Department for Education

Post-16 Pathways: Analysis of routes and groups

Research report

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Kathryn Duckworth, Andy Ross, and Carrie Harding: Verian

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Glossary and Acronyms

Table 1: Glossary and acronyms

Term	Acronym	Definition
Non-HE cohort / Non-immediate HE cohort		The cohort of young people in this report who do not go straight into university after completing Year 13 at school. Individuals in this group might enter university later, but do not follow the 'traditional', standard, linear academic route into Higher Education: GCSEs at the end of KS4 in the school system, A-levels for two years at a school sixth-form or other FE college and then immediate participation in a degree course at an HE institution.
Eligible for free school meals	FSM	Children and young people in the UK are usually eligible for free school meals if their parents or carers are on a low income or in receipt of certain benefits. Our measure of FSM was measured in Spring 2014 and indicates whether, up to that point (age 13/14), the young person had been eligible for free school meals in the last six years.
Further Education	FE	The term FE refers to post-compulsory or pre-university education in the UK and is also used to refer to FE colleges with the power to award certificates at Level 3 or below for people over the age of 16.
Full-time Education	FTED	The abbreviation used in the current report to refer to full-time education.
Higher Education	HE	HE is a non-compulsory level of education that refers to a set of institutions with degree awarding powers, namely at Level 4 and above. Level 4 includes the first year of a Higher Level NVQ, a Foundation Degree, an Undergraduate Degree or a Level 4 BTEC qualification.
Income Deprivation Affecting Children Index	IDACI	The IDACI measures socioeconomic circumstances at the local area level.
Individualised Learner Record	ILR	The Individualised Learner Record is the primary data collection capturing further education and work-based learning in England.
Key Stage 2	KS2	Key Stage 2 is the term for the four years of schooling in maintained schools in England and Wales normally known as Year 3, Year 4, Year 5 and Year 6, when the pupils are aged between 7 and 11 years.

Term	Acronym	Definition
Key Stage 4	KS4	Key Stage 4 is the term for the two years of school education which incorporate GCSEs, and other examinations, in maintained schools in England normally known as Year 10 and Year 11, when pupils are aged between 14 and 16 by August 31.
Longitudinal Study of Young People in England 2	LSYPE2	The LSYPE2 is a large-scale panel study which follows young people who were aged 13/14 in 2013 on an annual basis.
Not in Education, Employment or Training	NEET	Young People Not in Education, Employment or Training
National Pupil Database	NPD	The National Pupil Database is a database controlled by the Department for Education in England, based on multiple data collections from individuals aged 2-21 in state funded education. Data are matched using pupil names, dates of birth and other personal and school characteristics. Personal details are linked to pupils' attainment and exam results over a lifetime school attendance.
Raising of the Participation Age	RPA	The Education and Skills Act 2008 legislated to increase the age of compulsory participation in education or training to age 18 by 2015 for those born after 1 September 2017, and with an interim leaving age of 17 from 2013.
Relative Risk Ratio	RRR	The relative risk is the ratio of two probabilities: the probability of an event occurring in a “treatment” group - our different pathway groups - compared to the probability of the same event occurring in a “control” or reference group. Where the RRR value is less than 1, the event is less likely to occur in the treatment group; where it is equal to 1 it is equally likely to occur in both groups; and where it is greater than 1 it is more likely to occur in the treatment group.
Young Person	YP	Abbreviation used to refer to young people.

Executive Summary

This report is based on the rich data available in the second cohort of the Longitudinal Study of Young People in England (LSYPE2) and examines the 'alternative' post-16 pathways of young people who do not enter university immediately upon finishing school or college at age 17/18. This group has been referred to as the "forgotten middle" (Roberts, 2013). Our interest lies in describing their transitions in detail, understanding which pathways are the most common, who is following them, and exploring whether it is possible to predict which young people diverge from the traditional university route immediately after Year 13, either by choice or through being filtered differentially by the education system.

Key Findings

The report addresses three broad research aims.

What are the main, broad brush activities of young people between the age of 16 and 20?

When young people were 20, just over a quarter (25.9%) of the LSYPE2 cohort were classified as being part of the group of young people who leave school or college and proceed straight into Higher Education (HE), the "Direct to University" group. So, what of the rest, 'less academic cohort'?

An overview of their broad, four-year transitions between September 2015 and October 2019 indicates that the vast majority were making positive transitions, either moving into HE (at a slightly slower pace), the labour market and/or vocational training.

At the beginning of Year 12, when young people were aged 16, most remained in full-time education (87%) or had started apprenticeships or other vocational training courses (6%). Four years on when they were aged 20:

- the vast majority had left full-time, non-degree education and the proportion in full-time employment had grown to nearly half, 47%;
- almost one in five (18%) of this cohort had moved into HE; and
- 8% were doing apprenticeships but are a different group to those who were doing them at age 16/17, with the vast majority of those young people having moved into gainful employment.

However, there is also evidence to suggest that not all young people are starting their post-16 transitions in the same way when explored at age 19/20:

- a small proportion (6%) remained in full-time, non-degree education;
- around 8% were not in education, employment or training (NEET);
- a further 9% appeared to be in a holding pattern: travelling, waiting for results or jobs to start, or otherwise taking a break;
- and a very small group (2%) were predominantly at home with family or childcare responsibilities or were themselves ill or disabled.

Together these young people make up a quarter of those not moving straight into university at age 18 and while none of these economic states are in any way deterministic of poorer outcomes in the future, having entered these activities they are certainly at greater risk of remaining stuck in them, particularly those who are NEET, and experiencing the associated longer-term, poorer outcomes.

Understanding who is in each of these potentially less advantageous groups and the patterns of activity that led them there are important in ensuring that all individuals are given the best opportunities to reach their full potential.

What are the patterns of transition between different activity states?

Detailed analysis of the month-to-month activities across the four-year period, supplemented with information from the rich LSYPE2 data regarding any additional qualifications being undertaken, yielded nine distinct pathways across the non-immediate HE cohort. Four big groups dominate the clustering:

- the largest single group is those on **full-time education (FTED) into Employment pathways** (28%): transitions marked, predominantly, by two years of full-time education, followed by two years of consistent employment;
- young people on **Delayed University pathways** (18%): those starting university at age 19/20, one year later than the Direct to University group (who entered HE at age 18/19 and remained there);
- **Apprenticeships & Training pathways** (19%): individuals who spend a minimum of six continuous months[1] either enrolled on an apprenticeship or other training programmes during the four-year window, in combination with FTED and/or employment;
- **Extended, non-degree FTED routes** (16%): young people who spend the majority of the four years post-16 in full-time, non-university education.

[1] We recognise that most apprenticeships for 16-18 year olds during this period would have been for a minimum of 12 months. Indeed, the majority of young people in this pathway cluster (85.7%) did spend at least 12 months in apprenticeships, but this lower limit allows for those engaged in other forms of continuous training to be included here.

Adding to our understanding of young adult pathways, the analysis also draws out some additional post-16 routes not previously identified in other research: different types of NEET groups; young people on slightly delayed routes to university, as well as those who appear not to complete their initial university course.

Reflecting the broad overview of pathways from age 16 to 20, the vast majority of young people are again observed as experiencing largely positive routes out of compulsory schooling.

However, we still find that just under one in five young people (18%) are identified as being on less advantageous, or potentially at-risk, tracks: FTED into NEET (8%); Other NEETs[2] (1%); University Non-Completers (6%); and those predominantly At Home (2%).

What are the personal characteristics that influence, or hinder, the different routes taken by young people during this period?

Looking across the nine pathways identified just in terms of the general pattern of activity observed, there are a number of seemingly emergent groupings that fit with broad policy themes:

- vocational tracks
- alternative university pathways
- different kinds of NEET groups
- extended full-time, non-degree education routes
- potentially at-risk groups

However, both descriptively and in terms of the multivariate regression analyses, there are clear differences in the profiles of young people on the various post-16 tracks within these thematic groups. This suggests there are potentially quite different protective factors and / or barriers influencing and hindering participation in the transition to adulthood as described below.

Vocational tracks

One very similar set of transitions are for young people on **Apprenticeships & Training** pathways and those following a more employment-based route, the **FTED into Employment** group. Together, these two groups make up 47% of the non-immediate HE cohort and reflect fairly smooth post-16 transitions.

[2] Other NEETs are young people who are not economically active but are not actively seeking work.

In terms of their socioeconomic circumstances, experiences and behaviours, and levels of prior achievement, both groups are remarkably similar. Where they differ is in terms of their educational attitudes and aspirations: young people following the apprenticeship route are more likely to have clear aspirations to do so from an early age (both the young people themselves and their parents' plans for them) and have a slightly more positive attitude towards school, possibly linked to a preference towards further training rather than entering the labour market immediately. They are also more likely to be younger for their year group.

Delayed tracks

Around one in five (18%) of the non-immediate HE cohort delay the start of university by a year, either to improve their grades, i.e. remain in full-time non-HE education, work or take a break from studying. Those on these **Delayed University** tracks are more likely to be female than those in the FTED into Employment reference group, are less likely to have received special educational needs[3] (SEN) provision at school, come from more socioeconomically advantaged homes (older, more educated mothers, and less likely to have lived in a single parent household), want to apply for university, have more positive attitudes towards school, and are more likely to seek out advice from teachers regarding their plans to study in the future.

Compared to those in the FTED into Employment group, young people on these slightly delayed paths also have higher KS4 achievement, both in terms of their overall key stage 4 (KS4) points score and the likelihood of achieving A* – C grades in both English and maths. By contrast, KS4 achievement is lower when compared to those on the Direct to University track, possibly reflecting their need to improve some results along the way.

Young People on **Other NEET** pathways – those that are economically inactive but do not report looking for work, have caring responsibilities or illness/disabilities – may also be on delayed tracks. Statistically, they differ from those on FTED into Employment routes only in terms of having been more likely to experience earlier episodes of paid work and having lower overall KS4 achievement. While constituting only 1% of the overall non-immediate HE cohort, they do, however, appear quite different from the two other categories of NEET youth and so may require different kinds of support to ensure they are able to reach their full potential. It may also be that this small but important population simply need more time and support to embark on their post-school phase.

[3] Our indicator of special educational needs is a binary indicator of whether or not the young person was in receipt of SEN provision or not and does not include detail on the type of provision received. See Duckworth, Ross & Harding (2025) for further detail on young adult outcomes for pupils who received different levels of SEN provision.

Trying, but possibly struggling

Young people in both the **Extended FTED (non-degree), Returners** and **University Non-Completers** groups appear to be trying hard to succeed but in practice may be struggling to realise their plans and require more support to get a firm grasp on their next steps.

Young people in the **Extended FTED (non-degree)** group have a greater likelihood of having a parent-reported long-standing illness or disability (LSID) expected to last until at least age 16 and having been in receipt of special educational needs provision (SEN)at age 13/14 than those on FTED into Employment tracks which could underpin their more protracted non-HE educational pathways. They are younger for their year, less likely to have truanted and planned to apply to HE at some point in the future. Interestingly, controlling for other factors, this group come from more educated households than those in the predominantly employment focussed tracks, but also more economically disadvantaged backgrounds (that is, more likely to have been in receipt of Free School Meals).

The small group of **Returners** - those who also spend long periods in full-time non-degree education post-16 but separated by continuous blocks of other activities, typically employment, also had higher incidences of LSID and receipt of SEN compared to those in the FTED into Employment reference category. They were more likely to have wanted to leave school at 16 to start working and to report that the RPA changes affected their plans, despite expressing higher than average ambitions at age 13/14 to apply to university and coming from more educated households. They also experience slightly higher levels of psychological distress, are less likely to equate hard work with success and have a lower Locus of Control but outperform those on more drawn out tracks academically at KS4, possibly giving them more opportunity to return to education when/if they decide to.

Those who started but do not appear to complete HE tracks – the **University Non-Completers** - are similar in some respects to those on Delayed University tracks: they are more likely than the FTED into Employment reference group to want to apply to university at some point; more likely to have had an LSID and to be summer born; as well as come from slightly more advantaged areas. Non-Completers also have higher levels of psychological distress measured at age 14/15 which may impede the transition to university life.

Compared to those who move straight into university and remain there[4], Non-Completers are more likely to be male and come from less educated households. There also seems to be greater levels of indecision around post-16 plans between these two groups: Non-Completers - and their parents - are more likely to want to

[4] At least for the first two years they are observed in these data.

pursue other options[5] than staying on in at 16 in a school sixth form suggesting that a lack of clarity about future study might be a risk factor for some young people. This is particularly noteworthy given that those on Delayed HE tracks show similar wide ranging post-16 aspirations but are more likely to have discussed plans with their teachers.

Potentially At-Risk groups

Separating out the NEET group into three distinct types provides a far more nuanced picture of this widely accepted at-risk group: the **Other NEETs** do not differ substantially from those on FTED into Employment tracks, while the **FTED into NEET** group and those **At Home** show greater signs of potential vulnerability.

These latter two groups are more likely to have been in receipt of SEN provision at school, have poorer overall achievement, and come from more socioeconomically disadvantaged households than young people in the FTED into Employment reference group. However, their personal characteristics, educational attitudes and experiences are quite different: FTED into NEET youth have, on average, a less positive attitude towards school, are more likely to have truanted and engaged in risky behaviour, and are less likely to have had prior work experience, possibly indicating lower overall engagement and/or motivation compared to those in the FTED into Employment group, despite an acknowledgment that success is equated with hard work; those At Home are more likely to be female, have an LSID, live in areas of greater deprivation, and are more likely to agree that the raised participation age (RPA) changes affected their age 16 plans.

Interestingly, controlling for other characteristics, both groups stated in Year 9 that it was more likely they would apply to university than did those in the FTED into Employment group. It is possible that they had aspirations they were unable to fulfil – higher incidence of receiving SEN provision, socioeconomic factors, and, for those At Home, experience of bullying. It might also be the case that young people destined for the FTED into Employment group were simply more certain about their post-school ambitions than other young people.

Conclusions

Overall, our analysis shows the full diversity of the non-direct to university cohort in the first four years post-16 and sets out a broader range of potential routes at this critical juncture than in previous research. By considering the monthly activity histories of young people alongside reports of additional qualifications being undertaken rather than a single indicator of what individuals report as their main economic activity measured annually, our analysis captures the minutiae of different

[5] For example, staying on at a college or other institution, do an apprenticeship or do something else.

types of transitions and highlights some of the more vulnerable pathways which arguably do not get as much exposure or comparison as others. In doing so, the findings help us think about post-16 educational tracks and qualifications pathways holistically as a system for all young people, rather than in isolation.

This analysis underpins a second report which focuses on the differential educational, material, employment and wellbeing outcomes for each of the pathway groups at age 19/20. Our second report addresses questions about levels and types of outcomes for young people on different pathways – not only in relation to their material status (what they are able to afford) but also their psychological health and life satisfaction, all of which are success indicators of the education system.

Chapter 1 Introduction

"Most young people, especially those who do not follow an academic route, are 'overlooked'".

(House of Lords Paper 120, 2016)

Background

Increasing participation in education has been of considerable policy importance across successive governments. Accordingly, much of the research on post-16 transitions has focused on those who leave school and go straight onto university, and the important factors and routes that led them there, as well as the 50 per cent who participate in Higher Education (HE) by age 30 (DfE, 2019).

There has, however, been relatively less analysis focused directly on "the rest" (Augar, 2019, p.5): those who choose, or are driven towards, non-university pathways. Augar's review of post-18 education and funding (*op cit*) focuses on this group of 18-30 year olds who do not go to university and provides an objective assessment of the status of tertiary education in England, setting out remedies to addressing issues inherent within the system as well as identifying areas where it could be improved. Understanding in detail who this "other 50 per cent" are, however, remains a core element of such reform.

The current Government is further prioritising post-16 pathways in developing a skills system that is fit for the future and aligned to a forthcoming Industrial Strategy. This is seen as essential to delivering all five of the Government's missions: growing the economy, securing an NHS fit for the future, creating safer streets, breaking down barriers to opportunity, and making Britain a clean energy superpower.

Table 2 gives an overview of the main activities of young people in the Longitudinal Study of Young People in England's second cohort (LSYPE2) in 2017/18 when they were aged 18/19 - the first year it was possible for this cohort to start university - and indicates that 28.1% of them fall into this immediate, post-school university group. This is comparable with the national figures for 2017/18 which show that initial participation was 28.6% amongst 18 year olds, up 0.6 percentage points from the previous year (DfE, 2019).

So, what of the rest, "the forgotten middle" (Roberts, 2013)?

Three in ten (29.3%) entered the labour market; one in six young people (16.4%) continued on in other forms of non-university, full-time education; over 15% of young people were classified as not in education, employment or training, the so-called

NEET group, and around 8% were doing apprenticeships or other forms of training. Together they make up over 70% of the sample, yet far less is known about who this 'non-immediate' HE group are and how they got there in comparison with those following a more traditional academic route of immediate progression from GCSEs to A-Levels to Degree.

Table 2: Current main activity of LSYPE2 young people age18/19 (wave 6)

Summarised Main Economic Activity	%
Employed	29.3
University	28.1
Other full-time education	16.4
NEET[6]	15.8
Apprenticeship	6.0
Other Economically Inactive[7]	1.9
Other Training	1.8
Not defined	0.7
Total	**100**

Source: LSYPE2 wave 6 (weighted)

This report focuses on the pathways of these other young people. Our interest lies in describing their transitions in detail, who is following them, and exploring whether it is possible to predict which young people diverge from the traditional 'direct to university' route immediately after Year 13 either through choice or through being filtered onto different tracks by the education system.

We address three broad research aims:

- What are the main activities of young people between the age of 16 and 20 in the years 2015 to 2019?
- What are the patterns of transition between different activity states?

[6] Unemployed and looking for work; Taking a break from work or study; Waiting for a course or job to start; Waiting for exam or course results; Waiting to hear the result of a job application; Looking for a training course.
[7] Looking after the family and home full-time; Travelling; Ill or disabled and unable to work.

- What are the personal characteristics (such as attitudes, aspirations, prior attainment, and previous experience in the labour market) and social backgrounds (family background and local area) that influence, or hinder, the different routes taken by young people during this period?

Existing Evidence

Annualised post-16 transitions

The Department for Education (DfE) publishes statistics on the participation rates and activity destinations of students reaching the end of study at Key Stage 4 (KS4) when young people are aged 16-18. Data for the academic year 2014/15, when the LSYPE2 cohort were in Year 11, indicates that overall participation rates were very high but that young people not in education, employment or training (NEETs) increased considerably over the 16-18 period:

- 94% of pupils were in sustained education, employment or training in the year after KS4;
- 85% of young people who had stayed in education or been in apprenticeships after KS4 were also in a sustained destination at 18;
- the proportion of 16 years olds who were NEET was 3.1%, down 0.5 percentage points from the previous year and the lowest level since consistent records began in 1994 (see SFR 22/2016), but had increased to 11.1% of 18 year olds two years later (Oct – Dec 2017).

Research on the early educational and labour market transitions made by young people highlights a similar degree of sustained destinations – or persistence in activity status over time - and so understanding the principal pathways taken in the post-16 period has crucial implications, particularly for those young people who become NEET on leaving school.

Crawford, Duckworth, Vignoles and Wyness (2011), for example, noted the considerable amount of stability in young people's choices over time, particularly amongst those who remain in education, but also for those who made successful transitions into employment. Their findings also indicated that 40% of those who were NEET at age 16/17 were still NEET one year later, a figure which rose to 49% for the transition from ages 17/18 and 18/19.

Results here further highlight that the work and study options taken by young people are socially graded with more advantaged pupils being more likely to pursue full-time

education than all other options[8] at both age 17/18 and 18/19, and also more likely to become employed than to be NEET. Interestingly, prior achievement only distinguished those who continued on in full-time education, with attainment levels for young people pursing employment similar to those who were NEET. However, the statistical modelling approach used only took into account achievement at the end of primary school (Key Stage 2 average points score) and not KS4 attainment which is more likely to be associated with post-16 tracks, particularly for the later born LSYPE2.[9] Findings here indicated that girls were more likely to continue on in education and the educational attitudes and aspirations of both young people and their parents measured when young people were aged 13/14 (Year 9) were also highlighted as important predictors of post-16 transitions.

In contrast to the current study, Crawford et al.'s analysis is mainly focussed on young people in jobs with and without training rather than the full array of post-16 transitions. Moreover, data for their study come from the earlier born LSYPE1 cohort and rely on annually captured main activity states which cannot capture any subtleties in within year activity shifts.

Post-16 activity histories

Research by Dickerson, Morris and McDool (2020) addresses this latter issue by using monthly activity history data from the same LSYPE1 cohort to explore in detail post-compulsory education pathways and subsequent labour market outcomes. They used sequence and cluster analysis to identify six broad pathway groups (see Table 3) based on 45 months of education and employment activity status[10] data from September 2006 to May 2010, and then observed their labour market activity in 2015 at age 25.

Their findings demonstrate the importance of GSCE performance at age 16, particularly in English and maths, in predicting post-16 pathways, and in line with Crawford et al. (*op cit*) highlight the importance of individual attitudes towards HE formed by age 14, alongside parental advice and aspirations, in predicting post-compulsory educational transitions and entry into employment. Their results also

[8] Young people were assigned to one of seven main activity states at ages 16/17, 17/18 and 18/19: Full-time education; Part-time education only; Full-time education with work; Jobs with training; Jobs without training or education; Jobs without training but with some part-time education; NEET.
[9] For the earlier born LSYPE1, post-16 choices were not subject to changes in the raising of the participation age. For them, their KS4 scores might be considered more likely to be both the outcome of young people's post-16 choices as well as a determinant of those choices because the choices available to them at 16 were different. Using earlier measures of prior ability, such as KS2 attainment, gets around this problem to a large extent since they are less likely to be confounded with post-16 tracks.
[10] Data from the LSYPE1 was coded according to the highest qualification being studied or the current economic activity resulting in nine possible states an individual can be in at any given time: A-levels; Apprenticeship/Training; Employment; GCSE; Higher Education; NEET; Vocational Qualifications below Level 3; Vocational Qualifications at Level 3; Unknown / Missing.

show that gender and ethnicity play a role in predicting group membership: males were more likely to undertake apprenticeships or vocational qualifications into HE pathways than females; individuals from non-white backgrounds were more likely to follow the A-level routes than equivalent white students, and correspondingly non-white pupils were less likely to take apprenticeship or employment pathways or become NEET.

In general though, the authors argue that it is difficult to identify individual characteristics measured prior to post-compulsory transitions that strongly predict those who are more, or less, likely to experience poor labour market outcomes in early adulthood, particularly those who end up NEET. However, their approach, only pulled out six clusters despite acknowledging the diverse range of pathways and propensity of young people to change trajectory after one, two or even three years. Consequently, the types of pathways suggested may be too heterogenous to identify characteristics observable before individuals embark on a specific track.

In another application of sequence analysis to study the transitions of young people from education to the labour market, McVicar and Anyadikes-Danes (2002) explored the school-to-work transitions of individuals in Northern Ireland. Their analysis produced five distinct pathways (see also Table 3) and, like Crawford et al. (2011) and Dickerson et al. (2020), used multinomial regression to predict the probability of experiencing each 'type' of transition compared to a reference group, typically the largest cluster identified and, again, here the employment dominated pathway. They also found evidence of gendered trajectories with males similarly more likely to follow employment focussed pathways; showed that achieving five or more GCSEs at grades A* - C increased the likelihood of both HE and Further Education (FE) dominated pathways; and highlighted the social grading of different tracks with father's employment status and occupational level, as well as living in a single parent household predicting transition pathways.

De Coulon et al. (2017) used the Longitudinal Education Outcomes (LEO)[11] data to analyse a cohort of school leavers who turned 16 in the academic year 2011/2012. [12] Their analysis focused on around 10% of individuals who left school and entered low level vocational training – below Level 2 – identifying four broad pathways (seeTable 3). Again, their results highlight the particular importance of prior attainment, demonstrating that achieving even a low-level qualification can lead to better employment and earnings outcomes. However, the dataset lacks the richness to

[11] LEO is based on administrative data from the National Pupil Database (NPD) and Individualised Learner Records (ILR), matched to HMRC tax records.
[12] Namely children born in the academic year 1994/1995, and so slightly younger than the LSYPE1 cohort who were born between 1989 and 1990.

explore potential associations with individual, parental, and family background characteristics.

All three studies consider a small number of pathways that bare striking similarity (see Table 3), providing insight into what to expect for comparable analysis in the LSYPE2 cohort. However, while they parsimoniously capture variation in the activity data, it is likely that the small number of overarching trajectories reflects a trade-off with greater within-cluster heterogeneity (see, for example, Figure 3 in Dickerson et al., 2020) which may go some way to explaining the relative lack of predictive capability in the individual characteristics associated with pathway choice. The breadth of these group definitions may also limit the extent to which they are valuable in policy terms.

Table 3: Pathway groups identified in previous studies using sequence analysis

Dickerson et al. (2020)	McVicar and Anyadike-Danes (2002)	De Coulon et al. (2017)
Employment dominated	Employment dominated	Sustained employment
NEET dominated	Joblessness dominated	NEET status
A-levels to HE	Higher Education dominated	Progression to higher level vocational training
Apprenticeship	Long spell of vocational training dominated	Progression to apprenticeships
Voc. Level 3 to HE	FE dominated	-
Below Level 3	-	-

This point is further illustrated by other analyses which, also using the LEO dataset but adopting a different methodology, clearly demonstrated the sheer diversity of routes through education into the labour market (Anderson and Nelson, 2021). Tracking the pathways of 3.6 million young people who took their GCSEs between 2002 and 2007 and following them for a 10 to 15 year period after they left secondary school, the authors report over 262,000 different pathways, 168,000 of which are unique. While they highlight that the 50 most common paths were able to capture the transitions of around a third of all individuals, their findings speak more to the complexity of post-16 routes and suggest a need for more breadth in the groups

identified by the authors listed in Table 3 in order to fully understand the nature and pattern of the routes young people take after school.

Anderson and Nelson (2021) again note the importance of certain key socioeconomic, demographic and individual-level characteristics for subsequent outcomes – in particular, gender, free school meal (FSM) eligibility, special educational needs and disability (SEND) status, KS4 attainment, ethnicity and region. However, as noted, the LEO dataset while strong in terms of this kind of administrative detail, is fairly limited in terms of the broader set of individual and family characteristics known to be associated with post-16 choices and educational and labour market outcomes, such as attitudes and aspirations, educational experiences, wellbeing and mental health, as well as parents' own education and related expectations. Hence, their analysis can show 'what' is happening but is limited in helping to understand other key differences between groups of young people pursing different paths.

Raising the Participation Age

From a policy perspective, we note that the LSYPE2, unlike its predecessor, is part of the Raising of the Participation Age (RPA) cohort requiring young people to continue in education or training beyond the age of 16, either through:

- full-time study in a school, college or with a training provider;
- full-time work or volunteering (20 hours or more) combined with regulated part-time education or training (about one day per week);
- on an apprenticeship or traineeship.

The RPA legislation[13] was brought in to try and reach the small group, many of whom are vulnerable, not participating after 16 and ensure that all young people are given the opportunity to develop the skills necessary to achieve their full potential. For many young people, the changes resulting from raising the participation age will have made minimal difference to their plans; for others, particularly those on less academic pathways, the changes are likely to have had far greater impact on the choices made. As such, we include an indicator of whether or not the RPA affected the young person's plans (see Appendix A for further detail and descriptions of all variables used in this report).

[13] The Education and Skills Act 2008 legislated to increase the age of compulsory participation in education or training to age 18 by 2015 for those born after 1 September 2017, and with an interim leaving age of 17 from 2013.

Structure of the report

The remainder of the report is structured as follows: In Chapter 2, we describe the LSYPE2 data in more detail, set out our overarching methodological approach and related analytic plan, as well as provide an overview of how missing data is dealt with.

Throughout the report, the analysis itself is often very descriptive, outlining how and why we include or exclude certain groups within the cohort and take the methodological approaches we do. The results are presented in four stages:

- First, in Chapter 3, we outline the main economic activities of **all** young people across the four post-16 years available at the time, showing who is excluded from the analyses in the following chapters and why, and then describe the overarching transitions for our core cohort.
- Next in Chapter 4, we describe in detail the sequences of monthly activity data over the same period (September 2015 – October 2019) for the non-immediate HE cohort and show how we reduce and refine the complexities inherent within our data, partitioning it into distinct types of post-16 transition.
- In Chapter 5, we summarise key characteristics of each of the identified pathway groups.
- Finally, in Chapter 6, we examine how these characteristics predict membership of the different routes taken, comparing across all the groups identified, as well as some smaller sets of comparisons amongst more similar types of transitions.

Chapter 2 Data and Methods

Overview of the LSYPE2

Data come from the second cohort of the Longitudinal Study of Young People in England (LSYPE2). The LSYPE2 is a large-scale panel study which follows a sample of young people born in 1998/99 from when they were aged 13/14 in Year 9, across schools in England, beginning in the academic year 2012/13. In wave 1, LSYPE2 achieved a response rate of 71 per cent, representing an achieved sample of 13,100 young people (Baker, Dawson, Thair and Youngs, 2014). To date, nine waves[14] of data have been collected annually. However, at the time of writing the most recent wave of analysable data was wave 7, collected in in 2018/19, when the cohort were aged 19/20 and in "Year 15" (see Table 4).

Young people in the LSYPE2 turned 16 and took their GCSEs at the end of wave 3, the academic year 2014/15. Our analysis concerns post-16 decisions, and the transitions made after GCSEs[15], and covers the next four years of data. Table 4 provides an overview of timings in the LSYPE2, detailing the age, calendar and academic year (or equivalent) of the cohort, by wave.

