence a more positive perspective of their future. Wilkins and Comber's (2015) study of 'elite' career changers identified amongst around half of interviewees a family connection with teaching, including a few cautioned against teaching by parents. Many felt they could bring transferable skills of 'professionalism', communication, and responding to critique into teaching. Overall they found stronger pull than push factors, and much similarity with the intrinsic and altruistic motivations of first-career teachers.

Gender differences in reasons for becoming a teacher were identified in Jarvis and Woodrow's (2005) study, as they were by Moran et al. (2001) who found that females were more influenced than males by intrinsic factors. Intellectual stimulation was identified as more important than working with children for both genders; but intellectual stimulation and love of children were both more important to females than males. For both however salary and job security were important.

In the context of wider research on gender issues in teaching, Ferrie et al. (2006) undertook a survey of biology and social science UGs in three Scottish universities. 60% said they had considered teaching as an option, but only 11% said they were likely to become a teacher. The 60% who had considered teaching were more likely to place importance on having a job with family-friendly conditions and long holidays than those who had not considered it. Those with prior teaching experience were also more likely to consider teaching. Females fitted these two factors better, as they were more likely than males to consider teaching a family-friendly career and were more likely to have had some experience of teaching. Riddell et al. (2006) note that men are less likely to enter teaching when there are wider employment options available in a buoyant economy, but women continue to enter teaching when they have other options. Also exploring gender issues, Braun (2015) found that among those who had teacher parents, it was the young women who were more likely to have been involved in teaching by their parents and socialised into the role of educator. She comments that teaching is seen as compatible with family life and so a 'good' choice for women, but the gendered nature of teaching, and because it involves working with children, contributes to the perception that it is not a high status career. The lack of autonomy and amount of regulation also contribute to it lacking high status. Ferrie et al.'s (2006) survey research found that those from less affluent areas (particularly those from areas at the middle level on the deprivation scale) were more likely than those in the most affluent areas to consider teaching to be a reasonably well-paid job. They identify that the findings fit with wider research that women in lower socio-economic groups see teaching as a positive or accessible career choice, while those from more advantaged socio-



economic groups may pursue other, more 'high status' professions. Teaching may offer the possibility of social mobility.

### ***2.6.3 Summary: motivations to teach***

Motivations for entering teacher education do not necessarily stem from a single reason or category of reasons for any individual. Those who enter teacher education may have concerns about workload and salary, and do not necessarily consider it a career that is widely recognised as high status, but may enter teacher education despite this because these are simply not such important factors as they are for those who would not consider teaching. Intrinsic motivations play a role, but these may be stronger for female trainees than male trainees. Working with children may be a stronger motivator for those entering primary teaching and intellectual challenge and interest in the subject more so for those entering secondary teaching. Mature entrants may also be more concerned than young entrants (and those entering an undergraduate teaching degree rather than postgraduate education) with the career options teaching opens up than entering teaching due to a sense of vocation or a strong wish to work with children and young people. Research evidence suggests that teacher education is a relatively accessible, appealing option for those from less advantaged socio-economic backgrounds, and this may be because it provides a level of job security and salary, and a route into a professional career, although as for all groups of students on teacher education courses their motivations will likely combine intrinsic and extrinsic factors.

This research concerns those who have already taken the decision to enter teacher education, and does not permit comparison with those who have made other choices. A range of motivations are included in the survey, from those commonly found to be factors in the literature.

### 3. Student survey

In order to gather data from a high number of students, a quantitative rather than qualitative approach was adopted, with the intention of providing data that addresses the research aims directly, but that also identifies potential issues that could be explored in more detail at a future date if required. An online survey (using the Bristol Online Survey tool) was created to gather data from current PGDE students on the timing, motivations and influences of their choice to enter the PGDE, in relation to their social/biographical background.

#### 3.1 Survey content

The survey included questions on the following:

- **Information that can be used as WP indicators:** Home postcode before entry to first degree, which was used to identify the Scottish Index of Multiple Deprivation (SIMD)<sup>2</sup> (or English or Northern Irish equivalent) quintile area the student was from originally; whether either of their parents has an HE qualification or experience; whether they entered their first degree through a widening access route. The limitations of these measures are discussed below.
- **Sex:** Women predominate in teacher education, but as noted in the literature review there have been aggregate level differences found between the motivations of women and men who enter teacher education. Teaching has also been identified historically as a professional career route for women, but potentially also men, from non-advantaged backgrounds.
- **Age range (24 or under, 25-29, 30 or over):** As identified in the literature review, some previous research suggests differences in motivation between younger adults (those under 30) and older adults (over 30). Those under 24 are separately analysed as those who will have had less time to pursue other options. Parental HE experience may be more likely for younger than older students, due to continuing expansion of HE participation.
- **Ethnicity:** The literature review identified under-representation of BME students in teacher education. However as almost all respondents to the survey self-identified as White, analysis by ethnicity was not undertaken.
- **Whether on PGDE Primary or PGDE Secondary course:** Previous research, as identified in the literature review, suggests some differences in motivation between those undertaking the two types of teacher education.
- **First degree subject:** Common subject categories used in Higher Education Statistics Agency reporting were used and then recoded into three subject groups: Social sciences; Arts; and STEM. Previous research would suggest some of the fields more strongly lead to teacher education, and others very unlikely to do so. The combination of gender and field leading to teacher education is likely to be different. The research sought to identify whether WP indicators are a further factor in the field of study findings.
- **First degree institution:** The selectivity or tariff level of the institution in which the first degree was undertaken may firstly affect perceptions and experience of post-graduation options, and secondly affect differences between graduate groups, due to the relationship between WP indicators and institution type being strong.
- **First degree graduation year:** This is included to identify those who immediately entered the PGDE after first degree, who either had an already developed idea of becoming a teacher or

---

<sup>2</sup> SIMD is a relative measure of deprivation across small areas in Scotland, based on 38 indicators such as pupil performance, unemployment, crime, travel time to GP (Scottish Government, 2016).

it was an immediate decision when assessing post-graduation options; and those who entered the PGDE further into their post-graduation life.

- **When decided to apply for PGDE/to train as a teacher:** Building on the previous question, this question identifies when in their educational career they decided they wanted to train as a teacher: whether there was a long term plan, or the idea developed after finishing their first degree, and at that point whether it was a first or subsequent preference. Were the WP-indicated students more likely to identify this as a feasible option at an early stage or did it emerge as a feasible option after other activity was tried? Do they differ from non-WP indicated students in this?
- **Motivations for undertaking PGDE:** The literature review identifies a range of intrinsic and extrinsic motivations for becoming a teacher. In the survey there are four categories used.
  - **Intrinsic (enjoyment) motivations:** which included the altruistic motivation of wanting to do a socially useful job, plus enjoyment of the subject(s) they would teach, wanting to work with children/young people, wanting to build on previous teaching-related experience.
  - **Intrinsic (satisfaction) motivations:** potential for career development, variety of the job, responsibility of the job.
  - **Extrinsic (job conditions) motivations:** security of employment, holiday entitlement, salary, working hours, family-friendly conditions.
  - **Extrinsic (course conditions) motivations:** funded route to professional career, relatively short length of course, guaranteed one-year post.
- **Who influenced/encouraged teacher training:** The literature review identifies that there are differences at the aggregate level in who influences students and has the knowledge to encourage and inform study choice, in relation to social background, at the undergraduate level. Is there evidence of this at the postgraduate level? Categories included are Parent/carer, Other family member, Friend(s)/peer(s), School teacher, School guidance teacher/careers advisor, HE/college career advisor, HE educator, Other, Was not influenced or encouraged by any personal contacts.
- **Sources of information on teacher education options:** Similarly the literature review identifies that there are differences at the aggregate level of the sources of information used, in relation to social background, at the undergraduate level. Again, is there evidence of this at the postgraduate level? Categories included are: university website/prospectus, teacher training guidance/materials, careers service at school/college, careers service at university, careers service not in educational establishment, family/friends/personal contacts.
- **Post-graduation options other than teacher education considered or followed** (open question): This question further sought to identify whether teaching was a first preference for career or whether it followed other ideas or employment, and what those alternatives were.
- **Why teacher education was chosen** (open question): If the reasons for entering teacher education were not well represented by the options in the survey, then this provided an opportunity to provide any additional information.

### 3.2 WP indicators

Widening participation for students from backgrounds under-represented in higher education continues to be strong concern of the Scottish Government, which has set out challenging targets for increasing the share of widening participation students by 2021 and beyond, put forward by the Commission for Widening Access (2016). Widening participation students have been identified as those that lived in the 20% or 40% areas with the highest level of multiple deprivation before entering HE. There are however acknowledged challenges in identifying students in higher education who are considered to be from under-represented groups (Weedon, 2014). Widening participation is also focused on undergraduate students, and is an unusual and more problematic measure for postgraduates, who at the point of entry to postgraduate study may be considered relatively privileged by dint of being a graduate. For undergraduates, family income or wealth is potentially the strongest measure, but not used, and may be difficult information for the student to provide, and in a self-reporting questionnaire could be considered sensitive personal information. Coming either from a school or area with lower overall entry rates to higher education are indicators relevant to the environment, but not to all individuals within those environments. Coming from an area of relative multiple deprivation is not a measure directly related to higher education participation, and does not reflect the circumstances of all individuals from those areas. However as noted the Scottish Index of Multiple Deprivation (SIMD) is currently the preferred measurement method of the Scottish Funding Council (SFC, 2013). Postgraduates may have left their family or original home, and may be located closer to the university they graduated from or indeed moved to a new location following graduation. For postgraduates therefore the SIMD of their home address at the point of entry to postgraduate study may not reflect whether they were from an area of relatively low affluence at the point of undergraduate entry. The SFC therefore suggests that home postcode measures should be those at the point of undergraduate entry (SFC, 2014b). This is one of the measures used in this survey, however it should be further noted that many respondents are relatively mature, and graduated some time ago. It is possible therefore that the current SIMD rating for their home area is not the same as it was when they entered HE.

A measure commonly used in research, and in HESA data, is parental social class. In the HESA data, social class of origin of young people is based on the information they provide in their UCAS application form on parental social class (their parent, step-parent or guardian who earns the most, based on current or most recent occupation). There is a challenge in assigning parental social class only on occupation title and based on information that may be inaccurate due to lack of knowledge of the young person of their parent's work role (Weedon, 2014). As PGDE students are postgraduate students, and often mature students, for some their own rather than their parental social class would be more relevant which may have limited differentiation due to them all being graduates.

A further measure which can be applied to undergraduates, but which may remain relevant to postgraduate students, is whether either of their parents has experience of HE. The relationship between parental HE experience and likelihood of entering HE, and of the type of HE entered, has been found as indicated in the literature review. This measure provides an estimation of whether or not a student is a 'first generation' HE student (in relation to their parents rather than any other relatives or previous generations), and is used in HESA data. It is limited by its simplicity (it does not account for different levels of parental education), but is usually 'known' by HE students about their

parents (according to HESA data<sup>3</sup>) and so potentially more accurate, if less detailed, than a social class measure.

A final measure that is the most direct, is whether a student entered HE through a widening access programme. Again this is applicable to undergraduates rather than postgraduates, but accounts only for a minority of students who enter HE from under-represented backgrounds. As a single measure it would not account for a wide range of students who could be classed as WP.

Three measures are used in this survey: Home postcode before entry to first degree, which was used to identify the Scottish Index of Multiple Deprivation (SIMD) (or English or Northern Irish equivalent) quintile area the student was from at that time; whether either of their parents has an HE qualification or experience; whether they entered their first degree through a widening access route. It is acknowledged however that only the latter directly measures a WP indicator. Respondents may be classed as WP through these measures who would not consider themselves to fit within that group, or may have other characteristics that may identify them as being from a well-represented group, such as having parents in a professional occupation, a high family income, or attending a school with a high rate of HE entry. In addition, mature students may have their own families, and will have their own financial position and occupational position, rather than that of their parents. The decision was made to use relatively simple, non-intrusive measures for the purposes of this survey, and particularly to use SIMD as this is the main official WP measure in Scotland.

### **3.3 Survey distribution and response rate**

The assistance of the Programme Offices, with the agreement of the Programme Directors, in distributing the survey was vital and much appreciated. Information on the survey and a link to the survey were posted by the Programme Offices on the course intranet site, and subsequent reminders distributed on request. There were 285 students across the two courses eligible for participation. In addition one successful attempt was made to distribute paper copies in a lecture which generated a further 38 responses (Primary PGDE only). The total useable number of responses was 109, a 38% response rate. Due to the additional paper responses provided by the Primary PGDE students, 66% of the responses were from Primary PGDE students, and 34% were from Secondary PGDE respondents. The number of students overall on the PGDE Primary are lower than on the PGDE Secondary, giving respective response rates of 58% (Primary) and 22% (Secondary). The findings are therefore more representative of students on the Primary than Secondary course. The literature review suggests that this may affect overall findings on motivations. If respondents in the Primary group are more skewed towards one sex, certain age groups or subject or institution backgrounds, this may also affect the overall representativeness of the findings to the full PGDE cohort.

### **3.4 Analysis**

Analysis was carried out in the form of frequencies and cross-tabulations, reflecting the fact that the variables were in most cases nominal. Where case numbers allowed, three-way cross-tabulations were carried out, to further explore comparisons between WP and non-WP groups. Logistic regression modelling was also used to a limited extent to examine the likelihood of differences between WP and non-WP groups being due to other factors that appeared to have strong

---

<sup>3</sup> Although there are high levels of missing data on parental education in HESA datasets, only a relatively small percentage are classified as 'unknown' (Whittaker, 2017).

relationships (notably sex and age group) with when it was decided to enter teaching and motivations for entering teacher education. Regression modelling ideally requires a high number of cases, but importantly there were no response values that had zero cases, in the limited variables included. Tests for statistical significance were run, although the sample was not random but self-selecting, and therefore the bases for such tests were not strictly met. Due to the small sample size, positive findings of statistical significance would be expected only in cases of large differences between groups. Only a few such cases occurred. The majority of the reporting therefore refers to differences within the sample. Applying these findings more widely would require caution. The relationship of the findings to those in the wider literature are therefore discussed.

The findings sections which follow provide an overview of respondents' characteristics and undergraduate education. The findings of those characterised as being in the WP and non-WP groups are then described. Finally, other notable findings with regard to motivations and influences for all respondents are provided.

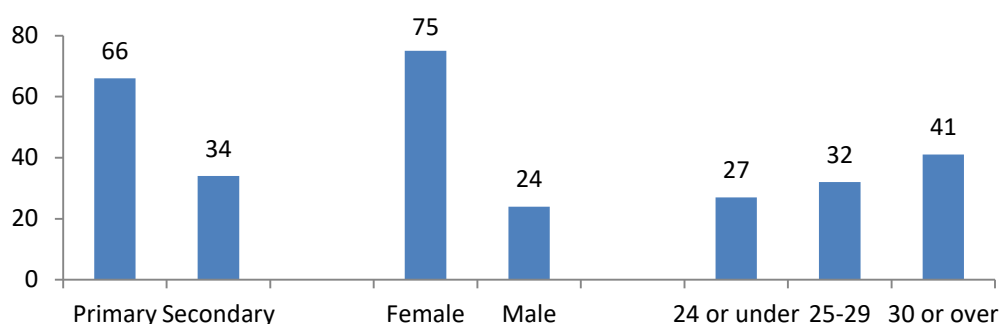
## 4. Characteristics and undergraduate education of respondents: findings

This section summarises the backgrounds of respondents to the survey.

