



Middlesex
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MOVE ON UP?

Measuring the social mobility
impact of apprenticeships

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The initial *Move on Up* objective was to produce a clear, accurate picture of the social mobility impact of Middlesex University higher and degree apprenticeships. As the project progressed we extended our objectives, to develop an approach and model which could be used and shared with other higher education apprenticeship providers and which could be tested and developed across a range of sectors and settings.

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EXECUTIVE SUMMARY



1. INTRODUCTION

Higher and degree apprenticeships are positioned in the current policy landscape as a solution to a variety of economic and societal issues ‘carrying the weight of expectations of multiple stakeholders’ (OfS 2019b).

They are expected, for instance, to meet economic needs and those of employers; to increase social mobility and diversity in higher education; to bridge the gap between different levels of qualifications; to create a new gateway to the professions; and to imbue a vocational route to education with the prestige accorded to more conventional routes. (OfS 2019b).

The key question for this study and for policy makers and higher education providers of apprenticeships is: how effective higher and degree apprenticeships really are, for improving access to (and employment in) professional jobs, particularly for those with social and economic disadvantage, thus demonstrating social mobility impact, whatever the policy context.

The UK Social Mobility Commission defines social mobility as,

... the link between a person’s occupation or income and the occupation or income of their parents. Where there is a strong link, there is a lower level of social mobility. Where there is a weak link, there is a higher level of social mobility. (Social Mobility Commission 2020)

POLAR and IMD data suggested that Middlesex University higher and degree apprenticeships were not attracting sufficient numbers of people from areas of multiple disadvantage or from areas of low participation in education. This data was at odds with the experience of Middlesex University staff and evidence from apprentices themselves.

Taylor and Flaherty (2020) identified that:

Nursing Associate apprentices...are almost all new to HE and almost all first-generation university students. Progression to university had previously not been seen as an option for them or their parents, reflecting social mobility. (Taylor and Flaherty 2020 :751-766)

This disjuncture between POLAR and IMD data and practitioner experience, provided the initial motivation to conduct the Move on Up research. What was missing was an approach to measuring the social mobility impact of higher and degree apprenticeships which would produce valid, reliable and verifiable results.

The initial Move on Up objective was to produce a clear, accurate picture of the social mobility impact of Middlesex University higher and degree apprenticeships. As the project progressed we extended our objectives, to develop an approach and model which could be used and shared with other higher education apprenticeship providers and which could be tested and developed across a range of sectors and settings.

2. THE SIGNIFICANT LIMITATIONS OF PROXY DATA FOR MEASURING SOCIAL MOBILITY

Negative perceptions about the social mobility impact of degree apprenticeships (Chapter 1) have largely been informed by the Office for Students (OfS) supplied data, designed to measure access and participation in higher education. The conflicted policy discourse has been driven by how best to utilise the finite public resource of the apprenticeship levy.

Despite OfS adding caveats to its advice on using POLAR and IMD data for measuring disadvantage, ‘POLAR is not a measure of socio-economic disadvantage’ (OfS 2021a), we see both data sets being used and heavily relied upon by influential organisations in measuring and reporting disadvantage, participation and social mobility impact, particularly with regards to degree apprentices. Negative perceptions about the social mobility impact of degree apprenticeships appeared to be largely informed and skewed by interpretations of OfS participation data (Chapter 1).

On investigation, (Chapter 2) we found that data sets used as proxies for measuring disadvantage are to different degrees invalid and/or unreliable, with some proxies more unreliable than others. Access and participation analysis based entirely on proxy data supplied by the OfS is likely to be weak, particularly in more densely populated areas and erroneous, where students and apprentices aged 21+ are concerned. The heavier the reliance for analysis on any one of the proxy measures discussed, the higher the likely risk of unreliable or even erroneous analysis and conclusions. In addition, proxy access and participation data cannot be used to measure social mobility impact, as it does not include any information about the socio-economic background of individuals. Both POLAR and IMD were found to be inappropriate measures of social mobility impact.

Attempts have been made to get ‘closer to an individual measure’ (OfS 2021a). But neither the UCAS Multiple Equality Measure (MEM) (UCAS 2018) or OfS Associations Between Characteristics of Students (ABCS) (OfS 2020) are specifically intended to measure social mobility. One other significant problem is that MEM and ABCS are both focussed exclusively on young entrants – generating and using data which cannot be used to measure the access and participation of older (aged 21+) entrants. In addition, UCAS and OfS are also significantly constrained by only being able to draw on retrospective, publicly available, centrally gathered data, which does not include up to date, socio-economic background information about individual higher education entrants.

The Institute for Fiscal Studies report on ‘intergenerational mobility’ (IFS 2021) attempts to use publicly available data to get closer to an individual measure, using Free School Meals (FSM) eligibility as a proxy for low income. The limitations of FSM data for measuring social mobility include that it is a binary measure, that eligibility is in decline, has changed over time and could change again, and is an irrelevant measure for those who went to school overseas (Chapter 2). The IFS study focuses on data about higher education entrants from 2002-2006 and uses POLAR data to make predictions about mobility after 2012. It tells us nothing about university entrants aged over 21, or anything about the social mobility impact of degree apprenticeships, introduced in 2015.

Reports by OfS and the Social Mobility Commission and others, carry significant weight in social mobility impact discourse and in shaping government policy. Perceptions about participation and social mobility in higher education, including apprenticeships, are significantly influenced by such reports. The Move on Up study shows that the evidential basis for OfS and Social Mobility Commission reports is at best highly misleading and plainly wrong with regards to the social mobility impact of apprenticeships. In Chapter 2, we discuss and summarise the significant limitations of proxy data for measuring social mobility.

3. FINDING A VALID METHOD FOR MEASURING THE SOCIAL MOBILITY IMPACT OF APPRENTICESHIPS

Given the issues described, we wanted to find an approach that would enable apprentices on programme at Middlesex University, to talk to the Move on Up project directly about their socio-economic backgrounds; which would enable researchers to gather personal data about apprentices which may have influenced their access to apprenticeships and might impact on their social mobility in their future careers; that would allow the study to systematically consider the validity of all available data, proxy or otherwise; and to consider other approaches to measuring social mobility, in reaching the study's conclusions.

The study looked for an approach which involved employers directly in measuring the social mobility of their staff, preferably integrated into strategies for recruitment, improving diversity, professional development and onward career progression in their workforces.

In May 2016, the UK Government Cabinet Office sought views on a 'Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants' (UK Government, 2016). A subsequent study was conducted with employers, led by the UK Civil Service (UK Government Cabinet Office 2018), and backed by government, employers, universities and Non-Governmental Organisations (NGOs) with a specialist interest in furthering action on social mobility.

In May 2018, 'Measuring Socio-economic Background in your Workforce: recommended measures for use by employers' was published (UK Government Cabinet Office 2018). The Move on Up study adopted the four socio-economic measures recommended in the Cabinet Office study, which had taken a systematic approach to selecting and ranking the most effective measures for identifying social mobility impact; an approach the Move on Up study sought to apply and emulate, in its use and analysis of the effectiveness of measures tested. The rationale for adopting these measures was also strengthened by the fact that they had been selected and tested for use by employers, and apprentices are by definition employees.

Two further measures (tested in the Cabinet Office study) were added to find out how apprentices viewed their own socio-economic backgrounds and to provide an opportunity for apprentices of any background to talk about any socio-economic obstacles they may have faced in accessing their apprenticeship. These additional measures also enabled comparative analysis of these responses with other individual and/or proxy data and also generated qualitative narratives that illustrated respondents' perspectives on their own social mobility.

4. MOVE ON UP OVERALL METHODOLOGY AND APPROACH

Move on Up research methodology consisted of: a literature review; analysis of apprentice registration data; and an apprentice survey. The literature review sought to ground the research within the relevant literature, concerning the impact on apprenticeship policy, of social mobility and higher education participation data and reports (Chapter 1) and an analysis of how proxy data is used or proposed for use in indicating higher education participation and or social mobility (Chapter 2); the process of finding and adapting a valid method for measuring the social mobility impact of higher and degree apprenticeships (Chapter 3); a description of Move on Up methodology, including the conduct of a survey of apprentices on programme (Chapter 4); findings and analysis from the apprentice survey results (Chapter 5); and report conclusions and recommendations (Chapter 6).

The apprentice survey data sample was constituted from the registration records of over 1,000 higher and degree apprentices undertaking a range of 10 different apprenticeship programmes at Middlesex University between December 9th 2020 and January 27th 2021.

The Move on Up study also used the updated Office for National Statistics (ONS) (ONS 2020) National Statistics Socio-economic classification (NS-SEC), used in the Cabinet Office study (2018) to classify occupations, to derive the NS-SEC and to ensure consistency with the current government recommended approach.

In addition to the four socio-economic measures recommended in the Cabinet Office (2018a) study, two further tested measures were added to find out how apprentices viewed their own socio-economic backgrounds and to provide an opportunity for apprentices of any background to talk about any socio-economic obstacles they may have faced in accessing their apprenticeship. The additional measures also enabled comparative analysis of these responses with other individual and/or proxy data. These additional measures generated qualitative narratives that illustrated respondents' perspectives on their own social mobility.

The Move on Up approach was designed to be inclusive, in recognising that all available data sets should be *considered* in measuring social mobility impact, analysing their relative value using the criteria adopted in the Cabinet Office model (2018a, 2018b). This included POLAR and IMD proxy data sets, to enable comparisons to be made with individualised data. Individual university registration data on age, gender, ethnicity, postcode location and programme of study was also included to provide different perspectives with which to compare socio-economic background.

In the Move on Up apprentice survey (Chapter 4), we found that neither POLAR nor IMD data were close to usefully describing the higher education participation backgrounds of apprentices responding to the survey. POLAR in particular, was highly misleading and simply wrong about Middlesex University apprentices responding to the survey. IMD data about Middlesex apprentices in the survey was also inaccurate and could not be relied upon as a proxy for measuring disadvantage.

28%

According to POLAR data, only 28% of apprentices who responded to the survey are from the two lowest higher education participation areas: 11% of respondents are from POLAR quintile 1 and 17% are from POLAR quintile 2.

VS

66%

The Move on Up study found that at least 66% of Middlesex apprentices responding came from low higher education participation backgrounds.

5. KEY FINDINGS FROM THE APPRENTICESHIP SURVEY

- 66% of Middlesex apprentices come from low parental/guardian higher education participation backgrounds. 49% of respondents reported that their parents/guardians had 'qualifications below degree level' and a further 17% reported that their parents/guardians had 'no formal qualifications', totalling 66%.
- According to POLAR data, only 28% of apprentices who responded to the survey are from the two lowest higher education participation areas.
- 37% of respondents reported that the highest income earners in their household were employed as 'professionals', 'associate professionals' or 'managers, directors and senior officials'.
- 55% of apprentices went to non-selective state schools and only 1% went to independent fee-paying schools.
- 22% of all apprentices responding said they were eligible for Free School Meals. The study also found that 23% of apprentices indicated that they started school before 1980 or went to school overseas and as such the question was 'not applicable'.
- 25% of apprentices responding attended school outside the UK, which has significant implications for the validity and reliability of measures such as Free School Meals as an indicator of social mobility.
- 45% of those apprentices schooled overseas said they came from a lower socio-economic background.
- 40% of apprentices responding said they came from a lower socio-economic background. Of these respondents, POLAR and IMD data indicates no clear correlation between levels of higher education participation or deprivation.
- 75% of respondents indicated that they were from lower socio-economic backgrounds had a parent/guardian without a degree level qualification and only 12% had a parent/guardian with a professional or managerial job.
- The qualitative data provided by survey respondents is mapped against both POLAR and IMD profiles and this also indicates no clear correlation between these measures and the socio-economic backgrounds, levels of higher education participation and disadvantage described by respondents.

6. THE POTENTIAL TO FURTHER INTERROGATE MOVE ON UP DATA

Move on Up generated a wealth of data about Middlesex University degree apprentices. There are potentially, many more ways in which the data could be usefully interrogated, depending on the purpose and value of the exercise. Move on Up shows how socio-economic datasets can be used to demonstrate improved social mobility among apprentices and the potential to consider other factors alongside, which may compound disadvantage and impede social mobility. These factors (which included gender, age, ethnicity, parental support, housing and family health) were visible and socially and economically significant in many apprentices' personal stories about their backgrounds.

7. MOVE ON UP IMPACT AT MIDDLESEX UNIVERSITY

The Move on Up individual socio-economic measures were incorporated into apprenticeship registration information from September 2021, which means that going forward, the University consistently captures this data for each apprentice at the point of 'on-boarding', before they start their apprenticeship. This will enable the University to evaluate trends over time regarding social mobility impact and to continue to develop its apprenticeship provision to reflect the needs of apprentices on its programmes.

8. MOVE ON UP AND APPRENTICE EMPLOYERS

Move on Up involves apprentices directly, asking them in real time, to share information about their socio-economic data backgrounds. This both provides evidence of social mobility impact for Middlesex University and helps steer social mobility action with employers. Middlesex will be able to learn from employer successes in improving social mobility and be able to help employers make use of the social mobility measures adopted and tested in Move on Up: in their recruitment and career progression strategies, for on-programme learning, post-apprenticeship employment and continuing professional development. Higher education apprenticeship providers are well placed to work with employers to provide them with evidence of how apprenticeships can demonstrably improve social mobility and diversity in their workforces.

9. ENABLE PROVIDERS AND GOVERNMENT AGENCIES TO BETTER ADDRESS KEY ISSUES EMERGING FROM MOVE ON UP, WHICH INCLUDE:

- How other indicators influence social mobility. For example, gender, age, ethnicity, parental support, housing and family health.
- Age, access and apprenticeships. Data about the value and purpose of offering older learners from disadvantaged backgrounds access to higher and degree apprenticeships collected, to improve understanding by OfS and the Social Mobility Commission of the value of apprenticeships to people aged 21+.
- Measuring the social mobility of apprentices who went to school outside the UK. Better knowledge and information about higher and degree apprentices schooled overseas is needed, as is discussion of how to adapt Move on Up measures, or devise new ones relevant to their socio-economic backgrounds.

10. THE POTENTIAL FOR WIDER ACTION ON SOCIAL MOBILITY IN HIGHER EDUCATION

There is now a visible convergence of interest and approach in measuring higher education participation and social mobility. Employers and higher education apprenticeship providers can reach apprentices in real time in a way that OfS and other national agencies currently cannot. Agreement to use a common set of ranked individual socio-economic measures would be achievable and bring benefits to all.

It is hoped that this study has highlighted the significant issues and concerns regarding the uses of proxy measures to determine social mobility impact and that it has also provided a tested potential solution, using individualised socio-economic measures. The study has also highlighted a range of ways in which the approach tested in the study has wider applicability to help higher education providers better demonstrate the impact their provision is making and to support better informed policy making.



37%

Only 37% of respondents reported that the highest income earners in their household were employed as 'professionals', 'associate professionals' or 'managers, directors and senior officials'.

11. CREATING A NEW MODEL FOR MEASURING THE SOCIAL MOBILITY IMPACT OF APPRENTICESHIPS

Recommendations:

ONE

Use Move on Up to develop a new model for measuring the social mobility impact of higher and degree apprenticeships, involving higher education apprenticeship providers, across England. Participating providers would be asked to:

- Incorporate Move on Up individual socio-economic measures into apprenticeship registration information.
- Compare data from individual socio-economic measures with other data sets, using a shared model of statistical factor analysis.
- Produce reports and analysis (subject to the same or similar privacy and data controls used in the Move on Up study) for comparison and discussion across participating providers.
- Share impact analysis to allow further higher level comparison across settings, contexts and employment sectors.
- Use higher level impact analysis to inform apprenticeship and social mobility policy at local, regional and national levels, across government agencies and departments with an interest.
- Collaborate to develop and refine the Move on Up model over time.

TWO

OfS should support a pilot to trial the Move on Up model, to establish evidence for its efficacy across a range of settings.

THREE

Involve employer sector organisations and higher education provider networks such as UVAC and UALL in developing collaborative Move on Up partnerships.

FOUR

Focus on key areas of employment, such as healthcare, policing, digital, leadership and management to gather evidence of social mobility impact to inform policy.

FIVE

OfS should collaborate with national employers engaged in ongoing social mobility studies, such as the People Survey (Civil Service 2020), and best practices by employers described in the Social Mobility Index (Social Mobility Commission 2019).

SIX

OfS should collaborate with IfATE, ESFA and Ofsted to establish a best practice guide to promote an effective and consistent means to gather and report on individual socio-economic information at the point of apprentice on-boarding.

SEVEN

Consideration should be given by UCAS to including the individual socio-economic measures used in the Move on Up study within the data gathered at the point of application to higher education, including apprenticeships.

EIGHT

End the reliance on proxy measures such as POLAR and IMD, to inform policy regarding the social mobility impact of higher and degree apprenticeships.



Self-declared social or economic obstacles:
Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

‘As my Father was working on contract basis, he never really had a ‘stable’ job, he could’ve been made redundant at the blink of an eye. This led to financial struggles and the need to re-mortgage the house a few times.’

One

SOCIAL MOBILITY AND SOME PERCEPTIONS ABOUT THE IMPACT OF APPRENTICESHIPS



1. SOCIAL MOBILITY

The UK Social Mobility Commission defines social mobility as,

... the link between a person's occupation or income and the occupation or income of their parents. Where there is a strong link, there is a lower level of social mobility. Where there is a weak link, there is a higher level of social mobility. (Social Mobility Commission 2020)

For example, this means that if a person's parents were in non-professional roles and that person were to go on to gain employment in a professional role, this would constitute a positive shift in their 'social mobility'.

There are other ways of characterising social mobility,

...the distance or gap between the estimated wage of an individual whose father had achieved tertiary education and the wage of an individual whose father had achieved below upper secondary education. (OECD 2010 :188)

Both definitions look for a generational change in an individual's socio-economic circumstances to see positive evidence of social mobility. Higher education it is suggested, can play a part in improving an individual's prospects, as it assumed that higher education provides access to better paid work and professional job roles. The Universities UK's (UUK) Social Mobility Advisory Group indicated that:

Social mobility describes people's ability to improve on their own family social position or their own current status through opportunities provided in their society. Along with schools, employers and the charitable sector, higher education has an important role to play in providing and promoting those opportunities. (UUK, 2016 :10)

The UUK Social Mobility Advisory Group research found that parental and social background was the key determinant regarding graduate access to professional job roles.