Table 4: Age and timing of the LSYPE2 cohort

Wave	Academic Year	Actual Age (Years)	School Year and Equivalent
4	2015/16	16 / 17	Year 12
5	2016/17	17 / 18	Year 13
6	2017/18	18 / 19	"Year 14" / Uni Year 1 for immediate HE group
7	2018/19	19 / 20	"Year 15" / Uni Year 2 for immediate HE group

The data collected as part of the LSYPE2 are very rich and enabled consideration of a range of factors that influence both the choices young people make and the destinations they pursue, including attitudes and aspirations, alongside detailed family background characteristics and circumstances. More so than many other datasets, the LSYPE2 allows an unprecedented look at the post-16 transitions being

[14] At the time of publication, both waves 8 and 9 had completed: Fieldwork for wave 8 was completed in 2020 and for wave 9 was completed in 2021.
[15] It is possible that some within the LSYPE2 cohort took some GCSEs earlier than the academic year 2014/15 or repeated/took additional GCSEs later, but our primary focus is on post-16 decisions made after this core round of GCSE examinations were completed.

made by a recent generation of young people and those first subjected to changes heralded by the RPA legislation.

Data collected through individual interviews in the LSYPE2 are also further supplemented by linkage to the National Pupil Database (NPD), providing information on attainment at GCSE/KS4 and indicators such as FSM and SEN status. Additional data on family background, and parental views and attitudes was taken from interviews conducted with the cohort member's main parent or guardian.

Monthly Activity Histories

From wave 4 onwards when young people were aged 16/17 and in Year 12 or equivalent, in addition to their current main economic activity, detailed activity histories were collected to capture the monthly shifts in activity between these annual reports, which better capture the changing statuses of young people in the post-compulsory education period.

By focussing on these detailed sequences of monthly activity histories, this report presents a more nuanced analysis of young people's pathways than has previously been shown, describing a highly granular understanding of key transitions in the post-16 period, as well as potential sticking points. It also enables us to take into account seasonal patterns of education, employment and other economic activity, the subtleties of which can be lost when comparing two points in time, one year apart. [16]

Monthly activity histories (or sequences) were constructed[17] using the young person's own report of when different economic activities stopped and started over the four-year period from when young people were aged 16/17 to when they were 19/20, yielding an eight-fold classification across each of 50 consecutive months:

- Full-time (non-university) Education
- Working
- Part-time Working & Part-time (non-university) College
- Apprenticeship / Traineeship[18] / Other Training

[16] The LSYPE2 data is typically captured across a 3- to 4-month period which can also affect the comparability of a point-in-time activity report.
[17] The coding of monthly history activities was based on the same process carried out by the DfE's Longitudinal Surveys Team for the LSYPE1 cohort. For further detail on these data see Crawford, Duckworth, Vignoles and Wyness (2011). Further detail on the coding procedures developed for the LSYPE2 cohort is available from the authors on request.
[18] Note that Traineeships make up a very small proportion of young people's activity: a total of 1.6% of the initial LSYPE2 sample used here, n = 5,935, spent any time in traineeships over the four year post-16 period observed, and, on average, about 0.5% of the sample (range: 0.2 – 0.7) are

- Unemployed / Looking for Work / Looking for a Training Course
- At home with caring responsibilities / Ill or Disabled
- Other Transitions[19]
- University (waves 6 and 7 only)

Methodological Approach

Analytic Plan

Based on this classification of eight economic activity states, we first constructed detailed individual sequences spanning this 50-month period, covering the months from September 2015 to October 2019, inclusive.

Next, having analysed these sequences of monthly activity histories, we removed those individuals who could clearly be allocated to the "traditional university track", i.e., those starting university immediately after completing two years of full-time, post-16 education and remaining there for the full duration of waves 6 and 7 (see Chapter 3 for further detail). This reduced cohort (N = 4,190) then forms our core analytic sample of non-immediate HE youth and we use the statistical techniques of sequence analysis in combination with cluster analysis to identify groups of individuals who experience similar post-16 transitions. Finally, we used any additional information provided by the young person regarding any other activities they were engaged in, including any courses they were undertaking, to resolve apparent discrepancies and/or possible measurement error in the allocation of individuals to the most appropriate pathway group.

The penultimate stage of our analysis reports descriptive statistics across the different pathway groupings identified, and finally we explore how these different individual and family factors predict group membership.

Sequence and Cluster Analysis

Sequence data are highly complex. Our data contain eight possible activity states over 50 months for 4,190 individuals: the combination of possible sequences runs into the billions! Of course, some sequences will be very similar to each other and so in practice the number of different combinations will be much lower, however, to

undergoing traineeships in any given month – slightly higher in the two years immediately post-16 and falling in the latter two years.

[19] The "Other Transitions" category includes: Waiting for a course or job to start; Waiting for exam/course results; Travelling; and Taking a break from work and study.

create a manageable – and meaningful - number of pathways for analysis, we need to group sequences together in a similar order.

Sequence analysis methods seek to quantify the similarities (and dissimilarities) between pairs of sequences: the most commonly observed sequences are used as a reference point from which to measure the degree of difference from all other sequences. This measure – called a **dissimilarity matrix** – captures the 'distance' between all of the different sequences observed in the data and is then subject to **cluster analysis** techniques which reduce complexity in the data and partition it into groups that attempt to minimise within-group variation (or heterogeneity).

Sequence Analysis

The **dissimilarity matrix** is created using a technique called Optimal Matching (OM). OM requires the specification of **substitution** (replacing, for example, the observed activity in one sequence with another) and **indel** (insertions or deletions: inserting a brand new activity and/or removing another completely) operations to estimate the 'cost' of converting one sequence – each individual's string of activities over a consecutive 50-month period - into another, similar one.

For example, to convert Sequence 2 into Sequence 1 requires two substitutions ('B') and one deletion ('C'). The total 'cost' is the sum of all transformations, so 2 + 1 = 3.

Sequence 1:	A	A	A	B	C
Sequence 2:	A	B	B	B	

As things become more complicated, there will be more than one way to convert sequences to make them more similar and there are advantages and disadvantages to the different ways of matching different sequences to one another. Essentially, however, the parameters of the OM algorithm are set by the researcher to reflect the core aims of their investigation, but can only focus on one dimension of 'similarity':

- the **sequencing** of different states: i.e. the ordering of distinct activities / economic states within the sequence;
- the **timing** of states: i.e. the date or point at which a given activity or state appears, so a focus more on when there is a transition from one state to another, but not on what the different transitions entail; or
- the **duration** of different episodes: focussing on the length of spells spent in each distinct activity or state but largely ignoring what the activity or state is.

Since our data and methodological paradigm are very similar to that of Dickerson et al. (2020) – with a primary interest in the **sequencing** of different economic activity

states - we follow their methodology and adopt the same approach to setting the substitution and indel values in the OM algorithm. [20]

Cluster Analysis

Cluster analysis uses the dissimilarity matrix obtained from the sequence analysis to reduce the data down into a smaller number of groupings for the next stage of analysis and attempts to minimise within cluster heterogeneity, i.e. within group variation.

Again, following Dickerson et al. (*op cit*), we use an agglomerative (bottom-up) hierarchical clustering approach. This means that each observation (or 50-month sequence of monthly activities) is initially considered as its own individual cluster: we thus start out with 4,190 possible clusters. Clusters are then combined with their closest pairs in a sequential manner, from the bottom up, which attempts to minimise the variance within each cluster and so yield the most homogenous clusters possible.

In combining the data into a smaller, more manageable number of groups, or types, there is a trade-off between the amount of within cluster variation and achieving a sufficiently small number of clusters, each themselves of a reasonable size, to enable subsequent analysis. As such, we explored a range of different sized cluster solutions to assess where this balance was best met.

Manual Grouping

Ultimately, however, there is no one perfect solution to how many 'types' are best, particularly in a dataset as large (N = 4,190) and as complex (number of episodes = 50; number of elements = 8) as this: even when we extended to a 65 cluster solution, some clusters continued to have a high degree of within group heterogeneity and others contained pathways that were very similar and so should, in theory at least, have been grouped together but were not.

Deciding on the number of clusters to settle on thus becomes more of a practical issue: too many groups is unmanageable and unwieldy; too few is unlikely to be useful from a policy perspective if our aim is to meaningfully understand the distinctions between these different groups. As such, we took a pragmatic approach to establishing the final groups and used the results generated from both the

[20] Both Dickerson et al. (2020) and Anders and Dorsett (2017) provide excellent and very detailed discussions of Sequence Analysis techniques and the various issues surrounding differences in Optimal Matching applications that were also employed in the analysis presented here. For brevity, this detail is not included in this report, but readers interested in the technical specifications underpinning the sequence and clustering procedures used are referred to these papers.

sequence and cluster analysis as a template to manually construct ten overarching pathway groups (see Chapter 4 for more detail on these groups were reached).

Variables

We use a rich set of background characteristics from across the first two waves of the LSYPE2 data and the NPD (when the young people were aged 13/14 and 14/15, and in Years 9 and 10) to describe the identified groups and subsequently predict membership of the different pathways. Variables included are:

- **Individual characteristics:** Gender; Presence of a long-standing illness or disability (LSID) expected to last until at least age 16; SEN status; Term of birth.
- **Family background:** Mother's age; Highest parental education; Ever eligible for FSM; Single parent household.
- **Local area deprivation:** The Income Deprivation Affecting Children Index (IDACI)
- **Young person's educational attitudes and aspirations:** Educational plans for post-16; Likelihood of applying to university; Attitudes to school; Attitudes towards the impact of the RPA legislation
- **Young person's experiences and behaviours:** Experience of paid work (after school/at weekends/school holidays); Whether bullied; Whether truanted; Engagement in risky behaviours; Mental health; Attitudes towards the link between hard work and success; Locus of control; Frequency the young person talks to teachers about plans to study in the future; Whether school offers a careers advisory service.
- **Main parent:** Educational aspirations for their child; Rating for their child's school.
- **Prior achievement:** KS4 'Best 8' score; Whether young person achieved good (A* - C) passes in English and maths.

We also control for ethnicity and region in all regressions. More detail on how each of these variables were coded is provided in Appendix A.

Missing Data

Activity Histories

As a consequence of sample attrition, by wave 7, the LSYPE2 sample size had dropped to 7,491 young people.

Since sequence analysis requires complete, month-by-month activity histories without any gaps, to create the monthly activities data, we first removed individuals with only partial histories between age 16 and 20, yielding a sample of 6,011 individuals with at least some monthly data spanning the four year period: September 2015 to October 2019. [21]

For this remaining sample, missing data on their monthly activity histories was very low. However, following Anders and Dorsett (2017), where the histories were incomplete and there was a gap of a single month, this activity was imputed to have the same status as the following month (examples 1 and 2 in Table 5. Cells in **bold** represent missing information.

Table 5: Example imputation for missing activity months

Example:	November	December	January	February	March
1.	FTED	**FTED**	FTED	FTED	FTED
2.	FTED	**Working**	Working	Working	Working
3.	Working	**Working**	**Working**	Working	Other
4.	Apprenticeship	**Apprenticeship**	**Working**	Working	Working
5.	Other	**Other**	**NEET**	**NEET**	NEET

Where there was a gap of two or three months and the same activity was recorded before and after the gap, the missing months were imputed to have the same status (Example 3). Where the activity before and after the gap was different, the missing two or three months were imputed as the 'average' of the two activities either side of the missing fields, 'rounded' to the subsequent month's activity (Examples 4 and 5). Where more than three consecutive months were missing, the observation was dropped.

These steps increased the number of retained partial observations, but there was still some loss where sensible substitutions could not be made reducing the sample from 6,011 to 5,935 with complete data across all 50 months.

[21] At wave 4, N = 8,949 individuals have complete history data. At wave 5, this falls to N = 7,972 individuals, and at wave 6 drops again to N = 6,903.

Covariates

All analyses on the sample with complete monthly activity history data were weighted to take account of sample attrition: the loss of sample members between survey waves. Using information on the characteristics of 'drop-outs' collected earlier in the study, the data is recalibrated to ensure it continues to represent the characteristics of the original sample (Kantar Public, 2015).

In addition, multiple imputation[22] using chained equations in STATA (MICE) was used to deal with any missingness on our set of covariates. While missingness was again fairly low across individual measures, the accumulation of missingness for estimating models using multiple measures was much higher. For example, the accumulation of missing values would have led to the loss of 1,731 (43%) sample members for our analysis presented in Table 6.

The next chapter describes in detail the main activities of young people between 16 and 20 in the LSYPE2 cohort (waves 4 to 7).

[22] Multiple imputation involves estimating a set of plausible values for those missing data based on associations between all of the measures in the model whilst allowing for an appropriate level of uncertainty. As a rule of thumb, the number of imputed datasets should equal the percentage of incomplete cases, which in this instance was 44 (White, Royston and Wood, 2011). Subsequent analyses are estimated separately for each dataset (automated using STATA) and the results combined using Rubin's rule (Rubin, 2004).

Chapter 3 What are the main activities of young people at ages 16 to 20?

Introduction

The focus of this report is on young people not following a traditional, direct to university post-Year 13 track. However, we start by describing the main economic activity statuses of **all** young people measured annually between Year 12 and 'Year 15' so as to understand the broader picture of post-16 transitions for this cohort and the context such decisions are being made in. We then reduce the cohort to the analytic sample that is the focus of all subsequent analyses.

Overview of Main Activity States: Years 12 to 15

Figure 1 reports the proportions of young people in each of the categories of our eight-fold classification across Years 12 (wave 4), Year 13 (wave 5), 'Year 14' (wave 6), 'Year 15' (wave 7). In their first post-compulsory year, Year 12 when they were aged 16/17 years old, the majority of young people, 87%, remained in full-time education (FTED). Of the remaining 13%, 3.5% were in work, 6.1% were enrolled on apprenticeships, 1.8% were NEET (unemployed/looking for work), 0.8% were combining part-time work and college, 0.2% were looking after family at home or were themselves ill or disabled and unable to work or study. The remaining 0.8% reported doing "other things", namely waiting for exam results, for a job to start, travelling or taking a break from work and study.

The following year, at age 17/18 (wave 5), the proportion of the LSYPE2 staying in FTED remained high but fell to just under three-quarters (74.5%) of the cohort, with a corresponding uptick in the numbers reporting being in work (10.3%), NEET (4.2%) and experiencing other transitions (3.3%).[23]

By age 18/19 (wave 6), 17% remained in full-time, non-degree education, with a further 28.4% having started university (the 'traditional' or 'Direct to University track' group), 29.4% reported being in work, with 7.3% enrolled on apprenticeships and 0.4% working and studying at college in combination. [24] The NEET group also grew

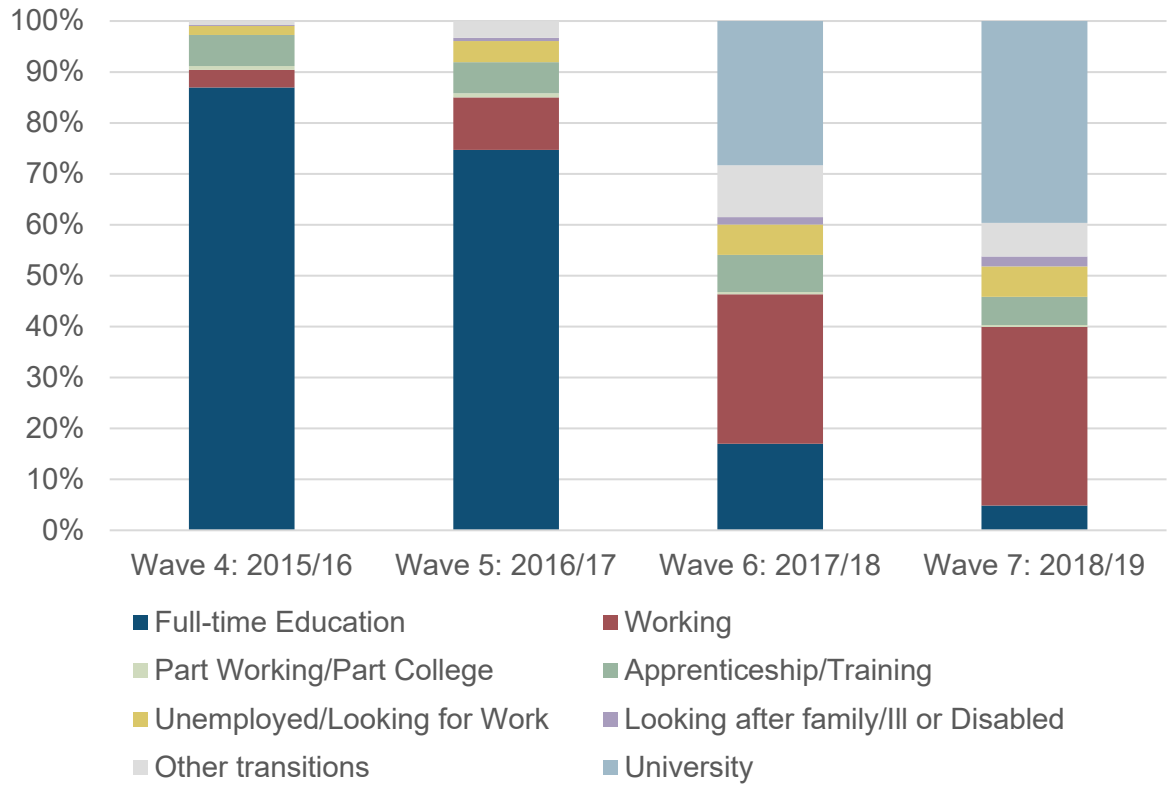
[23] The proportions in education or training are considerably higher than those of the earlier born LSYPE1 cohort who took their GCSEs in the academic year 2005/06. For the LSYPE1 cohort, at wave 4 when young people were aged 16/17, 72.1% were in full-time education, 18.7% were in work (including those on apprenticeships), and 9.2% were NEET. A year later in wave 5 (2008/09), 52.4% were in full-time education, 36.4% were in work (including those on an apprenticeship), and 11.2% were NEET (see Crawford, et al., 2011, for further detail on the wave 4 to 6 transitions of the LSYPE1 cohort).

[24] For wave 6, i.e. after the reach of the changes brought about by the RPA legislation, the proportions between the two LSYPE cohorts are more similar: in LSYPE1, 16% were in full-time non-

considerably, making up 17.6% of the overall cohort: those young people unemployed and looking for work comprised 5.9% of the cohort; those at home looking after family or themselves ill or disabled increased to 1.5%; and those reporting being on 'other transitions' rising to just over 10%.

At wave 7 when young people were aged 19/20, just 4.9% of the LSYPE2 cohort remained in full-time, non-degree education, but the proportion in university increased by more than 11 percentage points, to 39.6%, suggesting that the route to university is not the same for everyone, with many young people slightly delaying entry to university for whatever reason. The proportion in work also increased again to over a third (35.1%) of the cohort, while the proportions reporting being on apprenticeships and those unemployed and looking for work remained fairly stable. The number of young people who recorded 'other transitions' as their main activity also fell from wave 6 to 6.7% of the cohort, possibly reflecting the movement of some into university or work.

Figure 1: Young Person's Main Economic Activity, waves 4 to 7



Source: LSYPE2: waves 4 to 7 (weighted)

HE education, with a further 28% in university, 39.9% were in employment or on apprenticeships, and 16.1% were NEET. Note also, that the size of the NEET group is more similar between the two cohorts at wave 6: when combined in the LSYPE2 those "Unemployed/Looking for Work" (5.9%), those "Looking after family/Ill or Disabled" (1.9%), and those reporting being on "Other transitions" (6.7%) total 17.6% of the age 18/19 cohort.

A note on young people on the “traditional university track”

Both Table 2 and Figure 1 indicate that over a quarter of the cohort (around 28%) appear to be on the “traditional university track”: completing two years of post-16 full-time education and moving straight into university in “Year 14” when they were aged 18/19 (wave 6). There are clearly also young people who take other pathways to university: an additional 11% reported starting university at age 19/20 (wave 7). As previously noted, however, our interest lies in understanding the routes of all those young people not on an immediate university route, including this group who start in HE a year later for whatever reason. While we recognise that this latter group by definition do move into HE, we use the term **non-HE tracks** in this report as shorthand for “the rest”, i.e. all those young people whose post-16 paths are not part of this Direct to University group.

Cross-sectional analysis at a single point in time, such as in Figure 1, is useful for providing insight into patterns of participation, however, it cannot tell us about who is moving where and when. Monthly activities provide a more detailed account of when transitions take place, as well as how much time is spent in any one activity, and so help us better understand variation in the post-16 experiences across young people.Table 6, for example, shows the proportions of the LSYPE2 cohort who report only one economic activity[25] over the four year (50-month: September 2015 to October 2019) post-school period based on the summed activity histories (or sequences), with over a quarter, 25.9%, of young people clearly identified as being on the traditional university track. Note this proportion is lower than that given in Figure 1, 28.4% in university at wave 6, suggesting that not all those who start university in wave 6 remain there by the end of what would be their second year when aged 19/20 (wave 7).

[25] Counts for “always” are based on spending 48 months and over in any one activity, with the exception of “Always university” which was coded as spending 24 months or more being recorded in university, i.e. all of waves 6 and 7.

Table 6: Single activity pathways in the LSYPE2

Single activity:	%	N (unweighted)
Always University	25.9	1,743
Always Full-time Further Education (non-degree)	7.7	226
Always Working	1.2	49
Always Apprenticeship / Training	0.6	1
Always Unemployed / Looking for Work	0.4	33
Always Part Work / Part College	0.0	9
Always Looking after family / Ill or Disabled	0.0	1
Always Other Transitions	0.0	1
One or more activity transition	64.2	3,872
Total	**100**	**5,935**

Source: LSYPE2: waves 4 to 7 (weighted)

Going forward, we remove those who go straight to university, i.e. the "Always University" category (unweighted N = 1,743) from the analyses.[26] This leaves a core cohort of N = 4,190 young people with 50 months of activity histories who appear to fall into our "non-immediate HE trajectories" focus. So, what are these young people doing? What are their pathways and how do they move between different economic activities?

Young People's Non-HE Transitions: A Broad Overview

Summarising the data across all 4,190 young people, Figure 2 illustrates how the cohort move over the entire four-year / 50-month period, highlighting the flow between main activity states in September 2015 – the beginning of Year 12 (age 16/17), on the left-hand side – and October 2019 – the end of Year 15 (age 19/20), on the right. Note that, the transition lines from left to right in the Sankey Chart are proportional to the percentages moving from one activity state to another, the blocks which bookend either side of the chart are only roughly proportional to accommodate labelling.

[26] We also drop the very small number (N = 2) of young people who spend nearly the full 50-month period at home. One individual spent all 50 months "Looking after family / Ill or Disabled", the other 46 months which was deemed close enough to the 48 months / 4-year period to be excluded without compromising the remaining analyses.

Sankey charts

Sankey charts are a form of flow diagram which show movement between different “nodes” or activity states and are useful tools to help distil and visually convey complex information over time.

Like transition matrices, Sankey charts are read from left to right, with the blocks on either side of the chart proportional to the size of each group represented at the two different time points: age 16/17 and age 19/20. The transition lines between these two ‘bookends’ then show, proportionately, movement between one activity state and another.

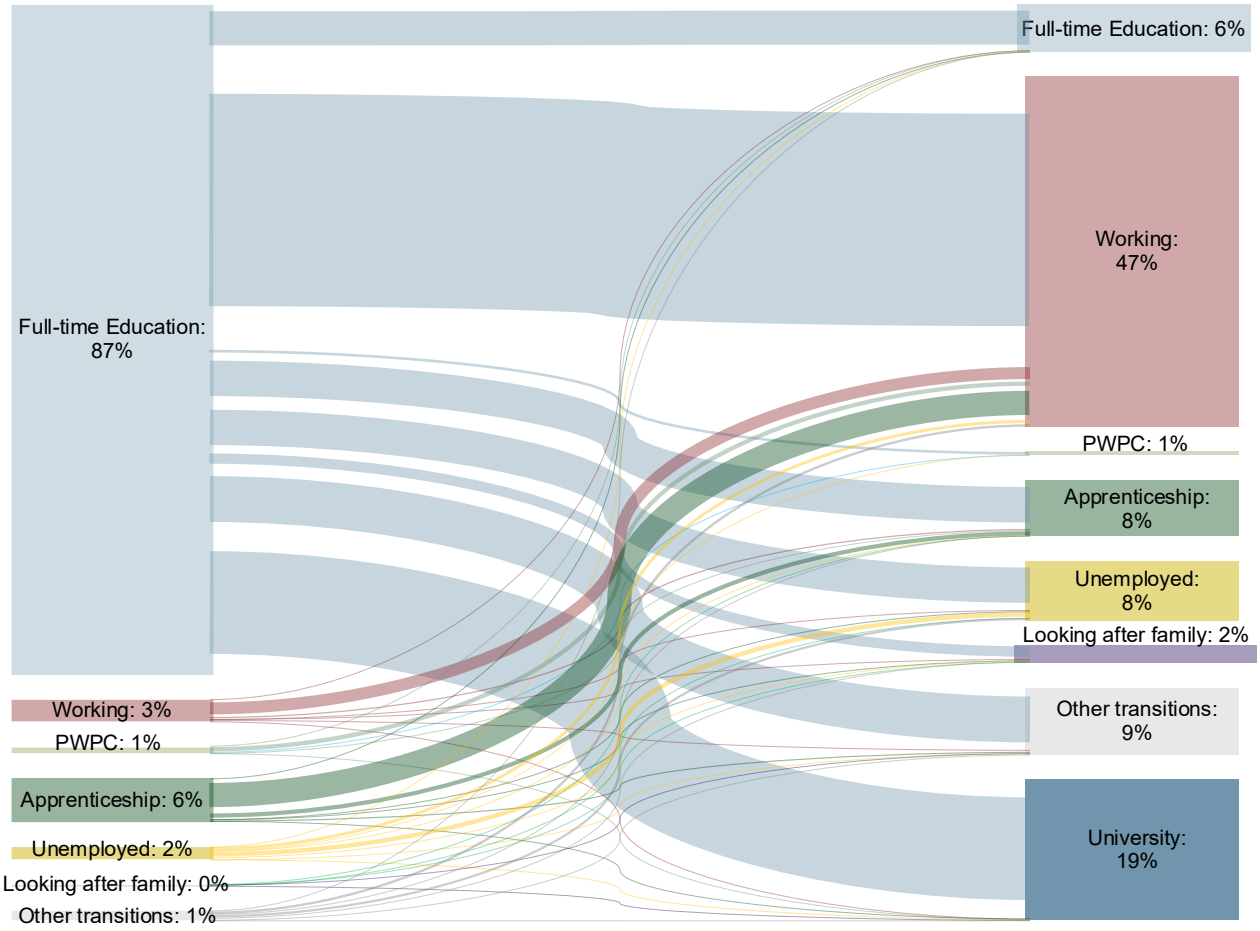
Overall, the four-year, post-16 transitions of young people on non-immediate HE pathways shows largely good news. At the beginning of Year 12, when young people were aged 16/17 (wave 4):

- most young people were in full-time education (87%) or on apprenticeship/training courses (6%)
- a small proportion are already working full-time (3%) and only 2% are NEET.

By the end of Year 15, when young people were aged 19/20 (wave 7):

- the vast majority of the cohort had left full-time, non-HE education (just 6% remain in non-university-based, full-time education) and the proportion in full-time employment has grown to nearly half, 47%.
- almost one in five (19%) of this cohort have now gone to university.
- 8% are doing apprenticeships, but these are a different group to those who were doing them at age 16/17, with the vast majority of those completing earlier apprenticeships having gone on to gainful employment.

Figure 2: Sankey Chart showing transition between main economic activity: September 2015 – October 2019: Ages 16/17 to 19/20 (waves 4 to 7)



Source: LSYPE2: waves 4 to 7

However, there is also evidence in Figure 2 that some individuals appear to be starting out on more challenging paths, suggesting there are areas where the system might be improved:

- a small proportion, 6% of the cohort, remain in full-time, non-degree FE education;
- the proportion of unemployed young people increases from 2% to 8% at age 19/20;
- a further 9% report being on “other transitions”, i.e. waiting for exam or course results, for a course or job to start, travelling or taking a break from work and study altogether;
- a very small group (2%) have family or childcare responsibilities or are ill or disabled themselves and so unable to work or study.

Some, or most, of these may represent perfectly good life choices (travelling or taking a gap year, for example), but it is important to consider that some in these groups – which when combined make up a quarter of the non-immediate HE cohort – may not be on a pathway to meet their potential with regard to qualifications and/or employment.[27]

It is therefore important to consider who is in each of these potentially less advantageous groups, how they got there and explore how might things have been different for them. Moreover, the simple transition from one activity to another over a four-year period prevents an understanding of the potential sticking points and/or churn between these two time points which may form a crucial piece in knowing how best to support these young people.

Chapter 4 builds on this descriptive overview of those on non-HE pathways by using sequence analysis to explore in detail the monthly activities of this cohort and then grouping those with similar transition patterns into pathway groups based on cluster analysis as outlined in the methods chapter.

[27] Ultimately, there may also be important implications concerning the associated material and psychological outcomes for these young people. We explore these outcomes in our subsequent report (Ross, et al., 2025) which looks at how well this cohort of young people are doing across a range of domains including their wellbeing, economic and material adjustment, progression and social/civic duty.

Chapter 4 What are the patterns of transition between different activity states?

Introduction

The previous chapter described the main activities of young people aged 16 to 20 across years 2015 to 2019 and provided a broad overview of the transitions of individuals who do not enter university immediately on leaving school at age 18. Broadly, these cross-sectional results indicate that the majority of this cohort (75%) appear to make fairly positive transitions, moving into HE, training and/or the labour market over the four years post-16. The other 25% are on potentially more vulnerable tracks. The basic transition analyses presented in Chapter 3, however, only provides part of the story of how young people move between different activities across two broad time points.

This chapter focuses on the month-by-month transitions made by the LSYPE2 cohort to explore the granularity of how young people move between different activity states, the patterns of both consistency and change in their economic activity over Years 12 to “15” (2015 to 2019), as well as similarities and differences in the most common pathways taken. We also cross-reference the accuracy of our identified pathways with additional information reported by the young person to fine tune our grouping procedures. Readers interested in the detail of the individual steps taken can explore the iterative process we adopted below, otherwise the summary section of this chapter outlines our final set of nine post-16 tracks which form the basis of all subsequent analyses presented in Chapters 5 and 6.