### 4.1 Characteristics

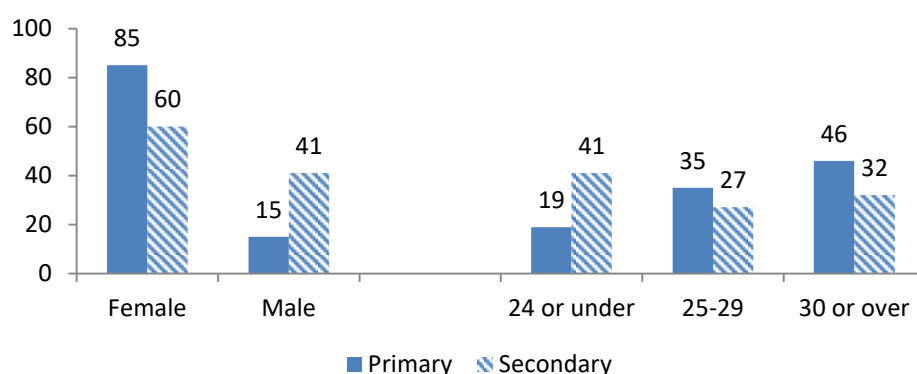
Figure 1 summarises course type and key characteristics of respondents. Two thirds of the respondents were on the Primary PGDE course. This reflects the fact that an additional means of recruitment was used with this group. As is common to teacher education courses, most respondents were female. Only around a quarter were aged under 25, while around 40% were aged 30 or over.

Figure 1: Percentage of respondents by PGDE course, sex and age group (n=109)



There were some differences in the respondent groups in relation to the PGDE course (Figure 2). 85% of respondents on the Primary PGDE course were female, compared to 60% on the Secondary course (the gender balance difference in relation to course type was statistically significant at  $p < .01$ ). The greater gender balance among Secondary students fits with wider data (Scottish Government, 2016b). Those on the Primary course were more often 30 or over (46% to 32%) and less often under 25 (19% to 41%), than were those on the Secondary course. The respondents on the Primary course therefore were more likely to be female and older, although the findings by course were as noted based on different numbers and response rates.

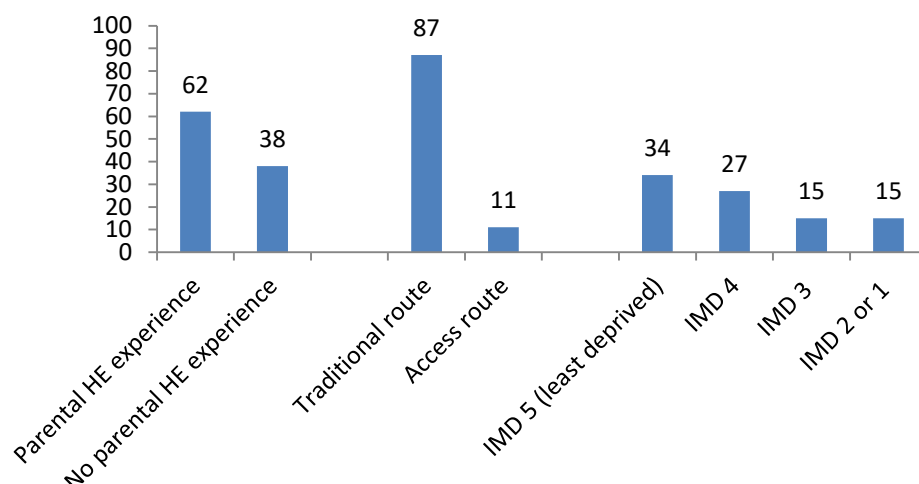
Figure 2: Percentage of respondents by PGDE course and sex and age group



Of particular interest in this study are WP indicators. Figure 3 summarises these data. Overall there were low levels of WP indicators in the data. Over a third of entrants did not have an HE-experienced parent and this is the most common amongst respondents of the WP indicators used

(this corresponds with the data on undergraduate entrants at University of Edinburgh (Whittaker, 2017)). Only a small number had entered undergraduate HE through a specific widening access route. Very few entrants were originally from areas in the highest two quintiles of multiple deprivation, while around 60% lived in areas in the top two quintiles of affluence.

**Figure 3: Percentage of respondents in relation to potential widening participation indicators: whether a parent has HE experience, whether entered first degree through traditional or access route, and multiple deprivation quintile of home area before entry to first degree**



The 15% of respondents from IMD1-2 (or SIMD40) compares to 21% for the whole PGDE cohort and 22% for the whole ITE cohort (Table 1). The sample therefore under-represents this WP indicator. Competition to enter the Primary PGDE course tends to be greater than that to enter the Secondary PGDE, and the percentage of Primary PGDE students from SIMD40 areas tends to be lower. However this difference was not found in the sample.

**Table 1: Percentage of WP students in the sample compared to other measures**

Survey sample	PGDE cohort 2016/17 <sup>1</sup>	ITE including PGDE cohort 2016/17 <sup>1</sup>	Graduates from School of Education 2010-2013 <sup>2</sup>
15%	21%	22%	16%

<sup>1</sup>Source: University of Edinburgh management data; WP measure is SIMD40.

<sup>2</sup>Source: University of Edinburgh Careers Service (2015); WP measures are HE participation rate of secondary school attended and entering through access route.

Despite teaching being more strongly associated with WP students than other subjects (according to the research included in the literature review), this group of PGDE students are still a relatively privileged group. Edinburgh University is of course overall a selective university, and there may still be evidence of this therefore in this postgraduate level, relatively accessible (but competitive) course. Analysis in relation to those respondents who do and do not match a WP indicator is provided in section 5.

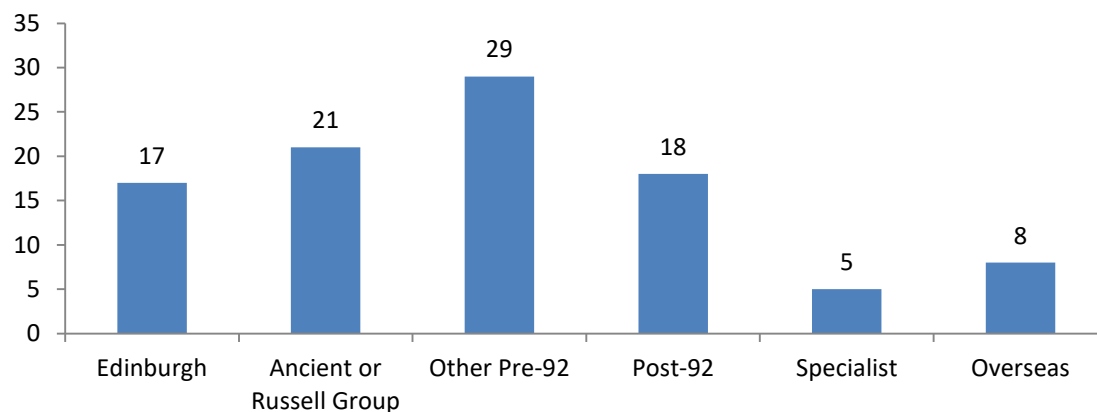
## 4.2 Undergraduate education

The respondents had undertaken undergraduate degrees at 44 different HEIs. This included 17 Scottish HEIs, 18 HEIs in the rest of the UK, and 9 overseas HEIs (Figure 4). The single most frequent first institution was Edinburgh University. 38% of respondents had attended ancient universities in



Scotland or other UK Russell Group universities. This is a relatively high percentage, given the limited number of these institutions and their relatively high entry requirements. UK-wide, Other Pre-92 institutions include a wide mix of selectivity, but in overall terms Post-92 universities have the lowest entry requirements, and the highest number of places. They are also far more likely to offer places to WP-indicated students (Hunter Blackburn et al., 2016). Only 18% of respondents had attended Post-92 institutions. The findings were similar for the two PGDE course groups. Institutions originally attended are dominated therefore by high to medium tariff institutions. This is not in itself a WP indicator, but reflects the relatively low percentage of SIMD40 respondents. In terms of institution type, female respondents (41%) were more likely than male respondents (28%) to have graduated from an ancient or Russell Group university.

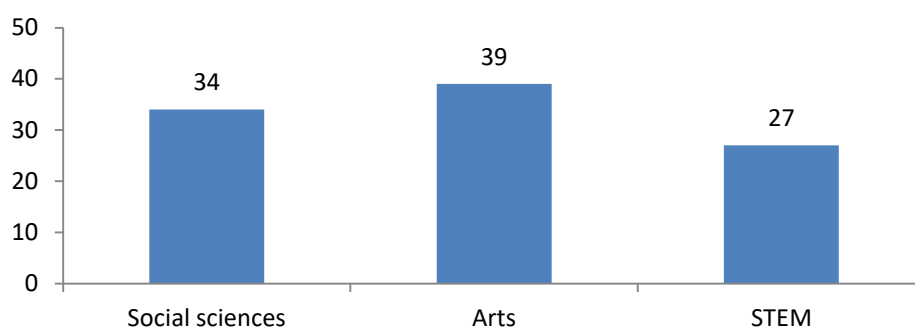
Figure 4: Percentage of respondents by university type for undergraduate degree



In terms of broad subject groupings, arts graduates were the most frequently represented amongst respondents (found also for example by Purcell et al. (2005) in relation to UK students), and STEM graduates the least (Figure 5). The subject areas from which relatively high percentages of respondents had graduated were social studies (19% of respondents, included in the social sciences group), languages, creative arts and design, and historical or philosophical studies (15% of respondents had studied languages or creative arts, and 10% had studied historical or philosophical studies, included in the arts group), and biological sciences (10% of respondents, included in the STEM group).

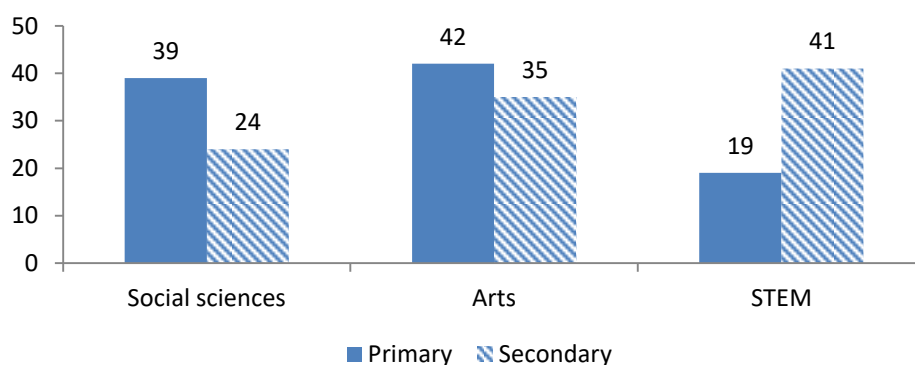
Female respondents were as likely to be social sciences as arts graduates (40% of respondents for each) and unlikely to be STEM graduates (20%). This contrasts to male respondents, 50% of whom were STEM graduates. Male respondents were least likely to be social science graduates (15%), while 35% were arts graduates. There was least difference between sexes therefore in relation to being an arts graduate. Graduates from ancient/Russell Group universities were most likely to be arts graduates (42%), and those from Other UK institutions most likely to be social sciences graduates (40%). STEM graduates were equally likely to have graduated from the two university types (29/28%).

Figure 5: Percentage of respondents by main subject group of their first degree



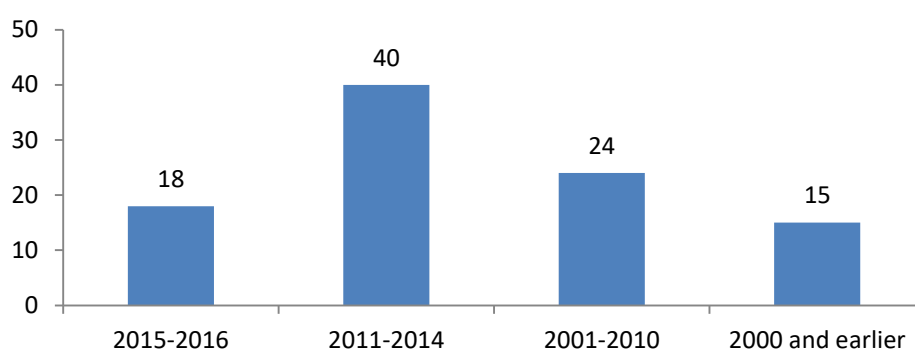
Primary respondents were more likely to be social sciences and arts graduates and less likely to be STEM graduates than were Secondary respondents (Figure 6). The greater percentage of STEM graduates in the Secondary courses may be explained by the wish to teach science specifically. Biological sciences was the only science area with a similar percentage of respondents for the two course types. Although being an arts graduate was more common overall among Primary respondents, a higher percentage of Secondary than Primary respondents had studied languages, probably due to languages being taught mainly in secondary schools. While amongst the Primary students there were graduates in business and administrative studies and law, there were no graduates from these subjects amongst the Secondary students. The entrants to the Secondary course therefore came from a narrower range of first degree subjects and more likely to be directly relevant to subjects taught in secondary schools.

Figure 6: Percentage of respondents by PGDE course and main subject group of their first degree



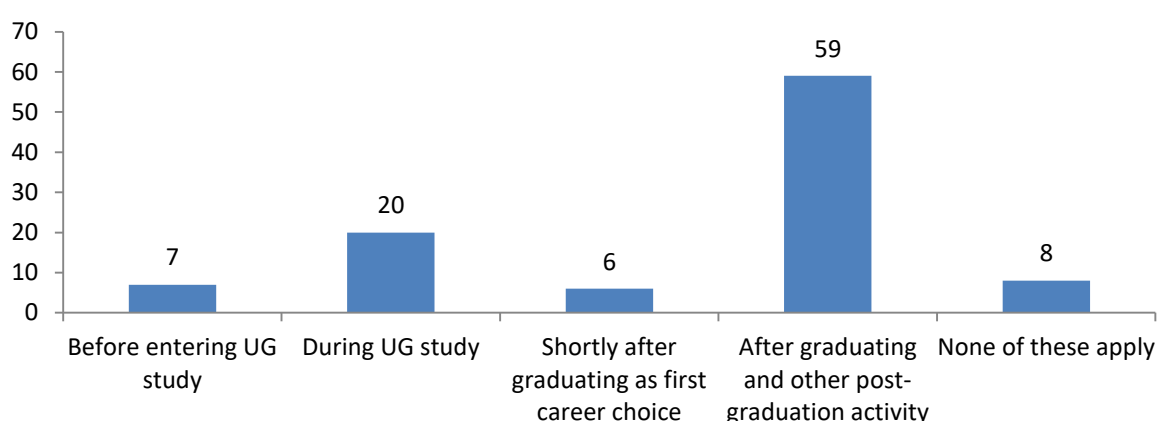
Under a fifth of respondents were very recent graduates (Figure 7). Secondary respondents were more likely to have graduated very recently (30% had graduated in 2015-16 compared to 13% of Primary respondents), and were less likely to have graduated before 2010. Teaching is not strongly shown by these data to be a first career choice, and this seems particularly the case among Primary respondents. As noted earlier, Primary respondents were also more likely to be 30 or over.