Having graduated from university, students from disadvantaged backgrounds are less likely to go into professional jobs, and if they do, they are likely to be paid less. (UUK 2016: 2)

This seems to suggest that economic disadvantage for under-represented groups persists, even where people from these groups have successfully accessed higher education. If disadvantaged or under-represented groups accessing professional jobs is an indicator of social mobility, the UUK findings suggests a need for action to address this inequality of opportunity.

2. ACCESS AND PARTICIPATION PLANS IN HIGHER EDUCATION

Government interventions to improve fairness and equality of opportunity in education, are designed to recognise at least, that those with socio-economic disadvantage have poorer access to higher education and that action should be taken to address this inequality of opportunity. For example, the Higher Education and Research Act (DfE 2017), which established the Office for Students (OfS) describes how institutions who wish to charge higher tuition fee are required to submit an 'access and participation plan' that includes:

...measures to attract applications from prospective students who are members of groups which...are under-represented in higher education, [and that] ..."equality of opportunity" means equality of opportunity in connection with access to and participation in higher education provided by English higher education providers. (DfE 2017)

Access and Participation Plans describe specific actions, planned by institutions to attract under-represented groups and the Act (2017) also establishes that OfS has the power to approve these plans. Higher Education apprenticeships are included in university Access and Participation Plans. However, planning actions to attract under-represented groups is not quite the same thing as identifying or measuring social mobility impact.

3. PERCEPTIONS ABOUT THE SOCIAL MOBILITY IMPACT OF APPRENTICESHIPS

Higher and degree apprenticeships are positioned in the current policy landscape as a solution to a variety of economic and societal issues 'carrying the weight of expectations of multiple stakeholders' (OfS 2019b).

'They are expected, for instance, to increase national economic productivity; to meet the skills needs of employers; to increase social mobility and diversity; to bridge the gap between different levels of qualifications; to create a new gateway to the professions; to imbue a vocational route to education with the prestige accorded to more conventional routes; to rectify the effects of failures of the school system; to address the perceptions of disproportionate investment in different areas of the country.' (OfS 2019b)

The 'Skills for Jobs' White Paper (DfE 2021a) suggests that apprenticeships can provide flexible opportunities for individuals to develop the skills that employers need and progress their careers. The White Paper specifically describes the government decision to:

Continue to improve and grow apprenticeships, so more employers and individuals can benefit from them as part of the Lifetime Skills Guarantee. (DfE 2021a :10)



The approach taken by the White Paper is to put employers 'at the heart' of the skills system and increase the range and flexibility of opportunities available. In this context, the proposed investment in the growth and flexibility of apprenticeships is designed:

to give people the opportunity to train, retrain and upskill throughout their lives to respond to changing skills needs and employment patterns. (DfE 2021a :39)

This echoes the UK Government vision for apprenticeships, set out when degree apprenticeships were launched:

Our Vision for 2020: All apprenticeships will provide substantive training in a professional or technical route, transferable skills and competency in English and maths for all ages. Apprenticeships will be an attractive offer that young people and adults aspire to go into, as a high quality and prestigious path to a successful career. Apprenticeships will be available across all sectors of the economy and at all levels, including degree level. Every apprenticeship will be a high-quality opportunity that delivers the skills, knowledge and behaviours that employers are looking for. (BIS 2015 :6)

Lester and Bravenboer (2020) highlighted that the key twin policy aims of degree apprenticeships are enhancing productivity and social mobility as the Government had clearly set out their intentions in stating that.

Making apprenticeships accessible to the widest possible range of people will not only benefit many individuals, but will help to grow apprenticeships in a way that helps businesses draw on diverse skills and talents. (BIS 2015 :38)

but argued that,

Without a good understanding of the value of degree apprenticeships to all stakeholders and the significant challenges that face higher education providers, there is a high risk of policy failure. In this complex and highly uncertain context, there is a need to find answers and build links between providers in order to support and sustain the delivery of the degree apprenticeship policy initiative to increase productivity and social mobility. (Lester and Bravenboer 2020 :5).

However, the question of how best to utilise the finite public resource of the apprenticeship levy has resulted in conflicted discourse regarding the purpose of apprenticeships. In 2018 the then Minister for Apprenticeships, Anne Milton was reported to have said that:

Fears of a middle-class grab on apprenticeships are valid... if you look at the starts, the one area where starts have gone up is at degree level. I feel quite strongly that an apprenticeship can offer social mobility, so I sit and wait and watch. And there are levers that I can - that we can as a government - pull at various times. We could distort the market. (Burke 2018)

On the one hand this reinforces the government's desire to see apprenticeships as a driver for enhancing social mobility but on the other encourages the perception that those undertaking degree apprenticeships may be from advantaged 'middle-class' backgrounds. There is also an implied assumption that degree level apprenticeships do not target those with social and economic disadvantage, whose career prospects are better served by level 2 and 3 apprenticeships.

In 2020 the then Secretary of State for Education, Gavin Williamson and the Chief Inspector of Ofsted, Amanda Spielman, both questioned the rise in the number of higher and degree apprentices, in comparison to the decline in level 2 and 3 apprentices. The Secretary of State was reported to have said that he would 'rather see funding helping to kick-start careers or level up skills and opportunities' (Camden 2020) and the Chief Inspector of Ofsted was also reported to have said:

It is important we increase the numbers of level 2 and 3, as well as increasing the number of young apprentices, as this helps with levelling the playing field. (Camden 2020)

The implication in these statements, is that using the apprenticeship levy to fund higher and degree apprenticeships reduces opportunities for younger apprentices who might benefit from accessing lower-level apprenticeships. The Chief Inspector of Ofsted also raised concerns that the apprenticeship levy was being used to offer higher and degree apprenticeships to existing older staff,

If the levy develops mainly to help those who are already in work, it doesn't help those at the bottom of the ladder. (Camden 2020)

The Minister for Apprenticeships and Skills Gillian Keegan (to September 2021), echoed her predecessor's comments about a middle-class land grab while at the same time announcing government support for the growth in degree apprenticeships. The then Minister said:

There is a growth in degree apprenticeships, but the very important point is how we make them more accessible to more disadvantaged groups. (Camden 2021)

In a subsequent article entitled "Middle-class grab' on apprenticeships confirmed by new analysis", FE Week reported that 'just 13 per cent of apprentices on degree apprenticeships lived in the most deprived areas' (Linford 2021). The article went on to quote Sir Peter Lampl, founder and chair of the Sutton Trust, who said:

While it is good that the Department for Education has recognised these concerns, we need action now. As a starter, we need better data on who is starting these apprenticeships, so that we know where efforts to widen access should be focused. We should also prioritise levy funding on younger, newer starters and a proportion of the levy should be spent on widening participation. (Linford 2021)



Self-declared social or economic obstacles:
Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

My parents could not afford to send me to university when I was younger. I would not describe my family as poor but we were not well off and I was not entitled to a high enough student loan. EMA was also scrapped when I started college and I was not entitled to any income when at college.

Conversely, the University Vocational Awards Council (UVAC) have argued that the apprenticeship levy is not part of the education budget and that:

Apprenticeship provision will increasingly focus on higher-level skills and occupations. This change is a good thing. In line with this change in focus, approaches to social mobility should be focused on how Apprenticeship supports individuals from all backgrounds to benefit from the programme. Government should make it clear that the principle purpose of Apprenticeship is NOT to reduce NEET numbers, or to support individuals failed by the schools' system to gain a full level 2 qualification. (Anderson and Crawford-Lee 2020: 23)

In summary, negative views of higher and degree apprenticeships are fuelled by a variety of assumptions, including: that lower level skills are more accessible/achievable for those without adequate school qualifications and with socio-economic disadvantage; that higher and degree apprenticeships are less accessible to people with such disadvantage, especially 'younger' people; and a doubt that higher and degree apprenticeships can make or are making an impact on socio-economic inequality.

Some of the negative assumptions reported here were informed by OfS supplied data designed to measure access and participation in Higher Education. At Middlesex University, OfS data suggested that higher and degree apprenticeship were not attracting sufficient numbers of people from areas of multiple disadvantage or from areas of low participation in education. This seemed to be at odds with the experience of staff and evidence from Apprentices themselves.

Taylor and Flaherty (2020) identified that Nursing Associate apprentices:

...are almost all new to HE and almost all first-generation university students. Progression to university had previously not been seen as an option for them or their parents. (Taylor and Flaherty 2020 :751-766)

This evidence largely came from learning conversations between apprentices and tutors and to that degree, was anecdotal, but it presented a very different picture from that presented by OfS data (OfS, 2020). This disjuncture between OfS data and practitioner experience, provided the initial motivation to conduct the Move on Up research.

Perceptions about the social mobility impact of degree apprenticeships (whatever the policy intention) can be traced to OfS reports based on analyses of geographical data sets, used as 'proxies' to measure participation backgrounds (rather than the social mobility) of young people entering higher education. The Move on Up 'Early Findings' report (Middlesex University 2021) found that OfS data reports produced erroneous results for Middlesex University degree apprentices. These early findings led to a broader and deeper study, of how proxy data is used to measure participation in higher education, how that data is used to draw conclusions about social mobility impact and how these practices have informed negative perceptions of the impact of higher and degree apprenticeships on social mobility.

In most occupations, professional status is achieved at levels 6 and 7 and in some instances at level 5 (Williams, et al. 2012) and higher and degree apprenticeships are by design intended to typically lead to professional jobs (BIS 2015). Yet these key routes to the professions are threatened by the perception that they are not reaching under-represented and disadvantaged groups. At the time of writing, there are over 100 higher education apprenticeship providers in England. It is important to know if these programmes are making a difference by enabling more people who have come from 'low higher education participation', 'non-professional' and disadvantaged backgrounds to access professional careers.

4. SHIFTING POLICY ASPIRATIONS AND SOCIAL MOBILITY

Degree apprenticeships were formally introduced in England in 2015 (BIS 2015). Views about their value and purpose have shifted since then, in line with developments in government education and social policy aspirations, as reflected in the views of ministers and others reported above. In September 2021, the UK government established a new 'Department for Levelling Up, Housing and Communities' (UK Government 2021), which aims to draw on a range of government policy interventions to target geographical area inequalities and earmark these areas for additional public funding support. Apprenticeships - and the complete 'Skills for Jobs' policy (DfE 2021) - are expected to assist in fulfilling 'levelling up' objectives. The UK government uses 'levelling up' to refer to 'people and places' interchangeably,

The government sometimes continues to use 'levelling up' in terms of people rather than places. This is particularly the case in education and skills policy. The National Skills Fund, for example, creates opportunities for adults to get extra qualifications regardless of where they live... the Levelling Up Fund, Towns Fund and Community Renewal Fund all use various metrics to rank places according to need. (Shearer, et al. 2021 :9)

However, people on low incomes may live in wealthier areas and vice versa and in areas within geographical regions where income inequalities are greater than those between regions,

... median living standards, as measured by net income after housing costs, are not so unequally distributed and on this measure London does not perform especially well. In addition, it is not a simple case of London and the South East versus the rest: the inequalities within regions are larger than the inequalities between regions' (Tobin: 8)

Setting aside these complexities and where policy might go next, Levelling Up is currently, the major government policy context for interventions which may impact on social mobility. A government Levelling Up white paper was anticipated in late 2021.

Government policies continuously evolve and may come and go. Higher and degree apprenticeships are likely to be expected to help fulfil more than one government policy objective in the years to come, by addressing both higher skills needs and potentially socio-economic inequality, both in particular places and for individual people.

The key question for this study and for policy makers and higher education providers of apprenticeships is: how effective higher and degree apprenticeships really are, for improving access to (and employment in) professional jobs, particularly for those with social and economic disadvantage, thus demonstrating social mobility impact, whatever the policy context.

Putting government policy aspirations to one side, what was clearly missing when this project began, was an approach to measuring the social mobility impact of higher and degree apprenticeships which would produce valid, reliable and verifiable results. Our initial objective was to produce a clear, accurate picture of Middlesex University apprentices. As the project progressed we extended our objectives, in order to develop an approach and model which could be used and shared with other higher education apprenticeship providers and which could be tested and developed across a range of sectors and settings.



Self-declared social or economic obstacles:
Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

I did try to go to college on leaving high school but we needed the additional income so decided to go straight into work on an apprenticeship.

Two

THE SIGNIFICANT LIMITATIONS OF PROXY DATA FOR MEASURING SOCIAL MOBILITY



1. INTRODUCTION

The European Environment Agency glossary definition of 'proxy indicator':

Data used to study a situation, phenomenon or condition for which no direct information - such as instrumental measurements - is available. (EEA 2020)

In English university admissions and in widening participation performance measurement,

Granular and verifiable information about prospective students' socio-economic background is, in practice, limited. As a consequence, universities and employers often need to use 'proxy' measures, for example looking at the local area someone grew up in based on their home postcode. (Jerrim 2021: 1)

A key constraint on using alternatives to 'proxy measures' appears simply, finding 'verifiable' ways to access accurate socio-economic information about higher education entrants. This is a genuine issue which this study seeks to address in its approach and analysis, described in subsequent chapters. The consequences of using often wholly inaccurate 'proxy measures' to ascertain social mobility impact is explored in this chapter.

As indicated in Chapter 1, in order for higher education providers to be able to charge higher level tuition fees, 'Access and Participation Plans' need to be drawn up by each provider, approved by the Director for Fair Access and Participation and monitored by the OfS. The OfS online 'access and participation data dashboard'¹ is designed to inform HE providers' Access and Participation Plans. The OfS data dashboard provides information by provider, on HE participation, deprivation, ethnicity, age and disability.

Access and participation plans set out how higher education providers will improve equality of opportunity for underrepresented groups to access, succeed in and progress from higher education. (OfS 2021b)

Geographically based data sets (such as POLAR and IMD described below) are used as proxies, to measure higher education providers' performance regarding the effectiveness of their plans, to 'improve the equality of opportunity for underrepresented groups'. Other data is provided on the dashboard: on student continuation - whether students continue their studies or not from year one to year two; attainment - 'the numbers of graduates who achieve a first or upper second class degree'; and progression - 'whether students are in highly skilled employment or study at a higher level six months after leaving higher education'. (OfS 2021b)

Providers are expected to use these data sets to measure the effectiveness of their planned actions in relation to OfS Key Performance Measures.

2. WHAT ARE POLAR AND IMD?

POLAR data measures the proportion of young people who enter higher education aged 18-19 years old by postcode area, using historical data. The current data set - POLAR4²,

...assigns a quintile to an area based on how many 18-year-olds from that area started a higher education course between 2009-10 and 2013-14. Areas are defined by MSOA boundaries, set by the Office for National Statistics. (OfS 2021a)

Areas are classified in 1 to 5 'quintiles', ranging from quintile 1, representing the areas of lowest higher education participation to quintile 5, representing the highest higher education participation. Classifying entrants to higher education by POLAR quintile is used as an indicator of the proportion who have come from low participation areas (as defined by POLAR). OfS Key Performance Measure 1 is to narrow the 'gap in participation between the most and least represented groups'. This is presented as the gap between POLAR quintile 1 and quintile 5.

The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation in the UK and it includes seven domains of deprivation: income; employment; health deprivation and disability; education, skills training; crime, barriers to housing and services; living environment. Each domain is weighted to provide an overall measure of deprivation; in England, by 'lower-layer super output area' or neighbourhood. Areas are classified in 1 to 10 'deciles', ranging from decile 1 representing the most deprived areas to decile 10 representing the least deprived areas (Ministry of Housing, Communities and Local Government 2019).

Classifying entrants to higher education by IMD decile is used as an indicator of the proportion who have come from deprived areas (as defined by IMD).

The OfS assumption is that POLAR and IMD are valid and reliable proxy measures of the extent to which the actions taken by higher education providers are effective in widening access to higher education from under-represented and/or disadvantaged groups. In other words, it is assumed that if your postcode indicates a low participation or high deprivation area, then you are more likely to be a member of an under-represented or disadvantaged group.

3. THE VALIDITY AND RELIABILITY OF POLAR, IMD AND OTHER PROXY DATA SETS

A number of studies have analysed how POLAR data is used to plan, fund and measure performance in education, raising questions and expressing concerns about, for example, how this measure impacts on the funding and direction of widening access work aimed at young people and their usefulness for measuring participation in dense urban areas such as London,

London has significantly higher participation in HE than any other area and only 17 out of over 600 POLAR areas in the capital are defined being in the lowest participation quintiles. (Atherton, et al. 2019)

This means that where universities provide access for entrants to higher education from almost all London postcodes, they will appear (according to POLAR) to be failing to 'narrow the gap' between those who go to university and those that do not. This is because POLAR data itself indicates that those that have a London address and access higher education, have (mostly) come from relatively higher participation areas.

Even if POLAR is assumed to be a valid indicator of higher education participation, then the measure itself has limited reliability for indicating difference. In its own terms, differences in high and low participation in London are considerably harder to find and the narrower the difference measured, the less reliable the results.

POLAR also does not work well in areas with relatively high rates of participation in higher education... because it is unable to distinguish adequately between different groups. (HEFCE 2013, cited in UUK 2016: 93)

POLAR data is also considered unreliable with regards to 'contextualised admissions' to higher education. Some universities offer 'contextualised admissions', in an effort to boost participation from underrepresented groups, making use of specific information about an individual's background to, it is intended, better inform admissions decisions. This practice is particularly prevalent in 'high tariff' universities where significant competition for places exists.

Contextualised admissions is defined as information and data used by universities and colleges, to assess an applicant's prior attainment and potential, in the context of their individual circumstances. The aim is to form a more complete picture of the applicant. (UCAS 2021a)

Universities use 'contextual data' which 'includes educational, geo-demographic and socio-economic background data, such as historic data about an applicant's school or college' to inform admissions decisions. High tariff universities say POLAR is an inadequate indicator of underrepresentation and unreliable for use in contextualised admissions, in that, 'Institutions should not be put under undue pressure to use POLAR as an indicator'. (Russell Group 2020).

POLAR data is also now widely criticised as a valid and reliable measure or indicator from a range of other perspectives, for example; as inaccurate for measuring the social background of employees - and thus their social mobility (Cabinet Office 2018b). POLAR4 also uses historical data from 2009 (OfS 2021).