All Sequences for the Non-Immediate HE Cohort

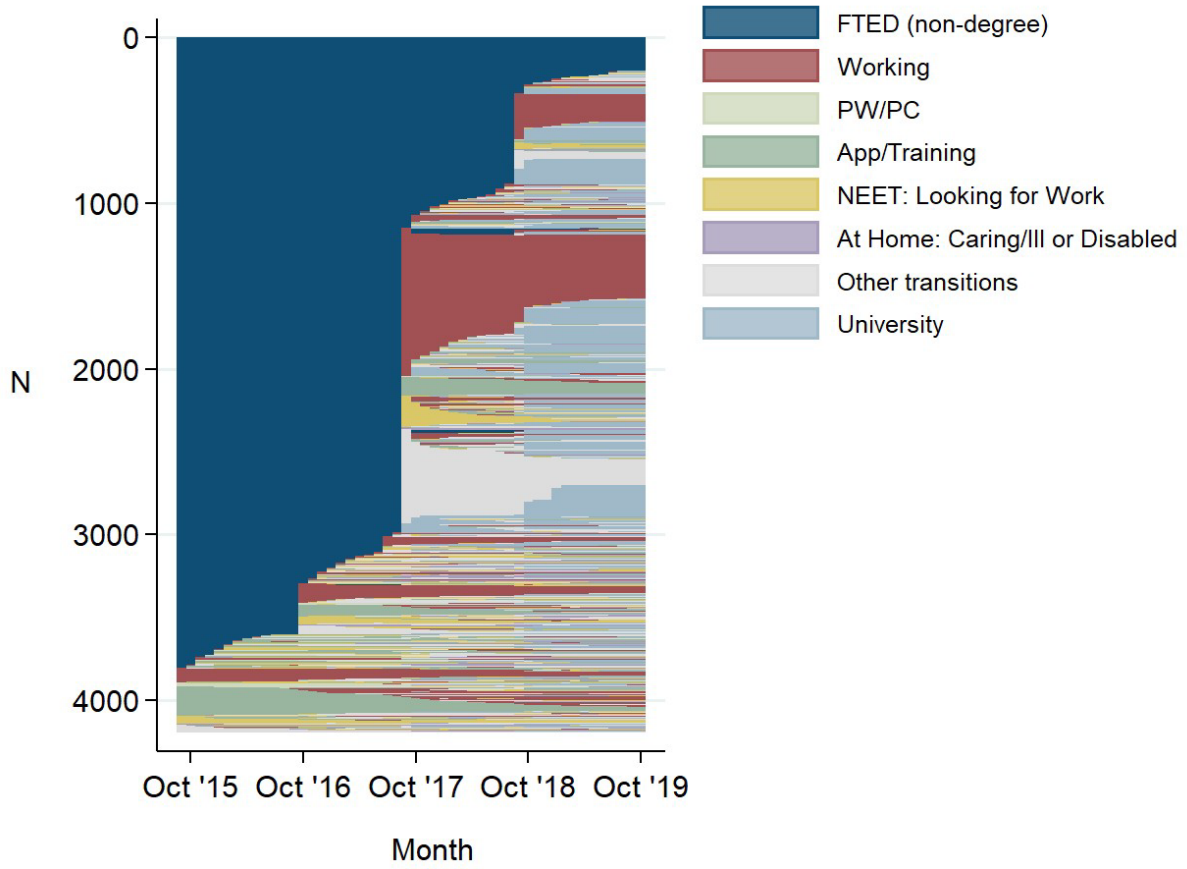
Figure 3 shows a visualisation of the activity histories of the whole cohort of 4,190 young people as sequences of 50 consecutive events and provides an overview of how this sample move between different economic activities. Each horizontal row represents one individual’s activity from the beginning of wave 4 (September 2015) to the end of wave 7 (October 2019) and, as in Figure 2, are read from left to right.

The data show considerable conformity in the movement of individuals over time, echoing the annual shifts in activity seen in main activity figures. A quick scan over the sequences in Figure 3 shows several clear patterns which become immediately apparent:

- annual, academic year activity shifts in the September / October of each calendar year;

- transitions following two years of full-time FE, non-university education (**FTED; dark blue** across the left-hand half of the figure) into:
    - Work (**dark red**)
    - 'Other' transitions (**grey**)
- one-year delayed transitions into university (**mid-blue**) in October 2018 (wave 7);
- early, as well as later, starting apprenticeships across different young people (**mid-green**);
- a group permanently in full-time FE, non-university education (**dark blue**).

Figure 3: All sequences



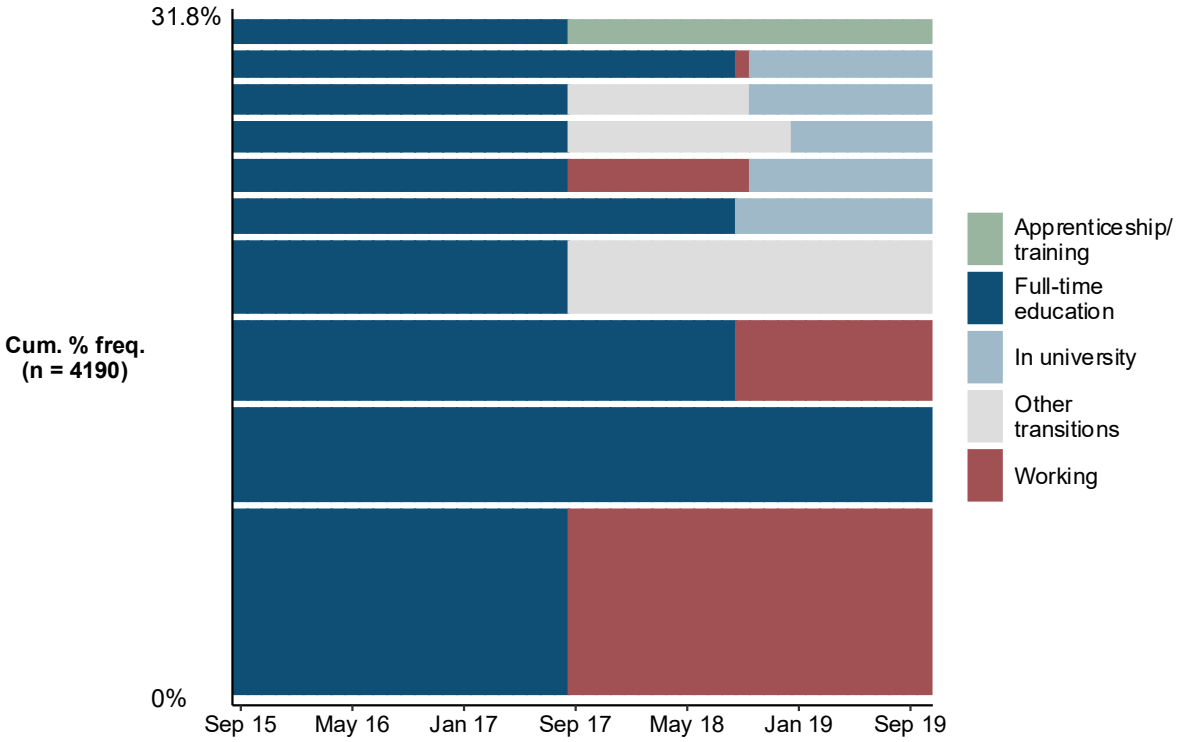
Source: LSYPE2: waves 4 to 7 (unweighted)

The next step in understanding these sequences of activity histories is to draw out common patterns and put some order to the distinct states observed.

Common Sequences

Analysis of the **most frequently observed sequences** in the data show that nearly a third (31.8%) of all the 4,190 pathways shown in Figure 3 can be captured by one of ten overarching sequences (Figure 4). [28]

Figure 4: Most common sequences



Source: LSYPE2: waves 4 to 7 (unweighted)

As can be seen in the full set of sequences (Figure 3), these ten most commonly observed patterns largely capture timing variations (largely academic year, annual shifts) in five core pathways rather than fundamentally different types of transition:

- FTED (non-degree) only (**dark blue**)
- FTED (non-degree) into Work (**dark blue → dark red**)
- FTED (non-degree) into Other Transitions (**dark blue → grey**)
- FTED (non-degree) into University (**dark blue → mid-blue**)
    - also via Other Transitions (**grey**) or Work (**dark red**)
- FTED (non-degree) into Apprenticeships or Training (**dark blue → mid-green**)

However, there are still around two thirds of the cohort whose post-16 transitions are less simply captured. Are their pathways more complex and marked by higher levels

[28] Note the depth of the bar is proportional to the number of young people in each sequence.

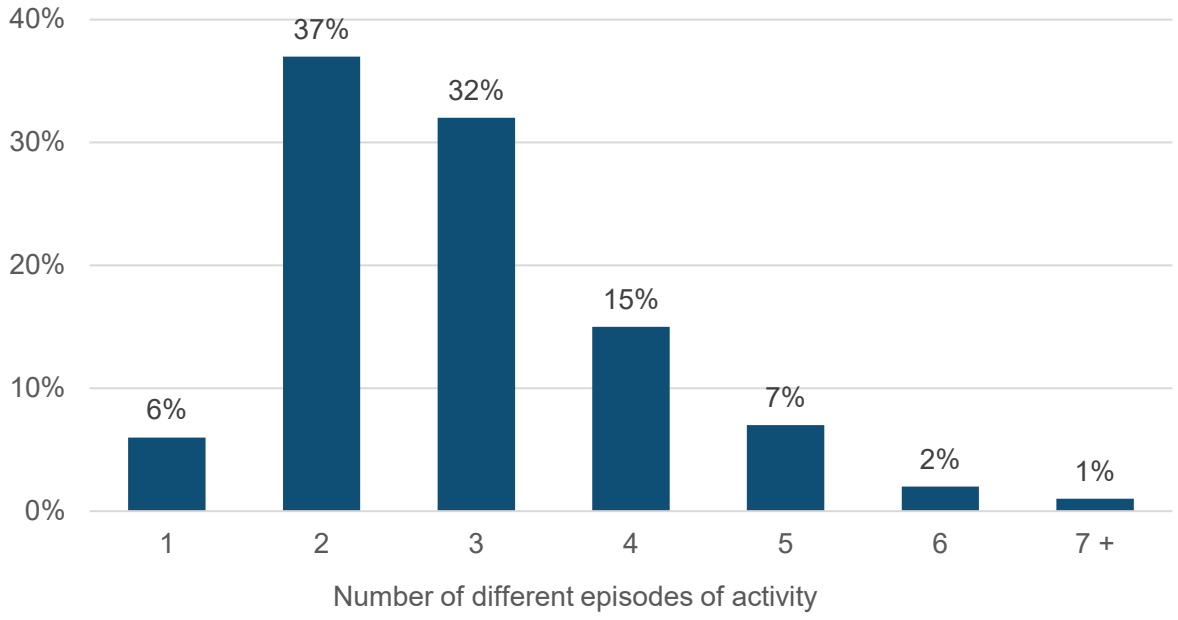
of churn between different activities or is there just lots of individual variation in the timings of when young people stop and start similar types of post-16 tracks?

Evidence of churn?

To explore whether churn is present in these post-16 transitions, and if it is how marked it is, we examine the **number of changes** in activity young people reported over the 50-month period, i.e. the number of different episodes of economic activity observed.

In line with the broad overview of post-16 transitions shown in Figure 1 and the overall similarity in the nature of transitions for one third of the cohort at least, Figure 5 shows that the "churn" young people on non-HE pathways experienced was actually very low: three-quarters (75%) of the cohort have three or fewer episodes of, or changes in, activity over the 50-month period, with just 3% having more than six, and none of the cohort experienced more than seven different transition events. Of the remaining 25%, 15% have four different episodes of economic activity - an average of one per year – and 10% have five or more. [29]

Figure 5: Number of transition episodes



Source: LSYPE2: waves 4 to 7 (unweighted)

What we cannot tell from this information, however, is what states young people are moving between: it could be oscillating between two over the four years, it could be

[29] Young people may of course have changed courses or jobs during this time which will not be picked up here, but this analysis shows that the overall nature of what they are doing has changed very little over the four-year period.

five discrete activities. In order to understand the nature of the transitions we need to group the sequences together.

Grouping Procedures

Visualising all the individual sequences of activity history data gives some insight into the likely groupings within the cohort: the common sequence analysis highlighted that nearly a third (31.8%, see Figure 4) can be captured by one of ten patterns which themselves cover only five key transitions. Furthermore, summarising the number of distinct episodes experienced by the cohort indicated that churn in young people's post-16 transitions is actually quite low, around 10% at most.

This next stage of deriving our different pathway types is through the use of cluster analysis which combines the sequence data into a smaller number of groups for further analysis.

Cluster Analysis

So, how many clusters are there? As noted in the methodology section (Chapter 2), in combining the data into a smaller, more manageable number of groups or types there is a trade-off to be had between: (i) the amount of within cluster variation; and (ii) maintaining a sufficiently small number of clusters, each themselves of a reasonable size, to enable meaningful analysis. As such, we explored a range of different sized cluster solutions to assess where this balance is best met.

Figure 6, for example, gives the density plots - the proportions following the set of individual 50-month histories in that group - for the 12 cluster solution. Looking across these 12 different sets of sequence plots, it is evident that some of the clusters produce fairly neat and contained pathway types, i.e. fairly homogenous groups, while others retain a greater number of different activity transitions or "noise" within them, i.e. they are more heterogenous. For example, **Type 5** is fairly uniformly made up of two key economic activities: pathways of one, two or three years of full-time non-degree education (**dark blue**), followed by periods of continuous work (**dark red**). **Type 4** contains mainly three activities and is predominantly made up of young people who completed two years of full-time non-degree education (**dark blue**) immediately post-16, followed by around a year of "other transitions" (**grey**), before then starting university (**mid-blue**) at age 19/20 (wave 7).

Other clusters are less clear cut. **Type 2**, for example, is made up of young people who complete two years of post-16 full-time non-HE education (**dark blue**), followed by a varied amount of time spent in "other transitions" (**grey**), after which some moved into work (**dark red**), while others started university (**mid-blue**). Similarly, **Type 10** includes young people who are in full-time non-HE education (**dark blue**)

across all four waves, some who are enrolled in apprenticeships or training programmes (**mid-green**) for varying amounts of time, individuals who are at home (**purple**) for the latter two years, and still others who are working (**dark red**). There is also some evidence of overlap between the different types. **Types 2**, **3** and **6**, for example, all contain pathways that appear very similar but are nevertheless grouped separately: two years in full-time non-HE education (**dark blue**), around a year in work (**dark red**), followed by a delayed entrance to university (**mid-blue**) in the final year observed. [30]

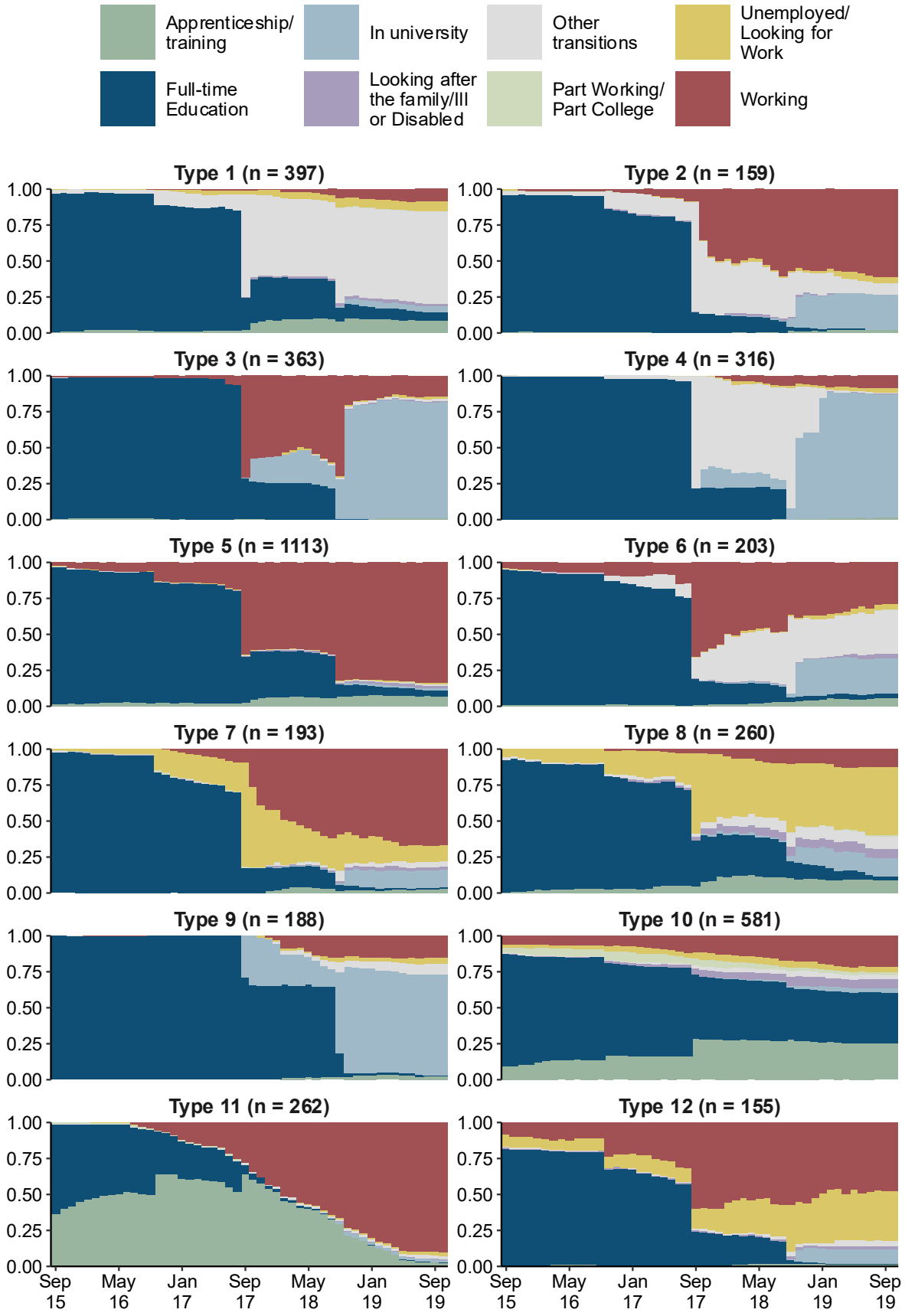
The data driven, 12 cluster solution can be broadly summarised as:

- Type 1: FTED (non-degree) → Other Transitions
- Type 2: FTED (non-degree) → Other Transitions → Work / University
- Type 3: FTED (non-degree) → Work → University
- Type 4: FTED (non-degree) → Other Transitions → University
- Type 5: FTED (non-degree) → Work
- Type 6: FTED (non-degree) → Work / Other Transitions → University / Mixed
- Type 7: FTED (non-degree) → NEET → Work
- Type 8: FTED (non-degree) → NEET → Mixed
- Type 9: FTED (non-degree) → University / University → Work
- Type 10: FTED (non-degree) only / Work only / Apprenticeships only / FTED (non-degree) → Apprenticeships / Long-term At home
- Type 11: (FTED (non-degree)) Apprenticeship → Work
- Type 12: FTED (non-degree) → Work / NEET / University mixed

These clusters are able to capture much of the variation in post-16 transitions, but there are too many crossovers between certain types to settle on this as a final classification. Rather, these data driven approaches alongside the realities of observing too similar pathways across different groupings, led to a combined approach: a manual grouping.

[30] In keeping with the 'bottom-up' (agglomerative) clustering approach described earlier, further dividing the cluster solutions in the hope of reducing some of this heterogeneity is possible, but only within each overarching group already pulled out. Sequences from Type 6, for example, can only be further separated out from other Type 6 pathways, they cannot be reclassified with more "similar" ones from Type 2. We also cannot force the underlying statistical algorithm to pull out which group next, so moving up to a 14 cluster solution or down to 8 would not necessarily yield a more parsimonious reduction of the cluster sequences observed here.

Figure 6: Cluster Analysis Example: The 12 Cluster Solution (Density Plots)



Source: LSYPE2: waves 4 to 7 (unweighted)

Manual Grouping

The cluster analysis in Figure 6 highlighted several core pathways. Using these broad groupings as our baseline "types" in conjunction with the descriptive statistics from the sequence analysis resulted in ten distinct pathway types of individuals who experience more similar post-16 transitions. [31]

From the largest to the smallest, these groups are:

1. **FTED into Employment (28%)**
    - Transitions marked, predominantly, by two years of full-time, non-degree education followed by consistent employment.
    - Some pathways in this group do include periods of NEET, other transitions, part-time work / part-time college but appear to end the four-year period in sustained employment.
2. **Delayed University Entrants (18%)**
    - Young people who started university at age 19/20 (wave 7), one year later than the more 'traditional' direct to university group.
    - Three clear sub-groups within this pathway are evident:
        - "Probable Retakers": three years FTED (non-degree), then a year of university;
        - "Work First": two years FTED (non-degree), one year of employment, followed by a year of university;
        - "Gap Year": two years FTED (non-degree), one year other transitions, then a year of university.
3. **Apprentices & Training Pathways (17%)**
    - Individuals who spend a minimum of six continuous months[32] enrolled on an apprenticeship or training programme/course during the four-year window, in combination with FTED (non-degree) and/or employment.
4. **Extended FTED (non-degree) (16%)**
    - Young people who spend the majority of time in FTED (non-degree), either all four years or three years consecutive, followed by a year of work or other transitions.

[31] More detail on this process is available from the researchers on request. The separate pathway group index plots are shown in Appendix C.
[32] As noted in the Executive Summary, most apprenticeships during this time period would have been for a minimum of 12 months. Within this Apprenticeship & Training group, the vast majority (85.7%) spent at least 12 months in apprenticeships. The lower limit of six months allows for those engaged in other forms of continuous training to be included here.

5. **FTED into NEET (8%)**

    - In parallel with the FTED into Employment group, transitions here are marked by one, two, or three years in FTED (non-degree), followed by consistent and prolonged periods of being NEET and looking for work.

6. **"Other" [33] NEET (5%)**

    Transitions marked by two years in FTED (non-degree), followed by two years occupying "other" activity states.

7. **University Non-Completers (4%)**

    - Young people who spend less than eight months in university in 'Year 14' and none in 'Year 15';
    - Young people who spend less than six months in university in wave 7 and none in the previous year;
    - Young people who spend less than six months in university in wave 6 and then return in wave 7.

8. **At home (2%)**

    - Young people who move from FTED (non-HE) into consistent and prolonged episodes of reporting being at home with caring responsibilities, or are ill or disabled, some via periods of being NEET and looking for work.

9. **Returners (1%)**

    - Similar to the Extended FTED (non-HE) group, Returners' transitions are marked by lengthy periods in full-time, non-university based education but separated by continuous blocks of six months or more in activities, typically employment.

10. **"Apple Pickers" (1%)**

    - This small group appear to be made up of young people on the traditional, 'direct to university' track, but because they very accurately reported their employment activities during the seasonal, university holiday months – hence the name - were not captured by the definitions used to initially reduce our analytic sample (see Chapter 3 and Table 6 for further detail)
        - Individuals in this group will be dropped for the remaining analyses since they fall outside of the "non-traditional university track" focus of this report.

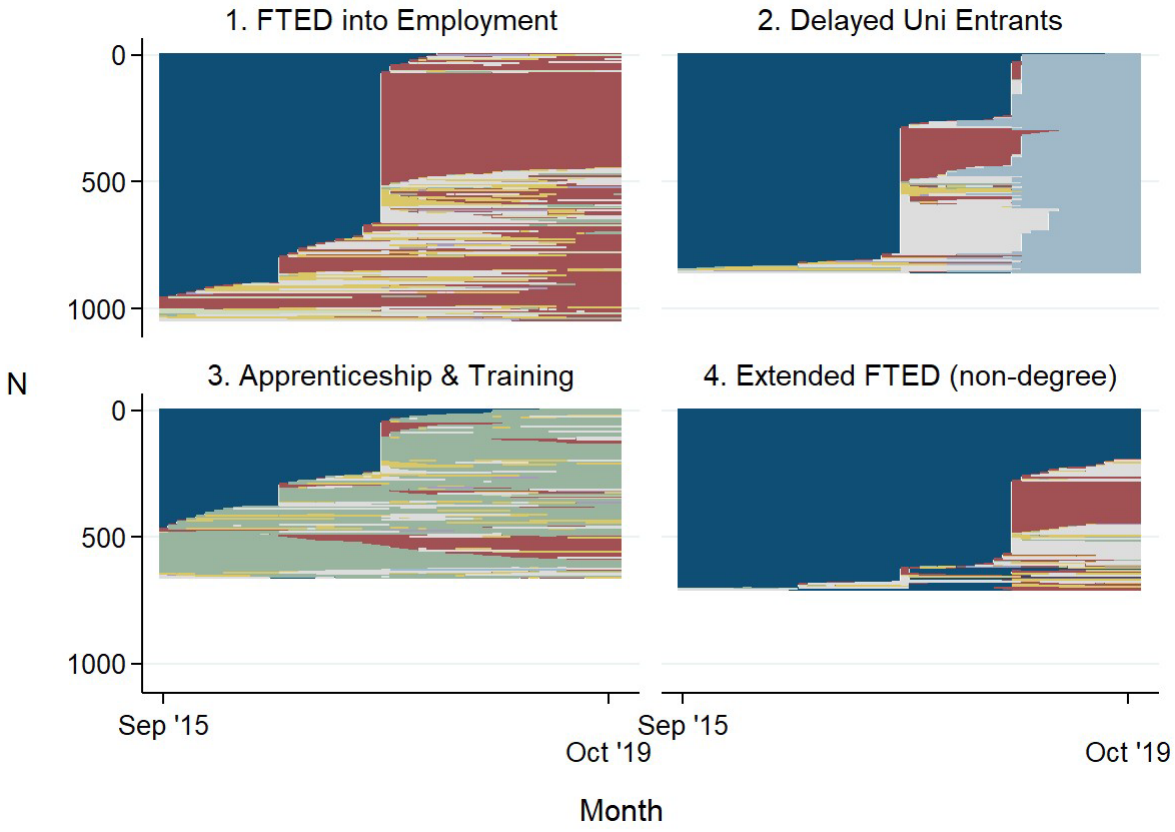
The sequence plots for each of the ten groups pulled out are shown in Figure 7 (and separately in Appendix B). As can be seen from these plots, there is still some

[33] The "Other Transitions" category includes: Waiting for a course or job to start; Waiting for exam/course results; Travelling; Taking a break from work and study.

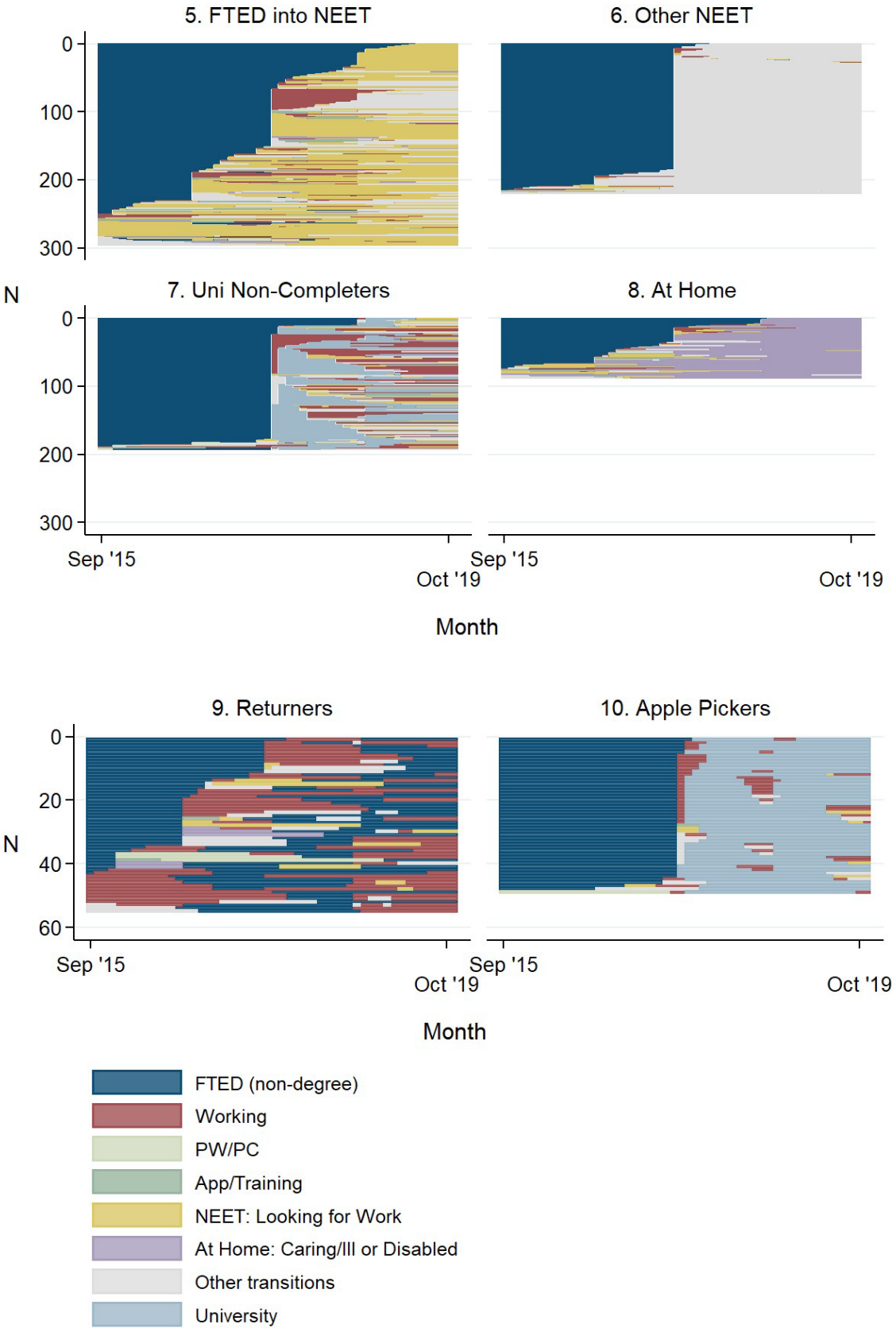
within-cluster heterogeneity in each of the groups, which is inevitable given the uniqueness of some individuals' pathways. However, the resulting pathway types are broadly in line with previous research (see Table 3) and also make sense from a policy perspective.