**Figure 7: Percentage of respondents by year of graduation from undergraduate degree**



Reinforcing the graduation year data, very few of the students had planned to become a teacher before starting undergraduate study (Figure 8). It may of course be that those who make the decision before undergraduate entry choose to enter an initial teacher education degree at undergraduate level, rather than a non-education degree followed by a PGDE. For the majority of the respondents, teaching was also not their first choice or route followed after graduation, but something they came to after other experiences.

**Figure 8: Percentage of respondents by when they decided to become a teacher**



70 respondents answered the optional open question on whether they had considered or followed other paths before deciding to become a teacher. Amongst these responses, the most common previous paths followed (including more than one path for several respondents) are summarised in Table 2.

**Table 2: Number of respondents by activity type before entering teacher education**

Activity type	Number of respondents
Masters / PG Diploma	16
Education-related role, including teaching, educational support, youth work, outdoor education	13
Professional, academic or public service role	11
PhD	7
Working in business	7
Working in the third sector	6
Working in a creative role	5

A small number of respondents reported other paths including caring roles. The strongest difference between respondents with and without WP indicators was in the greater incidence of education-related experience amongst those with WP indicators, but this question was as noted not answered by all respondents.

The data suggest that teaching either can be a career idea that people mature into, be more valued as an option after other experiences, or for some be a fall-back choice after trying other options.

## 5. Students with and without WP backgrounds: findings

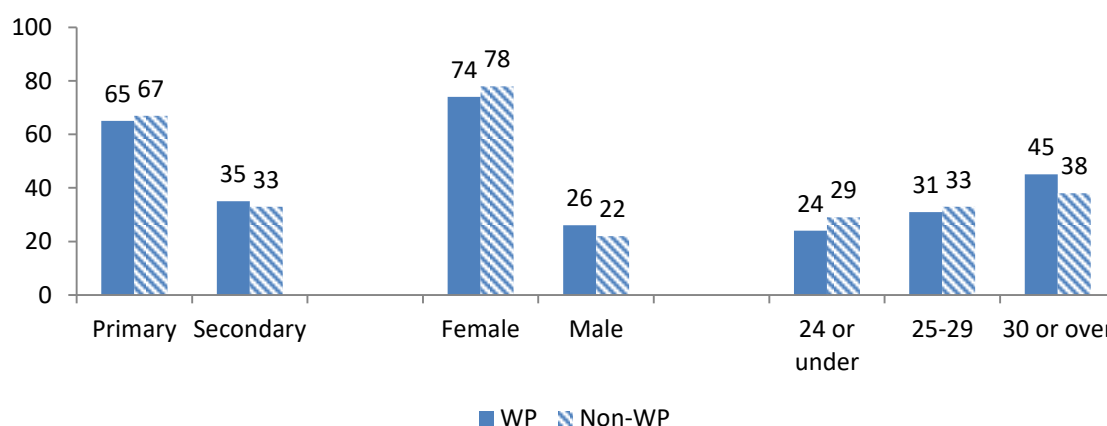
This section compares the responses of those with and without widening participation indicators. The possibility that differences found between these groups is explained by other identified important factors, namely sex, age group and PGDE course type, is also explored in this section. Any respondent who either did not have an HE-qualified parent, had entered their undergraduate degree through an access route, or had lived in an area of relatively high deprivation before entering their first degree (quintiles 1 or 2 on the SIMD or equivalent English or Northern Irish IMD, where this could be identified) were included in the 'WP' group (n=51), and the rest in the 'non-WP' group (n=58). These are imperfect measures, as discussed in the methods section, but are intended to give an indication of whether there might be differences between these groups, potentially worth further future exploration.

Findings specifically for those identified as having an original home postcode in the bottom two quintiles (the 40% of areas with the highest levels of multiple deprivation) are also presented despite the relatively low number of respondents in these categories, because the 'SIMD40' group have been, until recently, the main WP measure for universities as identified by the Scottish Funding Council (the focus is moving now to SIMD20, or the bottom quintile only).

### 5.1 Characteristics

The WP and non-WP groups were equally distributed in Primary and Secondary. There is a similar gender breakdown. A higher percentage of WP students were however aged over 30 than were non-WP students (Figure 9). The data indicate that the 30 and over group was most likely to have parents without HE experience (44% of those 39 and over, compared to 35% of those under 25 and 31% of those aged 25-29). As noted earlier, this could be expected, particularly for those significantly older than 30, because of the expansion of HE participation resulting in more families with an HE experience in more recent years. Those in the 25-29 age group were the most likely to have a parent with HE experience (69%), but also to have entered their undergraduate degree through an access route (20%).

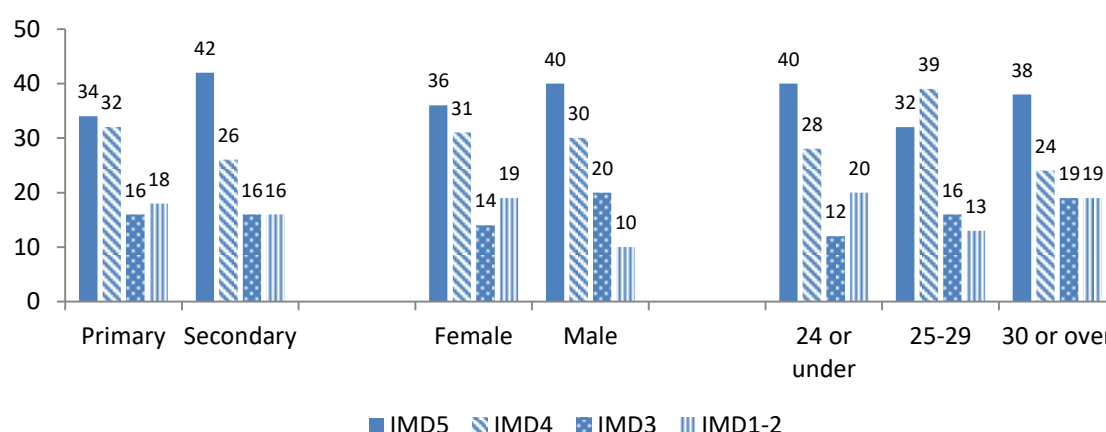
Figure 9: Percentage of WP and non-WP respondents by PGDE course, sex, and age group



IMD data are shown in Figure 10. It should be noted this version of the measure excludes those from overseas or those students for whom their postcode could not be matched to the IMD database for Scotland, England or Northern Ireland. The number of respondents included in IMD analyses was 93.

The data show that Secondary respondents were relatively more likely than Primary respondents to be from IMD5 areas (the most affluent areas). Similar percentages of both were from IMD1-2 areas (the 40% most deprived areas). Female respondents were more likely than male respondents to be from IMD1-2 areas. The small number of male respondents does limit the claims that can be made from these data, but the wider literature had suggested that teaching is an accessible profession for women from non-privileged backgrounds. Amongst the relevant students that wider finding is supported. Those aged 25-29 were less likely to be from IMD1-2 than those in other age groups. However, as noted above the overall percentage of entrants from relatively deprived areas was low.

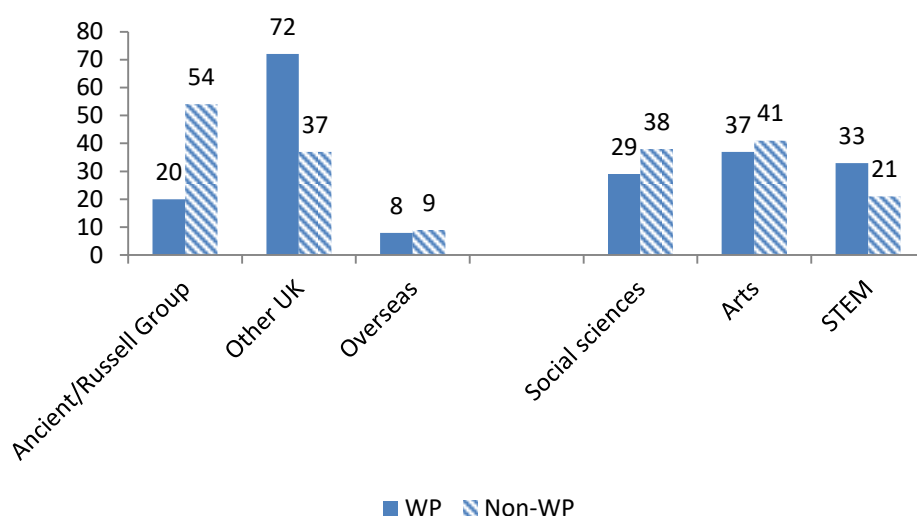
Figure 10: Percentage of respondents by IMD area, and PGDE course, sex, and age group



## 5.2 Undergraduate education

The WP group were less likely than the non-WP group to have been to an ancient or RG university (Figure 11), as fits with overall HE participation data (this was statistically significant at  $p < 0.01$ ). Within the 'Other UK' group, 44% of the WP group had been to a Pre-92 compared to 18% of the non-WP group; 22% of the WP group had been to a Post-92 compared to 16% of the non-WP group. The difference between the WP group and non-WP group was therefore mainly in relation to the higher likelihood of the former having attended a Pre-92 university. Exploring gender differences in the WP and non-WP groups, non-WP females were most likely to have gone to an ancient/RG university (56%), and WP females to have gone to other UK universities (72%) (statistically significant difference at  $p < 0.01$ ). Female respondents overall were more likely than male respondents to have graduated from an ancient/RG university. One question is whether this suggests a greater difficulty for female graduates than males in accessing satisfactory employment after graduating from an elite institution, or greater difficulty for males from other institution types in accessing satisfactory employment compared to those who went to elite universities. These suggestions would however assume a negative motivation for entering teaching education (teaching as a fall-back option). Teaching can also of course be a positive choice because it fits with interests and values, which may be a better explanation for many choosing the PGDE, rather than the institution type of first degree being relevant to the decision to enter teacher education.

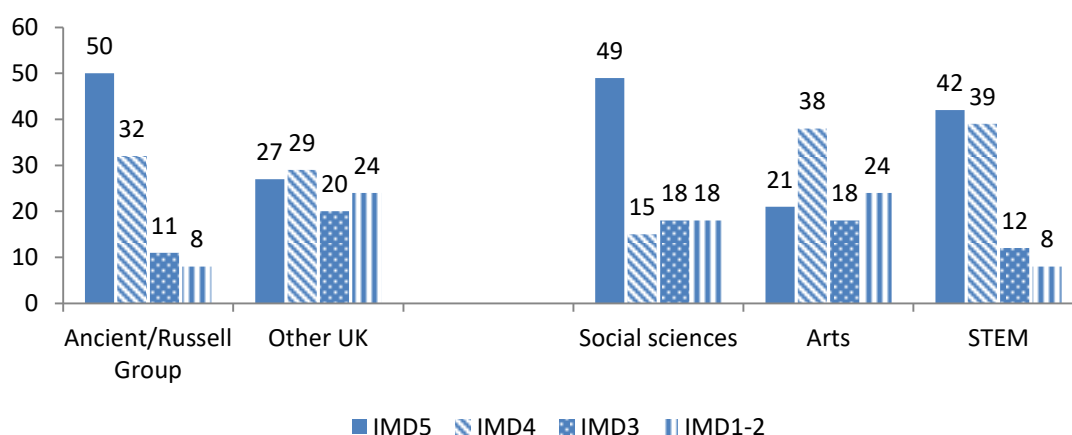
Figure 11: Percentage of WP and non-WP respondents by undergraduate institution type and subject group



WP students were more likely than non-WP students to have studied STEM subjects (Figure 11). This may be explained by the likelihood of STEM graduates having studied biological sciences, which has a more balanced representation (in UK terms) of social backgrounds than do physical and mathematical sciences and engineering and technology (Weedon, 2014; Whittaker, 2017).

Focusing on the IMD measure (Figure 12), there is a much more balanced representation of the IMD groups amongst graduates from 'Other UK' institutions, but those who went to higher tariff universities were very likely to be from the top 40% of affluent areas. This fits with wider patterns in HE participation. STEM graduates were the least likely and arts graduate the most likely to be from an IMD1-2 area. Therefore the STEM finding differed by whether the measure used was WP (more likely than non-WP to be STEM graduates) or IMD1-2 (less likely than other IMD groups to be STEM graduates).

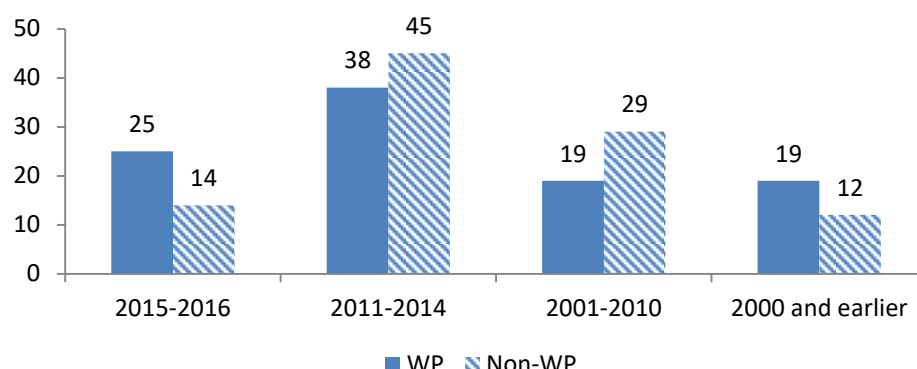
Figure 12: Percentage of respondents by IMD area, and undergraduate institution type and subject group



WP respondents were more likely than non-WP respondents to be recent graduates, but also more likely to have graduated before 2000 (Figure 13). The non-WP group were more likely to have graduated 2-6 years earlier. This might suggest the non-WP group were willing or able to delay their entry into teacher education until their mid to late 20s, while WP students either enter soon after

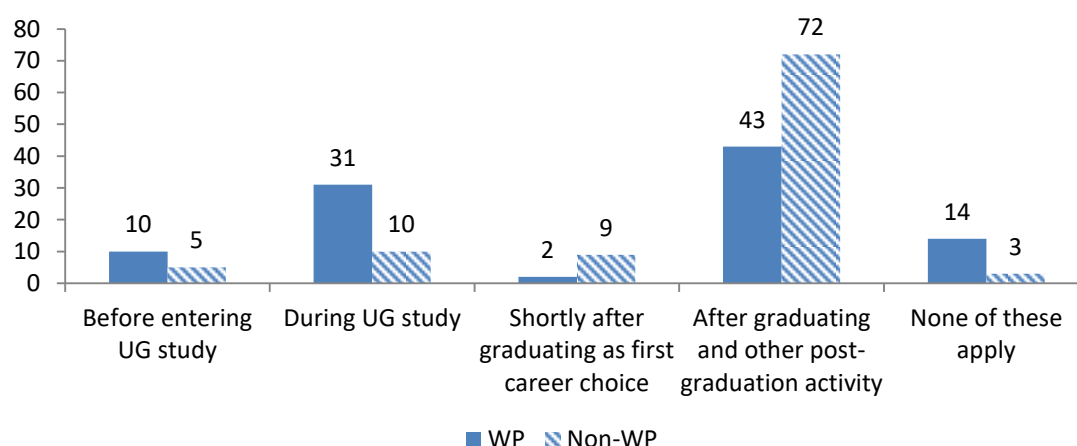
graduation or after a longer period of working or other activity. Figure 14 provides more information on this.