Two recent studies review the validity and reliability of proxy data sets for measuring access and participation, and the social mobility impact of higher education, using different approaches. Both studies are very useful in a number of ways; firstly, for their particular analysis of the value of POLAR and IMD data; secondly, for their review of a range of other (mostly proxy) data sets; and thirdly, for their attempts to find solutions and in doing so, exposing the weaknesses of most of the measures available. ↻



1. <https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/>
2. 'POLAR4 assigns a quintile to an area based on how many 18-year-olds from that area started a higher education course between 2009-10 and 2013-14. Areas are defined by MSOA (Middle layer Super Output Areas) boundaries, set by the Office for National Statistics.' (OfS 2021a)

A recent report from the Sutton Trust, 'Measuring Disadvantage' (Jerrim 2021) used Millennium Cohort Study data (MSC) (Joshi and Fitzsimons 2016),

to investigate how well various proxies for family background – many used in contextual admissions and widening access schemes – correlate with long-run family income... based on data for over 7,000 [MSC] children. (Jerrim 2021: 2)

The study reviewed the value of a range of other proxy measures as indicators of the 'socio-economic background of prospective students', examining 'how well each measure is correlated with long-run family income and long-run income-deprivation', classifying each correlation as 'weak', 'moderate' or 'strong'.

The report identified that POLAR and TUNDRA³ have a 'weak' correlation to long-run family income and that IMD has a 'moderate' correlation, although it is noted that IMD has a propensity to produce significant 'false positive' and 'false negative' results.

Across the UK, the study found that IMD failed to identify about one-third of 'children' who were from low-income backgrounds and that about one-third were 'inaccurately classified as coming from 'low-income backgrounds'. However, the Sutton Trust study suggests IMD could still be used as a 'no cost', 'look up tool' where perhaps other, more accurate data is not readily available.

The report says that,

... universities and employers need further individual data about the socio-economic background of applicants, in particular Free School Meal eligibility to better target 'contextual admissions'. (Jerrim 2021: 11)

The report is particularly concerned with finding valid and reliable measures that can more accurately inform contextualised admissions. As a consequence, while the report argues that more individual (rather than proxy) data is needed, the study also says that this should be 'independently verifiable' to limit the extent to which the admissions system can be manipulated. For example, while personal statements can provide valuable contextual information about individuals applying to access higher education, the information included may not be directly verifiable. In this sense, the verifiability of contextual information and data affects the perception of its reliability. If individually verifiable data is available, perhaps in addition to other contextual information, this is considered to enhance its reliability (Bravenboer 2012).

The study identified that POLAR and IMD both produced false positives of 48% and 30% respectively, while data on individual eligibility for Free School Meals (FSM) produced 20% false positive results. FSM is the study's preferred measure (even though it was found to have only a 'moderate' correlation to family income) and calls for better public access to FSM data.

The rationale for this is that FSM data is individually verifiable, and as such enhances the reliability of contextualised admissions and at the same time is more strongly correlated with MSC long-run family income data. However, less than 20% of individuals are eligible for FSM and the numbers are falling (DFE 2018), which would seem to limit the usefulness of FSM as a widely applicable measure in the future.

In October 2021, UCAS confirmed that they had secured a commitment from the Department for Education for access to FSM data for 18 and 19 year old applicants in 2021 and 2022 (UCAS, 2021). By November 2021, the Institute for Fiscal Studies and the Sutton Trust had published a report (Britton et al. 2021) using DfE released FSM data. The study and report is discussed later in this chapter.

The MSC long-run family income data and correlation with a range of proxy data sets used by the study, in itself relies on historical data and as such, the validity of the measures analysed and the conclusions of the report itself, will diminish over time. The analysis is however, very useful for highlighting the limitations of proxy measures and classifying their validity and reliability as indicators of socio-economic disadvantage. We will return to this study in our recommendations.

The second study highlighted in this section is 'Designing an English Social Mobility Index' (Phoenix 2021), which uses the United States Social Mobility Index (SMI) approach to develop a model for an English SMI. The aim was to,

...identify a measure of universities' contributions to social mobility, combining the social distance travelled by graduates and the number of graduates transported. (Phoenix 2021: 7)

One key weakness (which it acknowledges) is the study's reliance on OfS dashboard data sets to draw its conclusions, measuring the social mobility (of university students and graduates) using IMD, OfS continuation data and Longitudinal Education Outcomes (LEO) data. However, none of these measures were designed, or are in a form suitable for measuring social mobility impact, though it is helpful that the study does evaluate data sets made available by the OfS, for their usefulness as potential social mobility impact measures.

The study clearly identified the limitations of using POLAR data, ruling POLAR out as a measure of social mobility.

POLAR is not regarded as a good indicator of socio-economic backgrounds in large metropolitan areas, particularly London, because many deprived London postcodes have high higher education participation levels due to the diversity of wealth within individual postcodes. (Phoenix 2021: 34)

Since 2016, LEO data has provided information on how much UK graduates of different courses at different universities are earning, at one, three or five years since graduation, using tax, welfare benefits, and student loan data. However, the study points out that as LEO measures institutional performance, it does not reveal the economic impact of graduation on individuals from under-represented or deprived backgrounds.

Our model therefore uses the overall Longitudinal Education Outcomes scores for an institution, but as a result we cannot identify differences in outcomes between socio-economic groups. (Phoenix, 2021: 33)

In addition to the limitations identified by Phoenix (2021), other issues with LEO data have been highlighted. For example, LEO does not take account of whether a graduate is in full or part-time (employed or self-employed) work,

...those in well-paid part-time work could appear to be earning very little. Used as a mechanism to drive funding decisions or limiting student numbers based on salary outcomes would lead to institutions being penalised for producing valuable part-time workers and lead to labour market distortions. This will be particularly important for adult learners entering the workplace, who may have a preference for flexible or part-time work. (UUK 2019)

Graduate salaries are significantly influenced by external factors (for example, parental income background and qualification attainment). Despite efforts and progress to widen access and drive good outcomes, a funding model based on, or significantly influenced by LEO data, could restrict opportunities for those that would most benefit from a university education.

The English SMI model proposed by Phoenix (2021) factors in course continuation data - which measures retention from year one to two only, rather than completion. Attainment success is measured (in the study) by a student achieving 'a higher level of award than they held on entry', rather than their 'target award' – perhaps a more inclusive measure of success than that used by OfS. In terms of progression into employment, the study also accepts that its 'Index would be improved by a clearer understanding of employment outcomes by IMD.' (Phoenix 2021: 38)

The English SMI proposed relies heavily on English IMD data, focussed on those students accessing higher education from the 40% most deprived areas, according to IMD (quintiles 1 and 2, i.e., deciles 1-4). The study emulates the United States SMI approach, focussing on the social mobility impact of access and participation among those that IMD data indicates are most deprived, and double weighting students from IMD1 areas (deciles 1 and 2) in its calculations,

...double weighting IMD1 over IMD2 recognises the greater impact on upward social mobility achieved by delivering successful outcomes to students from IMD1 postcodes. (Phoenix 2021: 35)

Given the Sutton Trust analysis (Jerrim, 2021) showed that IMD has a propensity to produce significant false positive and false negative correlations, the weighting of IMD1 data in this way could lead to a potential multiplication of inaccuracies, particularly where a single measure is heavily relied upon to produce results. This represents a significant limitation regarding the validity and reliability of the English SMI model proposed by Phoenix (2021) not identified within the study. →

IMD produces significant false positive and false negative correlations to family income.

FSM eligibility is in decline and is irrelevant for those who went to school overseas.

3. "TUNDRA (tracking underrepresentation by area) is an area-based measure that uses tracking of state-funded mainstream school pupils in England to calculate young participation. It is an official statistic." (OfS, 2021b)

4. "...all children born between 1 September 2000 and 31 August 2001 (for England and Wales), and between 23 November 2000 and 11 January 2002 (for Scotland and Northern Ireland), alive and living in the UK at age nine months, eligible to receive Child Benefit at that age, and for as long as they remain living in the UK at the time of sampling". (Plewis, et al 2004 :para 2.1)

Gaps in available data present another issue for the model,

There can be significant gaps in postcode data [provided by universities], which are a fundamental component of our English SMI model, as well as of other access and continuation metrics. (Phoenix 2021: 31)

Sources for all the data used in the study are university Access and Participation Plans, which have significant limitations for measuring social mobility impact as they use proxy data sets (such as POLAR and IMD) which exhibit the weaknesses the study describes. In addition, the data sets used within Access and Participation Plans are designed to measure institutional performance with regards to access and participation, not social mobility.

IMD is a geographical area measure, which produces detailed data about relative deprivation in a given geographical area at points in time. This in itself, limits its validity and reliability in measuring higher education access and participation for universities and for employers as a social mobility impact indicator. As a government studies have identified:

Deprivation of an area can change with time - this data would need to be first linked to age-specific questions and then linked to deprivation in the appropriate time period to allow robust measurement. (UK Government Cabinet Office 2018b: 13)

Due to the difficulties in understanding the deprivation of a postcode at a certain point in time, the measure could be considered to lack clarity and could lead to an inconsistent application by employers. (UK Government Cabinet Office 2016: 23)

4. ATTEMPTS TO ENHANCE VALIDITY AND RELIABILITY BY USING INDIVIDUALISED DATA

Given the inadequacy of the proxy measures discussed so far, for measuring participation performance or assisting in contextualised admissions, both OfS and UCAS are making attempts to improve their validity and reliability.

The UCAS Multiple Equality Measure (MEM) (UCAS 2018) is designed to address 'the limitation of focusing on a single equality dimension' (UCAS 2015) and the OfS 'experimental' Associations Between Characteristics of Students (ABCS) are both measures which 'use POLAR alongside other factors to create a measure that is closer to an individual measure' (OfS 2020). However, these measures remain less valid for older learners, as data covering many older learners is explicitly excluded from the dataset. For example, as OfS has acknowledged: 'Since many PT students are not young, there is very little data on POLAR4 available and so it is not included.' (OfS 2020). The key point here is that OfS acknowledges that as POLAR4 data only relates to the participation of younger (18 year old) learners and that older learners (full or part-time) are excluded from their ABCS analysis. Similarly, neither MEM or ABCS has any participation data concerning apprentices at present.

POLAR only uses historical (2009) data for 18 year old learners, significantly limiting its validity.

It seems reasonable to suggest that the efforts by UCAS and the OfS to include other characteristics in measuring participation (using MEM and ABCS) constitutes an acknowledgement that current geographical measures are in themselves inadequate to the task of measuring higher education participation among young people. And that more detailed information is needed to get closer to an individualised picture of university entrants. Indeed this seems to be confirmed, to a degree, in a blogpost by the then OfS Director of Access and Participation,

...like all place-based measures, [POLAR] should not be used to make decisions about individual students. And it should be used alongside other measures that can help broaden our understand of underrepresentation. So, we are continually exploring how to improve these measures. (OfS 2021c)

Neither MEM nor ABCS are specifically intended to measure social mobility but as we have seen, proxy measures are nonetheless used inappropriately as social mobility indicators. For example, a recent UCAS and Health Education England (HEE) report on 'Next Steps: Who are the Future Nurses' (UCAS 2021c) asserts that:

Nursing is a powerhouse for widening access and participation: 1.4 times more young people from the most disadvantaged areas in the UK (POLAR4 quintile 1) choose to study nursing than their most advantaged counterparts (POLAR4 quintile 5) (UCAS 2021: 5)

While POLAR does indicate the historical level of higher education participation of young people in a specific area it is not a measure of relative advantage or disadvantage. One significant problem is that MEM and ABCS are both focussed exclusively on young entrants - generating and using data which cannot be used to measure the access and participation of older (aged 21+) entrants. Both UCAS and OfS are also significantly constrained by only drawing on publicly available, centrally gathered data, which does not include up to date individual socio-economic background information.

The Sutton Trust study (Jerrim 2021) found Free Schools Meals (FSM) eligibility to be 'the best available marker for childhood poverty' and called for the data to be made publicly available.

FSM is an individual measure, unlike the proxies discussed so far.

In October 2021, UCAS confirmed that they had secured a commitment from the Department for Education:

...to access individual-level free school meals (FSM) data for English 18 and 19 year old applicants for applicants to the 2021 and 2022 cycles...This data will be made available alongside MEM2021 - a variant of the multiple equality measure (MEM) - which calculates the probability of your English 18 and 19 year old applicants entering higher education based on several equality factors. (UCAS 2021b)

UCAS indicated that MEM 2021 for UK domiciled applicants would include the following data sets:

- FSM eligibility at the end of key stage four
- POLAR4 data
- Income Deprivation Affecting Children Index (IDACI)
- School type
- Index of Multiple Deprivation (IMD)

FSM eligibility (used in MEM 2021) is a standard measure of disadvantage and is a relevant measure for those who attended state schools in the UK and were in education after 1980, when access to school meals began to be means-tested. FSM eligibility is however a binary measure; it does not measure degrees of deprivation or differences in income. Eligibility for FSM has changed over time and could easily change again, making longitudinal comparisons difficult (Cabinet Office 2018b). There is also a possible stigma associated with declaring Free School Meals eligibility (DfE 2013), it is an irrelevant measure for those who went to school overseas (Cabinet Office 2018b) and as indicated above, FSM eligibility is also in decline (DfE 2018). FSM in itself also does not take account of gender or BAME background factors which directly affect an entrants chances of entering higher education (UCAS 2018). Still, as Jerrim (2021) points out, as potentially publicly available, centrally gathered data, FSM data is currently the most useful of the indicators on offer.

By November 2021, the Institute for Fiscal Studies and the Sutton Trust had published a report (Britton, et al. 2021) using DfE released FSM data, ranking English universities performance in 'intergenerational mobility'. FSM eligibility is used as a proxy for low income and 'success' measured by those among the FSM eligible students in the study cohort 'who make it to the top 20% of earnings' by the age of 30. The study focussed on students eligible for FSM at age 16, who had started university by age 21 and were attending university on full-time undergraduate programmes in the 'mid-2000s' (C.2002-2006). The study found that universities with the highest earnings success rates had the lowest mobility rates - and vice versa. Mobility success often varied widely for different subjects within individual universities. 'Law, computing and pharmacology' were the 'best performing subjects' across universities.

The report makes an important contribution to the literature on inequality in Education in England (the study does not include data from Scotland, Wales or Northern Island). The study is an attempt to get closer to individual measurement of university students' socio-economic backgrounds. It does not however include data about people starting university aged over 21, or on part-time programmes for example, and uses data that precedes the introduction of degree apprenticeships by ten years. The study looks back, then models predictions for mobility in the future, relying on POLAR data to make predictions about mobility, after 2012. This is probably the most recent study and report on mobility impact through university education in England at the time of writing, although it tells us nothing about the impact of degree apprenticeships on social mobility since they were introduced in 2015.

5. A SUMMARY OF THE ISSUES IN USING PROXY DATA SETS TO MEASURE SOCIAL-ECONOMIC DISADVANTAGE

Publicly available proxy data sets are to different degrees, inadequate for measuring socio-economic disadvantage, and as such are also inadequate indicators for the task of planning interventions to improve social mobility or for measuring higher education provider performance in improving access and participation. Some proxies are more inadequate than others.

Issues in using these data sets to measure access and participation and to inform contextualised admissions

- POLAR is not regarded as a reliable indicator of socio-economic backgrounds in large metropolitan areas with high rates of participation.
- In dense urban areas, high and low levels of deprivation and higher education participation can exist in the same street.
- Differences in high and low participation by area in London are hard to find and the narrower the difference measured, the less reliable the results.
- Where universities provide access for entrants to higher education from almost all London postcodes, they will appear (according to POLAR) to be failing to 'narrow the gap' between those who go to university and under-represented groups.
- High tariff universities say POLAR is an inadequate indicator of under-representation and unreliable for use in contextualised admissions.
- POLAR uses historical data; the latest version of POLAR - POLAR4 - uses data that goes back to 2009 (OfS 2021b), significantly limiting its validity over time.
- As POLAR4 data only relates to the participation of younger (18 year old) learners, older learners (full or part-time) are excluded from OfS ABCS analysis, which means that its validity is significantly limited.

- Both UCAS and OfS are significantly constrained by only drawing on publicly available, centrally gathered proxy data, which does not include up to date individual socio-economic background information.
- POLAR and TUNDRA are regarded as having 'weak' and IMD only 'moderate' correlations to family income.
- Neither UCAS MEMs or OfS ABCS uses any participation data concerning apprentices at present.
- IMD has a propensity to produce significant false positive and negative correlations to family income.
- LEO data is a performance measure that does not identify differences in outcomes between socio-economic groups.
- LEO does not take account of whether a graduate is in full or part-time (employed or self-employed) work.
- Graduate salaries are significantly influenced by external factors - for example, parental wealth, school attainment.
- OfS continuation data measures retention from year one to two only, rather than through to completion.
- OfS measures attainment as 'the numbers of graduates who achieve a first or upper second class degree' only, which excludes non-degree higher education qualifications.
- FSM eligibility is a binary measure that is not useful for measuring degrees of deprivation or differences in income.
- Eligibility for FSM has changed over time and could easily change again, making longitudinal comparisons difficult (Cabinet Office 2018b).
- There is a possible stigma associated with declaring Free School Meals eligibility (DfE 2013).
- FSM is an irrelevant measure for those who went to school overseas (Cabinet Office 2018b).
- FSM eligibility is in decline (DFE 2018).
- FSM data does not take account of gender or BAME background, factors which directly affect an entrants chances of entering higher education (UCAS 2018).

6. ISSUES IN USING THESE DATA SETS FOR MEASURING SOCIAL MOBILITY IMPACT

- Neither POLAR or IMD or other proxies analysed measure the individual socio-economic backgrounds of higher education entrants but are used as proxies to make generalised assumptions about them from data about their postcode area.
- Reliance on IMD data to measure the social mobility impact of higher education, could lead to false conclusions, where the correlation between real disadvantage and IMD area assessments is weak. For example, doubling the weighting of IMD1 data in calculating social mobility 'distance travelled' could lead to potential multiplication of inaccuracies.
- While proxy data sets may be verifiable, they are to different degrees invalid, unreliable or both. This has serious implications, which can be magnified where proxy measures are used to produce a baseline for measuring the social mobility impact of education programmes by institution.
- The recent addition of individual FSM data to the UCAS MEM 2021 (UCAS 2021b) no doubt improves the validity and reliability of MEM and this is to be welcomed. However as indicated above, there are also limitations with FSM data and its incorporation cannot alone mitigate the significant inadequacies of the proxy data sets that are also used within MEM 2021.
- The proxies being used oblige researchers that use them to look back, assess performance retrospectively and then model predictions about the future. Their validity and value needs to be assessed alongside analysis of current data, gathered using individual socio-economic measures.