Note also that the names given to each pathway cluster are meant to capture the overarching transition across the four-year, post-16 period: they are not static, definitive or deterministic, but rather broadly descriptive of the different post-16 pathways observed.

Figure 7: Individual Index Sequence Plots



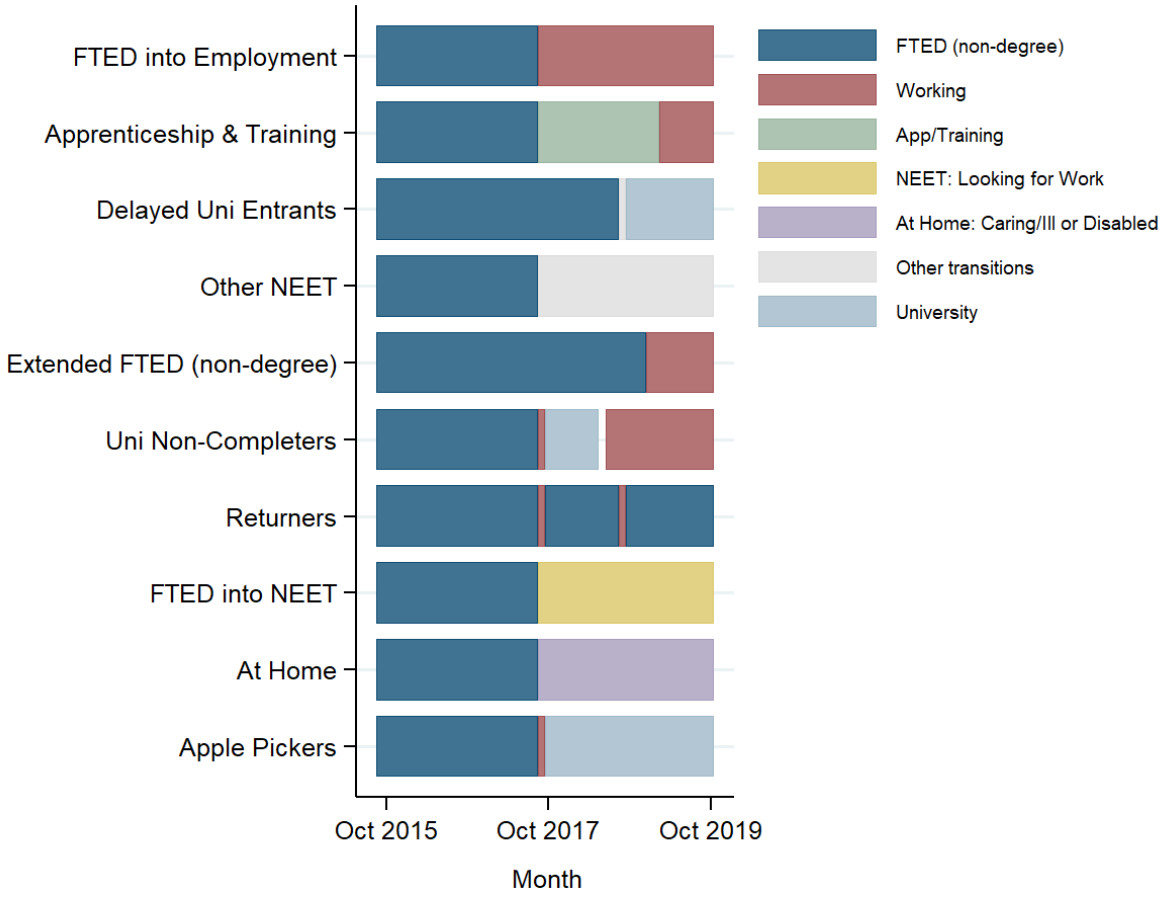
(Figure 7: continued)



Source: LSYPE2: waves 4 to 7 (unweighted)

Figure 8 presents modal activities – the most common activity for any given month - for each of the ten groups, providing a simple summary of how, and roughly when, young people in each of the groups spend their time and an additional lens to view what and where the main shifts in activity are. Those in the FTED into Employment group, for example, spend roughly half their time in full-time, non-university education and the remaining half in work; Delayed University Entrants spend the first three years in full-time, non-degree education and the last year in university, and so on. Face value differences between the three different NEET groups – FTED into NEET; Other NEET; and those At Home - are evident, and the equivalence between the Apple Pickers and those who we previously excluded – the Direct to University group – are also clearly apparent.

Figure 8: Modal Activity States, by Pathway Group



Source: LSYPE2: waves 4 to 7 (unweighted)

Overall, most of these groups do not substantially diverge from the clusters identified by Dickerson et al. (2020), McVicar and Anyadike-Danes (2002) or De Coulon et al. (2017; see Table 3):

- employment dominated **(Pathway 1)**
- NEET dominated **(Pathways 6, 7 and 8)**

- apprenticeship focussed **(Pathway 3)**, and
- extended FE/vocational pathways **(Pathways 4 and 10).**

Not previously identified by these other authors, however, are the alternative HE pathways observed in our data – both the "delayed" starters, as well as those who appear to "dropout" of university or otherwise not complete the course initially started (**Pathways 2** and **7**) - or those young people who might technically be classified as long-term NEET but do not appear to identify with activities typically linked to that activity state and so may be quite different in the characteristics, the "Other NEETs" group (**Pathway 6**).

This latter group are particularly unusual: they make up 5% of the overall non-immediate HE cohort and appear to show no deviation from their self-reported "other transition" activities where they are essentially economically inactive, but not seeking work or educational opportunities but rather "waiting". Since our primary objective is to describe in detail the different post-16 transition experiences of this non-immediate, HE track cohort and our analysis specifically seeks to draw out the nuances amongst some of these smaller groups that might previously have been missed, the final step in our grouping procedures paused briefly to focus on what this group are actually "waiting" on.

The "Other" NEETs

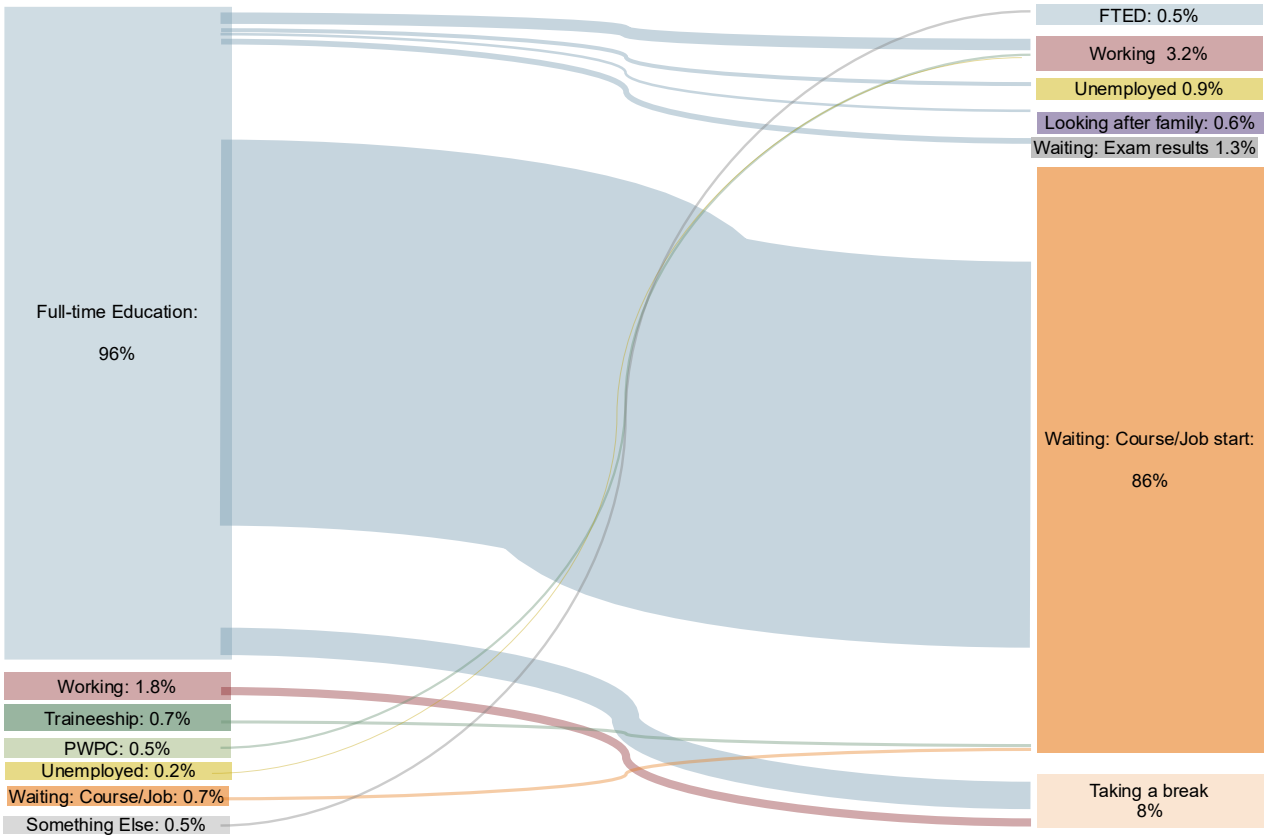
Consistent with the coding of activity histories used in the LSYPE1, the "other transitions" category includes young people who report that they are: "Waiting for exam/course results"; "Waiting for a course or job to start"; "Travelling"; or "Taking a break from work and study". However, while engaging in either these temporary "waiting" activities or taking a more sustained break from education for a while seems a perfectly reasonable part of post-16 transitions, such extensive, unchanging blocks of it, especially when compared with the equivalent - but far briefer and patchier - episodes seen in pathways such as the FTED into Employment or Apprenticeships & Training groups (see Figure 7), seems a little more unusual.

One possible explanation might be that this group, 5% of the overall non-immediate HE cohort, are taking an extended "Gap Year" and travelling for the full two-year period after completing their A-levels or equivalent. To check this, we pulled out the detail in these "other transitions" and found that, on average, this group actually spend less than a month travelling. Rather, they report spending their time "waiting for a job or course to start" (on average, 23.6 months out of the 50 observed).

The Sankey chart below, for example, like the one in Chapter 3 (Figure 2), shows how young people, classified as "Other NEETs" based on the criteria outlined above,

move over the same four year period and further highlights the clear majority flow from full-time, non-HE education into waiting for a course or job to start (86% of this group in October 2019) with a small proportion "taking a break". [34]

Figure 9: Sankey Chart showing transition between main economic activity for those classified as "Other NEET": September 2015 – October 2018: Ages 16/17 to 19/20 (waves 4 to 7)



Source: LSYPE2: waves 4 to 7 (unweighted

So, if these young people are not travelling, what are they doing? To better unpack this, we used additional detail from the young person's questionnaire which asks, over and above what they state to be their "main economic activity", what else they might be doing. This process yielded a number of individuals who reported studying for various qualifications despite not recording their primary activity as in some form of education.[35]

[34] As noted, transition lines from left to right in the Sankey Chart are proportional to the percentages moving from one activity state to another, the blocks which bookend either side of the chart are only roughly proportional to accommodate labelling.

[35] Measurement error is an inherent part of large-scale, longitudinal studies and results from a number of sources, including the individual themselves, as well as the way in which data is captured, recorded

Table 7 shows what the n = 221 young people categorised as on “Other NEET” pathways based on their monthly activity histories also reported studying for over the last two years in these data and indicates a number of misclassifications. For example, despite reporting waiting activities as their main economic activity in their primary response to economic activity in the survey, 130 young people (59% of the Other NEETs group) also claim to be studying for a degree in both Years 14 and 15 (waves 6 and 7) and so should actually be classified as Direct to University. Similarly, Other NEETs who responded that they were studying for a degree in Year 14 (wave 6) but not the year after should be with others who started university but did not complete, and so on. The final column of Table 7 shows the pathway cluster these misclassified individuals were moved to.

Table 7: Detailed “what is the YP studying?” variable across ages to 18/19 and 19/20 (waves 6 and 7) for those classified as Other NEET

Qualification being studied:	N	%	Moved to:
None	47	21	-
Degree W6	8	4	University Non-Completers
Degree W7	17	8	Delayed University Entrants
Degree W6 & W7	130	59	Direct to University
Non-Degree W6	8	4	Extended FTED (non-degree)
Non-Degree W7	5	2	Returner
Non-Degree W6 & W7	6	3	Extended FTED (non-degree)
Total	**221**	**100**	-

Source: LSYPE2: waves 4 to 7 (unweighted)

These efforts to fine tune the grouping procedures increase the accuracy of our overall pathways and help, in particular, to clarify this odd group, reducing it to just 47 young people or 1% of the non-immediate HE cohort. That those who remain in it do not appear to be studying and report their activity as essentially NEET but not looking for work[36], delineates them in potentially interesting ways from more

and coded. Our approach is iterative but uses the richness of the LSYPE2 data to try and reduce any discrepancies that may exist and ensure the analysis is as accurate as possible.

[36] As in the Sankey Chart above, the majority of this group – 57%, n = 27 – report that they are “waiting for a course or job to start” in their main economic activity given at age 19/20 (wave 7). What exactly they are waiting for cannot be ascertained from these data – possibly it can in the next waves – but from the information available here we cannot determine whether it is that they are waiting so long for the “right” course or job or whether this anomalous group simply reflects unresolvable measurement error.

traditional NEET and we therefore keep them as a distinct subset of the NEET population in the subsequent analyses.

To ensure the highest degree of accuracy across all the groupings and the integrity of all subsequent analyses, we carried out similar adjustments across all the pathways identified. This resulted in small adjustments across the full LSYPE2 cohort: resolving discrepancies between contradictory activity and study reports were made across both the immediate and non-immediate HE tracks, but in practice mostly involved moving Delayed University Entrants into the Direct to University group (for example, n = 277 young people from this delayed group were actually found to be studying for a degree-level qualification in both waves 6 and 7 and so were moved to the Direct to University group; see detail in Appendix C). [37]

Summary: Final Pathway Groups

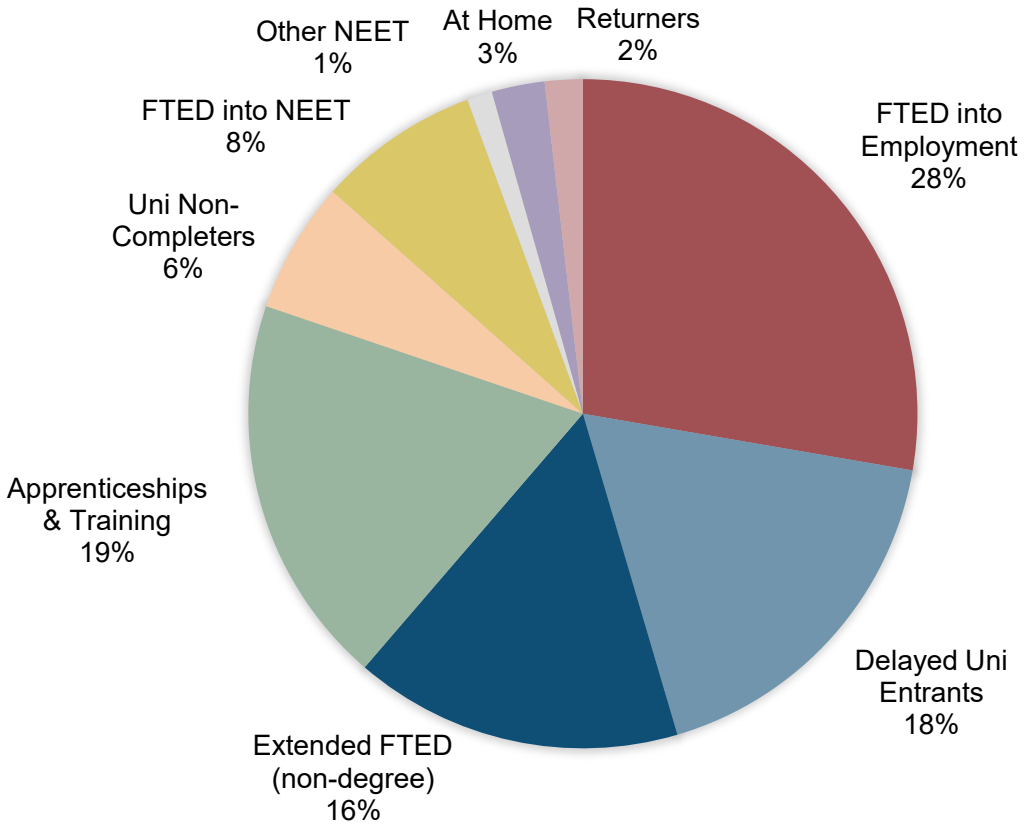
Our highly detailed analysis of the post-16 transitions for the cohort not going straight to university yielded nine[38] distinct types of pathways across a sample of n = 3,649 individuals with complete activity histories. This constitutes two thirds (66%) of the LSYPE2 cohort at age 19/20 meaning that the other third (34%) of young people in this sample can be classified as starting the more "traditional" university route immediately after Year 13.[39]

Four big groups dominate the overall classification of non-HE tracks: the largest single group is those on FTED into Employment pathways, 28% of young people, followed by those on Apprenticeships & Training pathways (19%), Delayed University pathways (18%), and Extended FTED (non-degree) routes (16%).

Reflecting the more static overview of four-year, post-16 transitions described in Figure 1, the vast majority of young people are again identified as experiencing largely positive routes out of compulsory schooling: combining these four main groups with those classified as Returners (1%), just over 4 in every 5 young people (82%) appear to be on positive post-16 pathways and were engaged in education, employment or training activities over the September 2015 to October 2019 (Figure 10).

[37] Further detail on how these additional qualification variables were constructed and how individuals were reclassified is available from the authors on request.
[38] "Apple Pickers" were dropped from Figure 9 and in subsequent analyses and included with those in the Direct to University group.
[39] These are weighted proportions. The unweighted percentages are 61.5% and 38.5%, respectively.

Figure 10: Final Pathway Groups



Source: LSYPE2: waves 4 to 7 (weighted)

Of concern, however, are the remaining 1 in 5 identified in these analyses as being on potentially less advantageous, or at-risk, pathways: the FTED into NEET group (8%); the University Non-Completers (6%); Other NEETs (1%); and those predominantly At Home (3%). Chapter 5 explores who is in each of these groups and how they compare across key individual and family-level characteristics. Chapter 6 then examines which of these observable characteristics are the key factors for predicting group membership.

Chapter 5 What are the characteristics of young people on the main pathways identified?

Introduction

The next stage in our analysis examined the characteristics of young people across each of the nine non-immediate HE groups.[40] Here we look at the absolute, or face value, differences between the groups across a range of individual and family level factors to get a better sense of who is following the different pathways identified.

Summary statistics for the combined non-HE cohort are given in Appendix Table 2 and, for interested readers, mean comparison across all variables in these analyses with those in the Direct to University group are reported in Appendix Table 3.

Individual Characteristics

Gender

Overall, just under half (45.6%) of the non-HE cohort is female. In terms of variation across the different pathway groups, girls are, on average, more likely to continue on in HE related pathways post-16 than are boys: both non-immediate university tracks – Delayed University Entrants (51.5%) and University Non-Completers (46.3%) have a higher proportion of females compared to this average.[41] This is also true of those in the Direct to University group, 56.1% of whom are female (see Appendix E).

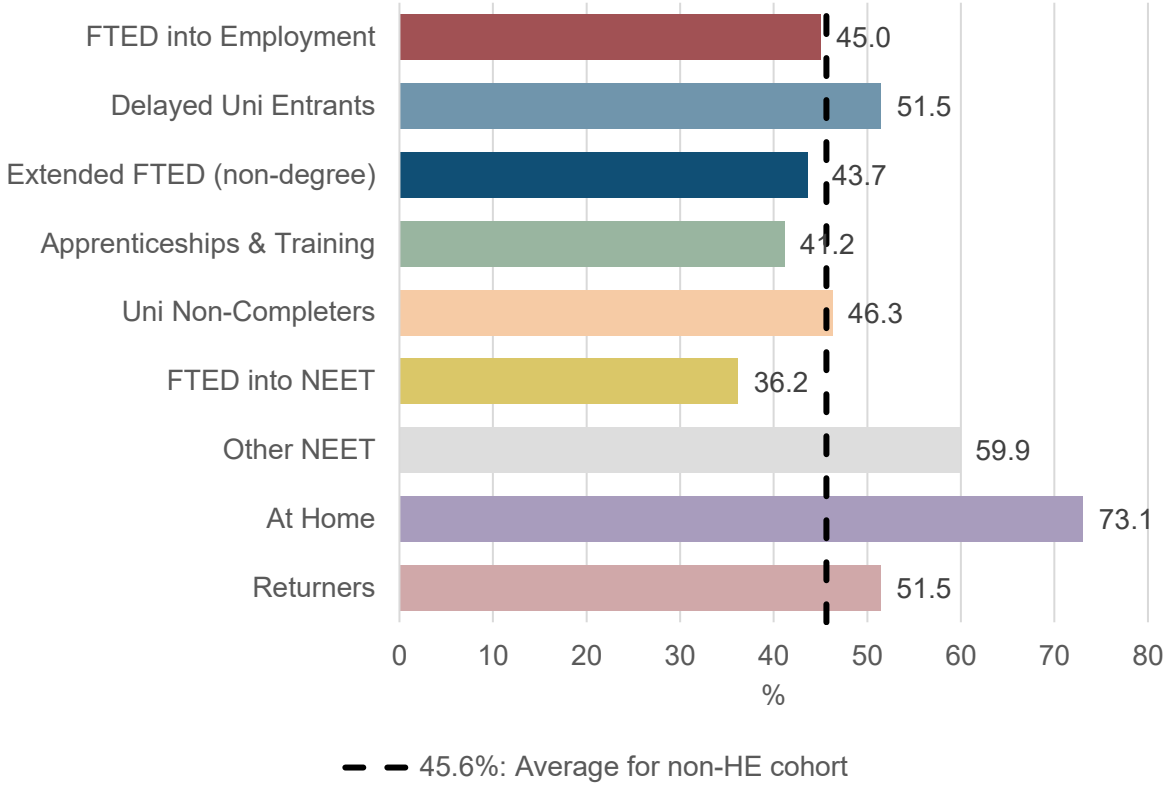
Conversely, as with the findings of both Dickerson et al., (2020) and McVicar and Anyadikes-Danes (2002), pathways more strongly associated with employment activities are more male dominated: FTED into Employment (55.0% boys compared with 45.0% girls); and Apprenticeships & Training pathways (58.8% boys compared with 41.2% girls). The two groups who spend longer in non-HE-based education – Extended FTED (non-degree) and Returners – are also more likely to be male.

In terms of the two mainly NEET groups, boys are more likely to be categorised as part of the FTED into NEET pathway (62.8% of boys compared with 36.2% of girls), while girls appear more commonly in the Other NEET group (59.9% of girls compared with 40.1% of boys). Nearly three-quarters (73.1%) of those who are

[40] As noted, we now exclude the "Apple Pickers" group and combined them with the Direct to University group since analysis of their histories data highlights that they are essentially on the same track: GCSEs – A-Levels – (straight into) University.
[41] Girls are significantly more likely to be in the Delayed University group than the FTED into Employment group, but there is no significant gender difference between University Non-Completers and those who are predominantly employed post-16.

predominantly At Home over the period are female. When compared to the gender difference observed for the FTED into Employment group, the differences across each of these three NEET groups is significant.[42]

Figure 11: Percent Female, by Pathway Group



Source: LSYPE2: waves 1, 4 to 7 (weighted)

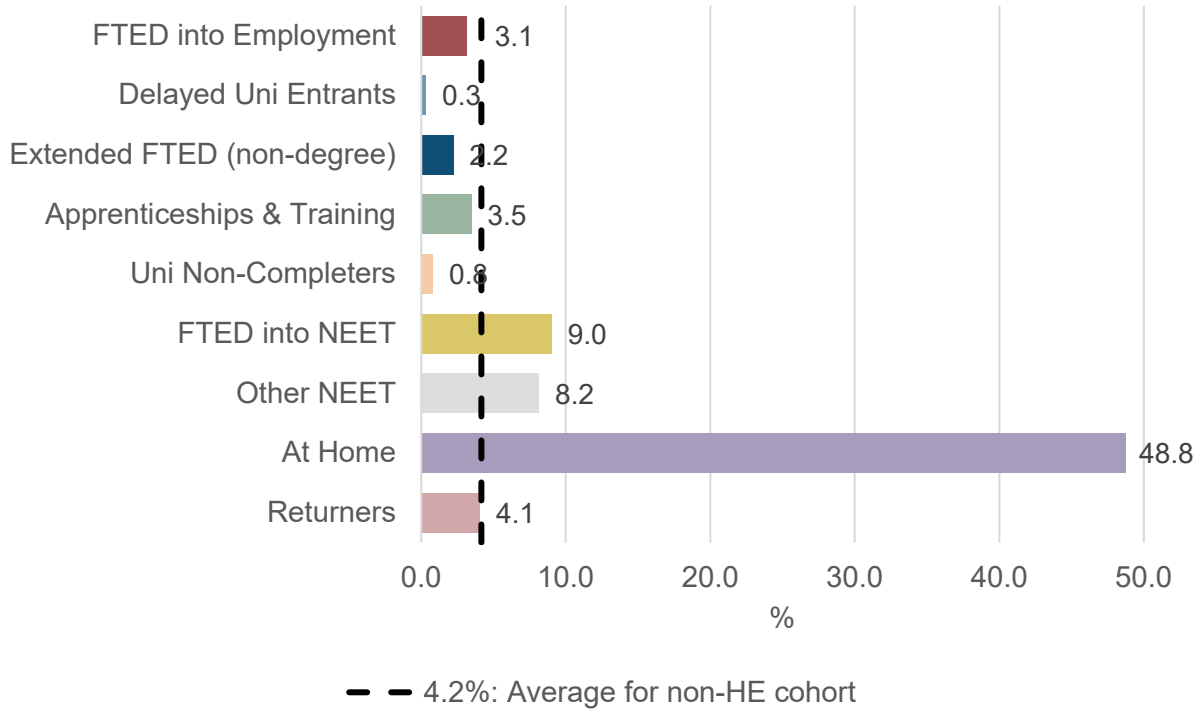
Own child at age 19 / 20

A total of 4.2%[43] young people on non-immediate HE pathways report having their own child by age 19/20 (wave 7). Unsurprisingly, this proportion is highest amongst those At Home - with almost half of this group (48.8%) indicating that they are already parents themselves - and lowest for those on alternative university tracks. Around 1 in 11 (9.0%) of those on FTED into NEET pathways and 1 in 12 (8.2%) of the Other NEET group also report having their own child by age 19/20, more than

[42] Significance testing here compares the average level for each pathway group with that of a reference group – here young people in the FTED into Employment group, since they are the largest and most commonly observed pathway – not against the overall non-HE cohort mean which is provided purely for context.
[43] Of the 3,649 in our analytic sample, this equates to an unweighted N of 118 young people: 89 females and 29 males.

twice the average rate of the non-HE cohort.[44] More detail and analysis on outcomes of these different groups will be provided in our second report in the Pathways series (Ross et al., 2025).

Figure 12: Percent with own child at age 19/20, by Pathway Group



Source: LSYPE2: waves 4 to 7 (weighted)

Longstanding Illness or Disability and Special Educational Needs and Disabilities

Across the non-immediate HE cohort just under 1 in 5 young people (18.1%) were reported to have a **long-standing illness or disability (LSID) likely to last at least until age 16** when they were aged 13/14 (Table 8).[45] These proportions are highest for those spending longer periods in full-time (non-HE) education – 27.3% of those in the Extended FTED (non-degree) group and 24.1% of Returners – and those in the At Home (24.7%) and FTED into NEET (27.3%) groups. All these differences are significant when compared to the proportion observed for the FTED into Employment group (14.9%).

[44] Note that two young people, both male, in the Direct to University group reported having become a parent by age 19/20 (wave 7).
[45] This compares to 10.7% of young people in the Direct to University cohort. See Appendix Table 3.

A much higher proportion of young people in these four groups were also in receipt of **special educational needs** (**SEN**) provision [46]: nearly half (48.1%) of those in the FTED into NEET group were receiving SEN provision at age 13/14 (Year 9), compared with 39% of those on Extended FTED (non-degree) pathways, 36.6% of those At Home, and 27.5% of those who return to education after a spell of work, Returners. Conversely, those in the Delayed University Entrants group (9.1%) show much lower than average[47] levels of SEN provision and far lower incidences of LSID (see also Table 8). Interestingly, the SEN profile for those in the other university group, the Non-Completers, is quite different with, on average, 18.2% of young people reported as having received SEN provision at school, twice that of the delayed entry group.

Table 8: Long-standing illness or disability and SEN status, by Pathway Group

Pathway Group:	YP has long-standing illness or disability (%)	YP has SEN status (%)
FTED into Employment	14.9	23.7
Delayed Uni Entrants	12.1	9.1 *
Extended FTED (non-degree)	27.3 *	39.0 *
Apprenticeships & Training	15.0	20.8
Uni Non-Completers	18.4	18.2
FTED into NEET	27.3 *	48.1 *
Other NEET	20.7	23.0
At Home	24.7 *	36.6 *
Returners	24.1 *	27.5
Average for Non-HE cohort	**18.1**	**25.1**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 1, 4 to 7 (weighted)

The average for the non-HE cohort is nearly four times higher than for those who move into HE directly from school or college: 25.1% of those on non-immediate HE tracks compared to 6.9% in the Direct to University group. Values with an asterisk (*****)

[46] SEN status is measured in the NPD and is a binary indicator of whether or not the young person was in receipt of SEN provision at school or not and does not include detail on the type of provision received. (See Duckworth, Ross & Harding (2025) for further detail on young adult outcomes for pupils who received different levels of SEN provision).
[47] The proportion of young people reported as having SEN status at age 13/14 in the Direct to University cohort is lower still at 6.9.