**Figure 13: Percentage of WP and non-WP respondents by year of graduation from undergraduate degree**



WP respondents were more likely than non-WP respondents to have decided during UG study to become a teacher, and less likely to have decided after other activity than non-WP (Figure 14) (although for both groups, the latter was the most common time). (This set of differences was statistically significant at  $p < 0.01$ ). This was the case both for male and female respondents.

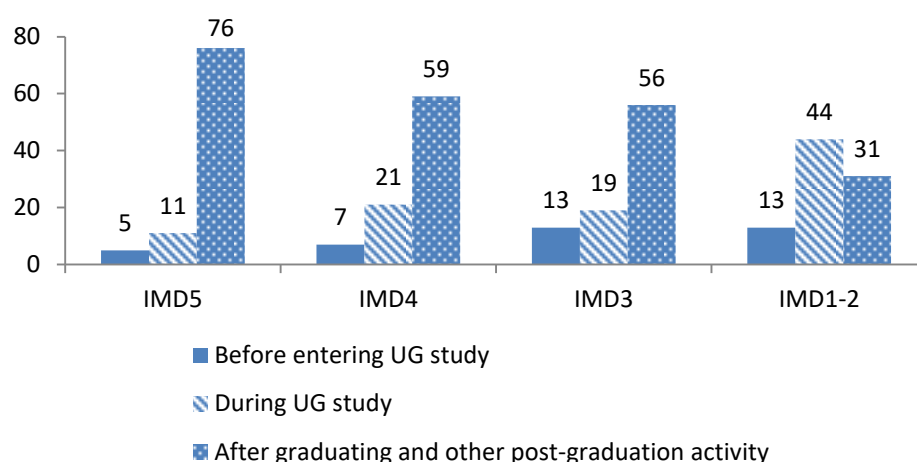
**Figure 14: Percentage of WP and non-WP respondents by when they decided to become a teacher**



As can be seen in Figure 15, this was much more strongly the case still for those from IMD1-2 areas. Deciding during UG study was slightly less common for STEM WP graduates than social sciences and arts WP graduates, possibly suggesting that wider options may be perceived by STEM students while still undergraduates (but the number of relevant responses is very small).



Figure 15: Percentage of respondent by IMD area, by when they decided to become a teacher



Even after controlling for sex, PGDE course, subject group of first degree, and institution type for first degree (UK institutions only), using logistic regression modelling, the association between WP group and when it was decided to become a teacher was strong – the odds of deciding after graduating were 6.2 times higher for the non-WP group than the WP group (statistically significant at  $p < .01$ ).

The wider literature on HE participation indicates an overall difference between students who can be classed as WP and others in relation to how important employability is in their study choice, and suggests they are less likely to have financial and social resources to either delay entry to the workplace or to have a wide range of options perceived or provided through social networks. These data suggest support for these wider findings, and those that have indicated the relatively high perception of accessibility of teaching as a profession to those from less privileged backgrounds.

### 5.3 Motivations for entering teacher education

Respondents were asked to rate a series of potential motivations for entering the PGDE, using a three-category response scale: whether it was a strong motivation, a weaker motivation, or not a motivation.

#### 5.3.1 Altruistic and intrinsic motivations

Comparing Figures 16 (the WP group) and 17 (the non-WP group), making a socially useful contribution was an important factor for both groups, but more so for the non-WP group. However comparing IMD groups (Figure 18), those in the IMD1-2 group were the most likely to cite social contribution as a strong motivation. A somewhat higher percentage of non-WP respondents were strongly motivated by working with children, but this was strong for both overall. However again those in the IMD1-2 group were the most likely to be strongly motivated by this. The non-WP group were also more strongly motivated by building on teaching-related experience (potentially having been more likely to have such experience).

Figure 16: Percentage of WP group by strength of altruistic and intrinsic (enjoyment) motivations

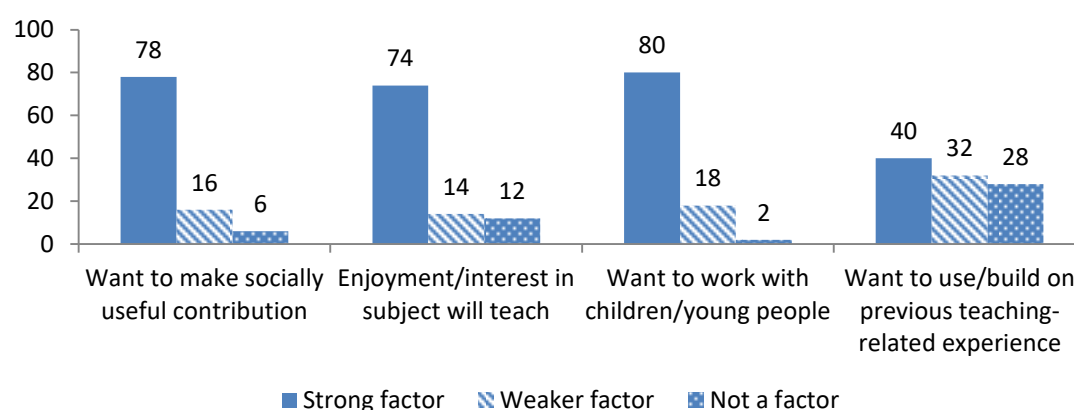
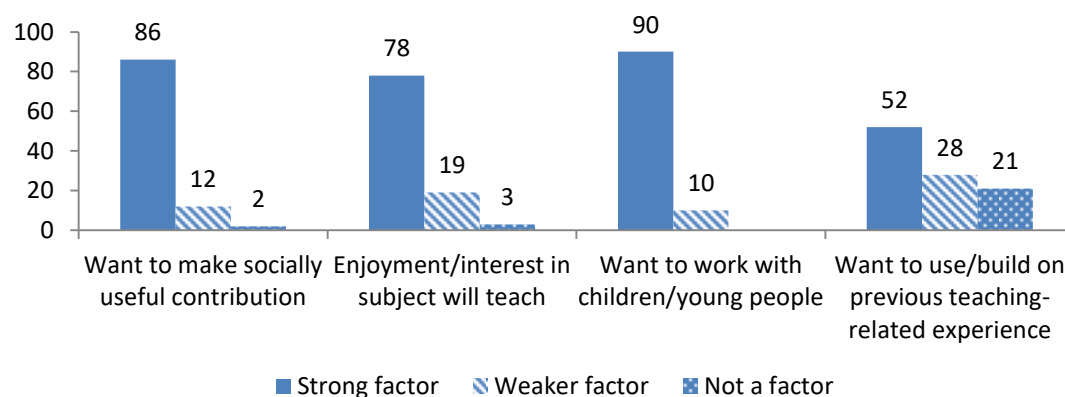


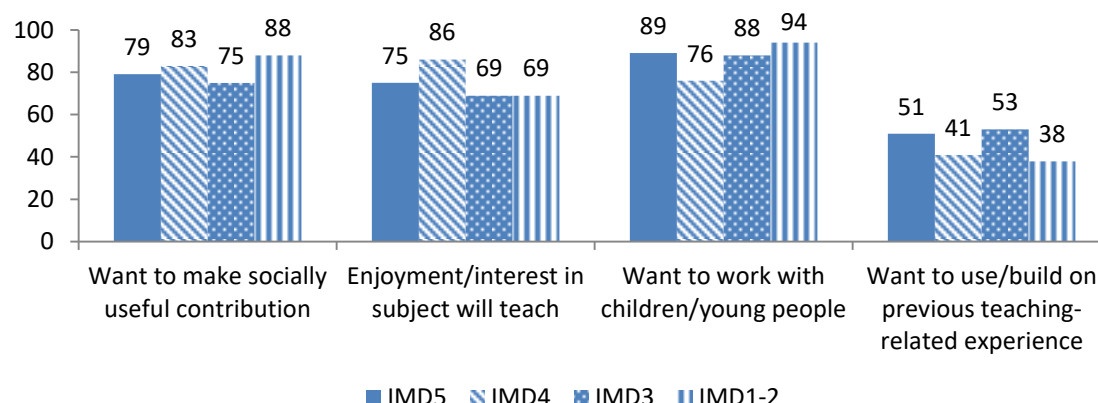
Figure 17: Percentage of non-WP group by strength of altruistic and intrinsic (enjoyment) motivations



There is then a slightly greater likelihood of the WP group (but not necessarily the IMD1-2 group) being less strongly motivated by these altruistic and intrinsic factors, and this was the case even after accounting for sex and age group (through logistic regression models<sup>4</sup>), but the difference between the WP and non-WP groups was not statistically significant. These models also supported the descriptive finding (provided in section 6) that males were less likely than females to be motivated by working with children (a statistically significant difference in the model), as were the over-30s compared to other age groups (not a statistically significant difference in the model).

<sup>4</sup> These models, one for each motivating factor, had independent variables of WP/non-WP, sex, and age group and a dependent variable of not being strongly motivated/being strongly motivated.

**Figure 18: Percentage of respondents by IMD area who were strongly motivated by altruistic and intrinsic (enjoyment) motivations**



Figures 19 and 20 show there was little difference in the motivation of variety of the role for the WP and non-WP groups, which was relatively strong in both cases. For WP students, the potential for career development was more often a strong motivating factor than for non-WP students, but also not a motivating factor for a similar percentage. Non-WP students though were more likely to be strongly motivated by the responsibility expected in the role. These findings remained when accounting for sex and age group (in logistic regression models), but were not statistically significant. The logistic model supports the descriptive findings (see section 6) that males were more likely than females to be strongly motivated by the potential for career development, and younger age groups more likely than the older age groups to be strongly motivated by this (this difference statistically significant at  $p < .05$ ). Logistic modelling also supports the findings (see section 6) that males were less strongly motivated by the responsibility of the role than were females, and the 25-29 group were more likely than the 24 and under group to be strongly motivated by the responsibility of the role (around 3 times the odds, statistically significant at  $p < .05$ ).

**Figure 19: Percentage of WP group by strength of intrinsic (satisfaction) motivations**

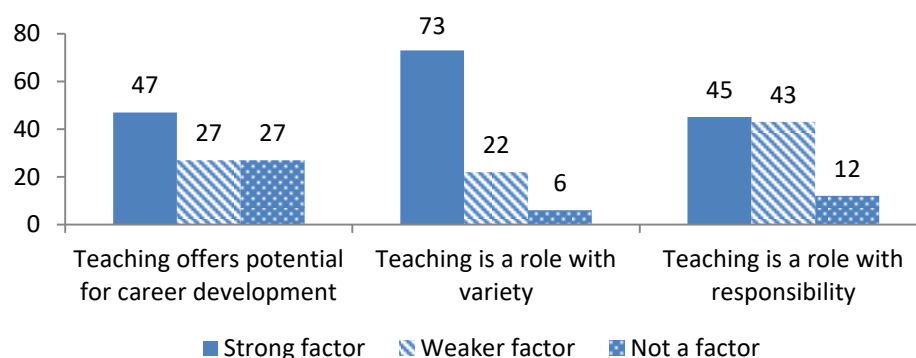
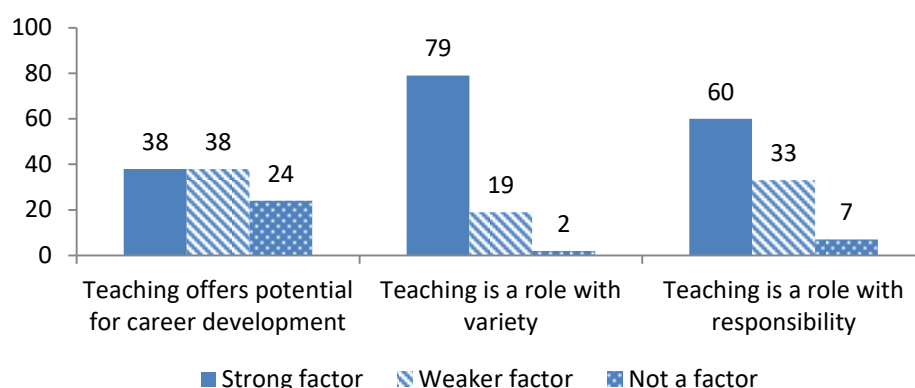
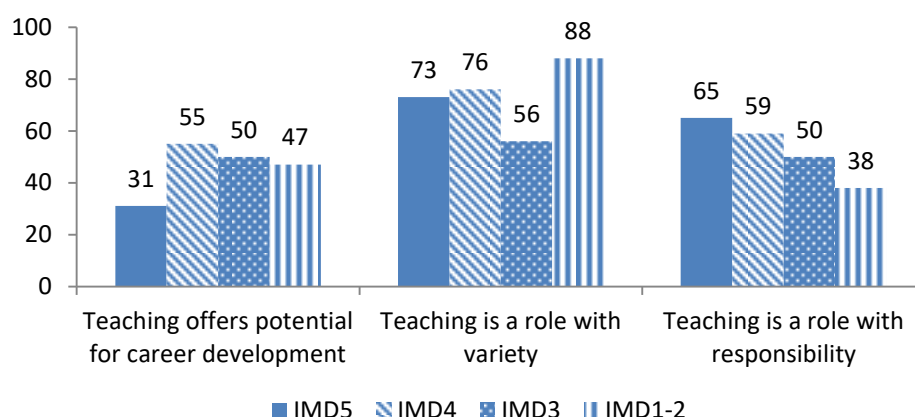


Figure 20: Percentage of non-WP group by strength of intrinsic (satisfaction) motivations



In terms of IMD (Figure 21), those from IMD5 were least often strongly motivated by the potential for career development. Those from IMD1-2 were the most likely to strongly motivated by the variety of the role (and they differ to the combined WP group in this) and least likely to be motivated by the responsibility of the role.

Figure 21: Percentage of respondents by IMD area who were strongly motivated by intrinsic (satisfaction) motivations



These findings may suggest greater long-term commitment to teaching among the WP group overall (because they were more often strongly motivated by career development), while the non-WP group overall may be more confident about or may value more the expectation of challenge of the role and the difference they can make (because they were more often strongly motivated by the responsibility of the role).

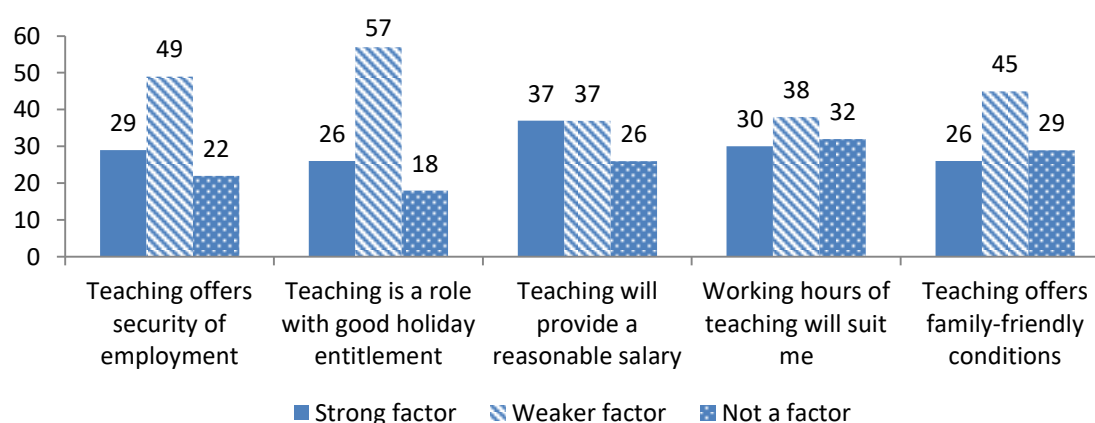
### 5.3.2 Extrinsic motivations

There are a range of potential extrinsic factors related to expected job conditions and conditions related to the PGDE course itself. It must be noted of course that those who were not motivated by these statements may either not agree with them, for example that the salary is reasonable or the working hours will suit them, or agree with the statements but are not motivated by them. Either way, it did not act as a motivation in their decision to enter teacher education.