The inadequacy of the proxy data discussed is plain; whether for measuring disadvantage, assessing institutional access and participation plans and performance, for contextualised admissions and particularly for measuring social mobility impact.

7. HOW USING PROXY DATA SETS HAS SKEWED PERCEPTIONS OF SOCIAL MOBILITY IMPACT

These same inadequate data sets, which are being used as proxies to measure higher education participation, are being used to report on the social mobility impact of people of all ages pursuing higher and degree apprenticeships.

The OfS says that POLAR data can be used 'to identify areas with the lowest young participation in higher education' but 'when making background assessments these measures should never be used alone and only with other information'. POLAR should not be used, 'to identify people who are less likely to enter higher education' or 'to describe the socio-economic background of an area' and that 'POLAR is not a measure of socio-economic disadvantage' (OfS 2021a).

The OfS also 'acknowledges that POLAR⁴ is a measure that is most appropriate for young students' and advises that 'mature participation is important, but needs a different approach [from POLAR]'.

So POLAR is not suitable for measuring either the participation of older learners or the socio-economic background of areas or individuals. This seems very clear.

OfS then claims that the original research that gave rise to POLAR measures 'showed that in many parts of the UK, low participation areas were also the areas with the highest measures of socio-economic disadvantage' (OfS 2021a). POLAR 'inequality' in HE participation has nothing to do with social disadvantage says the OfS, but then seems to suggest it might have, or did at one point in time.

The OfS 'Analysis of Level 6 and 7 Apprenticeships' (OfS 2019a) presented a picture of the profile of apprenticeships which indicated the extent to which degree apprenticeships have contributed to diversity and social mobility. The OfS analysis - of apprenticeship level 6 and 7 participation 2016-19 compares the 'proportion of apprentices and sector comparison by POLAR4 quintile'. ↻



POLAR is not a reliable indicator of socio-economic backgrounds in large metropolitan areas

5. 'POLAR 4 classifies local areas across the UK according to the young participation rate in higher education...The young participation rate is calculated by dividing the number of young people from each area who enter higher education aged 18 or 19 by the young population of that area. POLAR4 was calculated using data on students who began their studies between 2009-10 and 2013-14.' (OfS, 2021a)

At face value, the results looked poor. The report indicated that a significantly lower proportion of apprentices came from ethnic minority groups when compared with the comparable higher education sector comparison group. For example, at level 6 only 12.3% of apprentices came from ethnic minority groups compared with 40% for the wider higher education sector group. The report also indicated that the proportion of apprentices coming from low higher education participation areas (POLAR4 quintiles 1 and 2) was only slightly higher for level 6 at 35.1% compared with 28% for the wider sector. The report comparison also found that a significantly lower proportion came from deprived areas. Based on IMD, 46.2% of level 6 students came from deprived areas (quintiles 1 and 2) but only 36.2% of apprentices. Given that one political aspiration for higher education including degree apprenticeships, is to enhance social mobility, (DfE 2021) the OfS analysis hardly represents a policy success.

It could be argued that as the OfS (2019a) report was only able to draw on data for 2018/19 it did not include some areas of significant growth for public sector degree apprenticeships that had yet to be fully initiated, such as the Police Constable degree apprenticeship. And the OfS analysis focused solely on level 6 and 7, so did not include some significant public sector apprenticeships at level 5 (such as Nursing Associate) that have been specifically designed to diversify the workforce.

However, the fundamental problem is that the data used for the OfS analysis is and would always be, inappropriate for the task. The report analysis uses a 'sector comparison' model; a 'group of students studying in similar subject areas weighted to reflect the make-up of the subjects apprentices study'. However, almost 70% of the sector comparison group were under 21, compared with 29.7% of Level 6 apprentices. So its own conclusions (putting aside all the other concerns explored so far about the reliability of POLAR and IMD data) are based on an analysis which does not take account of mature participation, which the OfS says 'requires a different approach'.

In 2018/19, '60% of higher-level apprentices were aged 25 or over' (Learning and Work Institute 2021). Of the starts reported during this period in 2019/20, 'Learners aged 25 and over make up 64.9 per cent of starts'. (DfE 2020)

It appears that in the absence of anything better, OfS used POLAR data to make comparisons between younger and older higher education participants, drawing erroneous conclusions about apprentices who are mostly mature (21 or over), and in doing so, acting against its own advice.

The Social Mobility Commission relied on the same report (OfS, 2019a) to draw similar erroneous conclusions – that relatively well-off older learners from high participation areas are taking up (costly) apprenticeship places at higher levels, places which should be taken up by poorer, younger school leavers who will not be going to university (Social Mobility Commission 2019: 4.4). The Social Mobility Commission suggests that that money from the apprenticeship levy should be spent on prioritising lower level apprenticeships for 16-19 year olds; thinking either shaped or reinforced by an erroneous OfS report.

So the OfS simultaneously advises against using proxy geographical data sets to draw conclusions about HE participants' social mobility and then uses these same data sets to do exactly that. And then cautions against its own results. Despite the cautioning, the OfS analysis has knock-on consequences for discourses influential on government policy: OfS measures university 'access and participation' performance based on higher education provider plans using the proxy data sets discussed; the OfS and researchers use OfS supplied data to attempt to measure social mobility impact (OfS 2019a Phoenix 2021); the Social Mobility Commission bases its analysis of apprenticeship social mobility impact on OfS reports (Social Mobility Commission 2019) and by default, draws its own erroneous conclusions.

These analyses inform and infuse the perceptions quoted in Chapter 1 of this report and have potentially disastrous knock-on effects, potentially skewing apprenticeship policy and the distribution by government of the employer levy.

Three

FINDING A VALID METHOD FOR MEASURING THE SOCIAL MOBILITY IMPACT OF APPRENTICESHIPS

Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

Was told by a careers teacher that I would be lucky to get a job in a supermarket as I was socially inept? So never had much encouragement to better myself at the time.



1. INTRODUCTION

The central task for Move on Up was to find a method and approach for measuring social mobility impact, that could be used or adapted for use with current higher and degree apprentices at Middlesex University; which had been tested rigorously and which preferably had already involved employers and universities; which would enable the researchers to address as many of the issues as possible identified in Chapters 1 and 2 of the report; and which ideally had scope for development and wider application in higher education.

We wanted to find an approach that would enable apprentices on programme at Middlesex University, to talk to researchers directly about their socio-economic backgrounds; which would enable researchers to gather personal data about apprentices which may have influenced their access to apprenticeships and might impact on their social mobility in their future careers; that would allow the study to systematically consider all available data, proxy or otherwise; and to consider other approaches to measuring social mobility, in reaching the study's conclusions.

2. A NEW APPROACH TO MEASURING SOCIAL MOBILITY IMPACT IN HIGHER EDUCATION IS NEEDED

OfS data had suggested that higher and degree apprenticeships at Middlesex University were not attracting sufficient numbers of people from areas of multiple disadvantage or from areas of low participation in higher education; this was at odds with the experience of university staff and evidence from apprentices themselves (Taylor and Flaherty 2020).

From the literature review (Chapter 2), we found that perceptions about apprentices' social mobility came from interpretations of geographical data sets used as proxies: to measure participation in higher education by young people (OfS, 2021d); by universities to 'contextualise'⁶ admissions and by others to help predict higher education participation and graduate earnings success in the future (IFS 2021). Even when used for their intended purposes, these proxies were found to be inadequate. No evidence about the socio-economic backgrounds of individual apprentices appeared to inform OfS reports on apprentice social mobility (OfS 2019a) or any of the somewhat negative perceptions regarding degree apprenticeships reported. Individual socio-economic data had not been gathered by (or made available to) those institutions whose reports generated and informed perceptions about apprentices' social mobility.

A new approach to measuring the social mobility impact of higher education including higher and degree apprenticeships is needed. It is not good enough to use invalid and unreliable proxy data to measure, post hoc, whether and how higher education apprenticeship provision is making a social mobility impact, and for such reports to make their way towards influencing government policy. The current approaches used for measuring 'access and participation' in higher education are also arguably inadequate for their intended purpose and certainly unsuitable for measuring social mobility impact.

3. EXPANDING THE RANGE OF DATA SETS USED IN MEASURING SOCIAL MOBILITY IMPACT

As already indicated, geographical area data sets, used as proxies to measure higher education participation and disadvantage among university entrants, do not provide evidence of the social and economic backgrounds of individual learners or apprentices – and consequently, any evidence of individual changes in their social mobility. We found that researchers typically qualified interpretation of their measures of social mobility impact, for example, indicating that 'There are, of course, alternative ways to define mobility rates, and our estimates here are not definitive.' (IFS 2021: 3)

Universities UK (2016) suggested developing a 'basket of indicators' to inform the higher education sectors understanding of social mobility recommending:

The expansion of datasets to enable universities to assess their work on social mobility, including the development of a shared basket of indicators in relation to socio-economic disadvantage...using both population-based and individual indicators. These would sit alongside other data which institutions may wish to use, e.g. course-specific data. (UUK 2016: 85)

Expanding the range of data sets used in measuring social mobility impact could: offer a variety of ways to contextualise the socio-economic backgrounds of individual learners and apprentices; enable meaningful comparisons across data sets, to highlight and systematically compare differences in resulting findings, across contexts and settings. A 'basket' of indicators or measures however, might lead to where the research community appears to be now; the emergence of a growing variety of approaches, often using the same or similar data sets as proxies, to measure retrospectively, the social mobility impact of higher education, in terms of participation and subsequent measures of success, such as continuity, qualification achievement and earnings success after graduation. This approach, seeks to mitigate the issues acknowledged with proxy measures by adding further proxy or other measures to the mix resulting in increasing complexity and variability of interpretation.

4. MEASURING THE SOCIAL MOBILITY OF APPRENTICES AS EMPLOYEES

While the study was from the outset intended to have wider applicability in higher education, a clear focus for attention was the social mobility impact of apprenticeships. Consequently, the first step in localising the empirical field was to focus on the social mobility of apprentices undertaking higher and degree apprenticeships (at Middlesex University), as a specific sub-set of higher education learners. While all such apprentices are at the same time students of the higher education provider or university that is delivering their apprenticeship (in this case Middlesex University), there are differences in how relationships between learner and provider are formed and constituted.

Apprentices first and foremost, are employees and an apprenticeship constitutes a job with training (ESFA 2021, QAA 2019). Higher education providers work in partnership with employers to enable apprentices to develop the knowledge, skills and behaviours required to become occupationally/professionally competent through on and off-the job learning. Employers, apprentices and providers must have a signed 'commitment statement' in place, which is a three-way legal agreement that details how all respective parties will support the achievement of the apprenticeship. In addition, employers and apprentices are required to have an apprenticeship agreement in place at the start of and throughout an apprenticeship. The apprenticeship agreement must set out the apprentice's details, the apprenticeship standard being undertaken, start and end dates and the amount of time to be spent engaged in off-the-job learning (20% of employed hours as a minimum). None of these requirements typically apply to other higher education students.

Whereas typical full-time students who graduate from higher education programmes may seek employment subsequent to completing their studies, apprentices are fully employed as apprentices throughout their programme of study; this is a required part of their job role. More than this, apprentices are required to be employed in a job role that will enable them to develop the knowledge, skills and behaviours pertaining to a specific occupation/profession. Apprenticeships are required to align with professional recognition where available and because most professions recognise professional status at higher levels (Williams, et al. 2012), most higher and degree apprenticeships lead to professional level occupations.

Apprenticeships present a specific opportunity for measuring social mobility impact. If it can be established that an apprentice who is undertaking an apprenticeship that leads to professional status has come from a non-professional parental background, then this provides a measure of positive

social mobility impact, the apprentice having accessed a clear route to professional status as a consequence of their apprenticeship. Whether the apprentice then gains a job in that role post-qualification, is also measurable, as would the measurement of their earnings over time.

Given this central employment-related context, the study looked for an approach which had involved employers directly in measuring the social mobility of their staff, preferably integrated into strategies for recruitment, improving diversity, professional development and onward career progression in their workforces.

5. INDIVIDUALISED SOCIO-ECONOMIC MEASURES OF SOCIAL MOBILITY IMPACT

Our approach in conducting the research was to develop a valid and reliable means of measuring social mobility impact, using a widely accepted and used definition:

Social mobility is the link between a person's occupation or income and the occupation or income of their parents. Where there is a strong link, there is a lower level of social mobility. Where there is a weak link, there is a higher level of social mobility. (Social Mobility Commission 2020)

To achieve this, we needed (at minimum) to establish the parental occupation and income of apprentices in the study, to enable measurement of the extent to which higher and degree apprenticeships were making a social mobility impact. We wanted to be able to produce valid and reliable conclusions about apprentices at Middlesex University, and develop an approach which could have wider applicability for other higher education providers of apprenticeships and potentially for the higher education sector as a whole.

Move on Up would need to capture individualised socio-economic data, to establish the occupation of the apprentice's highest income parent/guardian – the 'main householder'. Asking individuals this question is considered to be 'the best measure to assess someone's socio-economic background' (Social Mobility Commission 2021).

One effective way to do this would be to approach and ask individual apprentices directly about their socio-economic backgrounds, using a survey. The target cohort of apprentices for the Move on Up study survey was to be a group of apprentices on programme between specified dates. The Move on Up study would have to establish a clear rationale for constructing and selecting the questions to be asked.

6. 'Contextualised admissions is defined as information and data used by universities and colleges, to assess an applicant's prior attainment and potential, in the context of their individual circumstances. The aim is to form a more complete picture of the applicant.' (UCAS 2021a)

6. FINDING AND USING A COMMON SET OF TESTED MEASURES OF SOCIAL MOBILITY IMPACT

In May 2016, the UK Government Cabinet Office sought views on a 'Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants' (UK Government Cabinet Office 2016). A subsequent study was conducted, led by the UK Civil Service backed by government, employers and Non-Governmental Organisations (NGOs) with a specialist interest in furthering action on social mobility: 'Measuring Socio-economic Background in your Workforce: recommended measures for use by employers' (UK Government Cabinet Office 2018a).

The Cabinet Office study (2018a) identified twenty-six potential socio-economic background measures, which were tested by forty-three employers, ranking and scoring their appropriateness and effectiveness, using these criteria:

- Accurate measure of disadvantage
- Likely to elicit a response
- Clarity of the measure
- Comparability
- Accessibility
- Longevity
- Verifiability

Other considerations included: whether the same measures should be used for new entrants, including apprentices; the applicability for those who 'grew up overseas'; collating different measures into one; and likely adoption by organisations. Employers and others were asked for their views about the 'subjectivity/objectivity' of each measure and 'the international nature of the UK workforce'. 90% of employers said that collection of socio-economic background data would be beneficial to their organisation and to the social mobility agenda, with 80% willing to publish data on their workforce.

After this exercise with employers – which also saw responses and input from economists and researchers at four universities - the twenty-six measures were subsequently reduced to twelve, for further testing by employers with their current workforces. These measures were:

- Whether the individual had spent time in care
- Whether they ever had refugee or asylum status
- Whether they were a registered as a carer as a child
- Type of secondary school attended
- Name of secondary school attended
- Whether their parent/ guardian/ carer had completed a degree
- The highest qualification of their parent/ guardian/ carer
- Their home postcode at age 14
- Whether they were eligible for Free School Meals
- The occupation of their parent/guardian/carer
- The tenure of accommodation they lived in as a child

The study assessed question completion rates, difficulties in answering questions, relevance, data linking deprivation and postcode, qualitative and quantitative and open text analysis, and used statistical factor analysis 'to ascertain whether questions could be grouped into themes and to understand the structural relationship between questions'. 'Annex A' to the report (UK Government Cabinet Office 2018b) sets out the rationale for selecting each measure, in detail.

Following this analysis, three of the twelve measures were recommended for use by employers and the researchers:

1. The occupation of an individual's parent/guardian/ carer, using the four questions making up the Office for National Statistics' National Statistics Socio-economic classification (NS-SEC)
2. The highest qualification of their parent/ guardian/carer
3. Type of secondary school the individual attended

A fourth measure was conditionally recommended for use:

4. Whether they were eligible for Free School Meals, if a large enough proportion of staff were at school after 1980.

Self-declared social or economic obstacles:

Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

When growing up my family were a working class family, we never had money so going to university was not thought of. It was a case of get out and get any sort of job to bring some money in. My father was always at work running his own business and this was drummed into us at a young age. We were always told we must provide for the family.

7. THE MOVE ON UP METHOD AND APPROACH

The Move on Up study adopted the four socio-economic measures recommended by the Cabinet Office study to conduct its survey of apprentices, as the analysis had taken a systematic approach to selecting and ranking the most effective measures for identifying social mobility impact; an approach the Move on Up study sought to apply and emulate, in its use and analysis of the effectiveness of measures tested. The rationale for adopting these measures was also strengthened by the fact that they had been selected and tested for use by employers and with their involvement; and as indicated above, apprentices are by definition employees. The Move on Up study also used the updated Office for National Statistics (ONS) (ONS 2020) National Statistics Socio-economic classification (NS-SEC), used in the Cabinet Office study to classify occupations, to derive the NS-SEC and to ensure consistency with the current government recommended approach.

Two further measures (tested in the Cabinet Office study) were added to find out how apprentices viewed their own socio-economic backgrounds and to provide an opportunity for apprentices of any background to talk about any socio-economic obstacles they may have faced in accessing their apprenticeship. The additional measures also enabled comparative analysis of these responses with other individual and/or proxy data. Lastly, the additional measures generate qualitative narratives that illustrate respondents' perspectives on their own social mobility.

The first additional measure was derived from a question used by the UK Civil Service (UK Government Cabinet Office 2018a) in its social mobility survey of employees: 'when compared to people in general, would you describe yourself as coming from a lower socio-economic background?'

The second additional measure was adapted from the HMRC⁷ social mobility survey of 12,000 employees as part of the Cabinet Office study (2018a), which collected 'personal social mobility stories'.

The results and personal stories inspired a lot of conversations and led to a rise in staff volunteering to become members of staff networks promoting progress on social mobility and inclusion within HMRC. (UK Government Cabinet Office 2018a: 19)

The Move on Up study survey included an open text response question to generate equivalent qualitative narratives: 'Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?'