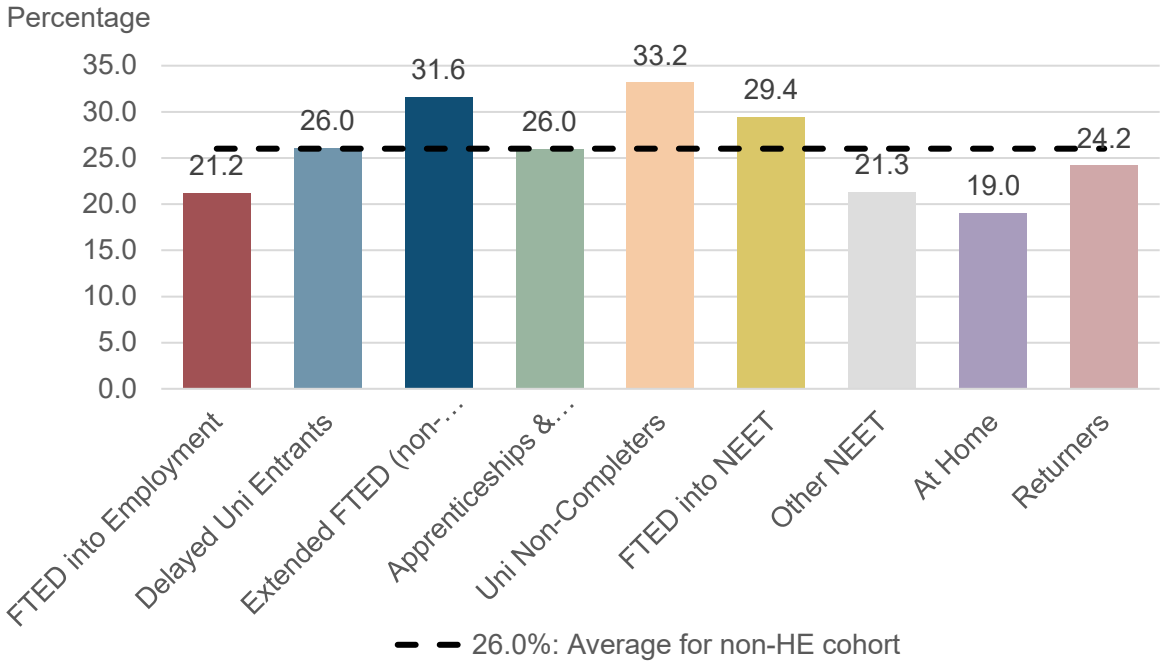
are significantly different at at least the 5% significance level – higher or lower - from those in the FTED into Employment reference group.

Term of birth

Term of birth has been associated with achievement, with children born in the summer performing, on average, worse than those born in the autumn (Crawford, Dearden and Greaves, 2013), as well as being more likely to receive special educational services (Dhuey and Lipscomb, 2010). Summer born pupils have also been shown to have lower levels than peers born earlier in the year across a range of non-academic outcomes, such as their view of their own scholastic competence (Crawford, Dearden and Greaves, 2014).

Within the non-immediate HE cohort, just over a quarter – 26.0% - were born in the **summer term** (Figure 13). Compared with those in the FTED into Employment group (21.2%), those delaying university (26.0%), the Extended FTED (non-degree) group (31.6%), young people enrolled on apprenticeships and training courses (26.0%), those who leave university before completing (33.2%) and those in the FTED into NEET group (29.4%) also, on average, are more likely to be born in the summer term. [48]

Figure 13: Proportion of YPs born in the summer term, by Pathway Group



Source: LSYPE2: waves 1, 4 to 7 (weighted)

[48] Significant at, at least, p<0.05 when compared to those in the reference group, FTED into Employment.

Note, however, there are no significant differences in the term of birth between the combined non-immediate HE cohort and those in the Direct to University one (see Appendix Table 3).

SES and Family-level Characteristics

In addition to variation in terms of individual-level characteristics, post-16 transitions are also known to vary significantly with the young person's family background and socioeconomic circumstances (Strand, 2011; 2014; see also Crawford, et al., 2011; Dickerson et al. 2020).

We considered a range of socioeconomic characteristics, whilst recognising that some aspects of family background are strongly associated with each other. Household education, social class and occupation, for example, are known to correlate (for example, Chowdry, et al., 2013) and show similar relationships with a broad range of educational outcomes (Davis-Kean, Tighe, and Waters, 2020). However, as our focus here is on post-16 transitions, primarily with respect to pathways into and through different forms of education and training, we concentrated on indicators of the household in terms of overall educational qualifications achieved rather than those related to occupational level.[49]

Highest Parental Education

The association between parents' level of education and their children's academic outcomes is strong and persistent across the life course (Feinstein, Duckworth and Sabates, 2008; Goodman, Sibieta, and Washbook, 2009; Davis-Kean, et al., 2020). In terms of post-16 transitions, Crawford et al. (2011), for example, find that young people whose parents themselves are university graduates are more likely to continue in full-time education and less likely to begin working or become NEET, while families from an intermediate SES group are more likely to have children who pursue employment, in particular jobs with training.

Similar associations are evident for post-16 transitions among this cohort (Table 9). Young people from households where a higher proportion of parents are educated to degree level or higher are more likely to be on university tracks themselves: 41.3% of Delayed University Entrants lived in homes where at least one parent was educated to degree level; with a slightly lower proportion, but still higher than average, 25.8% of University Non-Completers coming from similarly highly educated households. The Delayed University Entrants also have the lowest proportion of

[49] At the bivariate level, there is also a slightly stronger association between highest household education and KS4 score (r = 0.30) than between highest household occupational classification and KS4 performance (r = 0.25).

parents with few or no educational qualifications at all: 14.8% compared to an average of 28.8% for the non-HE cohort.

It is also interesting to note differences between young people across the three NEET groups in terms of household education level, whereby young people classified as part of the Other NEET group come from more highly educated households than the other two NEET tracks: around 1 in 5 (19.4%) have at least one parent with a degree or higher, a further third (32.9%) have parents with A-levels or equivalent, and a quarter (27.4%) with no or very few qualifications. Compare this with the those more traditionally considered as NEET, the FTED into NEET group, and this pattern is quite different: the majority, 43.3%, come from households with no or few educational qualifications and just 12.5% from homes where at least one parent has a first degree or higher. This proportion is only more marked for those in the At Home group where almost half (48.2%) have parents without qualifications and only 8.3% are educated to degree level or higher.

Young people on employment tracks – the FTED in Employment and Apprenticeships & Training groups – have very similar profiles with respect to parental education: similar to Crawford et al. (*op cit*), these young people are more likely to come from intermediate SES families with lower than average proportions with degree-educated parents, slightly higher than average with mid-level qualifications (A-levels and GCSE equivalents) and comparable levels with GCSEs. A higher proportion of young people in the FTED into Employment group grew up in households where neither parent really has educational qualifications. Comparing the Returners and Extended FTED groups, a higher proportion who go back to education rather than simply remain there for an extended period have at least one parent educated to degree level (24.2% compared with 18.2%).

Nearly half of the Direct to University cohort (48.5%) come from households where at least one parent is educated to degree level and just 12.1% where parents have no or few qualifications.

Table 9: Highest household education level, by Pathway Group

Pathway Group:	Degree plus	A/AS levels / HE below Degree	5 or more A* - C GCSEs	None / Some GCSEs
FTED into Employment	14.9	31.7	21.0	32.4
Delayed Uni Entrants	41.3	30.3	13.6	14.8
Extended FTED (non-degree)	18.2	33.1	19.0	29.8
Apprenticeships & Training	16.9	32.8	21.6	28.7
Uni Non-Completers	25.8	33.1	16.0	25.2
FTED into NEET	12.5	21.7	22.6	43.3
Other NEET	19.4	32.9	20.3	27.4
At Home	8.3	23.5	20.0	48.2
Returners	24.2	34.1	14.6	27.1
Average for non-HE cohort	**21.0**	**31.0**	**19.1**	**28.8**

Source: LSYPE2: waves 1, 4 to 7 (weighted)

Mother's Age

On average, children of younger mothers score less well on measures of cognitive achievement and are at greater risk of lower school performance than those of older mothers (Magnuson, 2007). When the non-immediate HE cohort were 13/14 years old and in Year 9, the average age across their mothers was 42.5 years (44.3 amongst those in the Direct to University cluster). Young people in the At Home group had, on average, the youngest mothers, with a mean age of 40.2 years in 2013 – significantly lower than those in the FTED into Employment group - while those in the Delayed University Entrants group and University Non-Completers had the oldest: mean ages 43.9 and 43.3 years, respectively, again significantly higher than mothers of the FTED into Employment group. Mothers of those in the Returner group were also older on average but not significantly so (see Table 10).

Family composition: YP lives in a single parent household

The structure of a family and particularly experience of family breakdown has been associated with academic attainment and post-16 tracks (Crawford, et al., 2011). Across the non-immediate HE cohort, 29.4% of young people were living in single parent households when aged 13/14, compared with 18.8% of those in the Direct to

University group. This proportion was highest amongst those in the At Home (44.8%) and FTED into NEET (44.6%) groups and lowest for those in the Returners group (17.5%), Delayed University Entrants (20.4%) and those on Apprenticeships & Training pathways (25.6%).

Receipt of Free School Meals

Eligibility for Free School Meals (FSM) is an indicator of household income captured in the NPD data and measures whether, up to the year 2014 when the cohort were in Year 9, the young person had ever been eligible to receive FSM. On average, across the cohort 30.5% young people had received FSM at some point in their school career.

In line with the other indicators of family background, there is a strong association between post-16 transitions and economic circumstances (Table 10). Young people living in households with lower incomes (i.e. those with FSM eligibility) are more likely to be in the more vulnerable pathway groups: FTED into NEET (55.9% have been in receipt of FSM at some point) and At Home (62% eligibility, more than double the cohort average). Here too, Other NEETs appear quite different in terms of their socioeconomic circumstances from those in the FTED into NEET group: just over a third (36.7%) of those classified as Other NEETs had been eligible for FSM at school.

Again, the alternative university track groups are shown to be more economically advantaged than the majority of other pathways, but the University Non-Completers are more likely to have been in receipt of FSM: 28.3% compared to 20% of those in the Delayed University Entrant group. Compare these proportions with those for the Direct to University group where only 16.4% of young people had been in receipt of FSM.

Income Deprivation Affecting Children Index (IDACI)

The IDACI measures socioeconomic circumstances at the local area level. Collapsing the detail into a decile score, running from 1 to 10, it measures deprivation based on the proportion of children aged under 16 living in low-income households in different areas of the country. A lower score indicates higher levels of deprivation. [50]

A similar pattern of associations between pathway groups and socioeconomic background emerged: young people in the At Home group and those classified as being on FTED into NEET pathways have the lowest IDACI scores, 3.4 and 4.1,

[50] More information about the IDACI index can be found here:
English indices of deprivation - GOV.UK (www.gov.uk)

respectively, i.e. more deprived, and both are significantly lower than those in the FTED into Employment group. Here those on Other NEET tracks are more similar to the rest of the NEET population, also with an IDACI score of 4.1.

Those on alternative university tracks come from the most economically advantaged areas: Delayed University Entrants (5.7) and University Non-Completers (5.4), compared with 5.8 for those in the Direct to University cluster (see Appendix Table 3). Returners (5.1) come from more socially advantaged areas than those on Extended FTED paths (4.5). Young people on the two work-related paths are again very similar with those in both the FTED into Employment and Apprenticeship &Training groups coming from households with an average IDACI score of 5.1.

Table 10: SES indicators, by Pathway Group

Pathway Group:	Mother's Age	YP lives in a single parent household (%)	Receipt of FSM (%)	IDACI: home decile score
FTED into Employment	42.2	32.0	27.6	5.1
Delayed Uni Entrants	43.9 *	20.4 *	20.0 *	5.7 *
Extended FTED (non-degree)	42.1	31.1	38.0 *	4.5 *
Apprenticeships & Training	42.5	25.6 *	23.2	5.1
Uni Non-Completers	43.3 *	29.2	28.3	5.4
FTED into NEET	41.3	44.6 *	55.9 *	4.1 *
Other NEET	42.5	27.2	36.7	4.1*
At Home	40.2 *	44.8 *	62.0 *	3.4 *
Returners	43.5	17.5 *	31.4	5.1
Average for non-HE cohort	**42.5**	**29.4**	**30.5**	**5.0**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 1, 4 to 7 (weighted)

Aspirations and Attitudes

Young people's educational attitudes and aspirations have repeatedly been shown as predictive of attainment (Schoon, 2010; Strand, 2007) and post-16 transitions (Crawford, et al., 2011; Dickerson, et al., 2020).

Educational Aspirations

In Year 9, aged 13/14, the LSYPE2 cohort were asked about their plans for when they reached aged 16. A number of responses were available (see Appendix A for further detail). Table 11 shows the proportion in each pathway group who said they wanted to:

i. stay-on at a school sixth form
ii. stay-on somewhere else (college; other; unsure)
iii. enrol in an apprenticeship or training course
iv. begin working
v. leave (be unemployed; start a family; something else)

Across all groups, the proportion of young people who wanted to stay on at 16 was very high. Nearly 60% of 13/14 year olds planned to stay on in a sixth form in order to continue studying when they reached 16, with a further 27.7% doing so in a college or similar institutional setting, totalling an average of 86.9% intending to continue in full-time education after turning 16. For those in the Direct to University group, this percentage is even higher at 98.4% (80.7% in a sixth form; 17.7% in a college or similar setting).

In keeping with other research, these figures are even higher amongst those who actually did remain in education, either in FE or HE, over the four-year post-16 period. For example, 94.9% of those on Delayed University pathways indicated they wanted to continue studying at age 16 (76.7% in a sixth form; 18.2% in a college or other institution). For University Non-Completers this figure is also 94.9%, and for those in the Extended FTED and Returners is slightly lower but still higher than average or across other tracks (89.9% and 87.4%, respectively).

The intention to stay on was lowest amongst those who left education whether to start work (85.8%), do an apprenticeship or other form of training (79.8%) or withdraw from education, employment and training altogether: FTED into NEET (76.5%) and At Home (82.1%), with Other NEETs higher than both, but lower than those still studying (86.2%).

In terms of more vocational aspirations, there is a clear indication by those who go onto pursue apprenticeships and training of their intent: 15.2% of those in the Apprenticeships & Training group expressed this desire in Year 9, almost double the average across the whole non-immediate HE cohort (8.1%; less than 1% of those in the Direct to University group). This does also flag that the vast majority of those who actually went on to do apprenticeships were actually not planning to at age 16 and

indicates that, for this cohort at least, it was a fairly uncommon aspiration amongst young people.

All three NEET groups, as well as those who initially left full-time education only to return later, were more likely than the average for the non-HE cohort to report wanting to leave or do something else ("start a family"; "be unemployed"; "don't know"), particularly those on FTED into NEET and Other NEET pathways.

Table 11: Educational aspirations, by Pathway Group

Pathway Group:	Sixth Form	College / Other	Apprenticeship	Work	Leave / Something else
FTED into Employment	54.5	31.3	9.2	4.0	1.0
Delayed Uni Entrants	76.7	18.2	2.3	2.2	0.6
Extended FTED (non-degree)	59.5	30.5	6.2	3.8	0.1
Apprenticeships & Training	51.1	28.7	15.2	4.5	0.5
Uni Non-Completers	62.8	32.1	3.2	1.3	0.7
FTED into NEET	51.9	24.5	9.2	8.7	5.6
Other NEET	63.6	22.6	3.2	5.7	4.9
At Home	45.4	36.7	10.6	4.8	2.5
Returners	63.3	24.1	5.9	5.4	1.3
Average for non-HE cohort	**59.1**	**27.7**	**8.1**	**4.0**	**1.1**

Source: LSYPE2: waves 1, 4 to 7 (weighted)

Likelihood of applying to university

Perhaps unsurprisingly, those young people on university tracks are more likely to think they will apply to study at university (Table 12): 89.3% of those on both Delayed University tracks and 81% of University Non-Completers think they will one day apply for Higher Education, compared to less than two thirds of those in the FTED into Employment (61.4%), Apprenticeships & Training (63.0%) or FTED into NEET (60.7%) groups, for example. These lower proportions aside, it is interesting to note that across all groups educational aspirations are high: the majority within each think it likely or very likely that they will apply to university one day, on average 69.1%.

The proportion of Other NEETs who think it is highly likely they will apply to university at some point is lower than for those on alternative university tracks but is still higher than average and all other groups with the exception of Returners (though the difference is not statistically significant) suggesting that this group may simply be an extended, Delayed University Entrants group.

For context, nearly all, 93.2%, of those who leave school or college and head straight into university thought it highly likely they would apply to university at some point (Appendix Table 3).

Attitude towards school

Attitude towards school is made up from a number of individual measures covering how young people value school and feel about their school, work and lessons, a higher score indicating a more positive attitude to school measured on a scale of 0 to 1. On average, the non-immediate HE cohort score 0.70. Those on FTED into Employment pathways (0.68), FTED into NEET youth (0.62) and young people predominantly At Home (0.67) have lower than average attitudes towards school, while young people on university pathways (Delayed University Entrants: 0.75; University Non-Completers: 0.71) and those in the Other NEETs group (0.73) had the most positive attitudes towards schooling. Those in the Direct to University cohort have the highest overall attitude towards school, with an average score of 0.76 (see Appendix Table 3).

Attitudes towards the Raising of the Participation Age legislation

The introduction of the RPA legislation which increased the age of participation in education and training from 16 to 18 appears to have made little difference to the plans for the majority of the LSYPE2 cohort (Table 12). Across all pathway groups, less than a quarter of young people (24.2%) agreed that the RPA changes had affected their plans as they “planned to stay on in education or training anyway”.

Agreement is lowest amongst the Delayed University Entrants (14.8%) and highest amongst the two inactive NEET groups: FTED in NEET group (33.5%) and Other NEET (31.3%), suggesting around a third of each group would have preferred to have left at 16 given the opportunity.

Unsurprisingly, those in the Direct to University cohort were least likely to have felt that changes brought about by the RPA would affect them: just 10.5%, less than half the average for the non-immediate HE cohort, of this group reported that the legislation meant their plans were likely to change.

Table 12: YP educational attitudes, by Pathway Group

Pathway Group:	YP thinks it very likely/likely they will apply to Uni (%)	YP attitude to school Mean score (0 – 1)	RPA attitude: "The RPA changes have affected my plans" (% agree)
FTED into Employment	61.4	0.68	27.5
Delayed Uni Entrants	89.3 *	0.75 *	14.8 *
Extended FTED (non-degree)	66.0	0.70 *	26.5
Apprenticeships & Training	63.0	0.71 *	24.5
Uni Non-Completers	81.0*	0.71 *	16.6 *
FTED into NEET	60.7	0.62 *	33.5
Other NEET	68.7	0.73	31.3
At Home	70.1	0.67	19.8
Returners	69.3	0.70	28.6
Average for non-HE cohort	**69.1**	**0.70**	**24.2**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 1, 4 to 7 (weighted).

Experiences and Behaviours

We also explored possible differences in relation to young people's experiences and behaviours, including previous work experience, engagement in risky behaviours and whether there is any evidence of early variation (measured in Year 10) in young people's wellbeing across the different post-16 transition groups.

Table 13 summarises the early secondary school-related experiences across this cohort. On average, 13.7% of young people did some kind of **paid work**[51] in Year 9 (see Appendix A for more detail). This proportion is slightly higher for those on FTED into Employment (15.6%), Apprenticeships & Training (17.6%) and Other NEET (20.8%) pathways and less than half the average for those on FTED into NEET pathways (6.4%). Young people on Extended FTED tracks (10%) and those At Home (12.6%) were also less likely to have engaged in early work experience. There is no significant difference in this early measure of work experience between those in the non-immediate HE cohort and those in the Direct to University group.

[51] Young people were asked if they currently did any paid work, even if only occasionally for an hour or two.

Worryingly, those in the At Home group were also particularly likely to have experienced **bullying** in Year 9, with two thirds (66.1%) reporting having been bullied, around 56% higher than the average across the cohort. Delayed University Entrants (37.5%) and those on Apprenticeships & Training pathways (39.6%) experience the lowest levels of bullying.

Table 13 also shows that Returners and those on Delayed University Entrants tracks **truanted** less than most other groups (3.4% and 7.3%, respectively), particularly in comparison with the 1 in 4 (26.3%) young people in the FTED into NEET group reporting having skipped school in the last 12 months. This is in quite stark contrast to those in the Other NEET group, only 8.3% of whom reported having truanted.

The **number of risky behaviours** young people engaged in was similarly measured when young people were aged 13/14 in Year 9 and includes acknowledging having been involved in activities, such as drinking alcohol, smoking, taking drugs, fighting or antisocial behaviours. Engagement in risky behaviours is also highest within the FTED into NEET group – almost double the average for the non-immediate HE cohort - and again average levels within this group are quite different to those in the Other NEET category: 1.32 for the FTED into NEET group compared to 0.50 for the Other NEETs, more than 2.5 times lower and both significantly different from those in the FTED into Employment group.

Incidences of each school-related experience are again significantly lower for the Direct to University cohort, with an average of 34.7% experiencing bullying, 5.1% reporting regular truancy, and the average number of risky behaviours more than half that of the non-immediate HE cohort, 0.34 (see Appendix Table 3).

Table 13: YP work and school-related experiences, by Pathway Group

Pathway Group:	YP had a paid job in Year 9 (%)	YP was bullied in Year 9 (%)	Year 9: YP truants (%)	Year 9: Number of risky behaviours (Mean score: 0-10)
FTED into Employment	15.6	45.2	14.9	0.90
Delayed Uni Entrants	12.9	37.5 *	7.3 *	0.48 *
Extended FTED (non-degree)	10.0 *	42.6	11.0	0.70 *
Apprenticeships & Training	17.6	39.6 *	9.8 *	0.75 *
Uni Non-Completers	12.9	43.6	10.8	0.67 *
FTED into NEET	6.4 *	44.0	26.3 *	1.32 *
Other NEET	20.8	42.9	8.3	0.50 *
At Home	12.6	66.1 *	16.2	0.97
Returners	14.4	40.3	3.4 *	0.75
Average for non-HE cohort	**13.7**	**42.6**	**12.2**	**0.78**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 1, 4 to 7 (weighted)

Table 14 reports the young person's level of **psychological distress** based on responses to the General Health Questionnaire (GHQ12). The GHQ score takes a value between 0 and 36, with higher scores associated with increased levels of psychological distress. Young people in the At Home group had the highest levels of psychological distress in Year 10 (14.3, significantly higher than for those in the FTED in Employment group), with those in the University Non-Completer group (11.9) also having significantly higher levels of psychological distress. Young people in the Extended FTED group (10.1) and those on Apprenticeships & Training pathways show the lowest (10.2) levels of psychological distress.

Equates hard work with success measures the extent to which a young person believes in the value of working hard at school and elsewhere in order to succeed. The construct is measured by statements such as, "Working hard at school will help me get on later in life" and "If you work hard at something you'll usually succeed", on a scale of 0-9; the higher the score, the more strongly the young person equates working hard with success.

On average, those on Delayed University pathways (7.4) and those on Apprenticeships & Training pathways (7.2) have significantly higher scores than those in the FTED in Employment. Interestingly given their relative non-activity, the

Other NEETs (7.4) also have a higher than average scores and so more strongly equate working hard with success. The lowest scores – i.e. a weaker belief in the value of hard work being associated with success - are for those in the Returners group (6.7) and those At Home (6.9).

Locus of control refers to the extent to which individuals believe they, as opposed to external forces beyond their influence, have control over the events that affect them (Rotter, 1954). It is measured by statements such as, “People like me don’t have much of a chance in life” and “How well you get on in this world is mostly a matter of luck”. It is also measured on a scale of 0-9 with higher scores representing a higher, more internalised locus of control.

Table 14 shows that, in line with both the GHQ psychological distress scores and the measure of hard work equating to success, those in the Returners (5.0) and At Home (5.0) groups have the lowest locus of control, i.e. the lowest scores, and so a lower sense of their own agency in the world. Those in the FTED into NEET group (4.8) also have low scores. Delayed University Entrants (5.8), University Non-Completers (5.7) and those on Apprenticeships & Training (5.6) routes post-16 have the highest locus of control.

Table 14: YP wellbeing and locus of control, by Pathway Group

Pathway Group:	Year 10: Psychological Distress (Mean score: 0-36)	Year 10: Equates hard work with success (Mean score: 0-9)	Year 10: Locus of Control (Mean score: 0-9)
FTED into Employment	10.7	7.0	5.4
Delayed Uni Entrants	10.8	7.4 *	5.8 *
Extended FTED (non-degree)	10.1	7.1	5.2
Apprenticeships & Training	10.2	7.2 *	5.6 *
Uni Non-Completers	11.9 *	7.1	5.7 *
FTED into NEET	10.7	7.0	4.8 *
Other NEET	11.3	7.4	5.5
At Home	14.3 *	6.9	5.0
Returners	11.4	6.7	5.0 *
Average for non-HE cohort	**10.7**	**7.1**	**5.4**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 2, 4 to 7 (weighted)

Average Locus of Control levels are significantly higher for the Direct to University group than for the combined non-immediate HE cohort (6.0 vs. 5.4) and marginally so (significant at the 10% level) compared with those who enter a year later (6.0 vs. 5.8). However, there are no significant differences between the Delayed Entry and Direct to University groups in terms of their levels of psychological distress. We explore differences between all the three overarching university groups in more detail in the following chapter.

Main Parent Educational Attitudes and Aspirations

Parental Educational Aspirations

In Year 9, the main parent of the LSYPE cohort member (then aged 13/14) was asked what they would like their child to do on reaching age 16. As with the young person's own educational aspirations, a number of responses were available (see Appendix A). Table 11 shows the proportion in each pathway group who said they wanted to:

i. continue in full-time education (sixth form; college; unsure of where)
ii. enrol in an apprenticeship
iii. start working
iv. leave (be unemployed; start a family; something else)

Across each of the pathway groups, the proportion of parents wanting their children stay on at 16 was also very high, averaging 82.7% for the full non-HE cohort, slightly lower than the 86.9% of young people themselves planning to continue in full-time education at 16 (Table 15). Amongst parents of young people in the Direct to University group, 97.4% wanted their children to continue in full-time education.

Again, as with young people's own educational aspirations, parental plans for their child's post-16 options fell along similar academic and vocational lines. For example, 96.5% of parents whose children are on both Delayed University and 91.1% on Non-Completer pathways indicated they wanted to continue in full-time education at age 16. Interestingly, this proportion is also very high for young people in the At Home group (91.9%). This figure is lower for those in prolonged non-HE education – the Extended FTED group (84.4%) and Returners (81.7%) - as well as those in the Other NEET category (81.3%) and lowest amongst those on Apprenticeship pathways (73%) and the more typical unemployed NEET group (71.7%).

Conversely, the highest proportions of parents who want their children to enrol on an apprenticeship course are found amongst those on Apprenticeships & Training pathways (19.2%, compared to a non-HE cohort average of 10.8%, and just 1.7% for

those in the Direct to University cohort) and the FTED into NEET group (18.5%). Similarly, the highest number of parents wanting children to start work (average 6.0%) are for those in the FTED into Employment group (7.9%), Apprenticeship paths (7.7%) and those who are NEET (FTED into NEET, 8%; Other NEET, 14%). Interestingly, more parents of young people in the Returners group wanted their children to work at 16 (7.4%) than did those on Extended FTED pathways (5.8%).

While still a very low percentage, our results also show that the highest proportion of parents who state they want their child to leave at 16 to be unemployed, start a family or do something else is amongst the FTED into NEET group (1.8%).

Table 15: Main parent educational aspirations for their child, by Pathway Group

Pathway Group:	Continue in FTED	Apprenticeship	Start work	Unemployed / Start family / Something else
FTED into Employment	79.8	11.5	7.9	0.8
Delayed Uni Entrants	96.5	2.1	1.2	0.1
Extended FTED (non-degree)	84.4	8.9	5.8	0.9
Apprenticeships & Training	73.0	19.2	7.7	0.1
Uni Non-Completers	91.1	4.7	3.9	0.2
FTED into NEET	71.7	18.5	8.0	1.8
Other NEET	81.3	4.7	14.0	0.0
At Home	91.9	7.7	0.4	0.0
Returners	81.7	10.9	7.4	0.0
Average for non-HE cohort	**82.7**	**10.8**	**6.0**	**0.6**

Source: LSYPE2: waves 1, 4 to 7 (weighted)

School Rating

Parents were asked how they would rate the overall quality of their child's school at the beginning of the study when young people were in Year 9. School rating was measured using a five-point scale from "very bad" (1) to "very good" (5), with a higher score indicating a better rating.

Table 16 shows that across the non-immediate HE cohort, the average rating was very high (4.3) with parents of young people on the two alternative university tracks giving the highest overall rating and those in the Other NEETs group (all 4.5, which is also the score given by parents of young people in the Direct to University group). These ratings are all significantly higher than the reports given by parents of those in the FTED into Employment reference group. Ratings were lowest from parents whose children are in the At Home group (3.9).