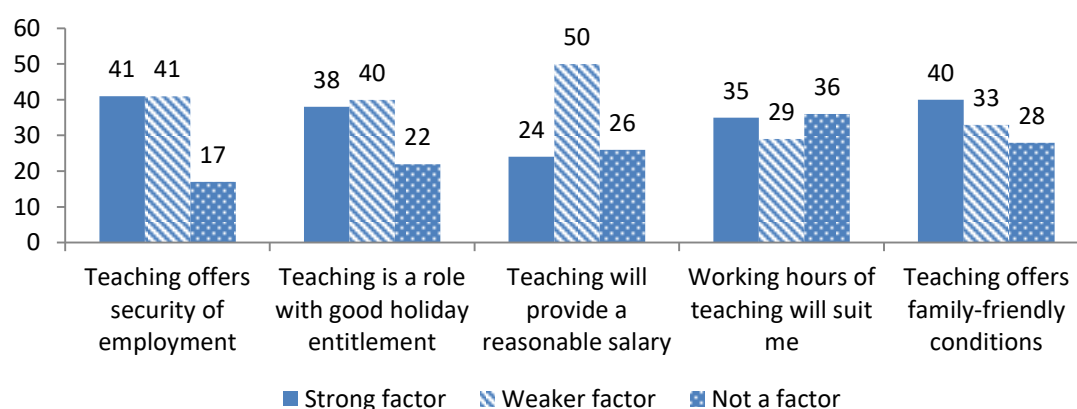
Figures 22 and 23 show that the security of employment and holiday entitlement were more likely to be strong motivators for non-WP students, but these were not very strong overall (compared to intrinsic factors). A reasonable salary was more often a strong motivating factor for WP students but not a factor for a quarter of each group. These differences remained after controlling for sex and age group. The job security finding was not expected, but although it was more often a strong factor for non-WP respondents, this was only the case amongst females, for males it was more often a strong motivation for the WP than non-WP group (54% to 31%). The salary finding is more in line with previous research, and was found for males and females.

Working hours were not a key motivation for either group: this is the job condition factor that was most likely not to be a motivation at all. The non-WP group were more often strongly motivated by family-friendly conditions. Although women were more likely to be motivated by this factor than men (see section 6), the difference between the WP and non-WP group applied to men and women. The under-25 group were also less likely to be motivated by this factor than older groups (see section 6). Accounting for WP/non-WP, sex and age group, a logistic regression model supported all these findings in relation to family friendly conditions, but only the sex difference was statistically significant (at  $p < .05$ ).

**Figure 22: Percentage of WP group by strength of extrinsic (job conditions) motivations**



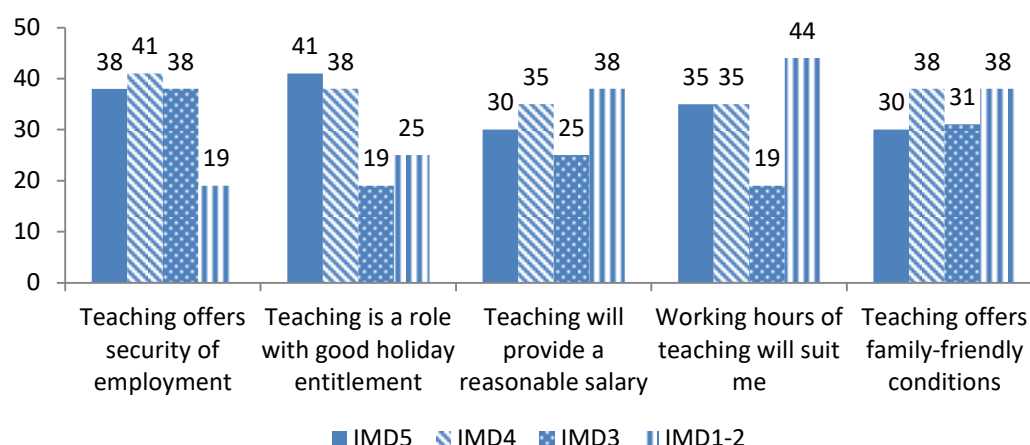
**Figure 23: Percentage of non-WP group by strength of extrinsic (job conditions) motivations**



Those from IMD1-2 were less likely to be strongly motivated by the expected security of employment of teaching, and also relatively unlikely to be strongly motivated by the expectation of

good holiday entitlement (Figure 24). They are relatively strongly motivated however by the working hours and expectation of reasonable salary, and of family friendly conditions. The working hours and family friendly conditions findings differ to those for the WP group as a whole (who were less likely to be strongly motivated by these than the non-WP group).

**Figure 24: Percentage of respondents by IMD area who were strongly motivated by extrinsic (job conditions) motivations**



Comparing Figures 25 and 26, the funded route to a professional career was slightly more often a strong motivator for non-WP students, and for a high percentage of WP students was not a motivation at all. The short length was also more of a motivation for non-WP students. The guaranteed induction post as a motivation was very similar for both groups. However again these findings only applied to female respondents. Non-WP females were therefore more likely to cite these course conditions as strong factors than were WP females. However, the funded route was more often strongly important to male WP respondents than non-WP respondents (39% to 8%), as was the guaranteed post (54% to 31%). It can also be noted (see section 6) that these factors tended to be more important for those in the 25-29 group which could potentially account for these differences. A regression model with the independent variables WP/non-WP, sex and age group showed that those in the non-WP group remained more likely to be strongly motivated by the funded route after accounting for sex and age, but males were less likely than females to be strongly motivated after accounting for WP group and age group. Being in the 25-29 group, being female and being non-WP each had a positive association with the funded route as a strong motivation, although these associations were not statistically significant. Accounting for WP/non-WP and age group there was little difference in the odds of females and males citing the guaranteed post as a strong motivation. It remained most likely for the 25-29 age group, after accounting for WP status and sex.

Figure 25: Percentage of WP group by strength of extrinsic (course conditions) motivations

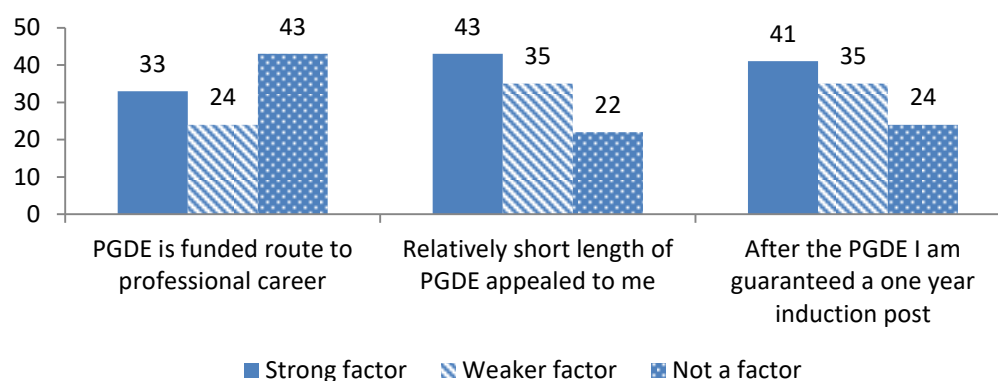
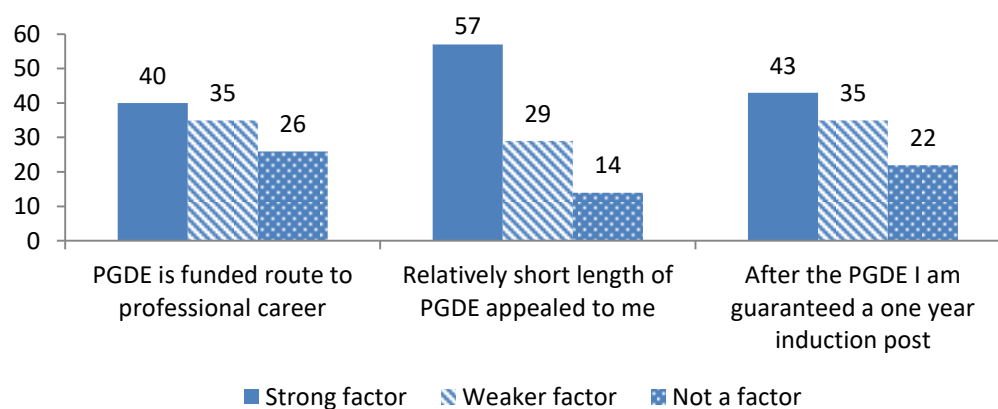


Figure 26: Percentage of non-WP group by strength of extrinsic (course conditions) motivations



Those in IMD1-2 and IMD3 were much less likely to be strongly motivated by the PGDE being a funded route (Figure 27). It was those from IMD5 who were the most strongly motivated by the relatively short length of the PGDE. IMD1-2 respondents were also the least likely to be motivated at all by the guaranteed post (Figure 28).

Figure 27: Percentage of respondents by IMD area who were strongly motivated by extrinsic (course conditions) motivations

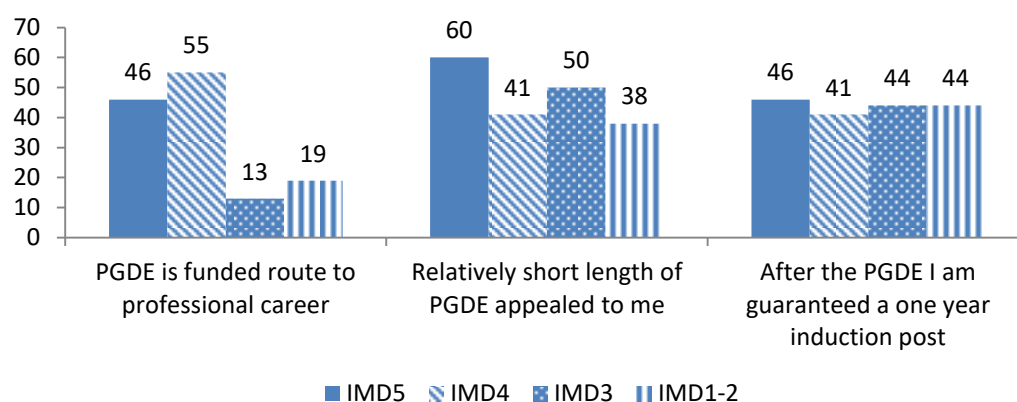
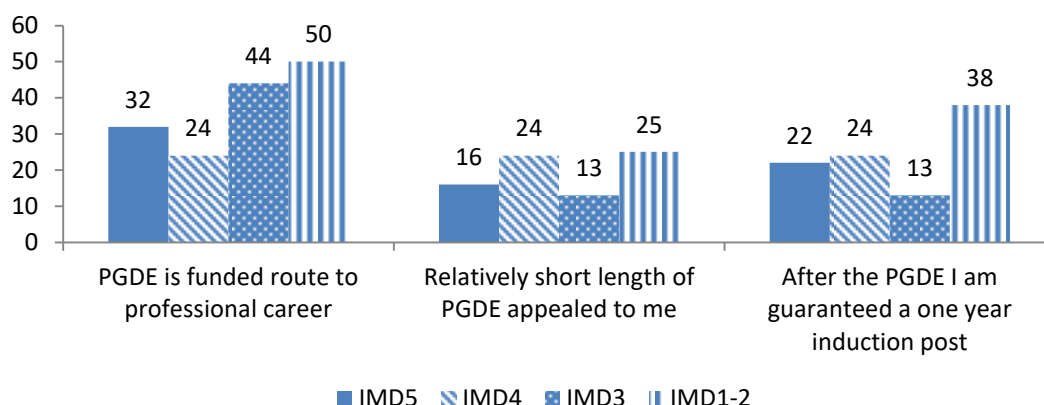


Figure 28: Percentage of respondents by IMD area who were not motivated by extrinsic (course conditions) motivations



It may have been expected that those in the WP group would have greater financial pressure which may have resulted in valuing the PGDE being funded and relatively short. However, this was not found, and what seems more important is the age group finding, that is those in the particular stage of life at 25-29, and females, who valued more these aspects of the PGDE.

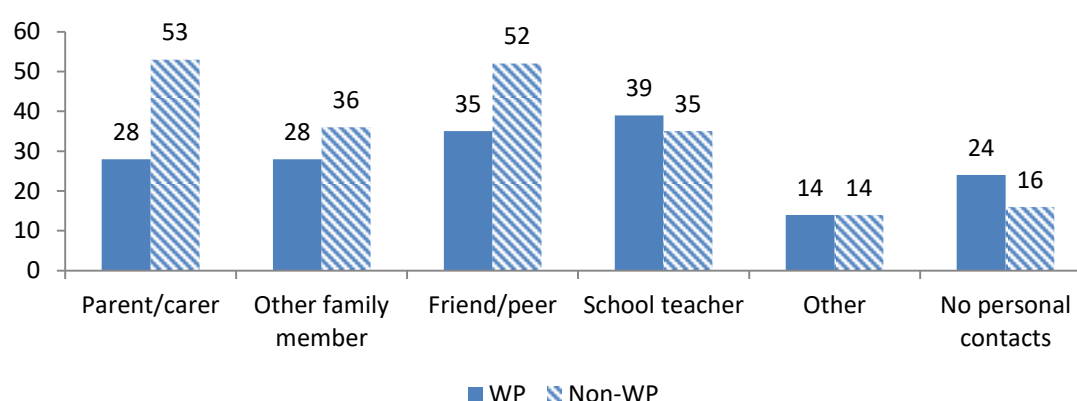
Across all the motivation measures, those which potentially are more important to PGDE students with WP indicators, compared to those without, are the potential for career development, and the expectation of a reasonable salary. For male WP students specifically this might also apply to security of employment and the length of the PGDE. Those without WP indicators, compared to those with, were more motivated by the responsibility of the role, security of employment (females only), PGDE as a funded route and the short length of the PGDE. They were also a little more motivated by the altruistic and intrinsic (enjoyment) measures. However it was also seen that if the analysis only focuses on IMD group, those in the SIMD40 group differ on occasion to those in the WP group. They are the most likely to be motivated by the social contribution of teaching, and working with children and young people, by the working hours and family friendly conditions, and in these findings they differed to the broader WP group. Including those without HE-experienced parents in the WP group therefore does change results compared to using an IMD-only measure.

#### 5.4 Influences and sources of information

Parents/carers, other family members and friends/peers were more often an influence on those in the non-WP group than the WP group. School teachers were a little more often an influence for those in the WP group (and higher than for family and friend influences, which was not the case for non-WP). Other educators and career advisors had little influence. A higher percentage of the WP group had no personal contacts influencing their decision (Figure 29). Access to fewer social network or 'hot' sources of information for the WP group does fit with the wider literature which tends to focus on undergraduates.