The Move on Up approach also reflected a wider range of considerations. These included: the Cabinet Office study guidance to employers, regarding wider considerations on effective workforce engagement; expert (and OfS) views regarding the limitations of using POLAR and IMD data; and the UUK desire to see better systems and practices in place for measuring the socio-economic backgrounds of students in efforts to improve their social mobility.

The Move on Up approach was designed to be inclusive, in recognising that all available data sets should be considered in measuring social mobility impact, analysing their relative value using the criteria adopted in the Cabinet Office model (2018a, 2018b). This included POLAR and IMD proxy data sets, to enable comparisons to be made with individualised data. Individual university registration data on age, gender, ethnicity, postcode location and programme of study was also included to provide different perspectives with which to compare socio-economic background.

7. HMRC = Her Majesty's Revenue and Customs, the tax authority of the UK government.

Four

MOVE ON UP METHODOLOGY



1. SUMMARY

Move on Up research methodology consisted of: a literature review; analysis of apprentice registration data; and an apprentice survey. The literature review sought to ground the research within the relevant literature, concerning the impact on apprenticeship policy, of social mobility and higher education participation data and reports (Chapter 1) and an analysis of how proxy data is used or proposed for use in indicating higher education participation and or social mobility (Chapter 2); the process of finding and adapting a valid method for measuring the social mobility impact of higher and degree apprenticeships (Chapter 3); a description of Move on Up methodology, including the conduct of a survey of apprentices on programme (Chapter 4); findings and analysis from the apprentice survey results (Chapter 5); and report conclusions and recommendations (Chapter 6).

The data sample was constituted from the registration records of over 1,000 higher and degree apprentices undertaking a range of 10 different apprenticeship programmes at Middlesex University between specified dates. The same apprentices were surveyed to gather data to establish their individual socio-economic backgrounds.

This mixed-methods research approach (Baron and Jones 2020) was designed to gather data from a range of sources that would each provide a specific perspective on the social mobility impact of apprenticeships. The embedded research design combined qualitative and quantitative methods to enable incorporation of data from both, sequentially and concurrently. This provided interface points for mixing methods during data collection and analysis, as well as in interpretation of the results.

2. MOVE ON UP APPRENTICE SURVEY: METHOD AND CONDUCT

1030 apprentices were included in the study. Each of the Middlesex University apprentices in the study were registered on one of ten Middlesex University higher and degree apprenticeship programmes between December 9th 2020 and January 27th 2021. The apprenticeship programmes were as follows:

- Academic Professional
- Business to Business Sales Professional
- Environmental Health Practitioner
- Healthcare Science Practitioner
- Nursing Associate
- Police Constable
- Registered Nurse
- Senior Leader
- Social Worker
- Teacher

3. DATA SOURCES

The study gathered the following data on each apprentice in the full sample group:

- POLAR and IMD data
- University registration data: age, gender, ethnicity, postcode location and apprenticeship programme
- Data from a survey of apprentices, using four government recommended individual socio-economic measures:
 - secondary school type
 - parental/guardian qualifications
 - parental/guardian occupation
 - Free School Meals eligibility
- Self-assessments by apprentices of their individual socio-economic backgrounds.

4. MITIGATING RISKS TO VALIDITY IN SELF-REPORTING

The design of the survey included measures to mitigate potential risks to the validity of self-reporting. The language used to construct survey questions was clear and appropriate for the intended audience with sufficient information to mitigate the risk of respondents misunderstanding questions being asked. With the exception of the final open text question, the survey questions requested responses from a defined list to limit and provide the opportunity for respondents to not respond to individual questions or to indicate 'don't know' or 'prefer not to say' responses to mitigate the risk of bias. The survey also made clear that all responses were confidential and anonymised to mitigate the risk of the perception of 'social desirability' within questions. This also mitigates any perception that there are any preferential recruitment 'gains' to be made from falsifying responses (Durmaz, et al. 2020).

The survey opened on December 9th 2020 and closed on January 27th 2021. See Appendix B for the Move on Up survey questionnaire.

5. PRIVACY AND DATA CONTROL

Potential survey respondents needed to feel comfortable about revealing personal and sensitive information through the Move on Up survey. Gathering individualised socio-economic data requires that the individuals taking part in the research need to be sure that their personal privacy is protected in the process, as well as understanding why they should share personal data for these purposes at all.

Only one nominated member of the Move on Up research team had access to *all* data collected for the study. This 'firewall' was designed to restrict circulation of and protect apprentices' personal data. Move on Up authors had no access to personal data and analysed anonymised data sets from reports generated on request by the research team nominee.

The nominee was also solely responsible for communicating with apprentices directly, via their Middlesex University email addresses, sending out survey invitation letters and reminders, managing conduct of the survey, collating all available data, including all university registration, POLAR and IMD data and Move on Up survey responses.

Other security measures included, requiring a consent form to be completed within the survey; participants' rights to withdraw prior to completion of the study; destruction of correlated personal data, including any correspondence, once the study was completed. No telephone or video interviews were conducted; all data was stored (until destruction) on Middlesex University OneDrive; secure survey software (Qualtrics) was used to conduct the survey, Middlesex University acting as formal custodian of the data for the duration of the study.

Middlesex University research ethics committees (RECs) scrutinise and approve research proposals. Move on Up was approved by the Education REC on December 7th 2020.

6. VERIFIABILITY

Data supplied by apprentices for Move on Up was not used in their recruitment; there were no preferential recruitment 'gains' to be made from falsifying responses. The apprentice could choose to share their data with nominated individuals to inform their learning contract. Information about their individual progress and achievement and onward employment is both individualised and anonymised using the firewall described above.

7. LIMITATIONS

The specific profile of apprentices at Middlesex University may not reflect the profile of apprentices in other settings. Similarly, the profile of apprentice learners differs from that of other higher education students, which presents a limiting factor with regards to specific conclusions for the wider higher education sector. However, the inclusion of comparative (proxy) data within the Move on Up study that is currently used to make claims about social mobility, operates to mitigate any specific aspects regarding the profile of Middlesex University apprentices. In other words, whatever the specific background of an individual apprentice, the comparative approach provided a means of highlighting the differences in results between existing proxy indicators and the measures proposed in the Move on Up study.

Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

I was very unwell and stopped going to school in year 10. I taught myself all of my exams and received little help. I ended up with only 1½ A levels and found it almost impossible to get into university, alongside managing my health. My family are very supportive but I had to teach myself independently.

Five

KEY FINDINGS FROM THE APPRENTICE SURVEY



1. SCHOOL ATTENDED

The type of school attended is regarded as a good indicator of social mobility, for example see DFE destinations data for details (DFE, 2021). This is perhaps particularly relevant for some professional roles, for example over 20% of the Senior Civil Service were educated at an independent school between the ages of 11 and 16 (UK Government Cabinet Office 2021). The study found that 55% of apprentices went to non-selective state schools and only 1% went to independent fee-paying schools.

One significant finding is that 25% of apprentices responding attended school outside the UK. The implications for this study - and wider implications for measuring social mobility - are discussed below and in subsequent sections of the report. However, clearly being schooled overseas has implications for the validity and reliability of measures such as Free School Meals as an indicator of social mobility. The study found that 45% of those apprentices schooled overseas said they came from a lower socio-economic background and qualitative evidence of this can be found in their responses to the open text question on socio-economic obstacles (see below).

55%

of apprentices went to non-selective state schools.

VS

1%

went to independent fee-paying schools.

25%

of apprentices responding attended school outside the UK.

45%

of those apprentices schooled overseas said they came from a lower socio-economic background

2. PARENTAL QUALIFICATIONS

According to POLAR data, only 28% of apprentices who responded to the survey are from the two lowest higher education participation areas: 11% of respondents are from POLAR quintile 1 and 17% are from POLAR quintile 2. According to IMD data, 41% of respondents are from the most deprived areas, 17% of respondents are from IMD decile 1-2 and 24% are from decile 3-4.

The Move on Up study found that at least 66% of Middlesex apprentices responding came from low higher education participation backgrounds. The study found that 49% of respondents reported that their parents/guardians had 'qualifications below degree level' and a further 17% reported that their parents/guardians had 'no formal qualifications', totalling 66%. It is possible that the percentage with below degree or no formal qualifications is higher as 6% responded 'don't know', 2% responded 'prefer not to say' and 1% did not answer the question. This measure is widely used and viewed as a reliable proxy for parental income and links to future levels of education attainment (Erikson and Goldthorpe 2009) and higher levels of income. 'The relative wages [of graduates in the UK and USA] have risen over time as compared to all workers...' (Lindley and Machin 2011).

While the indicator used in the Move on Up study is clearly not measuring the same thing as POLAR, the difference between the 28% from low participation POLAR areas compared with the 66% from backgrounds with no parental experience of degree-level education is, none the less striking. This is particularly significant in consideration of how POLAR (despite acknowledged limitations) continues to be used as a proxy measure to determine social mobility impact.

28%

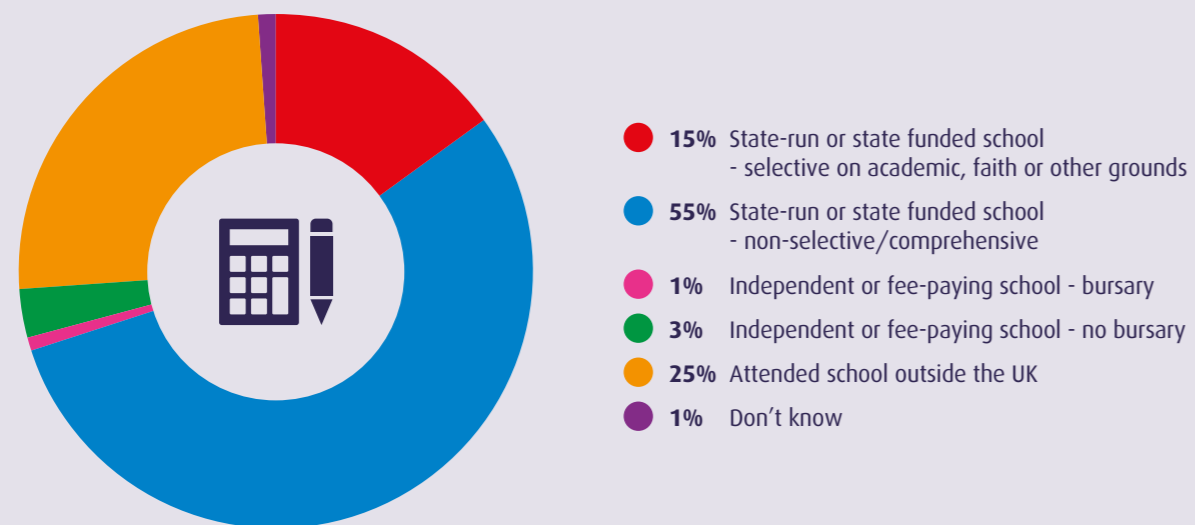
According to POLAR data, only 28% of apprentices who responded to the survey are from the two lowest higher education participation areas: 11% of respondents are from POLAR quintile 1 and 17% are from POLAR quintile 2.

VS

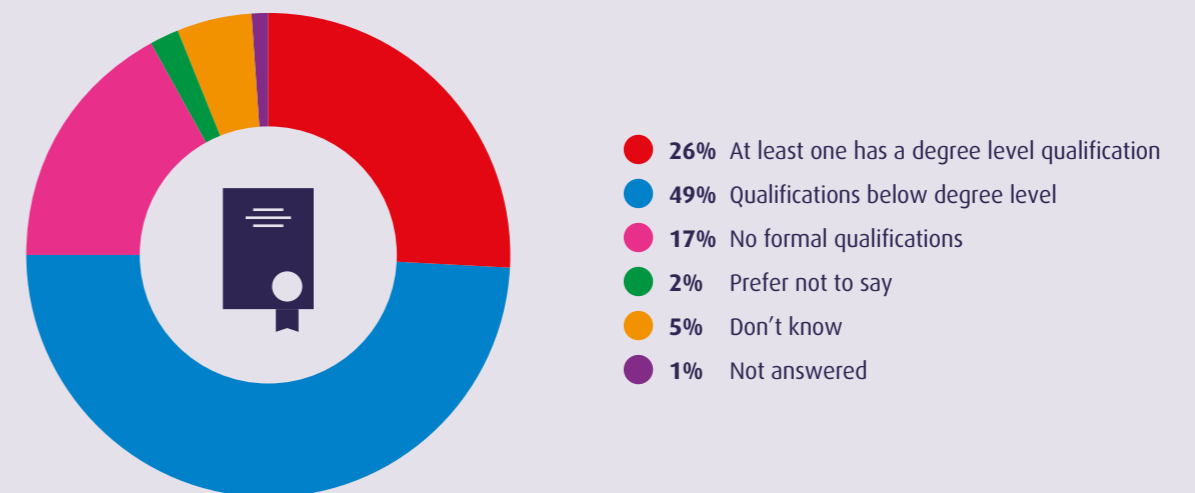
66%

The Move on Up study found that at least 66% of Middlesex apprentices responding came from low higher education participation backgrounds.

What type of school did you mainly attend between the the ages of 11 and 16?



What is the highest level of educations achieved by either of your parent(s) or guardian(s) by the time you were 18?



3. PARENTAL EMPLOYMENT

Only 37% of respondents reported that the highest income earners in their household were employed as 'professionals', 'associate professionals' or 'managers, directors and senior officials'. While, 10% responded 'other', 6% did not answer the question and 1% responded 'don't know',.

This is significant as:

'Getting into professional occupations is largely dependent on parental occupation. People from professional backgrounds are 80 per cent more likely to get into a professional job than their less privileged peers.' (Social Mobility Commission 2019 :11)

The Move on Up study used four questions about parental / guardian occupation, with one main question and three sub-questions derived from the National Statistics Socio-economic Classification (NS-SEC). The study found that 67% of apprentice's parent/guardians were employed and 24% self-employed, while 5% either did not know or did not answer. However, where the parent/guardian was self-employed, 38% of respondents did not know or did not answer the question regarding how many people their parent/guardian employed. Similarly, where the parent/guardian was employed, 30% of respondents either did not answer or did not know whether they supervised other employees. While these sub-questions are important regarding maintaining consistency with the NS-SEC and the government recommended approach, the levels of 'do not know' or did not answer responses impact on the relative validity of findings related to them.

37%

Only 37% of respondents reported that the highest income earners in their household were employed as 'professionals', 'associate professionals' or 'managers, directors and senior officials'.

4. FREE SCHOOL MEALS

Free School Meals is a commonly used indicator of disadvantage and is a relevant socio-economic measure for those who attended state schools in the UK and were in education after 1980, when access to school meals began to be means-tested. The study found that 22% of all apprentices responding said they were eligible for Free School Meals.

In consideration of the relationship between Free School Meals, POLAR and IMD, the study found that 38% of those living in POLAR quintile 1 and 29% of those living in IMD deciles 1-2, were eligible for Free School Meals. However, 24% of those living in POLAR quintile 5 (with the highest levels of higher education participation and 14% of those living in in IMD deciles 1-2 (the lowest levels of deprivation) were also eligible for Free School Meals. For both POLAR and IMD there are higher proportions of respondents who are eligible for Free School Meals for those who live in areas with low higher education participation or high levels of deprivation. However, given that there is also a significant proportion of respondents who are eligible for Free School Meals who live in areas with the highest higher education participation and lowest levels of deprivation, there seems to be a relatively weak correlation between Free School Meals eligibility, participation in higher education and deprivation.

The study also found that 23% of Middlesex University apprentices' responses indicated that they started school before 1980 or went to school overseas and as such the question was 'not applicable'. The significant proportion of respondents for whom Free School Meals is 'not applicable' presents a limiting factor on its reliability as an indicator of the social mobility of the apprentices surveyed.

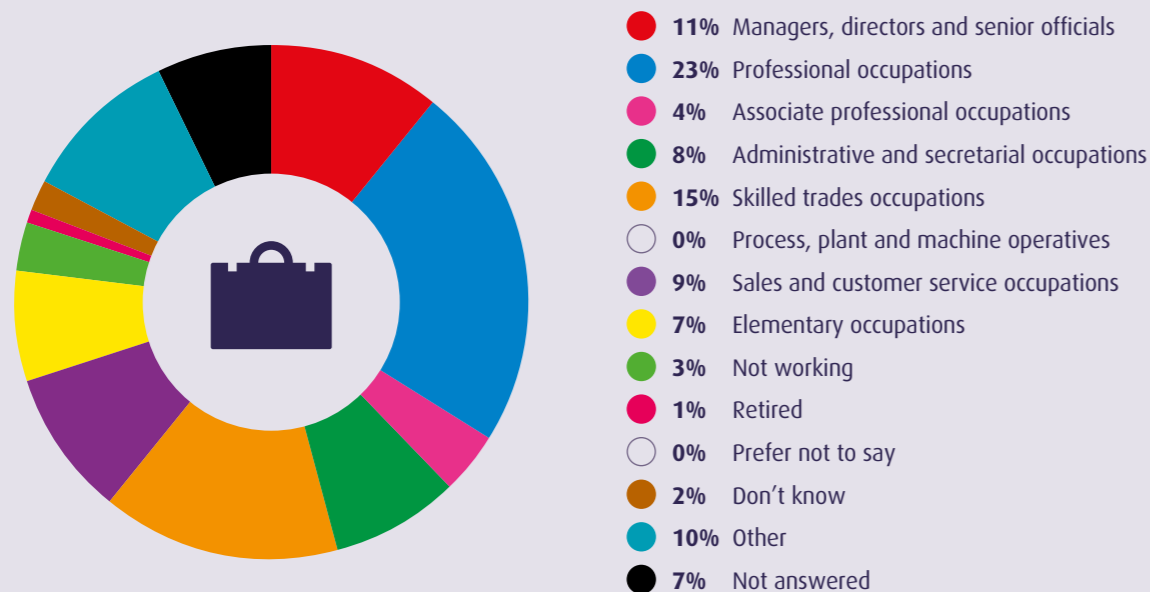
22%

22% of all apprentices responding said they were eligible for Free School Meals. A relatively weak correlation between Free School Meals eligibility, participation in higher education and deprivation.