Table 16: Main parent school rating, by Pathway Group

Pathway Group:	Year 9: Main Parent Rating of School (Mean score: 1 - 5)
FTED into Employment	4.2
Delayed Uni Entrants	4.5 *
Extended FTED (non-degree)	4.3
Apprenticeships & Training	4.3
Uni Non-Completers	4.5 *
FTED into NEET	4.2
Other NEET	4.5 *
At Home	3.9
Returners	4.2
Average for non-HE cohort	**4.3**

Notes: * Differences are significant at, at least, p<0.05, from the FTED into Employment reference group. Source: LSYPE2: waves 1, 4 to 7 (weighted)

Prior Achievement

Prior achievement is one of the most significant predictors of post-16 transitions and likely to be the biggest differentiator of the pathway groups identified: national KS4 attainment data for the same year as the LSYPE2 cohort shows that 97% of those achieving good passes at A* - C in English and maths GCSEs had a sustained education, employment or training destination a year later, compared to 88% of those who did not (DfE SFR56, 2017). Analysis of the LEO study also shows clear differences in young people's outcomes measured at 18, 23 and 25 based on GCSE examinations at age 15 (DfE, 2018, see also Anderson and Nelson, 2021).

There are many ways to measure attainment. We consider two different indicators which between them provide a good summary of academic performance at 16. They

have also been used in previous analysis of the LSYPE2 cohort (see, for example, Lessof, et al., 2018) and so build on what we already know about achievement patterns:

- **Level 2 (L2) English and maths threshold**: whether the young person achieved an A* - C pass in English and mathematics (or equivalent), and
- **"The Best 8"**: the young person's capped total points score based on their highest eight GCSE grades (including equivalents).

Figure 14 reports the proportion of this cohort who passed English and mathematics for each of the pathway groups alongside the average for the non-immediate HE cohort (50.9%). Figure 15 show the Best 8 total points score across each of the groups and its average, 296.

Young people on the two alternate university pathways had the highest KS4 achievement of all the groups: 77.7% of the Delayed University Entrants group achieved the Level 2 (L2) threshold pass rate with an average Best 8 score of 357, followed by University Non-Completers with a slightly lower L2 pass rate, 65.7%, and Best 8 score, 330. [52]

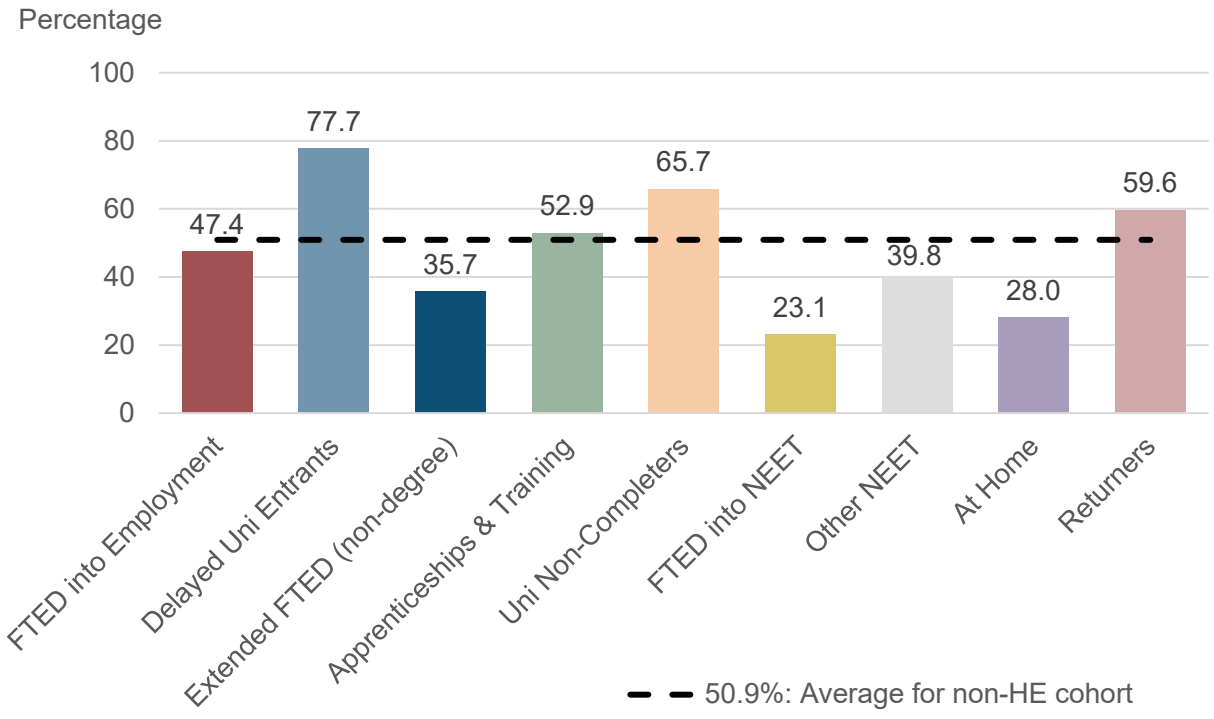
Again, there is a big difference between the two core NEET groups: 39.8% of the Other NEETs achieved good passes in English and maths compared to just 23.1% of those in the FTED into NEET group, with a difference in the Best 8 KS4 points 55 points: 269 vs. 214. The Other NEET and particularly vulnerable group, young people predominantly At Home, also had low GSCE achievement: 28% achieved the L2 threshold and the average Best 8 score is just above the typical NEET group at 219.

The Returners rank third overall in terms of KS4 performance and achieved significantly higher than those in the Extended FTED (non-degree) group: 59.6% met the L2 threshold compared with 35.7% of those who remain in FTED constantly, and a Best 8 score of 309 vs. 261. This pattern could be consistent with an "upskilling" hypothesis for those returning to education: after a spell in work or doing an apprenticeship, young people in the Returners group need to gain additional qualifications in order to advance their vocational opportunities.

Those in the FTED into Employment group and on Apprenticeships & Training pathways perform similarly: around half (47.4% and 52.9%, respectively) reached the L2 threshold, with a Best 8 score of 293 and 303, just above and below the average for the whole non-immediate HE cohort.

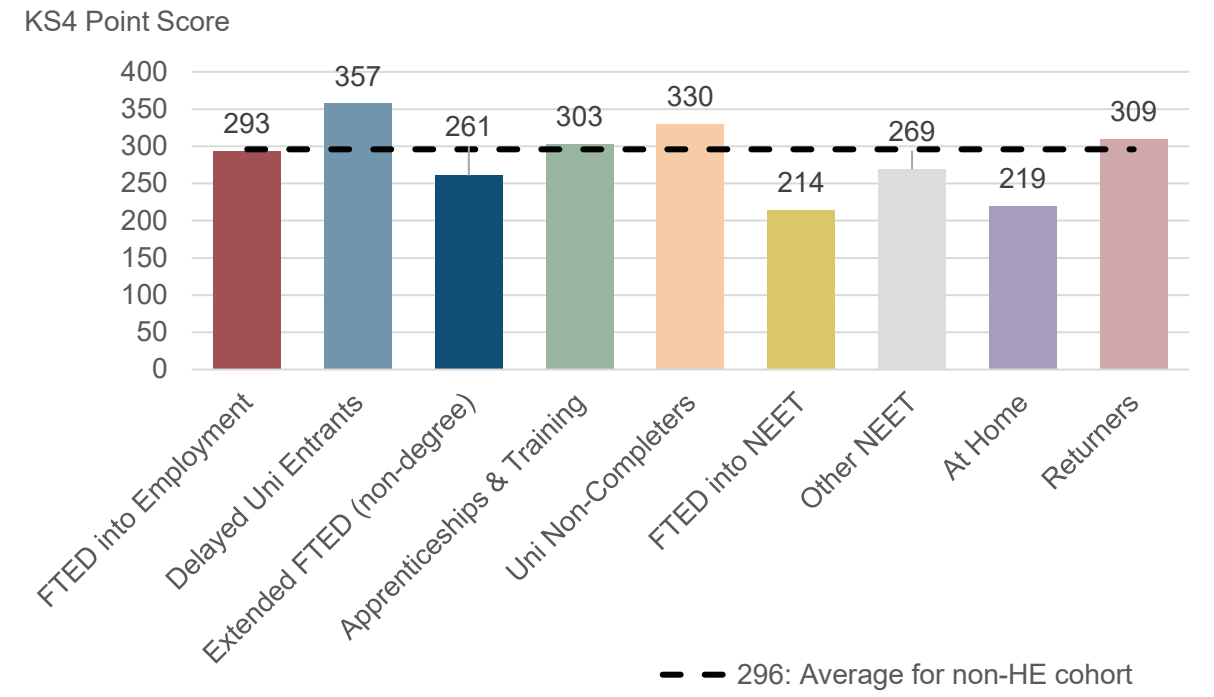
[52] For context and by comparison, 83.6% of young people in the Direct to University group achieved the Level 2 threshold pass rate at KS4 and had an average Best 8 score of 380 points.

Figure 14: Percent achieving A* - C in English and mathematics, by Pathway Group



Source: NPD; LSYPE2: waves 4 to 7 (weighted)

Figure 15: KS4 Best 8 Total Points Score, by Pathway Group



Source: NPD; LSYPE2: waves 4 to 7 (weighted)

Summary

In line with previous analysis of the LSYPE2 (Lessof, et al. 2018) as well as much of the extant literature, there are clear "face value" differences between individual and family-level characteristics and young people's academic tracks. By breaking out post-16 pathways in more detail, we are able to further nuance some of the differences in how such underlying factors relate to early adult transitions and more meaningfully compare and contrast more - and less - similar groups.

Vocational tracks

The two groups on employment tracks – FTED into Employment and Apprenticeships & Training groups - appear to have made fairly **sustained and successful post-16 transitions**: they are more likely to come from middle SES families, performed averagely in terms of their GCSEs, are less likely than most other groups to want to have wanted to go to university and possibly had their plans changed more than others as a result of the RPA legislation. Both groups were more likely to have had early work experience, as well as tended to have shown more vocational leanings in their post-16 aspirations than most others in the non-immediate HE cohort.

Alternative University pathways

The **Delayed University Entrants** seem to be just that: late in starting the traditional academic track, most likely because they want - or need - to improve their exam results, earn some money, or take a break (see Figure 3 and Appendix B for these distinctions within the activity sequence plots of this group). Young people in this cluster, like those on the more traditional Direct to University track, are more likely to be female, have relatively low incidences of both LSID and SEN, come from more advantaged homes, have more academically driven aspirations and stronger attitudes towards school life. They are also the highest achievers of those in the non-immediate HE cohort in terms of overall KS4 performance.

University Non-Completers, however, appear somewhat different to the other alternative HE track: they are more likely to be male and summer born; and, compared to those in the Delayed Entry group, they come from less educated households, with lower incomes (higher levels of FSM eligibility); have higher incidence of LSID and SEN, and lower overall KS4 achievement, but fare better, on average, than all other groups across these measures.

While they appear similarly engaged and positive regarding their school experience, they are more likely to have wanted to continue on in post-16 education at a college or other institution than in a sixth form, possibly suggesting different needs or

preferences from a traditional school setting for post-16 learning. Non-Completers also report experiencing higher levels of psychological distress when assessed in Year 10, age 14/15. It may be that the academic expectations and demands of university life or the adjustments related to living away from home may be more of a struggle for this group, more of whom are first generation undergraduates.

Differences in NEET groups

A key point of interest in these descriptive analyses are the notable **differences between the two core NEET groups**: those who are part of the **FTED into NEET** group compared to young people, similarly inactive, but who report being engaged in "other transitions", typically "waiting for a job or course to start", rather than unemployed and looking for work, the **"Other" NEETs**. Resembling more the traditional NEET population (for example, see Powell, 2021), those on FTED into NEET pathways are more likely than their Other NEET counterparts to be male, have an LSID and are more than twice as likely to be identified as having SEN status. FTED into NEET youth also typically come from more socioeconomically disadvantaged households, have lower aspirations, less positive attitudes towards school, and poorer KS4 achievement.

So-called "Other" NEETs, on the other hand, have average profiles that are quite different: they are more likely to be female, are less likely to have either LSID or SEN, come from more educated households, have older mothers and lower incidence of FSM. They wanted to stay on at 16 and were much more likely they would apply to university at some point when asked at age 13/14, have more work experience, truant far less, engage in fewer risky behaviours and equate hard work with success. They also fare better academically. It may be that this group are taking an extended break – or a few gap years – before embarking on a university track and their relative socioeconomic circumstances is enabling this.

What is similar between the groups is that around a third of each (33.5% in the FTED into NEET group and 31.3% of Other NEETS) agree that the changes to the participation age brought about by the RPA legislation had affected their plans.

Prolonged Education

Another interesting comparison is between those on **Extended FTED (non-degree) tracks** and **Returners**: those on Extended FTED pathways are more likely than Returners to be male and summer born, as well as have both an LSID and have received SEN provision; they come from less educated households and are more likely to grow up in single parent households, be in receipt of FSM and live in more deprived areas.

Returners, on the other hand, were more likely to have wanted to leave school at 16 to start working and to report that the RPA changes affected their plans. They also experience slightly higher levels of psychological distress, are less likely to equate hard work with success and have a lower Locus of Control but outperform those on more drawn out tracks academically at KS4, possibly giving them more opportunity to return to education when/if they decide to.

Potentially At-Risk Groups

In terms of those young people who appear most vulnerable and **potentially at-risk groups**, there are some similarities but, again, key differences between these - on the face of it, at least - similar types of transition: young people identified in the FTED into NEET group and those predominantly At Home. Both groups are more likely than those in the FTED into Employment group to have an LSID or an identified SEN and come from poorer socioeconomic circumstances, but those on FTED in NEET pathways are, in addition, less likely to have done paid work in Year 9, more likely to have truanted and acknowledge engaging in a higher number of risky behaviours. Those At Home, on the other hand, experienced particularly high levels of bullying and reported greater levels of psychological distress in Year 10.

While each of these seemingly “paired” or comparable groups may appear similar if we simply look at their economic activity at any given point in time, our analysis highlights the value in pulling out the heterogeneity in different post-16 transitions. In understanding this detail about who is more, or less, likely to follow each type of post-16 track, we are better equipped to support the needs of all young people. And so, taking into account both the pathways young people follow and the characteristics that differentiate them, our analyses suggests that four broad groupings appear to emerge across this transition period:

- sustained, work focussed tracks (FTED into Employment; Apprenticeships & Training);
- positive, just slightly drawn out transitions (Delayed University Entrants; Other NEETs);
- trying, but possibly in need of greater support (University Dropouts; Extended FTED and Returners); and
- potentially at-risk groups (FTED into NEET and those At Home).

In the next chapter, we see which of these average level differences observed between groups predict the pathways young people follow.

Chapter 6 How do different characteristics predict pathway group membership?

Introduction

In this final analysis chapter, we examine which characteristics predict the pathways that young people take at age 16. That is, what are the unique associations between each factor across the different pathways, after adjusting for all of the other predictors in the model? Are there observable factors that could help identify those who are more (or less) likely to follow certain pathways?

We use multinomial logistic regression models to understand the relationship between the different measures summarised in Chapter 5 and the likelihood that a young person with that characteristic will be in each of the possible post-16 pathways. As with the significance testing for mean group differences in Chapter 5, the approach requires a comparison or reference category, which in our case remains the FTED into Employment group.[53] This pathway is the largest of the clusters identified, but also represents an interesting comparison group from a policy perspective: this group, by and large, complete two years of full-time, non-HE education as prescribed by the RPA legislation and then appear to make stable transitions into the workplace. While quite different from those on an immediate university track, they are arguably still progressing well in their post-16 routes having, typically, achieved a sustained position within the labour market after two years of full-time education. Understanding how other groups compare to this alternate version of post-16 success is an important part of ensuring that all young people are afforded the best chances to reach their full potential.

Our statistical approach, while quite complicated, has the advantage of enabling us to simultaneously model the relationship between all of the pupil's characteristics and each of the possible post-16 tracks. It also builds directly on previous research exploring post-16 transitions in the earlier born LSYPE1 cohort (Crawford, et al., 2011).

The results are presented in two parts. We first present the results across all groups (Table 17), summarising significant associations of the likelihood of being in each pathway group - compared to those in the FTED into Employment one – taking into account all of our broad range of covariates: individual characteristics; SES and family-level characteristics etc. For this main regression model, we combine those on

[53] A second set of regression analyses is presented after this "all group" approach which explores the most salient characteristics in predicting more similar types of posat-16 pathway: Extended FTED (non-degree) vs. Returners; the three different NEET groups; and finally, how the two alternative HE pathways identified in this non-immediate cohort compare with those in the Direct to University group.

Returner pathways with the Extended FTED group because they are a small group (2% of the non-immediate HE cohort) and the two appear quite similar but we do revisit this specific comparison later in the final section of this chapter.

Since we know that achievement is such a key differentiator of post-16 pathways (Dickerson, et al., 2020) and that attainment is correlated with many other aspects of the individual and their background (see references throughout Chapter 5), we run our regression model first excluding our measures of KS4 performance and then including them. In this way, we attempt to show some of the other characteristics linked to pathways taken that might be less apparent when considered alongside achievement.

In the final sets of analyses, we present results summarising differences between particular groups of interest to explore in more detail if there are factors amongst our rich set of covariates that uniquely predict membership of seemingly similar pathways:

- the combined extended FE group: Returners vs. Extended FTED (non-degree);
- our three identified NEET groups: FTED into NEET; Other NEETs; and those At Home;
- the university groups: how do Delayed Entrants and Non-Completers compare with young people who follow the more traditional and direct to university path?

Interpreting the tables

The values presented in Table 17 are termed relative risk ratios (RRRs) and indicate the likelihood – that is, “the risk” - of a young person being in a particular group relative to being in the reference category. The relative risk is the ratio of two probabilities: the probability of an event occurring in a “treatment” group - our different pathway groups - compared to the probability of the same event occurring in a “control” or reference group, here the FTED into Employment group. Where the RRR value is less than 1, the event is less likely to occur in the treatment (i.e. given pathway) group; where it is equal to 1 it is equally likely to occur in both groups; and where it is greater than 1 it is more likely to occur in the treatment group.

For **categorical variables** the figures in the tables represent the likelihood of being in that category compared to the reference category for that particular measure. For example, the likelihood of being in the At Home group if a young person is female compared with the likelihood if they are male. All comparisons are relative to being in the baseline, FTED into Employment group. So, in Table 17, the likelihood of girls

being in the At Home group relative to boys is roughly four[54] times greater than it is for the FTED into Employment group.

All **continuous variables** in our regression models are standardised to have a mean of 0 and a standard deviation of 1, allowing for a more comparable interpretation between differently scaled variables. [55] For continuous measures, the figures in the tables below represent the change in likelihood of being in a particular group that is associated with a one standard deviation increase in that factor. Again, using data from Table 17 as an example: the likelihood (i.e. the "risk") of being in the Delayed University group is 2.2 times greater for each standard deviation[56] increase in KS4 score than it is for the FTED into Employment.

Table 17Table 17 provides a highly simplified summary of the multinomial regression model reporting only the observable characteristics which are significant in distinguishing the post-16 pathways identified from the reference group, FTED into Employment. We include p-values for all associations significant at the standard cut-off levels (5%, 1% and 0.1%) but also indicate, for interest, those which reach the lower cut-off of the 10% level (p<.10) given some of the small group sizes. Dummy variables indicating region and ethnicity are included in the regression but are excluded from the summary table.

Predicting Group Membership

Table 17 provides an overview of the full multinomial logistic regression model as specified above. The commentary summarises the findings in order of the four broad groupings that emerged from the descriptive assessment of the different characteristics across groups:

- sustained, work focussed tracks (FTED into Employment and Apprenticeships);
- positive, just delayed transitions (Delayed University Entrants; Other NEETs);
- trying, but possibly struggling (Extended FTED (non-degree), including Returners; University Non-Completers;); and
- potentially at-risk groups (FTED into NEET and those At Home).

[54] Roughly four times: 3.9 times higher when KS4 achievement measures are not included in the model; 4.1 times more likely when achievement is controlled for.
[55] For example, parents' rating of the child's school in Year 9 (age 13/14) is measured on a five point scale from "very bad" to "very good", whereas psychological distress is measured on a scale from 0 to 36, and KS4 attainment 0 – 475. Standardisation of these measures allow a comparison of the strength of the relationship that is associated with them.
[56] Note that, one standard deviation is roughly equivalent to one sixth of the population.

Table 17: Summary Results: Multinomial logistic regression model predicting Pathway Group

Ref: FTED into Employment	Delay Uni (1)	Delay Uni (2)	Ext. FTED (1)	Ext. FTED (2)	A&T (1)	A&T (2)	UNC (1)	UNC (2)	FTED into NEET (1)	FTED into NEET (2)	Other NEET (1)	Other NEET (2)	At Home (1)	At Home (1)
Individual Characteristics														
YP is female													3.9***	4.1***
Yr 9: YP has LSID	1.4†	1.4†	1.7***	1.6**			1.8*	1.9**					2.3*	
Yr 9: YP has SEN	0.5**		1.8***	1.5*					1.9**				1.9*	
Term of birth: (ref = autumn term)														
- Winter	0.7†	0.7†							2.0**	2.0**				
- Spring														
- Summer	1.3†	1.4*	1.8***	1.8***	1.5*	1.5*	2.0**	2.0**	2.1**	2.1**				
SES and family-level characteristics														
Yr 9: Mother's age	1.2**	1.2**												
Highest Household Ed. (Ref = None)														
- 5 or more A* - C GCSEs														
- A/AS levels/HE below Degree	1.6**	1.4†	1.3†	1.4*										
- Degree plus	3.5***	2.7***	1.7**	1.8**										
Yr 9: YP in receipt of FSM			1.6**	1.5**					2.4***	2.2***			2.5**	2.1*
Yr 9: YP lives in a single parent household	0.7*	0.7†	0.8†	0.8†										
IDACI	1.2*						1.2†						0.6**	0.6**
YP Ed Attitudes & Aspirations														
Yr 9: YP plans for age 16: (ref = sixth form)														
- College/Other Inst	0.7*	0.7*												
- Apprenticeship					1.9**	1.8								
- Work														
- Something else														
Yr 9: YP very likely/likely they will apply to uni	2.4***	2.1***		1.3†			2.0**	1.8*		1.5*				1.8*

Table 17: Summary Results (continued)

Ref: FTED into Employment	Delay Uni (1)	Delay Uni (2)	Ext. FTED (1)	Ext. FTED (2)	A&T (1)	A&T (2)	UNC (1)	UNC (2)	FTED NEET (1)	FTED NEET (2)	Other NEET (1)	Other NEET (2)	At Home (1)	At Home (1)
Yr 9: YP attitude to school	1.2*	1.2*			1.2†	1.1†			0.8*	0.8*				
Yr 9: "RPA changes have affected my plans"														0.5†
YP Experiences & Behaviours														
Yr 9: YP has a paid job									0.4*	0.5*		2.1†		
Yr 9: YP was bullied														
Yr 9: YP truants				0.6†										
Yr 9: # of risky behaviours														
Yr 10: GHQ score							1.3*	1.2*						
Yr 10: Equates success with hard work									1.2†	1.2*				
Yr 10: Locus of Control	1.1†													
Yr 9: Talks to teachers about plans (ref: Never)														
- A little	1.3*	1.4*												
- Quite a lot/A lot														
Yr 9: Does school offer careers advice?														
Main Parent Ed Attitudes & Aspirations														
Yr 9: MP ed. aspirations: (ref = Stay in FTED)														
- Apprenticeship	0.4*	0.5*			1.9***	2.0***			1.7†	1.7†				
- Something else	0.2***	0.2***											0.03**	0.03**
Yr 9: MP school rating: (low to high)							1.2†	1.2†						
Achievement														
YP has KS4 L2 Basics		1.3†												
KS4 Points Score		2.2***		0.8**						0.6***		0.5**		0.4***

Notes: A&T: Apprenticeship & Training; UNC: University Non-Completer. Model 1 does not include controls for KS4 achievement; Model 2 includes controls for KS4 achievement. Significance levels: *** p<.001; ** p<.01; * p<.05; † p<.10. Source: NPD; LSYPE2: waves1, 4 to 7 (weighted).

Successful, work focussed tracks

Apprenticeship & Training Pathways

Young people on FTED into Employment and Apprenticeship & Training pathways are very similar: there are no gender differences between the two groups, nor are there any significant associations between having a long-standing illness or disease (LSID) or and identified SEN and these vocational pathways. There are also no differences between the two groups in terms of SES and family-level characteristics - even in the model that excludes achievement - or in terms of their earlier experiences and behaviours.

Young people on Apprenticeship & Training tracks are, however, more likely to be **born in the summer term** than their FTED into Employment counterparts, regardless of KS4 achievement level; and have a slightly **more positive attitude towards school.**

The key difference between those on more vocationally focussed early tracks is in terms of their **educational aspirations** and the clear desire of both young people following the Apprenticeships & Training route and their parents to do so at an early age: those who expressed an early desire to pursue this vocational option – rather than remain in sixth form at 16 – are almost twice as likely to be on Apprenticeship pathways as the FTED into Employment group, over and above other factors considered, including parents' own aspirations. Similarly, taking into account all other factors in the model, including the young person's own aspirations, parents who want their children to do an apprenticeship post-16 rather than continue in full-time education are also twice as likely to do so.

There are no statistically significant differences between the achievement scores of those on Apprenticeship pathways when compared to the FTED into Employment reference group. It is also interesting to note that the coefficients on the significant associations do not change with the inclusion of KS4 achievement either, further supporting the notion that those on early vocational are not very different in terms of their overall achievement (see also Figures 13 and 14) but are with respect to their educational aspirations and attitudes.

Delayed tracks

Delayed University Entrants

Despite average differences in group membership (see Figure 11), there is no association between gender and the likelihood of being on a delayed university track compared to those on FTED into Employment pathways. Interestingly, however, even when controlling for KS4 achievement, young people reported to have a **LSID at age 13/14** are significantly more likely (40% more likely; RRR = 1.4) to be in the

Delayed University Entrants group than the FTED into Employment one. This result holds even when controlling for individual attainment in model 2 and is evident despite non-significant differences between the mean levels of LSID for the two groups (see Table 8). Young people identified as having **SEN at age 13/14** are, on average, 50% less likely (RRR = 0.5) than those in the FTED into Employment group to be on Delayed University tracks, however, once KS4 achievement is taken into account this relationship is no longer significant.

In line with Figure 13, young people on Delayed University tracks are more likely to be born in the **summer term** and less likely to be born in the winter one than those in the FTED into Employment reference group, again even when KS4 achievement is taken into account.

Compared to those in the FTED into Employment group, and consistent with the extant research, those starting university a year later than the traditional, straight to university post-Year 13 group, have **older mothers** and come from **more educated households**. As in Table 10, Delayed University Entrants are also less likely to live in single parent households and come more affluent areas, though the significance of this latter result falls away once prior achievement is included in the model. They are also less likely to plan to stay on in a college or non-school setting post-16 than in a sixth form, more than twice as likely (2.3 times) to **plan to go to university** than the employment-based reference group and have a **more positive attitude to school**.

In the first model which does not include prior achievement, young people with a greater **Locus of Control** (LoC) are more likely to be on Delayed University tracks than in the FTED into Employment group. However, this association also falls away once KS4 performance is controlled for suggesting that some of the relationship between LoC and pathway membership is mediated by doing better academically: young people who believe they are more in control over the events that affect them, as opposed to external forces, do better academically (and vice versa).

Those delaying the start of university are more likely to have **talked to teachers about their plans to study in the future** than those in the predominantly employment-based reference group indicating a greater focus on academic tracks early on. In line with the vocational leanings observed in the FTED into Employment and Apprenticeships & Training groups, there are similar “academic leanings” amongst parents of those in the Delayed Entry cluster: young people are less likely to have **parents who wanted them to do an apprenticeship** or **something other than stay-on post-16** than those in the FTED into Employment group.

In line with Figures 14 and 15, Delayed University Entrants score significantly higher than those in the FTED into Employment group: they are 30% more likely to have

achieved good passes in English and maths (the **KS4 L2 Basics measure**) and for each standard deviation increase in the **KS4 Best 8 Total Points score**, the probability of being in the Delayed University Entrants group rather than the FTED into Employment reference group increases by 2.2 times.

Other NEETs

Young people in the Other NEETs group are not actually very different to those in the FTED into Employment group. Indeed, the only two significant factors that distinguish membership of the two groups when considered in a multivariate model is that Other NEETs are twice as likely to have had a paid job in Year 9 and do less well academically than those in the reference group. It should be emphasised, however, that this pathway makes up a small proportion of the overall non-HE cohort and so identifying significant associations here is difficult.

Nevertheless, understanding – and distinguishing as separate from more "typical" NEETS - this small, but interesting group, is an important step in supporting young people on alternative post-16 tracks. It might be, as some of their activity reports suggest, that they are waiting for the "right" job or course to start and if they have the resources to be able to delay starting, they have few observable characteristics that could otherwise put them at risk. However, if this pattern of waiting perpetuates and becomes entrenched, this group, like those who are NEET and looking for work, could become vulnerable to poorer outcomes. We return to them later in this chapter to explore the ways in which they differ from those on different NEET pathways.

Trying, but possibly struggling

Extended FTED and Returners combined

Young people in the Extended FTED (non-degree) group, including those classified as Returners, are significantly more likely than those in the FTED into Employment reference group to have been reported as having both an **LSID** and an identified **SEN** at age 13/14, even after taking into account individual achievement at KS4. This is consistent with the descriptive statistics reported in Table 8 in which young people in both groups are observed as having higher than average incidences of both. These young people are also more likely to have been **born in the summer term** and so are younger for their year.

Interestingly, this group of prolonged full-time FE young people are more likely than those in the FTED into Employment group to come from **more educated households** – parents with A-levels and equivalent and higher - but also more economically disadvantaged ones: controlling for all other individual and family-level characteristics, including prior attainment, young people in the Extended FTED group are 50% more likely to have been in receipt of **FSM** than the reference group

of employed youth. They are, however, less likely to have grown up in a **single parent household**.

Compared to those in the reference group, young people on Extended FTED tracks are also more likely to have thought it **likely they would apply for university** at some and less likely to have truanted.