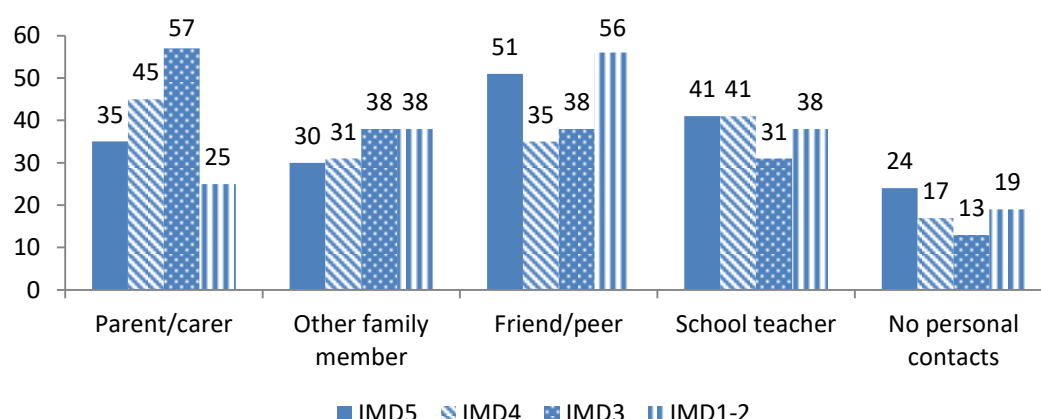


**Figure 29: Percentage of WP and non-WP respondents by who influenced their decision to become a teacher**



Those from IMD1-2 areas were also least likely to have been influenced or encouraged by parents, however they were amongst the most likely to have been so by other family members, and by friends/peers (Figure 30). They appear to have more personal contacts than the wider WP group that includes those without an HE-experienced parent or who entered UG education through an access route. The no personal contacts finding was therefore also different than for the WP group, who were less likely to have been influenced by personal contacts than the non-WP group.

**Figure 30: Percentage of respondents by IMD area, and by who influenced their decision to become a teacher**



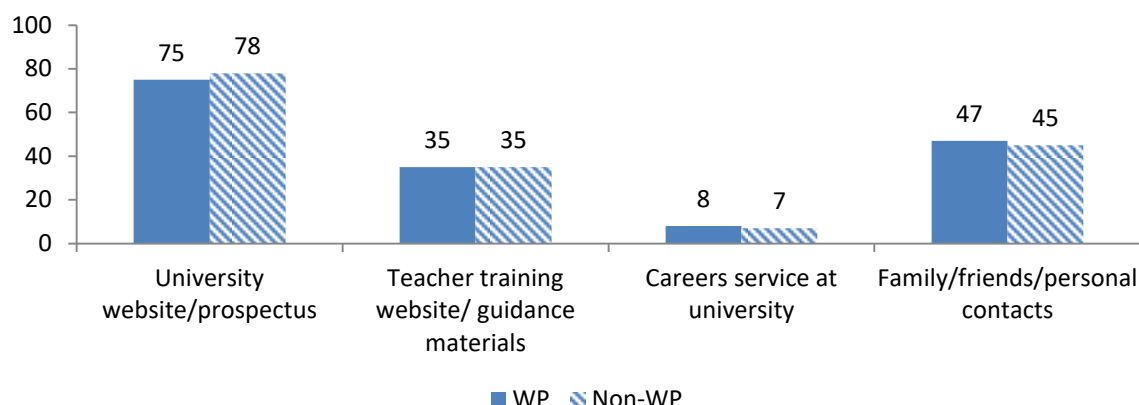
The role of having access to parents with HE knowledge to guide choice is a common finding in the wider student choice literature. To directly compare this point with the findings in this research, those with and without an HE-experienced parent were analysed (Table 3). Those without an HE-experienced parent were much less likely to have been influenced by a parent/carers, other family member, or friend/peer; and were more likely to have been influenced by no personal contacts. These findings do therefore fit with previous research.

**Table 3: Percentage of respondents with and without parental HE, by who influenced their decision to become a teacher**

	Has parent with HE experience	Does not have parent with HE experience
Parent/carers	57	17
Other family member	34	29
Friend/peer	49	34
School teacher	37	37
No personal contacts	16	24

The findings on sources of information were very similar for the two groups (Figure 31) (and this was also the case in relation to IMD). The most common source of information was university information, followed by personal contacts, then teacher education guidance. The findings do not suggest that ‘cold’ knowledge was being used to a greater extent by the non-WP group.

**Figure 31: Percentage of respondents by use of sources of information on teacher education**



### 5.5 Summary: Key findings in relation to WP indicators

In terms of those most likely to have one of the indicators in this research that serve as a proxy for being a widening participation student, there was little difference in relation to PGDE course, sex or age groups, apart from the 30 and over group being least likely to have a parent with HE experience; and within the small number of respondents whose home address at the time of undergraduate entry was in an IMD1-2 area, there was a lower percentage of males than females, and of those aged 25-29 compared to other age groups.

A significant finding was that the WP group were more likely than the non-WP group to have made the decision to enter teacher education during their undergraduate study. WP respondents were more likely than non-WP respondents to be recent graduates, but also more likely to have graduated before 2000. The WP group were less likely than the non-WP to have graduated from an ancient/Russell Group university. The WP group, but not the IMD1-2 group, were most likely to have graduated from a STEM degree. The WP group were also less likely than the non-WP group to have graduated in social sciences.

There was a slightly lower likelihood of the WP group than the non-WP group (though not the IMD1-2 group compared to other IMD groups) being strongly motivated by altruistic and intrinsic factors. The potential for career development and the expectation of a reasonable salary were more often a strong motivation for the WP group than non-WP group. The expectations of responsibility of the role, security of employment, holiday entitlement, family-friendly conditions, the PGDE as a funded route to a professional career, and the short length of the course, were more often motivations for the non-WP group than the WP group. There were a few differences however in relation to sex: for males the security of employment and funded route were more often a motivating factor for the WP than non-WP group. There were also some differences when comparing the IMD1-2 group with other IMD groups, rather than WP/non-WP groups: the IMD1-2 group were relatively strongly motivated by expectations of suitable working hours and family –friendly conditions.

Among the WP group, school teachers were more likely to be an influence on becoming a teacher than were parents or family members, and they differed to the non-WP group in this. A higher percentage of WP respondents were influenced by no personal contacts. The IMD1-2 group differed to the WP group in that they were more likely to have been influenced by a friend/peer, or other family member, and a little less likely to have no personal contacts. These differences appear due in part to differences between those with and without a parent with HE experience.

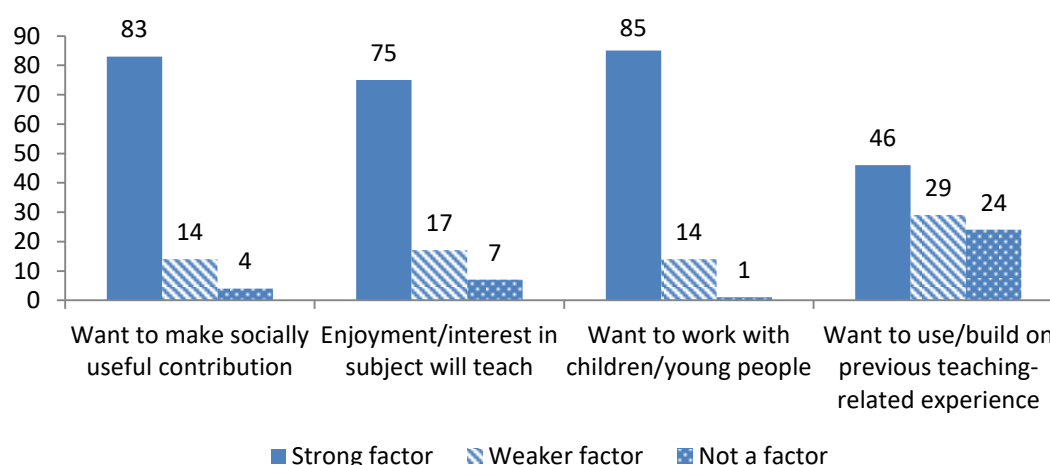
## 6. Motivations, influences and sources: findings for all respondents

As indicated in section 5, differences in relation to factors other than WP indicators were explored, to give a broader overview of the relationship between key characteristics and motivations to enter teacher education, as well as key influences and sources of information. Some key findings have been indicated in the discussion in section 5. This section provides the detailed descriptive findings for all respondents, and differences in relation to sex, age group, PGDE course, and the most notable differences in relation to first university and undergraduate subject studied.

### 6.1 Altruistic and intrinsic motivations

Over 80% of respondents were strongly motivated to teach by the wish to make a socially useful contribution (Figure 32), which is the altruistic motivation commonly identified in previous research (e.g. Moran et al., 2001). In terms of enjoyment as a form of intrinsic motivation, the findings show that three quarters of respondents were strongly motivated by enjoyment of the subject(s) they will teach, and 85% were strongly motivated by working with children and young people. For less than half was building on previous teaching-related experience a strong motivation, perhaps reflecting the fact that not all students will have experience they may classify as teaching per se. The quarter of students for whom this was not a motivation may not have had such experience. Intrinsic motivations are therefore strong, as found in wider research (e.g. Purcell et al., 2005).

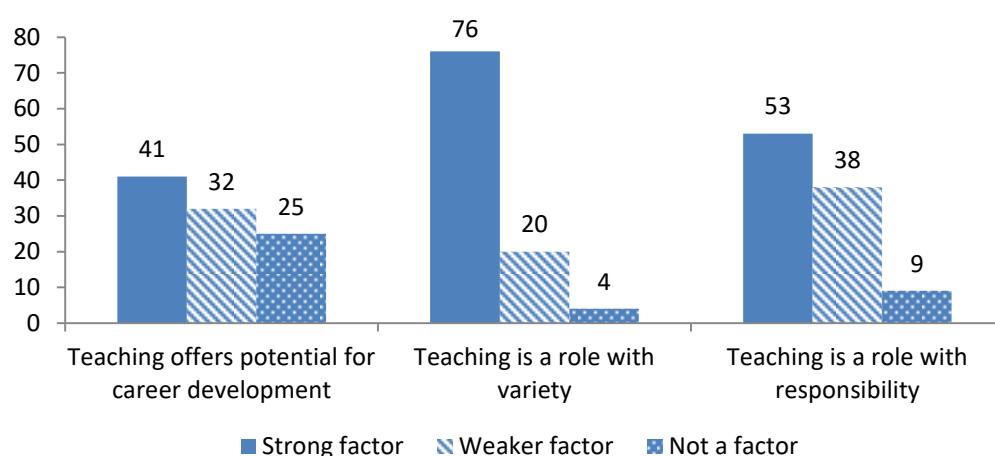
Figure 32: Percentage of respondents by strength of altruistic and intrinsic (enjoyment) motivations



However their likelihood of being a strong motivation differed in some cases between the Primary and Secondary respondents. Wanting to make a socially useful contribution was a strong motivator for most respondents, though slightly stronger among the Primary students. Enjoyment of the subject was more often a strong motivation amongst Secondary students (92%) than Primary students (67%); and wanting to work with children and young people stronger for Primary (90%) than Secondary students (76%) (in line with previous research, e.g. Moran et al., 2001). Building on previous teaching-related experience was a similarly strong motivation for the two groups (49% of Secondary respondents and 44% of Primary respondents). It can also be noted that as found in previous research (e.g. Jarvis and Woodrow, 2005), female respondents (90%) were more often strongly motivated by working with children compared to males (69%), and males (92%) more often motivated by enjoyment of the subject than were females (71%).

Intrinsic motivation can also take the form of expected career development and job satisfaction that teaching could provide. Of the three factors measuring this, the expectation of a varied role was the strongest motivator; and the expectation of a responsible role was a strong factor for around half of respondents (Figure 33). In terms of potential for career development, a quarter of respondents were not motivated by this aspect of the job, suggesting either an expectation that being a teacher will be a satisfactory role without necessarily gaining progression, or potentially an expectation that teaching will not be a long term role for them. The career development potential of teaching was more often a strong motivation for Secondary (46%) than for Primary respondents (39%), but in both cases was not a motivation for a quarter of respondents. It was also more often a strong motivation for those aged under 25 (57%, compared to 46% of those aged 25-29 and 30% of those aged 30 and over). Younger entrants may therefore either be more ambitious, or expecting to have a longer teaching career, than older entrants. Males (56%) were also more motivated by the potential career development than females (38%), but females (56%) were more motivated by the responsibility of the role than were males (42%).

**Figure 33: Percentage of respondents by strength of intrinsic (satisfaction) motivations**



For Primary respondents, the variety of the role was a strong motivation for a large majority (83%), but this was less the case for Secondary students (although still important to 62% of respondents). Secondary respondents were on the other hand more likely to consider the responsibility of the role as a motivating factor (60% compared to 50%).

The literature overall suggests that a challenging, varied and rewarding career is an important motivation for those entering teaching education. This research suggests this a less strong motivation than the enjoyment types of intrinsic motivation for the respondents, and that the definition of what is important in teaching as a challenging career varies, to some extent, between different groups of respondents (particularly in relation to sex and age group).

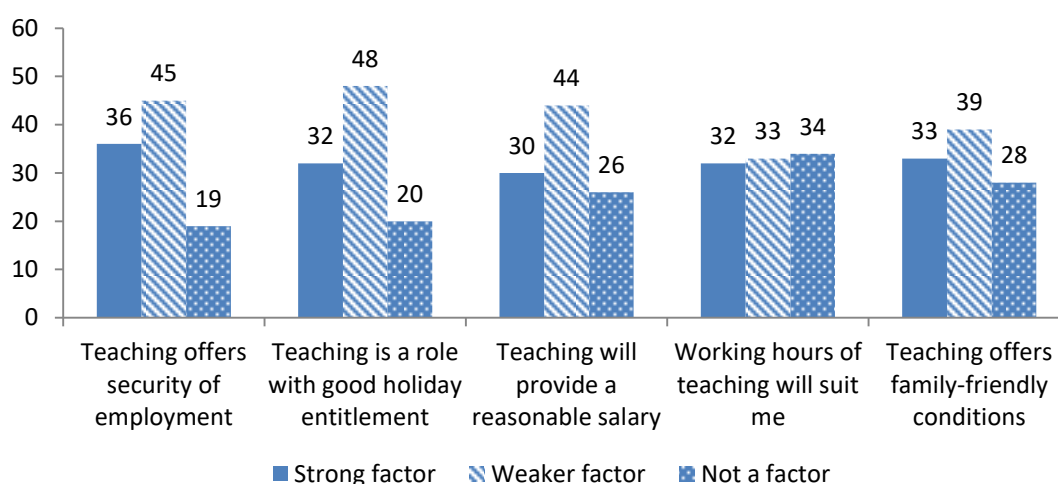
## 6.2 Extrinsic motivations

In relation to the job conditions motivations, the common pattern is that about a third of students considered them a strong motivation (Figure 34). Those which were the most likely to be motivators (combining strong and weaker motivation) were security of employment and holiday entitlement. The working hours were the least strong motivating factor.

In terms of PGDE course, security of employment, salary, and working hours were more frequently strong motivations for Secondary than Primary respondents, suggesting slightly more concern for these factors among Secondary respondents. Another notable difference between groups was that arts graduates were more concerned with these job condition factors than graduates of social sciences and STEM, potentially due to their first degree having been less clearly linked with employability than other degree subjects.