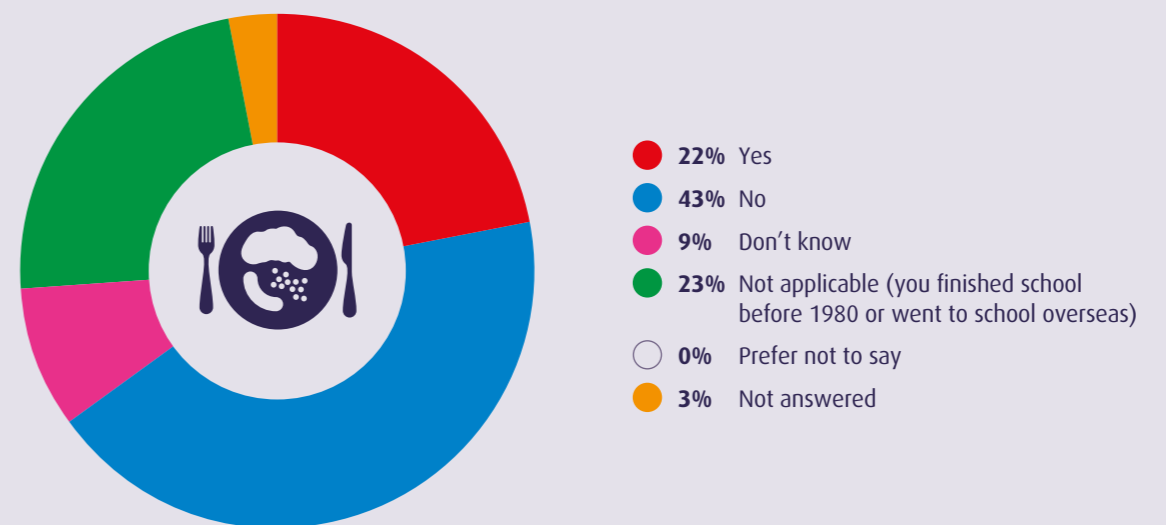
23%

23% of apprentices' responses indicated the question was 'not applicable'.

Thinking back to when you were aged about 14, which best describes the sort of work the main/highest income earner in your household did in their main job?



If you finished school after 1980, were you eligible for Free School Meals at any point during your school years? It does not include those who receive meals at school through other means (e.g. boarding school).



5. SELF-ASSESSMENT OF SOCIO-ECONOMIC BACKGROUND

This measure, while not recommended for general use by the Cabinet Office, was tested in the Civil Service pilot in the same study (Cabinet Office 2018a). The inclusion of this measure it was suggested,

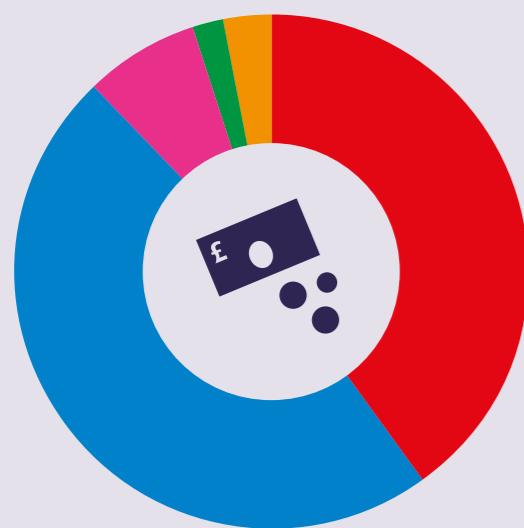
...may help to appease concerns voiced by respondents that other questions did not wholly represent their circumstances and will allow them to take more of ownership of how they are defined. (UK Government Cabinet Office 2018: 15).

The study found that 40% of apprentices responding said they came from a lower socio-economic background. Of these respondents, POLAR and IMD data indicates their area backgrounds to be fairly evenly spread across the POLAR/IMD quintiles and deciles with no clear correlation between levels of higher education participation or deprivation. There was however, a stronger correlation between self-reported lower socio-economic background and parental/guardian job roles and qualification level. The study found that 75% of respondents indicating that they were from lower socio-economic backgrounds had a parent/guardian without a degree level qualification and only 12% had a parent/guardian with a professional or managerial job. While, 69% of those self-reporting that they were from lower socio-economic background attended state-run schools, 28% of these respondents were schooled overseas and only 37% were eligible for Free School Meals. This may indicate a relatively strong correlation between self-declared lower socio-economic background and going to a state-run school but this finding is again limited by the significant proportion of respondents who were schooled overseas. The correlation between self-declared lower socio-economic background and Free School Meals eligibility seems relatively moderate.

40%

of apprentices responding said they came from a lower socio-economic background.

Compared to people in general, would you describe yourself as coming from a lower socio-economic background?



- 40% Yes
- 48% No
- 7% Don't know
- 2% Prefer not to say
- 3% Not answered

6. SELF-DECLARED SOCIAL OR ECONOMIC OBSTACLES

Apprentices were asked a final open text response question:

Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

These are examples only: When you were growing up, were there any physical or mental health issues in the family? Did you have a secure place to live? Did you or your family experience any discrimination? Was the family income regular and stable? Did any social or economic obstacles you may have experienced, affect your education?

In response to this question, 67 apprentices provided text that ranged between 1 and 214 words in length and 20 apprentices provided a one line response, for example:

Family income was irregular and unstable

Mental health issues and debt

My family was struggling virtually in everything, inadequate accommodation to very low income.

Of those that provided a more detailed response, 18 described multiple disadvantages, some of which could not have been identified through other socio-economic measures used:

I have a relative with mental health... I am on her care package... Growing up was hard brother died when I was five and family split up not long after that. I lived first with my father who couldn't really care for my sister and myself. It was some time before my mum got custody of us.

I've had discrimination being a single parent of a mixed race child.

However, 16 respondents used the question as an opportunity to say that they had either not suffered socio-economic disadvantage,

I didn't face many obstacles growing up that would prevent me from getting onto my apprenticeship. I grew up in a financially stable household with little financial worry. I have been brought up to value working hard for what you own and therefore I focused more on work rather than following the route of academia...

Others respondents identified that they were protected from disadvantage by a parent/guardian or another member of the family,

I didn't face many obstacles growing up that I had a secure single parent home, my mother always put my needs first and supported my education and future career...

7. INDICATIVE CASE STUDIES COMPARING POLAR, IMD AND MIDDLESEX INDIVIDUAL SOCIO-ECONOMIC MEASURES

The study found that 40% of respondents said that compared to people in general, they would describe themselves as coming from a lower socio-economic background. In addition to the quantitative data comparison between POLAR, IMD and the Middlesex individual socio-economic measures, the following case study examples drawn from the research provide qualitative insight that further illustrates the inadequacies of POLAR and IMD as measures of social mobility impact. Each example identifies the POLAR and IMD classification for each apprentice who responded to the survey.

CASE STUDY 1

POLAR Quintile: 4 – High HE participation area
IMD Decile: 1 – Most deprived area

My brother and I grew up in a one parent household with my father who was unable to work from my being around 8 years old due to a large stroke he had quite young where he had to learn to walk and talk again and completely lost the use of his right arm which he never regained. With little means we survived on a very low income from benefits and lived in a high rise flat and then a council house on an estate that was heavily crime ridden and had heavy open drug abuse (very high unemployment rate) being one of only two mixed race/black families on the whole estate so there was obvious prejudice. We had very little contact with my mum between the age of approx. 9 – 15.

I did try to go to college on leaving high-school but we needed the additional income so decided to go straight into work...

This apprentice lives in a high higher education participation area which is at the same time in the most deprived category. This seeming contradiction tells us very little about how apprenticeships have provided the opportunity to access a professional career despite the obvious complexities and economic challenges being faced. The Move on Up approach to gathering individual socio-economic data provides the means to measure the social mobility impact that the apprenticeship has had.

CASE STUDY 2

POLAR Quintile: 5 – Highest HE participation area
IMD Decile: 9 – Low deprivation area

I grew up in a working-class background. Lived in the [London] borough of Newham with my two older siblings in a council property. (Shared a bedroom with my sister). My mother was a single parent and a registered child minder. She earned very little money, however we made the most of everything and I had an excellent childhood.

Regarding issues within my family - Domestic Violence, this didn't affect my education at the time as my mother is a strong person and got us through it.

Although the process of applying for the apprenticeship via my employer was quite long, I am happy to be here and it is worth it!

This apprentice lives in an area that has the highest level of higher education participation and also a very low level of deprivation according to POLAR and IMD data. Yet these measures provide a highly misleading picture of the apprentice's progress from a very low income/non-professional background towards professional status via their apprenticeship.

CASE STUDY 3

POLAR Quintile: 2 – Low HE participation area
IMD Decile: 5 – Medium deprivation area

My family was targeted and property destroyed during the unrest in my native country. We had to relocate and that was when things became harder for us. It was economically challenging as well as mentally challenging. We had to do menial jobs to survive.

The Move on Up study found that 24% of apprentices responding attended school outside the UK, where neither POLAR nor IMD apply. However, individual social-economic measures can capture this information, which provides the opportunity for it to inform approaches to personal learning planning, programme design delivery and apprentice support.

CASE STUDY 4

POLAR Quintile: 5 – High HE participation area
IMD Decile: 6 – Medium deprivation area

I came from a single parent family, there were issues of domestic violence and low income. As my parents were Scottish there was also prejudice as the view about Scottish people was they were portrayed as drunks and violence was seen as a part of this. Was told by a careers teacher that I would be lucky to get a job in a supermarket as I was socially inept? So never had much encouragement to better myself at the time.

The apprentice in case study 3 lives in a low HE participation area, while the apprentice in case study 4 lives in a high HE participation area and both areas are middle-ranked regarding deprivation. Yet POLAR and IMD measures miss the fact that where these apprentices live has very little, if any, bearing on how an apprenticeship has provided to opportunity to progress to a professional career. Both apprentices are from low income, non-professional backgrounds with no parental experiences of higher education. In fact, their circumstances make it truly amazing that they have managed to access university education. What is clear is that gathering individual socio-economic data has the potential to demonstrate the social mobility impact of higher and degree apprenticeships in a way that is valid and reliable.



8. THE WIDER HIGHER EDUCATION STUDENT POPULATION CONTEXT

Using data drawn from the OfS Access and Participation dashboard we were able to compare the identified protected characteristics, POLAR, IMD and FSM profiles of higher education students in England with the wider group of Middlesex students. These profiles can also be compared with the profile of Middlesex apprentices within the Move on Up study full sample group. The full comparison can be found in Appendix C but the key aspects can be summarised as follows:

- Middlesex has more than double (60.5%) the national percentage (29%) of BAME students and that this is reflected in the high proportion of BAME apprentices at Middlesex (47%) although the proportion is lower.
- The proportion of female Middlesex students (59%) is also slightly higher than for apprentices (53%), although across all categories female participation is over 50%.
- The age profiles of students and apprentices indicates a very significant difference regarding the national proportion of 21+ of students (30.2%) and the higher proportion at Middlesex (37.6%) when compared with the 93% for Middlesex apprentices.

- The percentage Middlesex students who declared a disability (11%) is lower than the national percentage (17%) and this difference is more significantly indicated by the comparatively low percentage of Middlesex apprentices who have declared disability (7%).
- The proportion of Middlesex students entitled to Free School Meals (40%) is significantly higher than the national figure (18%).
- POLAR data indicates that a larger proportion of Middlesex students are from the highest participation areas (36%) than the national figure (30%).
- IMD data indicates a much lower proportion (8%) of Middlesex students from the areas with the lowest levels of deprivation than the national figure (20%).

8. The data represents the profile of entrants for the 2019/20 year, which at the time of writing is the most current dataset available on the OfS Access and Participation Dashboard. Percentages have been rounded.

9. HOW REPRESENTATIVE ARE THE FINDINGS FROM THE SURVEY?

Registration data for the full sample group of 1030 Middlesex University apprentices provided the opportunity to establish the profile of this group with regards to a range of protected, POLAR, IMD characteristics, which could be compared with the profile of the 195 apprentices who responded to the survey (with 1 withdrawal during the study). The healthy survey response rate of 19% of the full sample group, provides some grounds

to support the view that findings from the survey respondents may be likely to be representative of the full sample. However, by comparing the profile of the full sample group with the profile of the survey respondents, it was found that while there were some differences regarding the protected characteristics profile, there is a strong alignment for both POLAR and IMD which further supports the view that the findings from survey respondents are likely to be representative of the full sample.

Table 1

Comparison of the protected characteristics profile of the full sample group with survey respondents

	Full sample group	Survey respondents
BAME	47%	36%
Female	53%	62%
Age - 21+/25+	93%/72%	97%/81%
Declared disability	7%	6%

Table 2

Comparison of the POLAR profile of the full sample group with survey respondents

POLAR Quintile	Full sample group	Survey respondents
1	12%	11%
2	14%	17%
3	19%	19%
4	29%	27%
5	26%	26%

Table 3

Comparison of the IMD profile of the full sample group with survey respondents

IMD Decile	Full sample group	Survey respondents
1	4%	4%
2	11%	13%
3	12%	13%
4	11%	11%
5	10%	9%
6	10%	11%
7	10%	7%
8	9%	8%
9	11%	13%
10	12%	11%

10. THE POTENTIAL TO FURTHER INTERROGATE MOVE ON UP DATA

Move on Up generated a wealth of data about Middlesex University degree apprentices. There are potentially, many more ways in which the data could be usefully interrogated, depending on the purpose and value of the exercise. For example, there may be commonalities among apprentices on a Middlesex University apprenticeship programmes and significant differences between programmes.

For example, 31% of survey respondents were from the Nursing Associate apprenticeship and 65% of these respondents went to school outside the UK. At least 64% came from low participation backgrounds and at least 48% came from non-professional backgrounds, while 54% said they came from a lower socio-economic background.

Similarly, 49% of survey respondents were from the Police Constable degree apprenticeship. At least 74% of these respondents came from low participation backgrounds, at least 44% came from non-professional backgrounds and 57% said they came from a lower socio-economic background.

Move on Up provides strong evidence of the very significant social mobility impact of Middlesex University's apprenticeship provision. Two thirds of Middlesex University apprentices are accessing professional careers, having come from non-professional and low HE participation backgrounds.

Move on Up shows how socio-economic datasets can be used to demonstrate improved social mobility among apprentices and the potential to consider other factors alongside, which may compound disadvantage and impede social mobility. These factors (which included gender, age, ethnicity, parental support, housing and family health) were visible and socially and economically significant in many apprentices' personal stories about their backgrounds.

2/3

Move on Up provides strong evidence of the very significant social mobility impact of Middlesex University's apprenticeship provision. Two thirds of Middlesex University apprentices are accessing professional careers, having come from non-professional and low HE participation backgrounds.



Six

CONCLUSIONS AND RECOMMENDATIONS



1. PROXY ACCESS AND PARTICIPATION DATA CANNOT BE USED TO VALIDLY AND RELIABLY MEASURE SOCIAL MOBILITY IMPACT

The starting point for the Move on Up research was a disjuncture observed between what apprentices at Middlesex were saying about their own socio-economic backgrounds (Taylor and Flaherty 2020) and POLAR and IMD data on the same apprentices.

While OfS does add a caveat to its advice on using POLAR and IMD data for measuring disadvantage that ‘other measures are needed’, we see both data sets being used and heavily relied upon by influential organisations in measuring and reporting disadvantage, participation and social mobility impact, particularly with regards to degree apprentices. Largely negative perceptions about the social mobility impact of degree apprenticeships appeared to be informed by interpretations of OfS participation data (Chapter 1).

On investigation, (Chapter 2) we found that data sets used as proxies for measuring disadvantage are to different degrees invalid and/or unreliable, with some proxies more unreliable than others. Access and participation analysis based entirely on proxy data supplied by the OfS is likely to be weak, particularly in more densely populated areas and erroneous, where students and apprentices aged 21+ are concerned. The heavier the reliance for analysis on any one of the proxy measures discussed, the higher the likely risk of unreliable or even erroneous analysis and conclusions. In addition, proxy access and participation data cannot be used to measure social mobility impact, as it does not include any information about the socio-economic background of individuals. Both POLAR and IMD are inappropriate measures of social mobility impact.

Neither the UCAS Multiple Equality Measure (MEM) (UCAS 2018) or OfS Associations Between Characteristics of Students (ABCS) (OfS 2020e) are specifically intended to measure social mobility. One significant problem is that MEM and ABCS are both focussed exclusively on young entrants – generating and using data which cannot be used to measure the access and participation of older (aged 21+) entrants. In addition, UCAS and OfS are also significantly constrained by only being able to draw on retrospective, publicly available, centrally gathered data, which does not include up to date, socio-economic background information about individual higher education entrants.

As in MEM and ABCS, the IFS study on ‘intergenerational mobility’ (IFS 2021) attempts to use publicly available data to get closer to an individual measure, using FSM eligibility as a proxy for low income. The limitations of FSM data for measuring social mobility include that it is a binary measure, that eligibility is in decline, has changed over time and could change again, and is an irrelevant measure for those who went to school overseas. The IFS study focuses on higher education entrants from 2002-2006 and uses POLAR data to make predictions about mobility after 2012. It tells us nothing about university entrants aged over 21, or anything about the social mobility impact of degree apprenticeships, introduced in 2015.

Reports by OfS and the Social Mobility Commission and others, carry significant weight in social mobility impact discourse and in shaping government policy. Perceptions about participation and social mobility in higher education, including apprenticeships, are shaped by such reports. The Move on Up study shows that the evidential basis for OfS and Social Mobility Commission reports is at best highly misleading and plainly wrong with regards to the social mobility impact of apprenticeships.

In the Move on Up apprentice survey (Chapter 4), we found that neither POLAR nor IMD data were close to usefully describing the higher education participation of apprentices responding to the survey. POLAR in particular, was highly misleading and simply wrong about Middlesex University apprentices responding to the survey. IMD data about Middlesex apprentices in the survey was also inaccurate and could not be relied upon as a proxy for measuring disadvantage, with some studies advocating its use and other assessments suggesting it should be used with caution and only for specific purposes.

2. RANKING MEASURES IN RELATION TO VALIDITY, RELIABILITY AND DEFINED PURPOSE

UUK recommended development of ‘a shared basket of indicators in relation to socio-economic disadvantage’ (UUK 2016). The OfS says other measures and indicators should be used to measure socio-economic disadvantage, alongside their preferred proxies used to measure participation.