Following on from the summary statistics presented in Chapter 5 (see Figures 14 and 15), young people spending longer periods of time in non-HE post-16 education have significantly **lower levels of KS4 achievement** compared to those in the FTED into Employment group.

University Non-Completers

Young people who leave university before completing their studies are more likely than those in the FTED into Employment group to be **born later in the year**, in the summer term, regardless of KS4 achievement.

Unlike those on Delayed University tracks, there are no significant differences in terms of household education between Non-Completers and young people in the FTED into Employment group. There is, however, some evidence that this group do come from **more advantaged areas** than young people in the employed reference group, however, once prior attainment is controlled for this association is reduced, becoming non-significant.

Compared to the FTED into Employment group, Non-Completers are more certain that they will apply for university at some point: compared to those on FTED into Employment tracks, University Non-Completers are twice as likely to report wanting to apply for university in the future. It may be that this group want to continue on in education but, many being first generation undergraduates, might lack some of the support, experience and/or clarity about university life once there: 25.8% of this group come from household where at least one parent is educated to degree level compared to 41.3% of those in the Delayed Entry group (see

Table 9).

Again, in comparison with those in the FTED into Employment group and controlling for all other individual and family-level characteristics, University Non-Completers have **higher levels of psychological distress** when assessed at age 14/15 (Year 10). This finding is consistent with the summary statistics reported (see Table 14) and suggests that higher levels of anxiety and depression could be a possible risk factor for smooth routes through HE studies. We explore differences between the three university groups in more detail in

Table 20.

Parents of those in the Non-Completers group are more likely to **rate their children's school more highly** than those of young people on FTED into Employment pathways, possibly reflecting the leanings of those on more academic-focussed tracks compared with those for whom schooling has a clearer endpoint.

Interestingly, despite significant mean levels differences in terms of KS4 achievement, there are no significant differences between Non-Completers and those in the employment group in terms of either the L2 Basics or Best 8 points score.

Potentially At-Risk groups

FTED into NEET

The descriptive statistics in Chapter 5 indicated the second[57] largest discrepancy in **gender** across the different pathways was for those in the FTED into NEET group: just over a third, 36.2%, of these NEETs are female. However, once other individual and family-level characteristics are taken into account, there is no association between gender and the likelihood of having prolonged episodes of being NEET and looking for employment post-16 compared to those in the FTED into Employment group.

Prior to the inclusion of KS4 achievement, young people who were in receipt of **SEN** provision at age 13/14 are nearly twice as likely to be in the FTED into NEET group compared to the employment reference category. Interestingly, irrespective of GSCE performance, individuals born in both the **winter and summer terms** also have a greater likelihood of being in the FTED into NEET group. This result is different to the simpler associations observed for groups such as the Apprenticeships & Training, Extended FTED and University Non-Completer groups which indicated that compared to the FTED into Employment group, pupils younger for their year were more likely to be in these groups. It does, however, suggest that there might be some more complex relationship between age and the risk of becoming NEET that could be explored in more detail in future research.

Like those in the Extended FTED (non-degree) and At Home groups, young people in the FTED into NEET group appear to come from more economically disadvantaged homes than those in the reference group, having been more likely to have been **eligible for FSM**. None of the other indicators of socioeconomic status

[57] The first being for the At Home group.

and family background characteristics significantly differentiate these two groups from the FTED into Employment pathway.

In terms of their own educational aspirations, FTED into NEET youth are 40% **more likely to think they will apply to university** at some point than those on employment tracks, even controlling for individual KS4 achievement.

Parents of young people in this group, however, were more likely than those in the FTED into Employment group to want their child to complete an apprenticeship after finishing school as opposed to continue on in full-time education. This finding points to the importance of **matched aspirations between parents and young people**: where aspirations are more aligned between parents' and the young person's post-16 plans – as with those on Apprenticeships & Training pathways and those following Delayed University tracks – young people appear to be making more positive transitions. The FTED into NEET group are also the only pathway cluster identified that report a **lower attitude towards their school experience** when compared to the reference group.

Of particular interest are the experiences and behaviours of this group compared to those in the work-dominated track: young people in the FTED into NEET group are 50% less likely to have done any **paid work** during their earlier school career than those in the FTED into Employment group, even when controlling for prior achievement. They are also slightly more likely than their more economically active counterparts to **equate hard work with success**, possibly indicating dissonance between attitude and action: more than the FTED into Employment group, the FTED into NEETs know success takes hard work, but possibly they are just less willing (lack of prior work experience an indicator here) or able (greater incidence of SEN) to do it.

At Home

As in the summary statistics (see Figure 11), **females** are around four times more likely than males to be in the At Home group compared to the FTED into Employment one. Young people in this group are also more likely to have been identified as having an **LSID** and/or a **SEN** at age 13/14, however, the strength of this association is reduced to non-significant levels once prior achievement is controlled for.

Compared to the FTED into Employment group, those At Home are more socioeconomically disadvantaged: they are more likely to have been in **receipt of FSM** and **live in more deprived areas** (see also Table 10), even when controlling for KS4 performance.

In terms of their own educational attitudes and aspirations, like those in the FTED into NEET group, young people At Home are more likely to **plan on applying to university** at some point than those in the FTED into Employment reference group. They are also less likely to say the **RPA changes** affected them – and their plans - than those in the FTED into Employment group. It may be that young people in the At Home group never planned to stay on anyway due to illness or disability, so the RPA would have made little difference, or that they had planned to stay on but circumstances – possibly a pregnancy– changed their options.

Parents of young people At Home are less likely to have wanted their children to do "something else" (get a job, start a family, be unemployed) over continuing in education or enrolling on an apprenticeship than in the FTED into Employment group, again suggesting that mismatched aspirations – between parents and their children – could be a barrier to more successful transitions or possibly reflecting concern that this might be the pathway they would end up on.

Young people who are predominantly at home in the four years post-16 have **lower KS4 achievement** than those who go on to continued employment.

Between Group Comparisons

In addition to this broad comparison across all the pathway groups, our regression analyses compared more specific groups of interest to gain insight into some of the more subtle differences between pathways that might, on the surface at least, appear quite similar.

The following tables (Tables 18 – 20), like Table 17 above, report the summary results of multinomial logistic regressions, again giving the likelihood (the RRRs) for those characteristics that significantly predict the likelihood of being on each pathway compared to the reference group. To highlight the most salient results, we only show the results for significant associations.

Prolonged Education: Extended FTED vs. Returners

In the main regression analysis reported above, we combined the small group of Returners (2% of the non-immediate HE cohort) with those on Extended FTED pathways. Comparing only these two groups,

Table 18 shows that when all other factors are considered together, there is indeed little that separates these two groups of young people in terms of the observable characteristics considered here.

- Compared to the Extended FTED group, Returners are less likely to have had and identified **SEN** as measured in Year 9. However, this association is no longer significant once KS4 achievement is taken into account:
    - In Table 16, compared to those in the FTED into Employment group, young people in the combined Extended FTED (non-degree) and Returners group were more likely to have both an **LSID** and have received **SEN** provision.
    - For this narrower comparison, before we take into account achievement, it appears that Returners are actually less likely than those in the Extended FTED (non-degree) group to have and identified SEN (see also Table 8 whereby 39% of those in the Extended FTED (non-degree) group are reported to have an identified SEN compared with 27.5% of those in the Returners group).
- Returners are more likely to have older mothers – an indicator of higher SES – all other things being equal.
- While Returners have a **more positive attitude to school**, their parents **rated the school** more poorly when their child was in Year 9 than those of individuals in the Extended FTED group. This is one possible explanation for why these young people left education for a period and subsequently returned, most likely to a different institution. Note also, that, in line with their more positive attitude towards school, Returners are also less likely than the Extended group to **truant**.
- In line with the descriptive statistics reported in Figures 14 and 15, Returners have **higher KS4 attainment** than those in the Extended FTED group, possibly reflecting the need – or desire – to upskill or gain additional qualifications having had some experience of the workplace.

Table 18: Summary Results: Logistic regression model: Young People on Extended FTED (non-degree) and Returner pathways

Ref: Extended FTED (non-degree)	Returners: Model 1	Returners: Model 2
Individual Characteristics		
Yr 9: YP has SEN	0.4†	
SES and family-level characteristics		
Yr 9: Mother's age	1.4*	1.4*
YP Ed Attitudes & Aspirations		
Yr 9: YP attitude to school	1.4†	
YP Experiences & Behaviours		
Yr 9: YP truants	0.1†	0.1†
MP Ed Attitudes & Aspirations		
Yr 9: MP school rating: (low to high)	0.7*	0.7*
Achievement		
KS4 Points Score		1.8*

Model 1 does not include controls for KS4 achievement; Model 2 includes controls for KS4 achievement. Significance levels: *** p<.001; ** p<.01; * p<.05; † p<.10. Source: NPD; LSYPE2: waves1, 4 to 7 (weighted).

Young People Not in Education, Employment or Training

The combined NEET group make up 12% of the total non-immediate HE cohort: FTED into NEET (8%); Other NEETs (1%); and At Home (3%). In most analyses exploring post-16 economic activity and transitions, these three different types of NEET young people would typically be grouped together, but the descriptive analysis reported in Chapter 5 and the “all pathway” multinomial comparisons in Table 17 indicated a number of important differences between those classified on each of these tracks. When comparing just these three groups with each other, controlling for individual, family and household characteristics, Table 19 highlights that:

- Controlling for all other individual, family and household characteristics, those At Home are 4.4 times more likely to be **female** than those in the FTED into NEET group. Despite mean level differences in the descriptive statistics, there

is no gender significant difference between the other two NEET groups once other factors are taken into account.

- Other NEETs are 60% less likely to have an identified **SEN** than those in the more traditional FTED into NEET group, even controlling for prior achievement. This is particularly interesting given that many of the significant SEN differences observed in Table 17.
- fall away once KS4 performance is taken into account suggesting that this distinction is an important one.
- Young people At Home are less likely than the FTED into NEET group to have been born in the **winter term** than in the autumn.
- In comparison with the FTED into NEET group, young people At Home live in **more deprived areas** of England than those on FTED into NEET pathways. There are no significant socioeconomic status differences between the FTED into NEET and Other NEET groups.
- As in the "all group" regression (Table 17), young people At Home are less likely to report that the **RPA changes** affected their plans.
- Controlling for other factors, Other NEETs are over five time more likely than the FTED into NEET group to have had a **paid job** in Year 9, suggesting that work might play a particularly important protective role for young people at risk of becoming long-term economically inactive.
- Other NEETs engage in **fewer risky behaviours** and are a lot more likely to **talk to their teachers about future study plans**.
- Of particular concern, however, is that individuals in the At Home group are more than twice as likely to have **experienced bullying** compared to those in the FTED into NEET group.
- There are also slight differences in terms of the **main parents' post-16 aspirations**: compared to those on FTED into NEET paths, parents of young people At Home are actually less likely to want their child to leave and do something else than at 16 than continue in full-time education.
- There are no statistically significant differences between these NEET groups in terms of their **KS4 attainment** all other things being equal.
    - Compare this finding with the average differences observed in achievement in Figure 15 where Other NEETs score, on average, around 50 points more in terms of the Best 8 KS4 points score.

Table 19: Summary Results: Multinomial logistic regression model: NEET groups

Ref: FTED into NEET	Other NEET: Model 1	Other NEET: Model 2	At Home: Model 1	At Home: Model 2
Individual Characteristics				
YP is female			4.3***	4.4***
Yr 9: YP has LSID				
Yr 9: YP has SEND status		0.4†		
Term of birth: (ref = autumn term)				
Winter				0.4†
Spring				
Summer				
SES and family-level characteristics				
IDACI: (Lower score = more deprived area)			0.7†	0.6†
YP Ed Attitudes & Aspirations				
Yr 9: "The RPA changes have affected my plans"			0.4†	0.4†
YP Experiences & Behaviours				
Yr 9: YP has a paid job	5.2**	5.4**		
Yr 9: YP was bullied			2.1†	2.2†
Yr 9: Number of risky behaviours	0.6†	0.6†		
Yr 9: Freq. talks to teachers about plans to study in the future (ref: Never / rarely)				
A little	3.0*	3.0†		
Quite a lot/A lot	4.7*	4.6*		
Yr 9: Does school offer careers advice?			1.9†	
MP Ed Attitudes & Aspirations				
Yr 9: MP educational aspirations: (ref = Continue in FTED)				
Apprenticeship				
Something else			0.03*	0.03*

Model 1 does not include controls for KS4 achievement; Model 2 includes controls for KS4 achievement. Significance levels: *** p<.001; ** p<.01; * p<.05; † p<.10. Source: NPD; LSYPE2: waves 1, 4 to 7 (weighted)

Young People on Different University Tracks

Our final group comparison is the three different university track groups. Sequence and cluster analysis of the non-HE activity sequences produced two interesting, though distinct, alternative HE pathways, but how do these compare with those who leave school and start university immediately?

Table 20 shows that one of the key differences between those on Delayed University pathways and those who start immediately after Year 13 is **lower attainment**. Once individual achievement is controlled for, there are **no gender differences** between those in the Direct to University group and those who start a little later. Reflecting differences seen elsewhere, the two groups do vary in terms of their own **educational aspirations** with those in the Delayed Entry group significantly more likely to have initially wanted to enrol on an apprenticeship or start work than continue in full-time education in comparison with those on the immediate university track.

These results suggests that those on Delayed University paths are in many respects an extension of the traditional university group but who just need a little more time and/or support (those in the Delayed group are more likely to **engage with teachers about their plans for future study**) to adjust (when achievement is not included, Delayed University Entrants are reported to have engaged in more **risky behaviours**) and make the next step on their educational career: whether they take an extra year to repeat A-levels (reflective of their **lower overall KS4 points score**); earn some money; or take some time out; they do not otherwise broadly differ significantly to those on traditional HE tracks in terms of individual or SES characteristics. (See also Figure 7 and Appendix B for sequence plots for the Delayed University Entrants group which show differences in the age 18/19 activities of this group).

Young people who leave university before completing also have **lower KS4 attainment** than those in the Direct to University group, but also a number of other characteristics making them quite a lot more distinct from the traditional academic track:

- Young **men** are 30% more likely to be in the Non-Completers group than in the Direct to University group. Before prior achievement is taken into account, they are also more likely to be identified as having received **SEN** provision at school.
- University Non-Completers come from **less educated homes**: they are less likely to come from households where at least one parent has A-levels (or equivalent) or a degree indicating many of them are likely to be first generation undergraduates which may make transition to, and adjustment through, university harder.
- University Non-Completers were more likely to than those in the Direct to University group to **plan on continuing on in post-16 education at a College or Other Institution** as opposed to a Sixth Form, as well as more likely to express an interest in doing an **apprenticeship** or **something else**. Their **parents** were also more likely to want them to **do something else**

rather than stay on in a school sixth form at 16. These findings again speak to the importance of clear post-16 plans.

- Of particular interest, is the finding repeated from Table 17 when compared with the FTED into Employment group, that young people who leave before completing their course at university appear to have had higher levels of **psychological distress** in Year 10 than those in the Direct to University group. They are also less likely than those always in university to **equate hard work with success**.

Again, it may be that they found the move to university far harder or more complicated than anticipated and struggled to adjust or that the work was just too much.

Table 20: Multinomial logistic regression model: University groups

Ref: Always Uni	Delayed Uni Entrants (1)	Delayed Uni Entrants (2)	Uni Non-Completers (1)	Uni Non-Completers (2)
Individual Characteristics				
YP is female	0.8†		0.6**	0.7*
Yr 9: YP has LSID				
Yr 9: YP has SEN			1.5†	
SES and family-level characteristics				
Highest Household Ed. (Ref = None)				
5 or more A* - C GCSEs				
A/AS levels/HE below Degree level			0.6*	0.7†
Degree plus			0.3***	0.4***
YP Ed Attitudes & Aspirations				
Yr 9: YP plans for age 16: (ref = sixth form)				
College/Other Inst			1.7*	1.7**
Apprenticeship	2.6*	2.4*	2.5†	2.4†
Work	2.2†	2.0†		
Something else			2.1*	2.2*
YP Experiences & Behaviours				
Yr 9: Number of risky behaviours	1.2†			
Yr 10: GHQ score (higher score = higher levels of psych. distress)			1.2†	1.2*
Yr 10: Equates success with hard work			0.8*	0.8*
Yr 9: Talks to teachers about plans to study in the future				
(ref: Never / rarely)				
A little	1.3**	1.3*		
Quite a lot/A lot				
MP Ed Attitudes & Aspirations				
Yr 9: MP educational aspirations: (ref = Continue in FTED)				
Apprenticeship				
Something else			2.5*	2.3†
Achievement				
YP has KS4 L2 Basics				
KS4 Points Score		0.6***		0.5***

Model 1 does not include controls for KS4 achievement; Model 2 includes controls for KS4 achievement. Significance levels: *** p<.001; ** p<.01; * p<.05; † p<.10. Source: NPD; LSYPE2: waves 1, 4 to 7 (weighted)

Summary

These multivariate analyses demonstrate clear differences between the post-16 pathways and point to a number of observable characteristics that might be used to identify individuals who are more or less likely to make certain choices at this important juncture.

In terms of the most salient overall predictors, the results presented in Table 17 are largely consistent with those in the extant research: Post-16 pathways are, at least in part, **socially driven**, particularly with respect to **household education** and **receipt of FSM**. Individual characteristics including **gender**, **age**, **LSID** and **SEN** status, alongside **educational attitudes** and **aspirations** are also significant predictors of the different transitions identified.

As in the descriptive results, individual **prior achievement** is a key factor in predicting post-16 pathways: the only groups where it does not predict pathway membership when compared to the FTED into Employment reference category are:

- the Apprenticeships group who has almost identical patterns of achievement as those working; and
- the University Non-Completers who, as noted, may be struggling with adjusting to the HE track.

Interestingly, however, very few of the factors that predict group membership are changed by the inclusion of prior achievement: the vast majority of the significant associations observed in model 1 – the "No Achievement" model – hold when KS4 attainment is taken into account. This finding also holds for most of the more similar pathway regression comparisons – Extended FTED vs. Returners; the three kinds of NEET groups; and the different university tracks.

One notable exception where this is less often the case is for the indicator of SEN status which is frequently reduced to non-significance once the measures of KS4 performance are included; a finding which makes logical sense – young people who are identified as needing SEN provision are more likely to struggle academically – and so the results here all the more interesting when it doesn't happen, as is the case for the FTED into NEET – Other NEET comparison. Here, once prior achievement is controlled for, the role of SEN actually becomes significant indicating that SEN status is likely to be a particular risk factor for those who are NEET and looking for work. Following these two groups, in particular, over a longer period time could yield useful insight into how to better support these young people avoid the pitfalls of long term "NEETdom".

Finally, while many of the **experiences** young people have at school and the behaviours they engage in show mean level differences across the eight pathway

groups in isolation, when considered alongside other individual and household characteristics, very few matter over and above as predictors of group membership suggesting that many of these factors are themselves correlated with other measures in the regression model, such as gender, SES and KS4 achievement.

The next chapter draws together key findings across all the analyses carried out, presenting some potential areas for policy to help further shape successful early adult transitions and provide support for those at risk of more vulnerable post-16 pathways. We also outline the next steps in our analysis of the LSYPE2 cohort and their outcomes.

Chapter 7 Conclusions and Next Steps

This report examines the post-16 pathways of young people who do not enter university upon finishing school or college at age 17/18. Our analysis describes in detail the transitions of this cohort, setting out a number of distinct and alternative routes taken post-16. The findings highlight the different profiles of young people across each of the pathways taken and explore whether it is possible to predict who opts out of (or is otherwise prevented from pursuing) the 'straight to university' route immediately after Year 13.

Our results show the full diversity of the non-immediate HE cohort in the first four years post-16 and document a broader range of potential routes at this critical juncture than in previous research. By considering the monthly activity histories of young people on non-immediate HE pathways rather than a single indicator of what individuals are doing measured annually, our analysis captures the minutiae of different types of transitions and outlines some of the more vulnerable pathways which arguably do not get as much exposure or comparison as others. In doing so, this research helps us think about post-16 educational tracks and qualification pathways holistically as a system for all young people, rather than any one track in in isolation.

Taken together our findings suggest that the system is working for the vast majority of young people: a third of the overall LSYPE2 cohort moved straight into university; of the larger two thirds who do not, most are on sustained and seemingly progressive tracks, and those on potentially riskier and/or more vulnerable pathways are in the minority. The value of our focus on alternative versions of post-16 transitions is in highlighting this overarching "success story" rather than one of a "forgotten middle", demonstrating that post-16 routes vary, how and for whom, and in shining a light on areas where more support could be provided.

Post-16 routes are not the same for everyone

There are many and varied routes out of post-compulsory schooling and while they have undoubtedly been less studied than the academic big hitters such as the Direct to University group and those deemed most at-risk, the NEET group, the majority of youth following these "other" routes appear to be making positive transitions into early adulthood.

However, this doesn't mean they wouldn't benefit from additional support. As outlined in Augar's review of post-18 education and funding (2019), this frequently "neglected" group (p.5) make an enormous contribution to the economy, often requiring vital upskilling and reskilling in our changing labour market, and so need a

tertiary education system that can support them in achieving their potential. There are clearly some individuals who are potentially at-risk through becoming entrenched in long-term NEET tracks, struggling to gain qualifications, or unable to reach their potential due to caring responsibilities or illness/disability, and these young people need additional support from a system properly able to support them because it recognises and understands their unique needs.

Equally, while the initial participation rate in HE is highest for 18 year olds than for any other age group, there is no one 'right path' to university. Many young people delay starting university by a year or more in order to improve grades, work or simply take time out before embarking on the next stage of their educational career. Providing greater support for young people on these alternative HE tracks, particularly those from lower SES households and first-generation graduates, could ensure a smoother transition into university life and limit dropout.

Predicting pathways

Like those of others, our findings demonstrate that even amongst the non-immediate HE cohort, post-16 pathways are – at least, in part – socially driven and are influenced by prior achievement.[58] In addition, we highlight the particular importance of educational attitudes and aspirations as important predictors of the routes taken out of compulsory education with vocational and academic leanings present amongst those following associated pathways.

While far from deterministic, our regression models indicate clear differences between the pathway clusters identified, robust to the inclusion of individual prior achievement. Unlike those of Dickerson et al. (2020), we find a number of observable characteristics associated with greater – or lesser – probability of following one path over another. This may reflect our approach which attempts to reduce within group heterogeneity and so results in a broader set of clusters: Dickerson and colleagues parsimoniously capture variation in the activity data, however, it is likely that the smaller number of overarching trajectories reflects a trade-off with greater within-cluster heterogeneity (see, for example, Figure 3 in Dickerson et al., 2020) which may go some way to explaining the relative lack of

[58] The analysis conducted here is unable to comment on the cumulative size of this "socially driven" component in comparison with, for example, the role of individual attitudes and aspirations or the amount of variation in pathways explained by area or school-level factors. Previous analysis of the LSYPE2 exploring attainment at KS4, but not post-16 pathways, highlights the complexity in trying to partition such variation in achievement given the interactions between different layers of influence – lower SES children are clustered in poorer schools, in more disadvantaged areas, and vice versa (Lessof, et al., 2018), but future research could also look at the relative size of such predictive "blocks" for different types of post-16 routes.

predictive capability in the individual characteristics associated with pathway choice they observe.

Our approach also pulls out pathways that are usually considered together as one, but which the analysis presented here demonstrate are real and distinct groups facing different challenges.

Educational attitudes and aspirations matter

In addition to prior achievement, individual characteristics, socioeconomic circumstances and a host of other factors known to influence educational tracks, our analyses highlight the particular importance of educational aspirations in predicting post-16 pathways, with both academic and vocational leanings evident from Year 9. Moreover, the young person's own aspirations matter over and above their parents' (and vice versa): aligned plans between parents and young people may help individuals forge more successful transitions.

Interestingly, however, where individual and parental aspirations are not in alignment, there is evidence of an increased risk of being on a potentially more vulnerable pathway. For example, young people in the University Non-Completers group show greater levels of indecision around post-16 plans and a greater mismatch between individual and parental aspirations compared with those I the Direct to University group, suggesting that misaligned post-16 plans might be a risk factor for young people less certain about their future. Mismatches for plans post-16 are also more evident amongst those in the FTED into NEET cluster, whereby young people themselves anticipate applying to university at some point while their parents express a greater desire for them to enrol on apprenticeship or training programmes.

Research here also suggests a relationship linking socioeconomic status to uncertain aspirations mediated through parents' educational expectations which may be particularly pertinent for a group more likely to be first generation graduates than other university tracks (Gutman, Schoon and Sabates, 2011). These authors also note that males not only hold greater uncertainty about continuing in education, but that the consequences of uncertainty are worse for males than females, and our Non-Completers group is more likely to be male – one of the only significant gender differences that remain in the regression models. More detailed investigation of these possible links is recommended.

Paid work as protective?

In line with others, we find some evidence that pre-16 paid work might act as a protective factor against less advantageous pathways, particularly the risk of

becoming NEET (see also Crawford, et al., 2011). Young people on FTED into NEET pathways – the more stereotypical NEET group – are significantly less likely to have had a paid job than those in the FTED into Employment group and are far less likely to have worked than their Other NEET counterparts.

There is no way to tell from these analyses whether those in the FTED into NEET group are less likely to have had a paid job due to a lack of opportunity, have not been encouraged to work or because they are less inclined/employable, but understanding what underpins this association might help in protecting more young people becoming NEET for longer.

How receipt of SEN provision relates to pathway membership

At face value, our measure of SEN status has a disproportionate representation in certain pathways (see Table 8) indicating that there may be strong associations between those identified with SEN at school and their post-16 transitions.

- Nearly half (48.1%) of those in the FTED into NEET group were identified as having received SEN provision at age 13/14 (Year 9), and some other pathways also had relatively high proportions: 39% of those on Extended FTED (non-degree) pathways; 36.6% of those At Home; and 27.5% of those who return to education after a spell of work.
- Conversely, those in the Delayed University Entrants group (9.1%) show much lower than average incidence of being identified with SEN (25.1% of the non-immediate HE cohort).
- Interestingly, the SEN profile for those in the other university group, the Non-Completers, is quite different with, on average, 18.2% of young people recorded as having received SEN provision at school, twice that of the Delayed Entry group.

However, because SEN status and academic achievement are so highly interrelated - young people with identified SEN are more likely to struggle academically and vice versa - we need to account for attainment in our multivariate analysis in order to better understand differences in pathways membership:

- Within each of the pathway groups identified, young people in receipt of SEN provision at school score lower in terms of KS4 overall points and are less likely to reach the L2 threshold in both English and maths than those in the same cluster who do not have SEN.

Across most of the comparisons, once prior attainment is added into our regression models, this tends to remove any significant relationship between or indicators of

SEN and group membership. This makes intuitive sense and is true when the Delayed University Entrants, FTED into NEET, and At Home groups are compared to those in the FTED into Employment group.

- For example, prior to the inclusion of KS4 achievement, young people with identified SEN are nearly twice as likely to be in the FTED into NEET group compared to the employment-dominated reference group. After its inclusion, there is no significant association.

However, this is not the case for the comparison with those in the Extended FTED (non-degree) group:

- SEN status remains predictive of group membership even after the prior achievement is controlled for, with those in receipt of SEN provision being 50% more likely to belong to the Extended FTED group, than the FTED into Employment reference group.

Those on Extend FTED (non-degree) pathways appear to be a group which includes at least some young people who are “trying but struggling” to make it work given their higher incidence of both SEN and LSID. Young people in receipt of SEN provision looking to take routes that potentially risk leading to protracted full-time, non-HE education tracks, or who are already on this pathway, may require improved support if the likely result is low value or incomplete courses. However, this may be a valid pathway for those requiring additional time to acquire qualifications and improve employment prospects.

SEN status also continues to distinguish those in the FTED into NEET pathway from Other NEETs:

- Young people identified with SEN are around 3.5 times more likely to be in the FTED into NEET group than those in the Other NEET group, even after controlling for prior achievement.
- Moreover, once prior achievement is taken into account, the role of SEN actually becomes significant indicating that SEN may be a particular risk factor for those who are more stereotypically NEET, i.e. those looking for work.

However, it is also true that boys are more likely to have SEN and be in the in the FTED into NEET group. Disentangling these factors is complicated and requires further analysis. Our third report in this series exploring post-16 transitions in the LSYPE2 data examines in detail how the early adult outcomes of young people identified with different types of SEN vary and compare to those without (Duckworth, Ross and Harding, 2025) and attempts draw out some of these complexities.

Limitations

When exploring the level of detail inherent in four years' worth of monthly activity histories across a non-HE cohort no one solution is going to be perfect. Our approach extensively explored the descriptive patterns across the sequences and used elements of a purely computational, data-driven clustering of the underlying groups to inform a manual classification of the data. Others have used alternative methods and there are pros and cons to each.

The methodology adopted here attempts to yield the most parsimonious grouping of similar sequences, whilst allowing for differences to emerge, maximising within group variation and ensuring clusters do not become too small to meaningful analyse. In addition, we wanted the different types of pathways identified to have real world meaning and policy relevance. We also used additional detail to try and correct apparent contradictions in the young person's reports about primary activities. However, despite our best attempts, there will always be some level of misclassification and other groupings could have been pulled out, for example, different types of Delayed University Entrants groups (extended period of FE study; those in work for a year; those taking a break before starting HE) or a finer grained account of the At Home group (those with caring responsibilities vs. those young people who are unable to work or study due to illness and/or disability). There are limitations, however, considerable time and effort was taken to iterate these analyses and produce clean, well defined pathway types and we are confident that they will hold up to scrutiny.[59]

The LSYPE2 contains a wide range of measures associated with educational achievement and individual development. From these we selected a narrow, but nevertheless comprehensive set of characteristics known to play a role in young people's transitions and have attempted to balance these across individual and family level characteristics. However, due to additional limits placed on the resulting sample sizes, we did not, for example, control for additional school-level factors which may also influence the post-16 tracks young people choose.