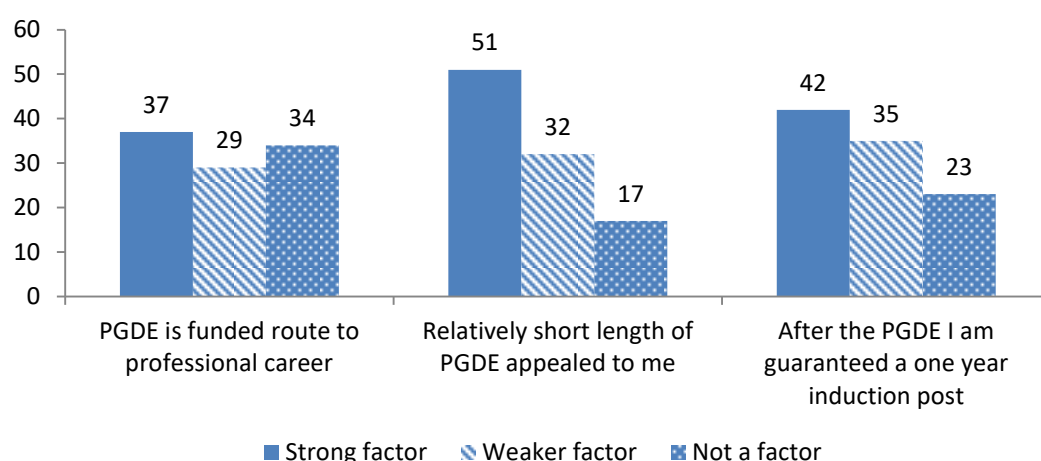
There was mixed evidence on the importance of job conditions for mature students in the literature review. In this research, those aged over 30 were the least motivated by security of employment and salary. Males were unlikely to be motivated by the potential for family-friendly conditions (12%) compared to females (32%), a finding that fits with previous research (e.g. Thornton et al., 2002) and the continuing high likelihood of mothers rather than fathers taking on flexible working.

**Figure 34: Percentage of respondents by strength of extrinsic (job conditions) motivations**



Finally the extrinsic factors concerning the teacher education course itself, show the strongest factor overall of these to be the relatively short length of the programme (Figure 35). The length of the programme was a strong motivator for more Primary (56%) than Secondary respondents (41%) (and for a fifth of Secondary respondents not a factor at all). It was also more important to females (56%) than males (31%); and to those aged 25-29 (57%) than those in other age groups. The guaranteed one year post was important to about 40% of respondents, and more often so for Secondary (49%) than Primary (39%) respondents (and for around 30% of Primary respondents not a factor at all). The least strong motivation was provided by the course being a funded route to entering a profession. It was again those aged 25-29 who were the most likely to cite the funded route and guaranteed post as strong motivations (46% for the funded route and 57% for the guaranteed post), but the over 30s were least motivated by these two factors.

Figure 35: Percentage of respondents by strength of extrinsic (course conditions) motivations

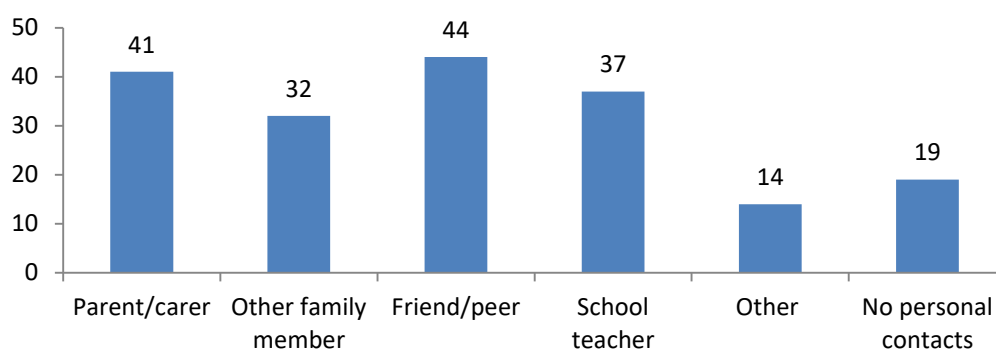


These findings suggest different important factors in relation to the particular stage of life, even within a potentially small age gap. The 25-29 group will only have been graduates for a few years, and may have taken time away from work and study, or already acquired another postgraduate qualification, or had some experiences in the workplace, potentially creating financial and time pressures on them at this stage. Therefore for some, a short, funded qualification route and guaranteed post is important.

### 6.3 Influences and sources of information

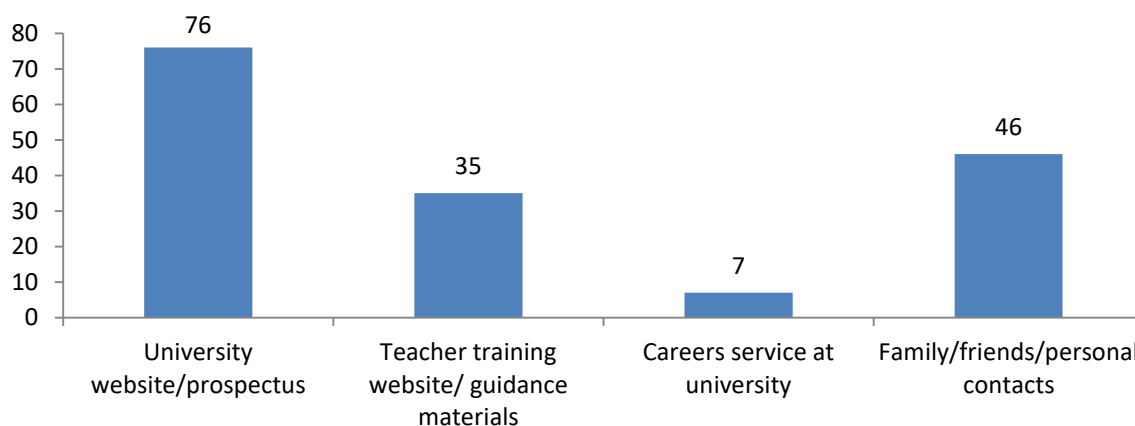
Respondents were asked who influenced or encouraged them to become a teacher (Figure 36). Around 20% of respondents were not influenced to become a teacher by any personal contacts. Of the rest, the most common sources of influence were friends or peers (44%), parents or carers (41%) and school teachers (37%). Other educators and careers advisers had almost no role in the decision amongst this group of students, and are therefore not shown. Family members were an influence on more Primary than Secondary respondents, as were friends/peers to a slight extent. The findings also show some other differences. Age and stage of life may affect who the influencers are, for example other family members or friend/peers were more frequent for the over-30s, parents were more frequent for the 25-29 group, and school teachers a little more common for the under-25 group. Males also were more likely to have personal influences on becoming a teacher than did females (24% of females were not influenced or encouraged by any personal contacts compared to 4% of males), perhaps reflecting that teaching is a more normalised route for females (Braun, 2015), and therefore may more often be considered as an option without direct encouragement.

Figure 36: Percentage of respondents by who influenced their decision to become a teacher



Respondents were asked what sources of information they used to find out about teacher education options (Figure 37). The most frequently used sources of information on teacher education options were university websites or prospectuses. Another ‘cold’ source of knowledge, in the form of teacher training websites or guidance materials, was used by a third of students. Personal contacts were also however a relatively popular source of information. This was the case for 46% of respondents, but more common again for males than females (62% to 42%). Secondary respondents were more likely than Primary respondents to have used all these sources of information. University careers service had been used to a limited extent, but the school careers service, other careers services and ‘other’ categories had a very small number of responses each and are not reported.

Figure 37: Percentage of respondents by use of sources of information on teacher education



#### 6.4 Summary: PGDE, sex and age group differences

PGDE Primary respondents were far more representative of the class cohort in numerical terms than were PGDE Secondary respondents. With the caveat noted of the differing sample sizes, within the overall sample there were differences found between Primary and Secondary respondents. Respondents on the Primary course were more likely than Secondary respondents to be female and older, and less likely to have graduated recently. They were also more likely to be social sciences and arts graduates, and less likely to be STEM graduates than were Secondary respondents. The latter came into the PGDE from a narrower range of subjects. Primary respondents were more likely than Secondary respondents to be strongly motivated by wanting to work with children, and Secondary respondents by enjoyment of the subject(s) they would teach. Primary respondents were more often strongly motivated by the variety of the role, and Secondary respondents by the responsibility



of the role, the potential for career development and extrinsic job conditions. Finally, the short length of the programme was more often a motivator for Primary respondents and the guaranteed post more often a motivator for Secondary respondents.

There were differences between the female and male respondents in terms of educational background: female respondents were more likely than male respondents to have graduated from an ancient or Russell Group university; males were more likely than females to be STEM graduates and less likely to be social sciences and arts graduates. In terms of motivations, female respondents were more often strongly motivated by the wish to work with children and young people, and males more often motivated by the enjoyment of the subject(s) they will teach. Males were more often motivated than females by the potential for career development, but females by the responsibility of the role. Females were more likely than males to be motivated by the potential that teaching will offer family-friendly conditions, and by the relatively short length of the course. Finally, males were more likely than females to have been influenced or encouraged by personal contacts to have entered teacher education, and to have used personal contacts as sources of information on teacher education options.

The other key comparison group suggested by the findings is that of age group. The potential for career development was most important for the 25-29 age group, as were the course condition factors. The 30 and over group were least motivated by security of employment, salary, the funded nature of the PGDE or the guaranteed post. The frequency of influencer types also varied by age group.

## 7. Conclusion

It has been identified (in section 2.2.2) that for those from less advantaged backgrounds who are under-represented overall in higher education, 'education' as a field of study at undergraduate level is perceived as relatively accessible, and also relatively desirable due to its expected links to employability. This can be theorised (as noted in section 2.2.1) to be due to the perception that an accessible, employment-related choice reduces the risks for those for whom participation in higher education comes at potentially high cost, either in terms of debt, opportunity, or identity costs. In these circumstances, expectation both of success in the programme and benefit after graduation need to be relatively high, higher than those for whom HE participation is more normalised and who expect opportunities to be available no matter what they study. Postgraduate students have however already overcome any barriers to engaging in higher education, and while social background may be a factor in whether postgraduate study is followed (particularly in terms of the potential to take on debt and further delay entry to the labour market), it can be expected to be less of a factor in what is studied at postgraduate level. However, Wakeling's (2009) research and that of Edinburgh University Careers Service (2015) shows a continued association between social background and entering postgraduate teacher education courses. Previous research findings overall show that these courses are, like undergraduate education courses, relatively socially accessible.

In the survey for this research, the widening participation indicators that have been used show 38% of respondents did not have a parent with HE experience, 11% entered HE through an access route, and 15% had a home postcode in the 40% most deprived areas. 38% of the respondents had graduated from an ancient or Russell Group university, and only 18% from a Post-92 university. They are a relatively privileged group in relation particularly to home area, but this is indicative of the relatively privileged background of students at the university. It can be noted that the percentage of respondents from IMD1-2 (or SIMD40) areas were lower than for the whole cohort, and therefore that our respondents were somewhat unrepresentative, possibly due to the skew towards Primary respondents. However in the context of the University of Edinburgh the percentage of respondents originally from a SIMD40 neighbourhood was nonetheless high, reflecting the relatively accessible nature of teacher education programmes at the university. The percentage of respondents with at least one of the WP indicators was 47%, allowing comparison between a 'WP group' and a 'non-WP group', while recognising that not all of those in the WP group would identify themselves that way. Section 5.5 summarises the main differences found between the groups, and in relation to different IMD groups. Here the focus is on the key findings.

One of the potentially important ways the WP and non-WP groups differed was in relation to when they graduated and when they decided to enter teacher education. Overall, the decision to become a teacher was not an early career choice among the respondents, and a range of other work and education activities had been undertaken between graduating and entering the PGDE. Wider research shows the relatively high participation of mature students (those over 21) in undergraduate teacher education, and applying a higher age threshold for identifying mature students in this survey shows them to be strongly represented at postgraduate level. The findings suggest that teaching can either be a career idea that people mature into, or be more valued as an option after other experiences, or for some be a fall-back choice after trying other options. The findings further suggest the non-WP group were willing or able to delay their entry into teacher education until their mid to late 20s, while WP students were more likely to enter soon after graduation. In relation to the wider

literature on the perceptions of employability and of accessibility of teaching as a career, the findings suggest that those classified as WP in this study are less likely to have financial and social resources to either delay entry to the workplace or to have a wide range of options perceived or provided through social networks.

In the wider literature it was noted that those entering postgraduate teacher education were less likely to have graduated from selective high tariff universities, than from other higher education institutions, compared to those entering other types of postgraduate course. In part this can be expected due to the small numbers of selective universities, but the data overall suggest that postgraduate teacher education is not a route commonly followed by graduates of high tariff universities. As noted above, in this sample, 38% of respondents had done so, which seems relatively high but perhaps reflective of the nature of the university. The WP group in this research were less likely than the non-WP group to have been to an ancient or RG university which fits with overall HE participation data.

Female respondents were similarly likely to have graduated from an ancient/Russell Group university as another UK institution type, but as would be expected non-WP females were most likely to have gone to an ancient/RG university, and WP females to have gone to other UK universities. Females were also overall more likely to have graduated from an ancient/Russell Group university than males. The majority of males had graduated from 'other UK' institutions. These findings may suggest that for those entering teacher education as a later career option, there may be a greater difficulty for females than males in accessing satisfactory employment after graduating from an elite institution, or it may indicate a greater difficulty for males from non-elite universities in accessing satisfactory employment compared to males who went to elite universities. Equally it may suggest that women are more open than men to considering a teaching career no matter their educational background. From another perspective, female respondents were more likely than male respondents to be from IMD1-2 areas. The small number of male respondents does limit the claims that can be made from these data, but the wider literature had suggested that teaching is an accessible profession for women from non-privileged backgrounds. Amongst the relevant students that wider finding is supported.

Previous research has found that altruistic motivation (the social contribution of teaching) and intrinsic motivations including the wish to work with children and young people, enjoyment of the subject and the variety, challenge and responsibility of the role, tend to be stronger motivations for those wishing to become teachers than are extrinsic motivations. However a mix of intrinsic and extrinsic motivations is common. These broad findings were supported in this research. There was a slightly lower likelihood of the WP group (but not necessarily the IMD1-2 group) being strongly motivated by altruistic and intrinsic factors, and this was the case even after accounting for sex and age group. From a theoretical perspective, the most socio-economically advantaged may be in a better position to be concerned with the social good and enjoyment of the role (due to potentially having a greater range of alternative options and financial security). Of course, as noted the WP indicators do not clearly differentiate between the more and less advantaged, and the nature of teaching as a social and public service role means that the vast majority of WP-indicated respondents were also motivated by the altruistic and enjoyment factors, and to a greater extent than by extrinsic factors. Following the theoretical argument above however would suggest that for WP students teaching is expected to be seen as a positive career route with employment security,

rather than a potentially shorter-term role before other paths are taken. On this point, it was found that for WP students, the potential for career development was more often a strong motivating factor than for non-WP students (but also not a motivating factor for a similar percentage). Non-WP students though were more likely to be strongly motivated by the responsibility expected in the role. These findings may indeed suggest greater long-term commitment to teaching among the WP group overall (because they were more often strongly motivated by career development), while the non-WP group overall may be more confident about or may value more the expectation of challenge of the role and the difference they can make (because they were more often strongly motivated by responsibility). However the security of employment findings overall do not support the theoretical argument as expected employment security was more likely to be a strong motivator for WP students. Males however were more often strongly motivated by this than females, and indeed security of employment was the only extrinsic factor by which males were more likely than females to be motivated.