Given an absence of individualised socio-economic data and the general dissatisfaction with proxy measures available, universities have tended to select their own measures for different purposes and,

... this has led to is a confusing situation, where universities are now each using a basket of different indicators in different ways. (Jerrim 2021: 2)

Although this observation is primarily about difficulties for those universities seeking to contextualise admissions, it does indicate there is need across Higher Education for greater consistency in the ways that measures and indicators are selected and ranked for use.

Diagram 1

Criteria	Measures
Accurate measure of disadvantage	
Likely to elicit a response	
Clarity of the measure	
Comparability	
Accessibility	
Longevity	
Verifiability	

3. MOVE ON UP: ADDRESSING THE ISSUES IN MEASURING SOCIAL MOBILITY IMPACT

The central task for Move on Up was to find a method and approach for measuring social mobility impact (Chapter 3), that could be used or adapted for use with current higher and degree apprentices at Middlesex University; which had been tested rigorously and which preferably had already involved employers and universities; which would enable the researchers to address as many of the issues as possible identified in Chapters 1 and 2 of the report; and which ideally had scope for development and wider application in higher education.

From 2016-2018, the UK Government Cabinet Office involved 46 employers in testing and ranking a range of 26 individual socio-economic measures and data sets used as proxies, including those reviewed in this study, for employers to use in measuring the socio-economic backgrounds of their workforces (UK Government Cabinet Office 2018a). The Move on Up study adopted the measures recommended in the study, and included 2 further measures tested by employers to conduct its survey of apprentices.

This approach enabled apprentices on programme at Middlesex University to talk to the Move on Up project directly about their socio-economic backgrounds; enabled researchers to gather personal data about apprentices which may have influenced their access to apprenticeships and might impact on their social mobility in their future careers; allowed the study to systematically consider all available data, proxy or otherwise; and to consider and compare other approaches to measuring social mobility, in reaching the study’s conclusions. This approach enabled for example, researchers to examine survey results alongside data from OfS reports (Chapter 4), to inform Move on Up analysis and conclusions.

It is the conclusion of this study that the individual socio-economic measures used in the Move on Up survey are the best available for ascertaining apprenticeship social mobility impact. These are recommended by the UK government and the Social Mobility Commission for use by employers and this presents a strong case for their use for apprenticeships.

The researchers do not however, advocate automatic exclusion of any data set discussed in this report in adopting the Move on Up approach to create a new, shared model for measuring social mobility impact in higher education, for these two reasons:

- The validity and reliability of all data sets should be subject to a shared approach to statistical factor analysis, allowing the ranking of measures using agreed criteria (Diagram 1) in comparing results.
- Where government uses or *requires* certain data sets to be used to measure provider performance, such data sets should always be considered, though subjected to the same critical comparative analysis described above.

Many data sets discussed (including geographical data sets used as proxies) have already been ranked in usefulness, using a traffic light approach and subjected to statistical factor analysis (UK Government Cabinet Office 2018a, 2018b). Similarly, the detailed work done for the recent Sutton Trust study (Jerrim 2021) provides additional insight and analysis to the process of ranking data sets, including those used as proxies. Other recent literature (UUK 2019, Phoenix 2021, IFS 2021) discussed in this study would be useful in informing the process of ranking measures, specifically with regards to the limitations of IMD, LEO, higher education continuation and attainment data.

4. VERIFIABILITY

One rationale given by researchers for using proxy data, for example in measuring 'underrepresentation', is as follows:

universities need to be able to accurately identify members of underrepresented

groups if they are going to lower the entry grades they require of them... Rather than being able to access high-quality and independently verifiable data on one of the three main individual-level socio-economic status indicators (family income, parental social class or parental education), information is often only available about their home postcode. This means that, in practice, proxy socio-economic indicators are used, with contextual admission offers often based upon the characteristics of the local area where young people live. (Jerrim 2021: 2)

We have already explored in detail in this report, the highly questionable validity of relying on proxy measures to measure social mobility impact.

There was no incentive or reason for Move on Up apprentice survey respondents to falsify their responses. Move on Up data supplied by apprentices was not used in their recruitment; there were no preferential recruitment 'gains' or gains of any other kind to be made. The apprentice could choose to share their data with nominated individuals to inform their learning contract. Information about their individual progress and achievement and onward employment is both individualised and anonymised using the firewall described in Chapter 4.

There are ways in which the Move on Up approach could be emulated for all higher education entrants and there are extant practices which could be adapted. For example, applying for a government-funded bursary or scholarship (which higher education students do not have to pay back) requires the sharing of individual socio-economic information by the applicant with Student Finance England, who also verify household income statements (UCAS 2022).

For higher and degree apprentices, higher education providers already have the Move on Up model which they could adopt, as recommended in this report.

5. MOVE ON UP IMPACT AT MIDDLESEX UNIVERSITY

The Move on Up individual socio-economic measures were incorporated into apprenticeship registration information from September 2021, which means that going forward, the University consistently captures this data for each apprentice at the point of 'on-boarding', before they start their apprenticeship. This will enable the University to evaluate trends over time regarding social mobility impact and to continue to develop its apprenticeship provision to reflect the needs of apprentices on its programmes.

6. MOVE ON UP AND APPRENTICE EMPLOYERS

Move on Up involves apprentices directly, asking them in real time, to share information about their socio-economic data backgrounds. This both provides evidence of social mobility impact for Middlesex University and helps steer action with employers. Middlesex will be able to learn from employer successes in improving social mobility and be able to help employers make use of the social mobility measures adopted and tested in Move on Up: in their recruitment and career progression strategies, for on-programme learning, post-apprenticeship employment and continuing professional development. Higher education apprenticeship providers are well placed to work with employers to provide them with evidence of how apprenticeships can demonstrably improve social mobility and diversity in their workforces.

Self-declared social or economic obstacles:

Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

My family was struggling virtually in everything, inadequate accommodation... very low income



7. ENABLING PROVIDERS AND GOVERNMENT AGENCIES TO BETTER ADDRESS KEY ISSUES EMERGING FROM THE MOVE ON UP STUDY

Move on Up has highlighted a range of issues that would be better addressed through collaboration across providers and further development of the approach tested with Middlesex University apprentices. These include:

- **How other indicators influence social mobility.** There are a range of factors and characteristics which influence the social mobility in the UK (Social Mobility Commission 2019). These include: learning difference, age, ethnicity, gender, disability, migrant status, time in care, being a carer, housing tenure, family relationships and health. All of these factors arose in personal responses to the Move on Up 'open text' self-assessment question. The inclusion of this qualitative aspect of the approach provides data that illustrates the often complex relationships between factors.
- **Age, access and apprenticeships.** Data about the value and purpose of offering older learners from disadvantaged backgrounds access to higher and degree apprenticeships should be collected, to improve understanding by OfS and the Social Mobility Commission of the value of apprenticeships to people aged 21+. The Move on Up study found that many older (21+) apprentices could not have started a degree apprenticeship at age 18, due to their and their family's socio-economic circumstances. This could help the Social Mobility Commission to consider encouraging a 'second chance' (SMC 2019: 98) to access a professional career for older learners, through access to higher and degree apprenticeships.
- **Measuring the social mobility of apprentices who went to school outside the UK.** The study found that 25% of all Middlesex University apprentices (65% of Nursing Associates) went to school outside the UK. The Move on Up approach provides a starting point for consistently capturing socio-economic backgrounds of non-UK school individuals to help develop a benchmark to measure social mobility.

- **The validity of POLAR, IMD, FSM and other data sets for apprentices schooled overseas.** POLAR data does not identify or take account of people in areas that grew up in other countries and IMD data does not take account of social and economic deprivations experienced outside the UK. FSM eligibility was irrelevant for 25% of apprentices responding to the Move on Up survey, who went to school outside the UK. Better data and information about higher and degree apprentices schooled overseas is needed to inform a discussion of how to adapt Move on Up measures, or devise new ones relevant to their socio-economic backgrounds.
- **Improving how data is used could be tested in different contexts.** For example, where IMD data is used, it should link an apprentice's age to an IMD area/postcode measurement of historical deprivation at a specific time. This approach, as suggested by the Cabinet Office (2018a), is a means to improve the validity of postcode data for measuring disadvantage among employees.
- **Scale.** A smaller proportion of apprentices at any one institution are likely to respond to specific questions about, for example, migrant status, time in care or being a carer. As such this data may have little statistical value, though for individual apprentices these factors may compound any socio-economic disadvantage. However this data is (or could be) collected by providers on registration, to inform the design of individual learning plans and made available for comparative social mobility impact analysis. Such data may have more significant statistical value when used in analysis of social mobility impact across a number of providers and or with one or more employers, for example in a larger social mobility study of healthcare or police apprentices.
- **Evolve the Move on Up approach over time, to reflect societal changes and maintain validity and reliability.**

Free School Meals eligibility (for example) is only relevant to those who attended school in England after 1980. Other, as yet unknown, Free School Meals policy changes could also impact the reliability of this data. Occupations also change and may not always match official job role categories. The Move on Up study used the ONS 'Standard occupational classification' (2020) which had been updated since the Cabinet Office study (2019). However, 19 apprentices responding to the survey could not match their parental occupation to a standard occupational classification.

8. THE POTENTIAL FOR WIDER ACTION ON SOCIAL MOBILITY IN HIGHER EDUCATION

The analysis of literature reviewed in Chapter 2 of this report shows that there are significant problems to be found in relying on the use of geographical and other centrally collected data sets as proxies. Specifically, when proxies are used in measuring the socio-economic backgrounds of higher and degree apprentices and higher education entrants, particularly those who do not go straight to university at the age of 18 years, after completing GCSEs at 16 years.

The Move on Up study concentrated on measuring the social mobility impact of higher and degree apprenticeships at Middlesex University. Middlesex University is providing higher education learning opportunities for people from non-higher education and non-professional parental/guardian backgrounds that lead to a professional career through apprenticeships. In doing so we tested an approach that examined a range of available and individual socio-economic measures, as well as characteristics data gathered at registration. These approaches could be tested more widely in higher education beyond apprenticeship provision.

Policy makers, employers, universities, local communities and apprentices themselves are likely to have coinciding but also potentially different interests and purposes in considering apprentice social mobility and its impact. These might include actions to: increase the numbers of people from

disadvantaged backgrounds in the workforce (Civil Service, 2020); improve recruitment from 'different community groups in your local population, and understand how you can better engage with, recruit and retain people from these groups' (NHS employers 2021); supporting employees with disabilities through the Access to Work Scheme (UK Gov 2021); recognising that the police service needs to 'be more representative of the communities we serve' (NPCC 2016).

There is now a visible convergence of interest and approach in measuring apprentice participation and social mobility. There are divisions between the more centralised, proxy measure focussed approach (UCAS, OfS) and individualised approaches (apprenticeship providers and employers). Employers and higher education apprenticeship providers can reach apprentices in real time in a way that OfS and other national agencies currently cannot. Agreement to use a common set of ranked individual socio-economic measures would be achievable and bring benefits to all.

It is hoped that this study has highlighted the significant issues and concerns regarding the uses of proxy measures to determine social mobility impact and that it has also provided a tested potential solution. The study has demonstrated that individualised socio-economic measures used provide a more reliable and valid means of determining social mobility impact regarding apprentices at Middlesex University. The study has also highlighted a range of ways in which the approach tested in the study can have wider applicability to help higher education providers better demonstrate the impact their provision is making and to support better informed policy making.

9. CREATING A NEW MODEL FOR MEASURING THE SOCIAL MOBILITY IMPACT OF HIGHER AND DEGREE APPRENTICESHIPS:

Recommendations

1. Use Move on Up to develop a new model for measuring the social mobility impact of higher and degree apprenticeships, collaborating with higher education apprenticeships providers, across England.

Participating providers would be asked to:

- Incorporate Move on Up individual socio-economic measures into apprenticeship registration information.
- Compare data from individual socio-economic measures with other data sets, using a shared model of statistical factor analysis.
- Produce reports and analysis (subject to the same or similar privacy and data controls used in the Move on Up study) for comparison and discussion across participating providers.
- Share impact analysis to allow further higher level comparison across settings, contexts and employment sectors.
- Use higher level impact analysis to inform apprenticeship and social mobility policy at local, regional and national levels, across government agencies and departments with an interest.
- Collaborate to develop and refine the Move on Up model over time.

2. OfS should support a pilot to trial the Move on Up model, to establish evidence for its efficacy across a range of settings.
3. Involve employer sector organisations and higher education provider networks such as UVAC and UALL in developing collaborative Move on Up partnerships.
4. Focus on key areas of employment, such as healthcare, policing, digital, leadership and management to gather evidence of social mobility impact to inform policy.
5. OfS should collaborate with national employers engaged in ongoing social mobility studies, such as the People Survey (Civil Service 2020), and best practices by employers described in the Social Mobility Index (Social Mobility Commission 2020).
6. OfS should collaborate with IfATE, ESFA and Ofsted to establish a best practice guide to promote an effective and consistent means to gather and report on individual socio-economic information at the point of apprentice on-boarding.
7. Consideration should be given by UCAS to including the individual socio-economic measures used in the Move on Up study within the data gathered at the point of application to higher education, including apprenticeships.
8. End the reliance on proxy measures such as POLAR and IMD, to inform policy regarding the social mobility impact of higher and degree apprenticeships.

Self-declared social or economic obstacles:

Q - Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

Grew up in isolated location, step parents has mental health issues causing abuse, no housing security and constantly moving home between divorced parents, racial discrimination in later life, no stable family income requiring a move to a city, constantly changing schools and keeping no friends from childhood. I'm amazed how not fucked up I am.

REFERENCES

Anderson A. and Crawford-Lee, M. (2020) *Realising the Potential of Higher and Degree Apprenticeship in Supporting Social Mobility and the Levelling Up Agenda*, UVAC. Available at: https://uvac.ac.uk/wp-content/uploads/2020/09/UVAC-SocialMobility_PostCovid-29sep2020.pdf [Accessed January 10 2022]

Atherton, G., Boffey R., and Kazim T. (2019) 'Polar Opposite: How the targeting of learners for widening access to HE work could be improved. An AccessHE Report' <https://www.accesshe.ac.uk/yYdlx0u7/SBT2142-London-Higher-Polar-Opposite-Report-Design-v3.pdf> [Accessed December 1 2020]

Baron M. L. and Jones J. E. (2020) *Applied Social Science Approaches to Mixed Methods Research*, IGI Global

Bravenboer D. W. (2012) 'The Official Discourse of Fair Access to Higher Education', *Journal of Widening Participation and Lifelong Learning*, Special Issue in Volume 14: Discourses of Inclusion in Higher Education 2012:36:1, Open University

Britton J., Drayton, E., and Van der Erve, L. (2021) 'Which university degrees are best for intergenerational mobility?'. <https://ifs.org.uk/uploads/Which-university-degrees-are-best-for-intergenerational-mobility.pdf> [Accessed January 1 2022]

Department for Education (2013) 'Pupils not claiming free school meals: 2013' <https://www.gov.uk/government/publications/pupils-not-claiming-free-school-meals-2013> [Accessed October 24 2021]

Department for Education (2017) 'Higher Education and Research Act 2017' <https://www.legislation.gov.uk/ukpga/2017/29/contents/enacted> [Accessed February 14 2021]

Department for Education (2018) 'Schools, pupils and their characteristics: January 2018' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719226/Schools_Pupils_and_their_Characteristics_2018_Main_Text.pdf [Accessed March 21 2021]

Department for Education (2020) 'Destinations of key stage 4 and 5 students: 2019'. <https://www.gov.uk/government/statistics/destinations-key-stage-4-and-5-pupils-2019> [Accessed February 12 2021]

Department for Education (2021a) 'Skills for Jobs: Lifelong Learning for Opportunity and Growth'. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957856/Skills_for_jobs_lifelong_learning_for_opportunity_and_growth__web_version_.pdf [Accessed March 3 2021]

Department for Education (2021b) 'Apprenticeships and Traineeships, England: July 2020' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904415/Apprenticeships_and_traineeships_commentary_July2020.pdf [Accessed June 20 2021]

Department For Work and Pensions (2021) 'Access to Work factsheet for employers' <https://www.gov.uk/government/publications/access-to-work-guide-for-employers/access-to-work-factsheet-for-employers> [Accessed April 20 2021]

Durmaz A., Dursun I. and Kabadayi E. T. (2020) Mitigating the Effects of Social Desirability Bias in Self-Report Surveys: Classical and New Techniques, in Baron, M., L. and Jones, J., E. (2020) *Applied Social Science Approaches to Mixed Methods Research*, IGI Global

Education and Skills Funding Agency (ESFA) (2021) *Apprenticeship Funding Rules*, ESFA

Erikson, R., and Goldthorpe, J. (2009) 'Income and Class Mobility Between Generations in Great Britain: The Problem of Divergent Findings from the Data-sets of Birth Cohort Studies'. *Working Paper Series 4/2009*, Stockholm University, Swedish Institute for Social Research.

European Environment Agency (2020) 'EEA Glossary: proxy indicator' <https://www.eea.europa.eu/help/glossary/eea-glossary/proxy-indicator> [Accessed March 5 2021]

Friedman, S., Laurison, and D. Macmillan, L. (2017) 'Social Mobility, the Class Pay Gap and Intergenerational Worklessness: New Insights from The Labour Force Survey' <https://www.lse.ac.uk/business/consulting/assets/documents/social-mobility-the-class-pay-gap-and-intergenerational-worklessness.pdf> [Accessed March 3 2021]

Higher Education Funding Council for England (2005) 'Young participation in higher education'. https://webarchive.nationalarchives.gov.uk/20100303153555/http://www.hefce.ac.uk/pubs/hefce/2005/05_03/ [Accessed December 4 2020]

Higher Education Funding Council for England (2014) 'Further information on POLAR3: an analysis of geography, disadvantage and entrants to higher education'. <http://www.hefce.ac.uk/pubs/year/2014/201401/> [Accessed January 12 2021]

Tobin, J. (2021) *Inequalities of region and place*. House of Lords Debate 14 October 2021. Library Briefing October 8 2021

Jerrim, J. (2021) *Measuring Disadvantage*. London: The Sutton Trust

Joshi H., Fitzsimons E. (2016) 'The Millennium Cohort Study: the making of a multi-purpose resource for social science and policy'. *Longitudinal and Life Course Studies* 7 (4).