The non-WP group overall were more likely to cite the course conditions of a funded route and relatively short course as a strong motivation than were the WP group. It may have been expected that those in the WP group would have greater financial pressure which may have resulted in valuing the PGDE being funded and relatively short. Overall this was not found, and what seems more important is the age group finding, that is those in the particular stage of life at 25-29, who valued more these aspects of the PGDE. However again these findings in relation to WP indicators only applied to female respondents. Non-WP females were therefore more likely to cite these course conditions as strong factors than were WP females. However, the funded route was more often strongly important to male WP respondents than non-WP respondents, as was the guaranteed post. For male WP respondents getting into employment quickly and security of employment when they get there appear particularly important, however this is noted with the caveat of a low number of male respondents, albeit they were equally distributed in the WP and non-WP groups.

The WP group was more often strongly motivated by expectation of a reasonable salary, and this was only the job condition factor they were more motivated by than were the non-WP group. This finding supports both earlier research findings that those who come from a less advantaged social background are more likely to consider teaching salary as reasonable, and also that financial security is more important to those with fewer socio-economic resources. Again, it must be noted that assumptions about socio-economic resources do not apply to all students by whether they are in the WP/non-WP group, just that the WP group overall is likely to be less socio-economically advantaged than the non-WP group.

A higher percentage of the WP group than non-WP group had no personal contacts influencing their decision. Access to fewer social network or 'hot' sources of information for the WP group does fit with the wider literature on undergraduates. Those without an HE-experienced parent were much less likely to have been influenced by a parent/carer, other family member, or friend/peer; and were less likely to have been influenced by personal contacts, findings which again fit with previous research.

A range of further findings in the literature review were also supported by the research findings, which helps to generalise from the sample. The wider findings in the literature review were that motivations can vary overall in relation to those wanting to be Primary or Secondary teachers (for

example higher importance give to working with children for the former and enjoyment of subject for the latter); gender (intrinsic motivations and the extrinsic factor of family friendly conditions may be stronger amongst females); age (love of working with children may be more important to younger students and career options more important to older students).

From the motivation data it can be concluded that males overall were more motivated than females by enjoyment of the subject(s) they will teach, the potential for career development, and the security of employment – females more frequently cited every other factor as a strong motivation, suggesting a greater complexity of motivations amongst females or a more positive outlook on the range of potential benefits of teaching. Males were also more likely to draw on personal contacts in deciding to enter teacher education, which may reflect teaching as a less normalised professional route for men.

The potential for career development was more often a strong motivation for those aged under 30. Younger entrants may therefore either be more ambitious, or expecting to have a longer teaching career, than older entrants. There was mixed evidence on the importance of job conditions for mature students in the literature review. In this research, those aged over 30 were the least motivated by security of employment and salary. Those in the 25-29 age group were more likely than other groups to be strongly motivated by the course condition factors. These findings suggest different important factors in relation to stage of life, even just within a potentially small age gap. The 25-29 group will only have been graduates for a few years. They may have taken time away from work and study, or already acquired another postgraduate qualification, or had some experiences in the workplace, potentially creating financial and time pressures on them at this stage. Therefore for some, a short, funded qualification route and guaranteed post is important.

In this research it has been found that people enter the PGDE at Edinburgh University from a wide range of previous institutions and fields of study, often some time after they first graduated and having had other life experience first. Women PGDE students are more likely to have graduated from a high tariff university and in the arts and social sciences; men from 'other UK' institutions, in STEM and more likely to be found on the Secondary than Primary course. Whether or not they are from backgrounds under-represented in HE as a whole may be less of a factor given the delayed entry to the PGDE in most cases, and the fact they have completed an undergraduate degree. Despite that, there were differences found within the sample between those classed as WP and non-WP, most strongly in relation to whether teaching was a choice they made while in undergraduate study. WP respondents were also less likely to have drawn on family members or other personal contacts for advice. Having identified these differences, a more detailed understanding of their choice process while undergraduates, or indeed amongst those entering the PGDE some time after graduating, may be valuable.

In terms of motivations, the findings show firstly that while teacher education is most strongly being pursued because it is seen as a worthwhile, varied and enjoyable role, the reasons can be more complex. There is variation by WP group: the WP group were more motivated by the potential for career development, and the expectation of a reasonable salary; those without WP indicators, compared to those with, were more motivated by the responsibility of the role, security of employment (females only), PGDE as a funded route and the short length of the PGDE. They were also a little more motivated by the altruistic and intrinsic (enjoyment) measures. Some of these

results are unexpected. Knowing more about financial circumstances, expectations about how long they plan to be a teacher and their hopes for their teaching career, may help further explain these findings.

## References

- Archer, L (2003) The 'value' of higher education, in Archer, L, Hutchings, M and Ross, A (eds) *Higher education and social class: issues of exclusion and inclusion*, London: RoutledgeFalmer
- Archer, L and Hutchings, M (2000) 'Bettering yourself'? Discourses of risk, cost and benefit in ethnically diverse, young working-class non-participants' constructions of higher education, *British Journal of Sociology of Education*, 21(4), 555-574
- Ball, S J, Davies, J, David, M and Reay, D (2002) 'Classification' and 'Judgement': social class and the 'cognitive structures' of choice of higher education, *British Journal of Sociology of Education*, 23(1), 51-72
- Bourdieu, P and Passeron, J-C (1977) *Reproduction in education, society and culture*, London: Sage
- Braun, A (2015) The politics of teaching as an occupation in the professional borderlands: the interplay of gender, class and professional status in a biographical study of trainee teachers in England, *Journal of Education Policy*, 30(2), 258-274
- Breen, R and Goldthorpe, J H (1997) Explaining educational differentials: towards a formal rational action theory, *Rationality and Society*, 9, 275-305
- Chowdry, H, Crawford, C, Dearden, L, Goodman, A, Vignoles, A (2010) *Widening participation in higher education: analysis using linked administrative data*, London: Institute for Fiscal Studies
- Christie, H and Munro, M (2003) The logic of loans: students' perceptions of the costs and benefits of the student loan, *British Journal of Sociology of Education*, 24(5), 621-636
- Commission for Widening Access (2016) *A blueprint for fairness: the final report of the Commission for Widening Access*, Edinburgh: Scottish Government
- Connor, H, Dewson, S, Tyers, C, Eccles, J, Regan, J and Aston, J (2001) *Social class and higher education: Issues affecting decisions on participation by lower social class groups*, London: DfEE
- Connor, H, Tyers, C, Modood, T and Hillage, J (2004) *Why the difference? A closer look at higher education minority ethnic students and graduates*, London: DfES
- Crawford, C (2014) *The link between secondary school characteristics and university participation and outcomes*, London: Department for Education
- Davies, P, Qui, T and Davies, N M (2014) Cultural and human capital, information and higher education choices, *Journal of Education Policy*, 1-22
- Delavande, A and Zafar, B (2013) Subjective explanations about the returns to schooling and the decision to go to university, *Understanding Society Innovation Panel Wave 5: Results from methodological experiments*, Essex: Institute for Social and Economic Research
- Edinburgh University Careers Service (2011) *First destinations of graduates from under-represented groups: An analysis of University of Edinburgh graduates 2007/08 to 2008/09*, Edinburgh: University of Edinburgh Careers Service
- Edinburgh University Careers Service (2015) *First destinations of graduates from under-represented groups: A 3-year analysis of University of Edinburgh graduates 2010/11 to 2012/13*, Edinburgh: University of Edinburgh Careers Service
- Ferrie, J, Riddell, S and Stafford, A (2006) Undergraduates' views of teaching as a career, in Riddell, S and Tett, L (eds) *Gender and teaching: Where have all the men gone?*, Edinburgh: Dunedin Academic Press
- Gilchrist, R, Phillips, D and Ross, A (2003) Participation and potential participation in UK higher education, in Archer, L, Hutchings, M and Ross, A (eds) *Higher education and social class: Issues of exclusion and inclusion*, London: RoutledgeFalmer
- Goldthorpe, J H (2010) Class analysis and the reorientation of class theory: the case of persisting differentials in educational attainment, *British Journal of Sociology*, 61 (Issue supplement s1), 311-335
- Hartshorn, B, Hextall, I, Howell, I, Menter, I and Smyth, G (2005) *Widening access to the teaching profession: Systematic literature review commissioned by the General Teaching Council Scotland*, Edinburgh: GTCS
- Hayes, D (2004) Recruitment and retention: insights into the motivation of primary trainee teachers

in England, *Research in Education*, 71, 37-49

HECSU (2014) *Learning from Futuretrack: studying and living at home (BIS Research Paper No. 167)*, London: BIS

HESA (2016) *UK Performance Indicators in Higher Education 2014/15*, Cheltenham: Higher Education Statistics Agency

Heinz, M (2015) Why choose teaching? An international review of empirical studies exploring student teachers' career motivations and levels of commitment to teaching, *Educational Research and Evaluation*, 21(3), 258-297

Higher Education Commission (2012) *Postgraduate education: An independent inquiry by the Higher Education Commission*, London: Higher Education Commission

Hunter Blackburn, L, Kadar-Satat, G, Riddell, S and Weedon, E (2016) *Access in Scotland: access to higher education for people from less advantaged backgrounds in Scotland*, Edinburgh: CREID and Sutton Trust

Iannelli, C (2013) The role of the school curriculum in social mobility, *British Journal of Sociology of Education*, 34(5-6), 907-928

Iannelli, C, Smyth, E and Klein, M (2015) Curriculum differentiation and social inequality in higher education entry in Scotland and Ireland, *British Educational Research Journal*

Jarvis, J and Woodrow, D (2005) Reasons for choosing a teacher training course, *Research in Education*, 73, 29-35

Jerrim, J (2008) *Wage expectations of UK students: how do they vary and are they realistic?* Southampton: University of Southampton Statistical Sciences Research Institute

Kyriacou, C and Coulthard, M (2000) Undergraduates' views of teaching as a career choice, *Journal of Education for Teaching*, 26(2), 117-126

Kyriacou, C, Kunc, R, Stephens, P and Hultgren, A (2003) Students teachers' expectations of teaching as a career in England and Norway, *Educational Review*, 55(3), 255-263

Mellors-Bourne, R., Hooley, T. & Marriott, J. (2014) *Understanding how people choose to pursue taught postgraduate study*, Bristol: HEFCE

Million+ and NUS (2012) *Never too late to learn: Mature students in higher education*, London: Million+ and NUS

Moogan, Y. J., and Baron, S. (2003) An analysis of student characteristics within the student decision making process, *Journal of Further and Higher Education*, 27(3), 271-287

Moran, A (2008) Challenges surrounding widening participation and fair access to initial teacher education: can it be achieved, *Journal of Education for Teaching*, 34(1), 63-77

Moran, A, Kilpatrick, R, Abbot, L, Dallat, J and McClune, B (2001) Training to teach: motivating factors and implications for recruitment, *Evaluation and Research in Education*, 15(1), 17-32

Priyadharshini, E and Robinson-Pant, A (2003) The attractions of teaching: an investigation into why people change careers to teach, *Journal of Education for Teaching*, 29(2), 95-112

Purcell, K, Elias, P, Ellison, R, Atfield, G, Adam, D and Livanos, I (2008), *Applying for higher education – the diversity of career choices, plans and expectations: Findings from the First Futuretrack Survey of the 'Class of 2006' applicants for higher education*, Manchester: HECSU

Purcell, K, Wilton, N, Davies, R, Elias, P (2005) *Education as a career: Entry and exit from teaching as a profession*, London: DfES

Riddell, S and Tett, L (2006) *Gender and teaching: Where have all the men gone?*, Edinburgh: Dunedin Academic Press

Riddell, S, Tett, L and Winterton, M (2006) Setting the scene, in Riddell, S and Tett, L (eds) *Gender and teaching: Where have all the men gone?*, Edinburgh: Dunedin Academic Press

Scottish Government (2016a) *An introduction to SIMD 2016*, Edinburgh: Scottish Government <http://www.gov.scot/Resource/0050/00504809.pdf>

Scottish Government (2016b) *Summary statistics for schools in Scotland- No. 7: 2016 edition*, Edinburgh: Scottish Government

See, B H (2004) Determinants of teaching as a career in the UK, *Evaluation and Research in*



*Education*, 18(4), 213-242

SFC (2013) *2013-14 University sector outcome agreements*, available at:

[http://www.sfc.ac.uk/web/FILES/Funding\\_Outcome\\_Agreements\\_2013-14/University\\_Sector\\_Outcome\\_Agreements\\_2013--14\\_Summary.pdf](http://www.sfc.ac.uk/web/FILES/Funding_Outcome_Agreements_2013-14/University_Sector_Outcome_Agreements_2013--14_Summary.pdf)

SFC (2014a) *Measures of success: Learning for All, Eight update – Statistics for 2012-13*, Edinburgh: Scottish Funding Council for Further and Higher Education

SFC (2014b) *Widening access to postgraduate study, Paper for Access and Inclusion Committee, 4 September 2014*, available at:

[http://www.sfc.ac.uk/web/FILES/CMP\\_AccessandInclusionCommittee4September\\_04092014/AIC14\\_13\\_Widening\\_access\\_to\\_postgraduate\\_study.pdf](http://www.sfc.ac.uk/web/FILES/CMP_AccessandInclusionCommittee4September_04092014/AIC14_13_Widening_access_to_postgraduate_study.pdf)

Slack, K, Mangan, J, Hughes, A and Davies, P (2014) 'Hot', 'cold' and 'warm' information and higher education decision-making, *British Journal of Sociology of Education*, 35(2), 204-223

Sutton Trust (2011) *Degrees of success: University chances by individual school*, London: The Sutton Trust

Sutton Trust and BIS (2012) *Tracking the decision-making of high achieving higher education applicants*, London: Department for Business Innovation and Skills

Thornton, M, Bricheno, P and Reid, I (2002) Students' reasons for wanting to teach in primary school, *Research in Education*, 67, 33-43

van de Werfhorst, H G, Sullivan, A and Cheung, S Y (2003) Social class, ability and choice of subject in secondary and tertiary education in Britain, *British Educational Research Journal*, 29(1), 41-62

Wakeling, P (2009) *Social class and access to postgraduate education in the UK: a sociological analysis*, University of Manchester PhD thesis

Weedon, E (2014) *Widening participation to higher education of under-represented groups in Scotland: the challenges of using performance indicators*, Edinburgh: CREID/CES, University of Edinburgh

Wilkins, C and Comber, C (2015) 'Elite' career changers in the teaching profession, *British Educational Research Journal*, 41(6), 1010-1030

WISERD (2015) *Access to higher education in Wales*, Report to HEFCW, Cardiff: WISERD

Woodfield, R (2014) *Undergraduate retention and attainment across the disciplines*, York: Higher Education Academy

Whittaker, S (2017) *Higher education students crossing internal UK borders: Student and country differences and their contribution to higher education inequalities*, University of Edinburgh PhD thesis