Lester S., and Bravenboer D. (2020) *Sustainable Degree Apprenticeships*, Middlesex University

Lindley, J., and Machin, S. (2011) 'Rising Wage Inequality and Postgraduate Education'. *CEP Discussion Papers dp1075*, Centre for Economic Performance, London School of Economics.

Middlesex University (2021) 'Move On Up? Measuring the Social Mobility Impact of Apprenticeships' https://www.mdx.ac.uk/__data/assets/pdf_file/0022/600583/MDX_Move-on-Up_Early-findings_For-screen_AW.pdf [Accessed February 8 2021]

Ministry of Housing, Communities and Local Government (2019) 'The English Indices of Deprivation 2019 (IoD2019)' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835115/IoD2019_Statistical_Release.pdf [Accessed January 14 2022]

Murphy, H., and Jones, E. (2021) *Apprenticeships at Level 4 and above*. Leicester: Learning and Work Institute.

National Health Service (2021) 'Measuring up: your community and your workforce' <https://www.nhsmeasuringup.co.uk> [Accessed March 14 2021]

National Police Chief's Council (NPCC) (2016) *Policing Vision 2025*, NPCC

OECD (2010) 'Economic Policy Reforms Going for Growth; Part 2 Chapter 5 A Family Affair: Intergenerational Social Mobility across OECD Countries' <https://www.oecd.org/centrodemexico/medios/44582910.pdf> [Accessed March 4 2021]

Office for National Statistics (2020) 'SOC 2020 Volume 1: structure and descriptions of unit groups' <https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2020/soc2020volume1structureanddescriptionsofunitgroups> [Accessed March 10 2021]

Office for Students (2019a) 'Analysis of level 6 and 7 apprenticeships'. <https://www.officeforstudents.org.uk/media/90ca0139-1690-436d-a730-76941a59497a/analysis-of-level-6-and-7-apprenticeships.pdf> [Accessed December 11 2020]

Office for Students (2019b) 'Degree apprenticeships: A viable alternative?' <https://www.officeforstudents.org.uk/publications/degree-apprenticeships-a-viable-alternative/> [Accessed November 24 2020]

Office for Students (2021a) *Frequently Asked Questions about area-based measures (POLAR and TUNDRA)* <https://www.officeforstudents.org.uk/media/3f1479d3-d144-4adb-b3c7-a6df6f996b27/polar-and-tundra-faqs-september-2019.pdf> [Accessed January 21 2021]

Office for Students (2021b) 'Access and participation data dashboard'. <https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/> [Accessed January 21 2021]

Office for Students (2021c) 'Income is important for fair access, but so is place'. <https://www.officeforstudents.org.uk/news-blog-and-events/blog/income-is-important-for-fair-access-but-so-is-place/>

Office for Students (2021d) 'Young Participation by Area'. <https://www.officeforstudents.org.uk/data-and-analysis/young-participation-by-area/search-by-postcode/> [Accessed February 4 2021]

Office for Students (2021e) 'Associations between characteristics of students'. <https://www.officeforstudents.org.uk/data-and-analysis/associations-between-characteristics-of-students/> [Accessed April 20 2021]

Phoenix, D. (2021) 'Designing an English Social Mobility Index'. HEPI Discussion paper 27. <https://www.hepi.ac.uk/wp-content/uploads/2021/03/Designing-an-English-Social-Mobility-Index-1.pdf> [Accessed April 1 2021]

Plewis, I., Calderwood C., Hawkes D., Nathan G. (2004) 'National Child Development Study and 1970 British Cohort Study Technical Report: Changes in the NCDS and BCS70 Populations and Samples Over Time.' *Medicine*, October 1 2004.

QAA (2019) 'Characteristics Statement Higher Education in Apprenticeships'. <https://www.qaa.ac.uk/docs/qaa/quality-code/characteristics-statement-apprenticeships.pdf> [Accessed June 20 2021]

Russell Group (2020) 'Pathways For Potential: How universities, regulators and Government can tackle educational inequality' <https://russellgroup.ac.uk/policy/publications/pathways-for-potential-how-universities-regulators-and-government-can-tackle-educational-inequality/> [Accessed May 20 2021]

Shearer, E., Shepley P., Soter, T. (2021) 'Levelling up: Five questions about what the government means by the phrase'. <https://www.instituteforgovernment.org.uk/sites/default/files/publications/levelling-up.pdf> [Accessed January 15 2022]

continues 

Social Mobility Commission (2019) 'State of the Nation 2018-19: Social Mobility in Great Britain' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798404/SMC_State_of_the_Nation_Report_2018-19.pdf [Accessed January 4 2021]

Social Mobility Commission (2020) 'Definition of social mobility'. <https://www.gov.uk/government/organisations/social-mobility-commission/about#definition-of-social-mobility> [Accessed November 18 2020]

Social Mobility Commission (2021) 'Cross-industry toolkit for employers'. <https://socialmobilityworks.org/toolkit/measurement/#data> [Accessed June 12 2021]

Social Mobility Foundation (2021) 'Social Mobility Employer Index'. <https://www.socialmobility.org.uk/index/> [Accessed July 21 2021]

Taylor, M. and Flaherty, C. (2020), 'Nursing associate apprenticeship – a descriptive case study narrative of impact, innovation and quality improvement', *Higher Education, Skills and Work-Based Learning*, Vol. 10 No. 5, pp. 751-766. <https://doi.org/10.1108/HESWBL-05-2020-0105>

UCAS (2015) 'End of Cycle Report'. <https://www.ucas.com/file/43181/download?token=lnUjPHdK> [Accessed February 11 2021]

UCAS (2018) *MEM – technical report*. London: UCAS.

UCAS (2021a) 'Contextualised Admissions'. <https://www.ucas.com/file/86786/download?token=zVfQ-oho> [Accessed April 20 2021]

UCAS (2021b) *Students in receipt of free school meals (FSM)*, UCAS. Available at: <https://www.ucas.com/providers/good-practice/emerging-cohorts/students-receipt-free-school-meals-fsm>

UCAS and HEE (2021c) *Next Steps: Who Are The 'Future Nurses'?*, UCAS

UCAS (2022) 'Student Bursaries, Scholarships, And Financial Support' <https://www.ucas.com/advisers/guides-teachers/help-your-students-get-uni/student-bursaries-scholarships-and-financial-support> [Accessed January 19 2022]

Universities UK (2016) 'Working In Partnership: Enabling Social Mobility In Higher Education'. <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2016/working-in-partnership-final.pdf> [Accessed December 1 2020]

Universities UK (2019) 'The uses and limits of Longitudinal Educational Outcome (LEO) data' <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/uses-and-limits-of-leo-data.aspx> [Accessed January 30 2021]

UK Government (2017) 'Higher Education and Research Act 2017'. <https://www.legislation.gov.uk/ukpga/2017/29/contents> [Accessed January 12 2021]

UK Government Cabinet Office (2016) *Engagement Document: Developing a Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants*. London: UK Government Cabinet Office.

UK Government Cabinet Office (2018a) 'Annex A - Evaluation of measures of socio-economic background'. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713739/Annex_A-Evaluation_of_measures_of_socio-economic_background.pdf [Accessed November 18 2020]

UK Government Cabinet Office (2018b) 'Measuring Socio-economic Background in your Workforce: recommended measures for use by employers'. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/768371/Measuring_Socio-economic_Background_in_your_Workforce__recommended_measures_for_use_by_employers.pdf [Accessed November 18 2020]

UK Government Cabinet Office (2021) 'Civil Service People Survey: 2020 results'. <https://www.gov.uk/government/publications/civil-service-people-survey-2020-results> [Accessed July 7 2021]

Williams C. and Hanson, W. (2011) *Higher Apprenticeships and Professional Bodies*, PARN

Williams C., Hanson, W., & Friedman, A. (2012). *Becoming a Professional: New Ways of Entering the Professions*. PARN.

Williamson, G. (2021) 'Guidance to the Office for Students - Secretary of State's strategic priorities (February 2021)' <https://www.officeforstudents.org.uk/media/48277145-4cf3-497f-b9b7-b13fdf16f46b/ofs-strategic-guidance-20210208.pdf> [Accessed March 15 2021]

APPENDIX A – MOVE ON UP APPRENTICE SURVEY INVITATION AND QUESTIONS

INTRODUCTION

Do apprenticeships reach people who are less likely to go to university - and into professions? We need you to help us find out.

We are asking you, as an apprentice at Middlesex University, to tell us about your social and economic background, by answering 4 simple 'tick-box' questions. And whatever your background, we want you to tell us about any social or economic obstacles you feel you faced, in getting onto an apprenticeship.

Our short survey will take you about 10 minutes to complete.

WHY IS THIS SURVEY SO IMPORTANT?

Opening up opportunities in the workplace is crucial if we are to break down barriers to employment and improve social mobility. Responding to this survey will help the work to make apprenticeships more inclusive.

The government wants to recruit 50,000 more nurses and 20,000 more police constables. We need more diversity in our police forces. We need to see more health and social care support staff – and other people with life experience - progressing into nursing and other health professions. We need to see greater diversity in a wide range of public and private sector professions. Working with employers, Middlesex University needs to proactively help to recruit that diverse workforce.

Whatever your background, we would like you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship.

Your answers will be only be accessible to members of our small team. Data is encrypted and stored securely. Reports from the survey data and any stories you tell us will be anonymised in our report. We will ask for your consent to access and use your data on these specific terms, when you respond to the survey.

We know you will be really busy at this time of year but we need at least 400 apprentices to respond – please help.

As a thank you, we are giving away £25 vouchers to four randomly selected respondents.

The survey closes at midnight on Sunday 17th January 2021.

Feedback is always considered with Data Protection Laws and guidelines of Middlesex University and for any additional comments you provide, please ensure that you do not name any individuals or provide descriptions which might lead to the identification of any apprentice or other individual. This survey is not intended to capture any information that could lead to individuals or companies being identified. If any such information is provided which could lead to an individual or company being identified, the University will redact it from the survey response.

CONSENT

The researcher requests your consent for participation in the Move on Up? study, which is about Social Mobility and the socio-economic background of higher and degree apprentices at Middlesex University, 2020-21. This consent form asks you to allow the researcher to use your survey responses to enhance understanding of the topic.

Participation in this study is completely voluntary. If you decide not to participate there will not be any negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

The researcher will maintain the confidentiality of the research records or data, and all data will be destroyed on February 28th 2021.

By submitting this form you are indicating that you have read the description of the study, are over the age of 18, and that you agree to the terms as described.

If you have any questions, would like to withdraw after completion of the survey, or would like a copy of this consent letter, please contact me at...

DEFAULT QUESTION BLOCK

I agree to participate in the research study. I understand the purpose and nature of this study and I am participating voluntarily and no information will be disclosed that could identify me personally. I understand that I can withdraw from the study at any time, without any penalty or consequences.

Yes / No

I grant permission for the data generated from this survey to be used in the researcher's publications on this topic.

Yes / No

QUESTIONS

What type of school did you mainly attend between the ages of 11 and 16?

- State-run or state-funded school - selective on academic, faith or other grounds
- State-run or state-funded school - non-selective/comprehensive
- Independent or fee-paying school - bursary
Independent or fee-paying school - no bursary
Attended school outside the UK
- Don't know
- Prefer not to say Other
- If other, please specify

What is the highest level of qualifications achieved by either of your parent(s) or guardian(s) by the time you were 18?

- At least one has a degree level qualification
Qualifications below degree level
- No formal qualifications
- Don't know
- Not applicable Prefer not to say Other
- If other, please specify

Thinking back to when you were aged about 14, which best describes the sort of work the main/ highest income earner in your household did in their main job?

- Managers, directors and senior officials e.g. corporate managers and directors
- Professional occupations e.g. science, research, engineering and technology professionals, health professionals, teaching, business, media and public service professionals
- Associate professional occupations e.g. science, engineering and technology associate professionals, health and social care associate professionals, protective service occupations, culture, media and sports occupations, business and public service associate professionals
- Administrative and secretarial occupations e.g. finance, records, officer manager
- Skilled trades occupations e.g. skilled agricultural and related trades, skilled metal, electrical and electronic trades, skilled construction and building trades, textiles, printing and other skilled trades
- Process, plant and machine operatives e.g. metal working machine operatives, construction operatives, production, assemblers and routine operatives, factory and assembly supervisors
- Sales and customer service occupations e.g. sales assistant, shopkeeper, sales supervisor, customer services
- Elementary occupations e.g. farm, forestry, fishing and other elementary agriculture occupations, groundworkers, industrial cleaning process occupations
- Not working Retired
- Prefer not to say Don't know Other
- If other, please specify

Thinking back to when you were aged about 14, did the main/highest income earner in your household work as an employee or self-employed?

- Employee
- Self-employed with employees Self-employed/freelancer without employees Not working
- Don't know
- Not applicable
- Prefer not to say

continues →

If the highest income earner in your household was employed when you were aged 14, how many people worked for their employer? If they were self-employed and employed other people, how many people did they employ?

- 1-24
- 25 or more
- Don't know
- Not applicable
- Prefer not to say

If the highest income earner in your household was employed when you were aged 14, did they supervise any other employees? A supervisor is responsible for overseeing the work of other employees on a day-to-day basis.

- Yes
- No
- Don't know
- Not applicable
- Prefer not to say

If you finished school after 1980, were you eligible for Free School Meals at any point during your school years? It does not include those who receive meals at school through other means (e.g. boarding school).

- Yes
- No
- Don't Know
- Not applicable (you finished school before 1980 or went to school overseas)
- Prefer not to say

Compared to people in general, would you describe yourself as coming from a lower socio-economic background?

- Yes
- No
- Don't know
- Prefer not to say

Whatever your background, could you tell us about any social or economic obstacles you feel you faced, in getting onto your apprenticeship?

These are examples only: When you were growing up, were there any physical or mental health issues in the family? Did you have a secure place to live? Did you or your family experience any discrimination? Was the family income regular and stable? Did any social or economic obstacles you may have experienced, affect your education?

APPENDIX B – COMPARISONS WITH THE WIDER HIGHER EDUCATION POPULATION

Using data drawn from the OfS Access and Participation dashboard⁹ we are able to compare the identified protected characteristics, POLAR, IMD and FSM profiles of higher education students in England with the wider group of Middlesex students. These profiles can also be compared with the profile of Middlesex apprentices within the Move on Up study full sample group.

Table 4

Comparison of the protected characteristics profile of all English HE Provider students, Middlesex students and Middlesex apprentices

	English HEP students	Middlesex students	Middlesex apprentices
BAME	29%	61%	47%
Female	56%	59%	53%
Age - 21+	30%	38%	93%
Declared disability	17%	11%	7%

This comparison indicates that Middlesex has more than double the national percentage of BAME students (60.5%) and that this is reflected in the high proportion of BAME apprentices at Middlesex (47%) although the proportion is lower. The proportion of female Middlesex students is also slightly higher than for apprentices, although across all categories female participation is over 50%. The age profiles of students and apprentices indicates a very significant difference regarding the national proportion of 21+ students (30.2%) and the higher proportion at Middlesex (37.6%) when compared with the 93% for Middlesex apprentices. However, the percentage Middlesex students who declared disability is lower than the national percentage and this difference is more starkly indicated by the comparatively low percentage of Middlesex apprentices who have declared disability (7%).

Table 5

Comparison of the POLAR profile of all English HE Provider students, Middlesex students and Middlesex apprentices

POLAR Quintile	English HEP students	Middlesex students	Middlesex apprentices
1	12%	4%	12%
2	16%	7%	14%
3	19%	19%	19%
4	23%	37%	29%
5	30%	36%	26%

Table 6

Comparison of the IMD profile of all English HE Provider students, Middlesex students and Middlesex apprentices

IMD Quintile	English HEP students	Middlesex students	Middlesex apprentices
1	22%	24%	15%
2	21%	34%	23%
3	19%	26%	20%
4	19%	13%	19%
5	20%	8%	23%

9. The data represents the profile of entrants for the 2019/20 year, which at the time of writing is the most current dataset available on the OfS Access and Participation Dashboard. Percentages have been rounded.

The comparison of POLAR and IMD data across all English higher education providers, the Middlesex University undergraduate student population and Middlesex University apprentices in the full sample group highlights a number of significant but potentially conflicting factors. The POLAR profile of Middlesex students indicates a significantly lower proportion in the lowest higher education participation quintiles (4%) and a higher proportion in the higher participation quintiles (36%). However, this is not reflected in the POLAR profile for Middlesex apprentices, which more closely reflects the national profile. It is possible that the profile of Middlesex students is affected by the limited reliability of POLAR as an indicator in dense urban location, such as London. It is also possible that the POLAR profile of Middlesex apprentices is affected by the fact that 49% of survey respondents are undertaking the Police Constable degree apprenticeship employed by Surrey, Sussex and Hampshire police forces.

However, the comparison across national, Middlesex student and Middlesex apprentice IMD profiles does not reflect the POLAR pattern. While the proportion of Middlesex students from the most deprived areas (24%) is slightly higher than that of undergraduate students nationally (22%), the proportion of Middlesex apprentices in this category is significantly lower (15%). Furthermore, while the proportion of Middlesex students in the least deprived IMD areas (8%) is significantly lower than the national profile (20%), for Middlesex apprentices it is higher (23%).

The correlation between POLAR and IMD profiles for Middlesex students is counter-intuitive as we might expect the proportion of students from the most deprived areas to reflect the lowest levels of higher education participation. However, the comparison between POLAR and IMD data for Middlesex University students does not indicate any such alignment. Rather, it seems POLAR and IMD profiles for Middlesex students are in reverse proportions so that while 24% of Middlesex students are from the most deprived (IMD) areas, only 4% are from the lowest higher education participation (POLAR) areas. Similarly, while only 8% of Middlesex students are from the least deprived (IMD) areas, 33% are from the highest higher education participation (POLAR) areas.

This counter-intuitive relationship between IMD and POLAR data for Middlesex students may again indicate the limitations of using these measures with dense urban environments, such as London. Nonetheless, it is still surprising that the extent to which IMD and POLAR are negatively correlated but perhaps this further demonstrates the limited validity and reliability of using such measures to indicate social mobility impact.

Table 7
Comparison of the FSM profile of all English HE Provider students, Middlesex students

	English HEP students	Middlesex students
Eligible for FSM	18%	40%

The Move on Up study did not have access to Free School Meals data for the full sample group of Middlesex apprentices but the comparison with the national profile of students indicates that more than twice the proportion of Middlesex students are eligible for Free School Meals.



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