It is also important to emphasise that our analysis cannot prove causality in the relationships observed and it is clear that some of the observable characteristics do go hand-in-hand, but that many of our findings confirm and build on the existing body of research gives strength to there being meaningful differences for the newly observed pathways too.

Finally, we note that longitudinal surveys, despite their richness, are not completely representative of the population they seek to assess. Statistical techniques such as

[59] All details of the steps taken, and the grouping procedures are available from the authors on request.

weighting procedures go some way to addressing imbalances due to the under-representation of certain groups - for example, those from more disadvantaged backgrounds, certain ethnic groups, young people with experience of children's social care, or those in special schools – but ultimately caution must be taken when generalising findings to the broader population.

Next Steps

Our second report (Ross, et al., 2025), picks up the transitions of these young people when they are aged 19/20 and focuses specifically on their outcomes. We will compare how well young people are doing across a range of domains including their wellbeing, economic and material adjustment, as well as their educational progression.

Appendix A Individual and family level characteristics in the LSYPE2

Individual Characteristics

Gender. Coded 0 for males and 1 for females.

YP has a long-standing disability or illness likely to last until age 16:

YP has Special Educational Needs: Coded 0 for no Special Educational Needs and 1 for the presence of Special Educational Needs, including Statements, School Action and School Action Plus.

Term of birth: Young person's date of birth was coded into term of birth: autumn, winter, spring, summer.

SES and Family-level Characteristics

Mother's age: Mother's age in years was reported when cohort members were in Year 9, aged 13/14 (wave 1).

Highest household education. The measure of parents' educational qualifications is based on main parent-reported mother and father/partner highest level of educational qualifications coded on a scale from 0 to 3: less than Level 2 academic and vocational qualifications; O-level/GCSE/Level 2 vocational qualifications; A-levels/Level 3 vocational qualifications; university degree and higher. Highest household education is the combination of both parents' highest level of qualification on the same. If either parent is absent (or missing), coding is based on the present parent's data.

Ever eligible for FSM: Pupils are coded: 0 = not eligible for free school meals; 1 = eligible for free school meals when cohort members were in Year 9, aged 13/14 (wave 1).

Family type: YP lives in a two-parent household. Binary indicator of whether young person lives in a two-parent household when cohort members were in Year 9, aged 13/14 (wave 1).

IDACI score: The Income Deprivation Affecting Children Index shows the percentage of children in each Super Output Area (SOA) that live in families that are income deprived (i.e. in receipt of Income Support, Income based Jobseeker's Allowance, Working Families' Tax Credit or Disabled Person's Tax Credit below a

given threshold). An IDACI score of, for example 0.24 means that 24% of children aged less than 16 in that SOA are living in families that are income deprived.

Educational Attitudes and Aspirations

YP plans for age 16: In Year 9, young people were asked about their plans for when they reached aged 16.

Original responses were coded as: Go into the sixth form at the same school as now; Go into sixth form at a different school from now; Go to sixth form college; Take a course at a college of further education; Take a course at another type of college; An apprenticeship; Don't know. "Don't know" responses were further broken down into: An apprenticeship; Start work with some education or training; Start work without education of training; Be unemployed; Start a family; Something else.

Responses were re-coded: Stay-on in school (sixth form; college; unsure); An apprenticeship; Begin working; Leave.

Likelihood of applying to HE is fairly/very likely. Young person's self-report of whether they are fairly or very likely to apply to Higher Education.

School attitude. This is a score based on summed answers to 12 attitudinal questions about how the young person feels about school. Questions include: I am happy at school; school work is worth doing; I work as hard as I can at school; the work I do in lessons is interesting to me; I get good marks for my work. The higher the score, the more positive the young person's attitude to school.

YP attitude towards RPA legislation: Young person's self-report of whether they agree or disagree that: The Raising of the Participation Age changes don't "make much difference to me as I would have stayed in education or training anyway." Responses range from strongly agree to strongly disagree on a five-point Likert scale.

Experiences and Behaviours

YP does paid work during term time. Binary indicator of whether young person has a part time job during term time – work of any kind, even if only occasional work for an hour or two - measured when cohort members were in Year 9, aged 13/14 (wave 1).

YP was bullied regularly: Binary indicator of whether young person experienced any kind of bullying, whether in school or not, measured when cohort members were in Year 9, aged 13/14 (wave 1).

YP Truants. Binary indicator of whether young person has truanted in the last 12 months or not, measured when cohort members were in Year 9, aged 13/14 (wave 1).

Risky Behaviours: includes the young person's acknowledgement of having been involved in activities, such as drinking alcohol, smoking, taking drugs, fighting or antisocial behaviours, measured when cohort members were in Year 9, aged 13/14 (wave 1).

Psychological Distress (GHQ12 Score): Young people's psychological distress was measured in the year 10 (wave 2) survey using the General Health Questionnaire (GHQ). It measures the presence and frequency of a range of symptoms aimed at detecting minor psychiatric morbidity (Goldberg and Williams, 1988).

A scale is constructed from 12 items (see Lessof, Ross, Brind, Bell and Newton, 2016, for more detail) and creates either a continuous scale with a range of 0 – 36, where zero is low or an absence of distress.

Equates hard work with success: Young person's self-report of the extent to which they believe in the value of working hard at school and elsewhere in order to succeed. The construct is measured by statements such as, "Working hard at school will help me get on later in life" and "If you work hard at something you'll usually succeed", on a scale of 0-9; the higher the score, the more strongly the young person equates working hard with success.

Locus of Control: Measures the extent to which the young person believes they, as opposed to external forces beyond their influence, have control over the events that affect them. It is measured by statements such as, "People like me don't have much of a chance in life" and "How well you get on in this world is mostly a matter of luck".

Frequency YP talks to teachers about plans to study in the future: Young person's report of how often they talked to teachers regarding their plans to study post-16. Variable is recoded as: 1 = Not at all / Not very much; 2 = A little; 3 = Quite a lot / A lot.

Does school offer a careers advisory service: Young person's report of whether their school had a careers advisory service, measured when cohort members were in Year 9, aged 13/14 (wave 1). The variable is binary coded: 1 if the school had a careers advisory service, 0 if they did not.

Main Parent Educational Attitudes and Aspirations

Main parent: Aspirations for YP after 16: Coded as: continue in full-time education (sixth form; college; unsure of where); enrol in an apprenticeship; start working; leave to be unemployed, start a family or something else.

Main parent: School Rating: Parents were asked how they would rate the overall quality of their child's school when pupils were aged 13/14 and in Year 9 (wave 1) and measured on a five-point scale from "very bad" to "very good" with a higher score indicating a higher rating.

Prior Achievement

YP has KS4 L2 Basics: whether the young person achieved an A* - C pass in English and mathematics (or equivalent). Coded as 0 if the YP did not reach this threshold, and 1 if they did.

YP KS4 Points Score: the young person's capped total points score based on their highest eight GCSE grades (including equivalents).

Ethnicity and regional information

Ethnicity: Young person's ethnic group, coded 0 for pupils of white backgrounds and 1 for non-white youth.

Government Office Area: Summary of region young person lives in: North East; North West; Yorkshire and The Humber; East Midlands; West Midlands; East of England; London; South East; South West.

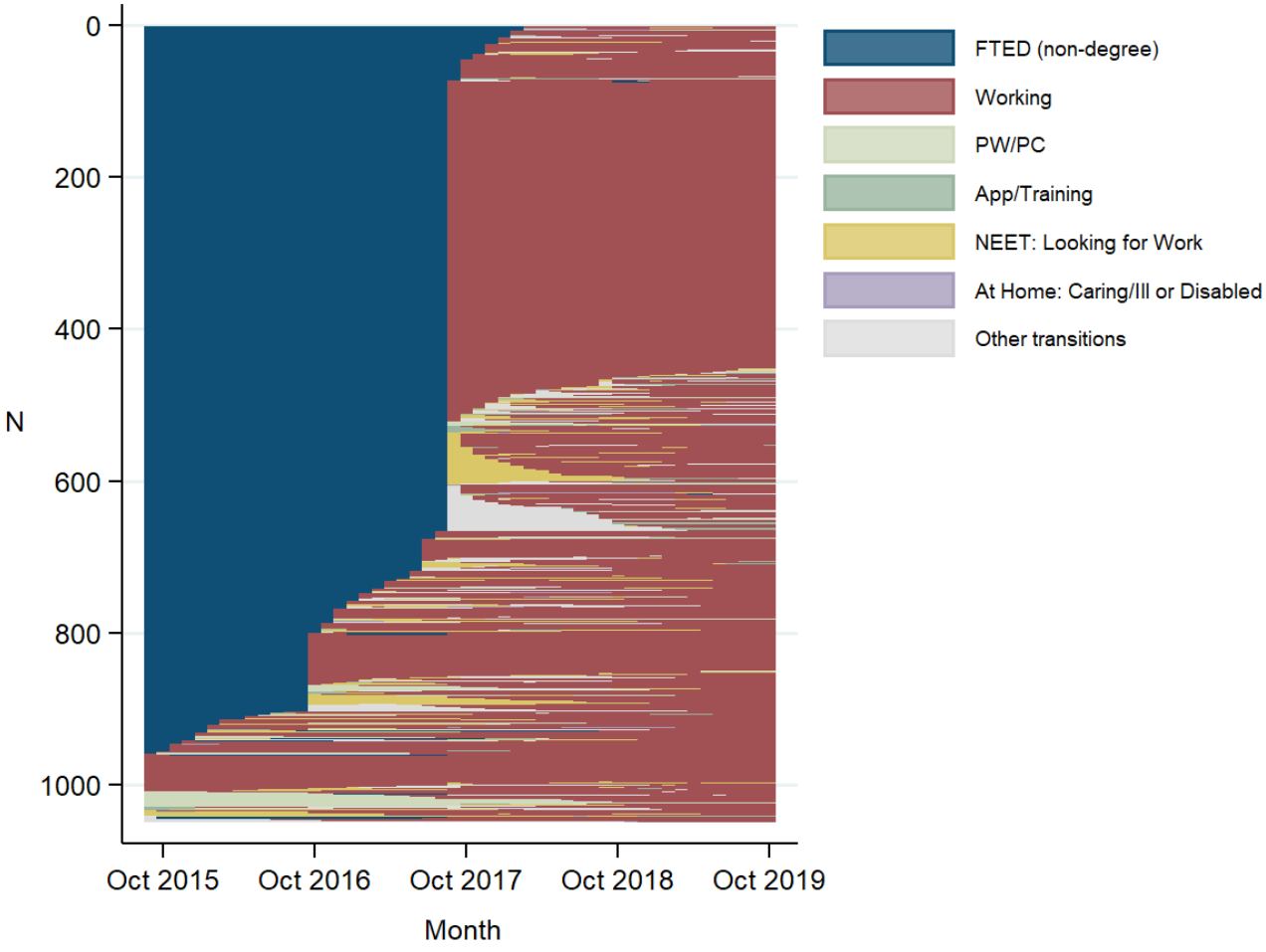
Appendix B Individual Pathway Group Index Plots

The following charts show the individual sequences of monthly activity histories across eight key economic activities between October 2015 and October 2019, for young people on each of the individual pathway groups as detailed in the section on Grouping Procedures in Chapter 4.

Full-time into Employment

Figure 16 gives the sequences for the largest pathway group of the non-direct to university cohort, 28%, and shows transitions marked, predominantly, by two years of full-time education (non-degree) followed by consistent employment. As previously noted, and as with all pathways identified, there is some within-cluster heterogeneity reflecting the uniqueness of some individuals' pathways, for example period NEET and looking for work or following other transitions.

Figure 16: Individual Sequence Plots: Full-Time Education into Employment

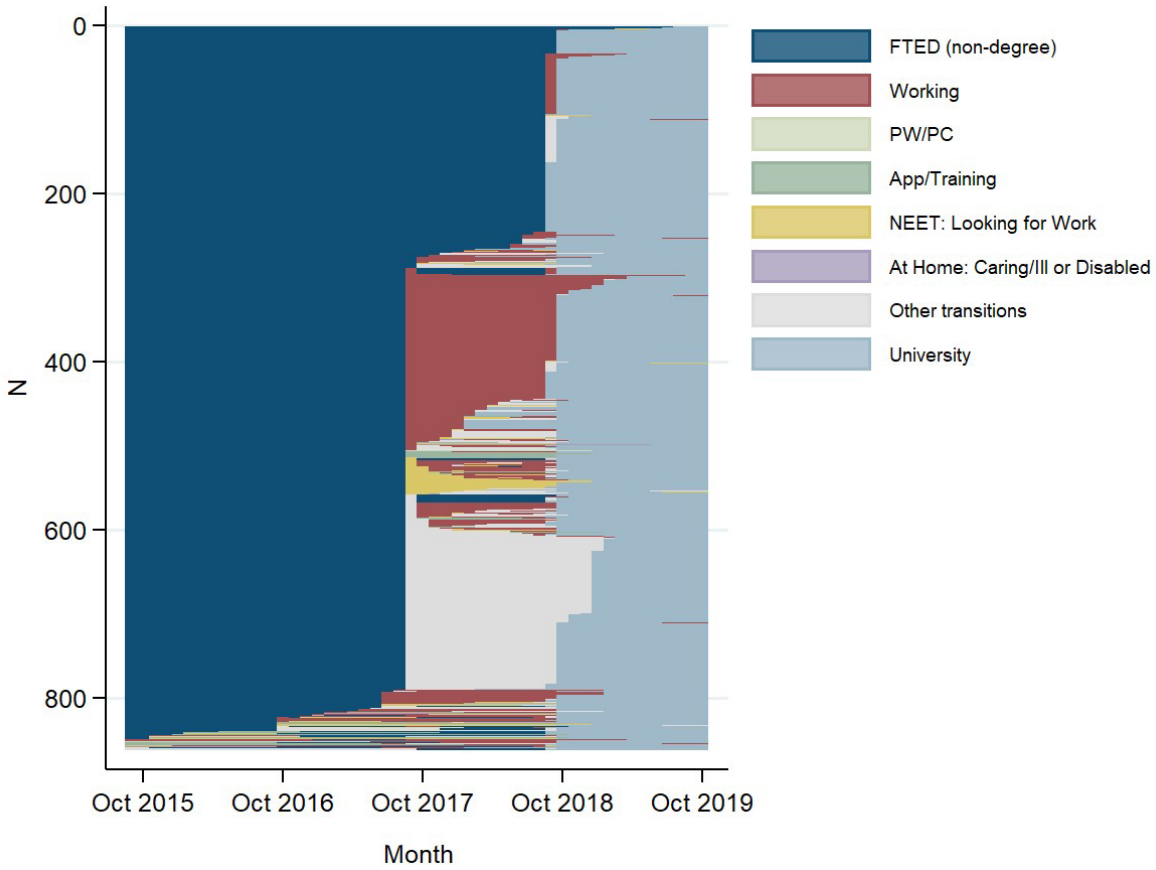


Delayed University Entrants

Figure 17 shows the individual sequences for young people in the Delayed University Entrants pathway, 18% of the non-direct to university cohort. Individuals on this pathway start university at age 19/20, one year later than those who enter immediately after Year 13 and typically follow one of three tracks into university:

- “Probable Retakers”: three years FTED: non-HE, then into university
- “Work First”: two years FTED (non-degree), one year of employment, followed by a year of university
- “Gap Year”: two years FTED (non-degree), one year other transitions, then a year of university.

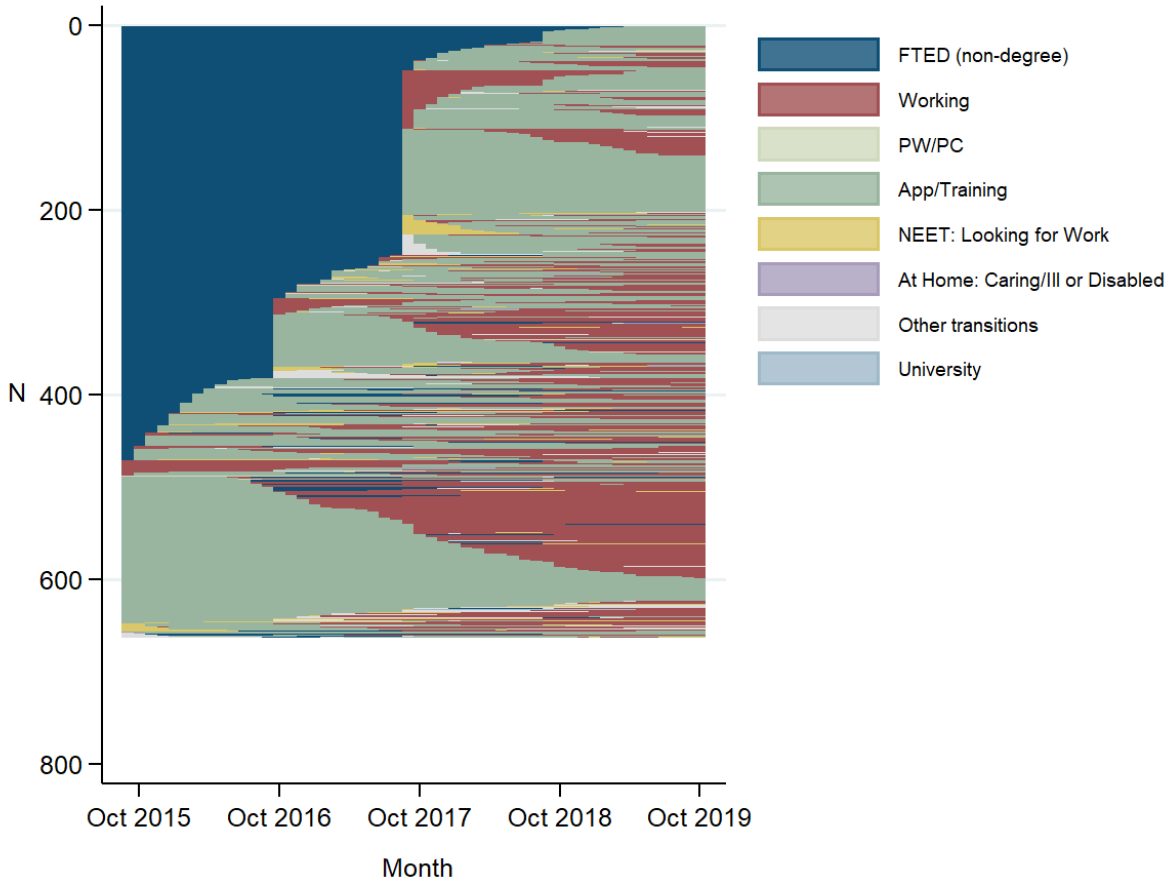
Figure 17: Individual Sequence Plots: Delayed University Entrants



Apprenticeships & Training

Figure 18 shows the individual sequences for young people in the Apprenticeship and Training pathway, 17% of the non-direct to university cohort. Individuals in this group spend a minimum of six continuous months enrolled on an apprenticeship or training programme/course during the four-year window, in combination with full-time education (non-degree) and/or employment.

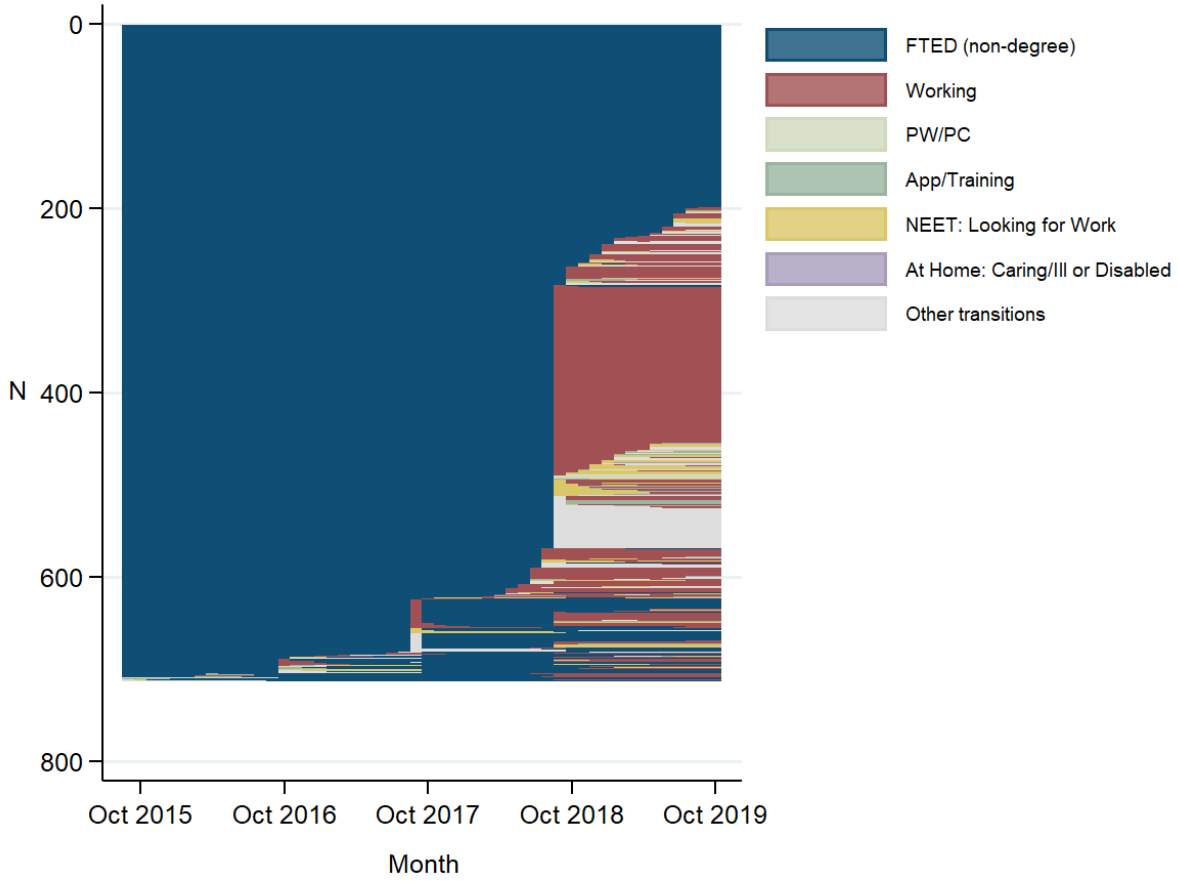
Figure 18: Individual Sequence Plots: Apprenticeships & Training Pathways



Extended Full-Time Education

Figure 19 shows the activity histories for individuals in the Extended Full-Time Education group, 16% of the non-direct to university cohort. Young people in this cluster spend the majority of time in non-university / FE full-time education, either all four years or three years consecutive full-time education, followed by a year of work or other transitions.

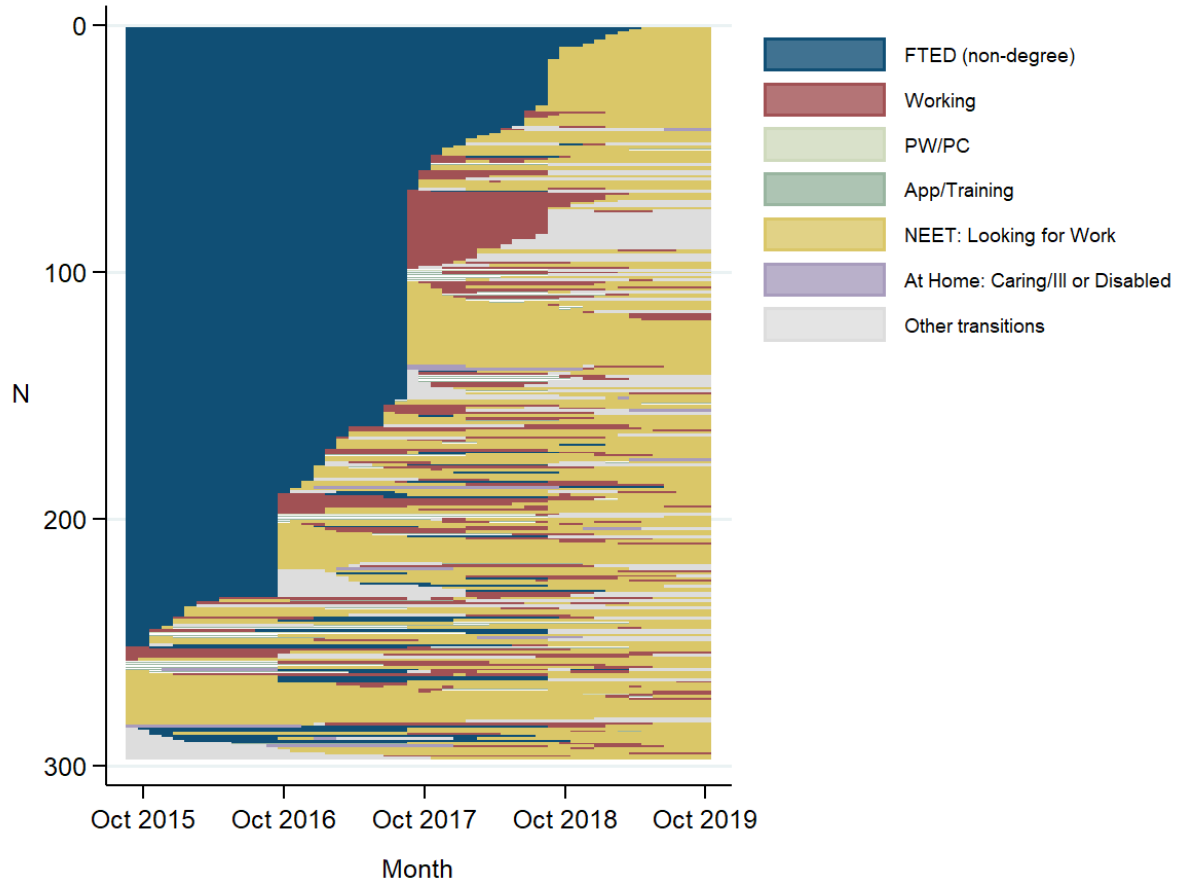
Figure 19: Individual Sequence Plots: Extended Full-Time Education



Full-Time Education into NEET

In parallel with the FTED into Employment group, Figure 20 shows that transitions here are marked by one, two, or three years in FTED (non-degree), followed by consistent and prolonged periods of being NEET and looking for work. This group make up 8% of the non-direct to university cohort.

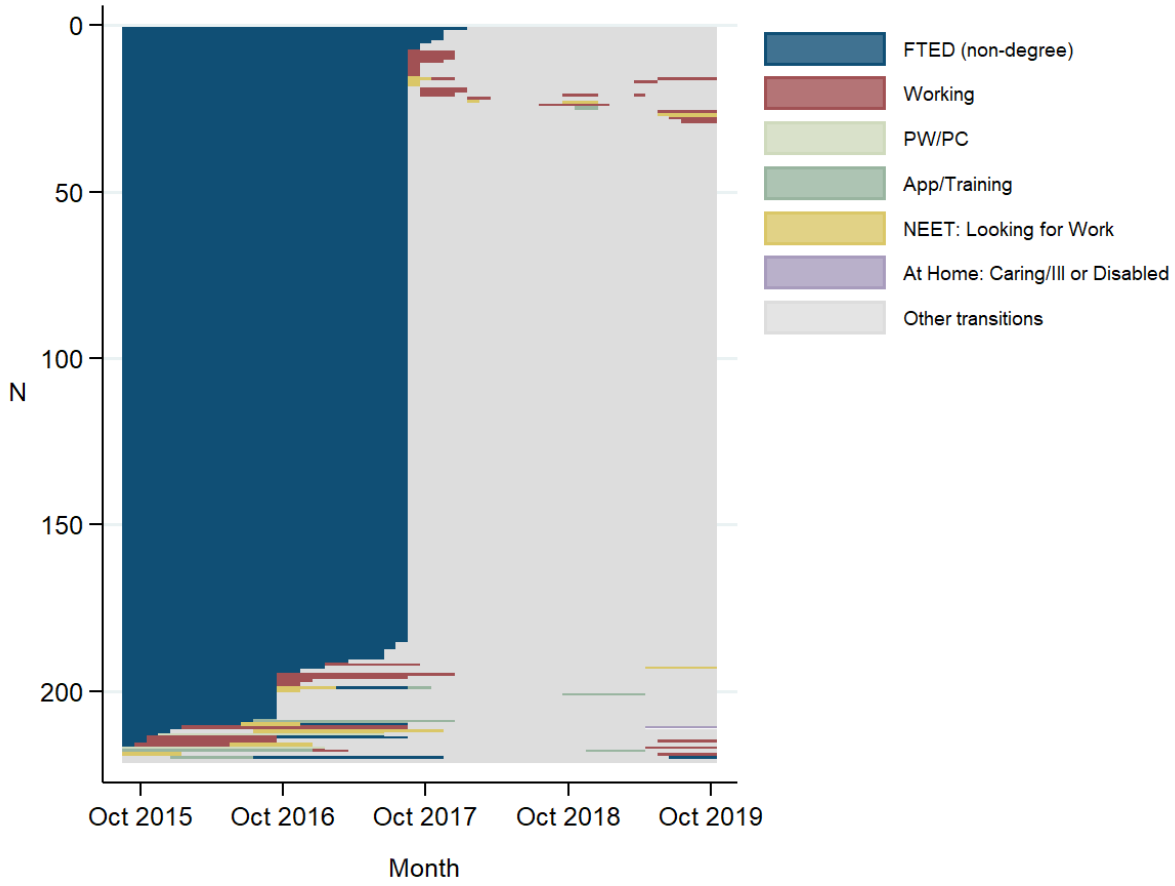
Figure 20: Individual Sequence Plots: Full-Time Education into NEET



Other NEET

Figure 21 shows that transitions for young people in the Other NEET pathway group (5% of the non-direct to university cohort) are marked by two years in FTED (non-degree), followed by two years occupying “other” activity states (see section The “Other” NEETs in Chapter 4 for more detail on this group).

Figure 21: Individual Sequence Plots: Other NEET

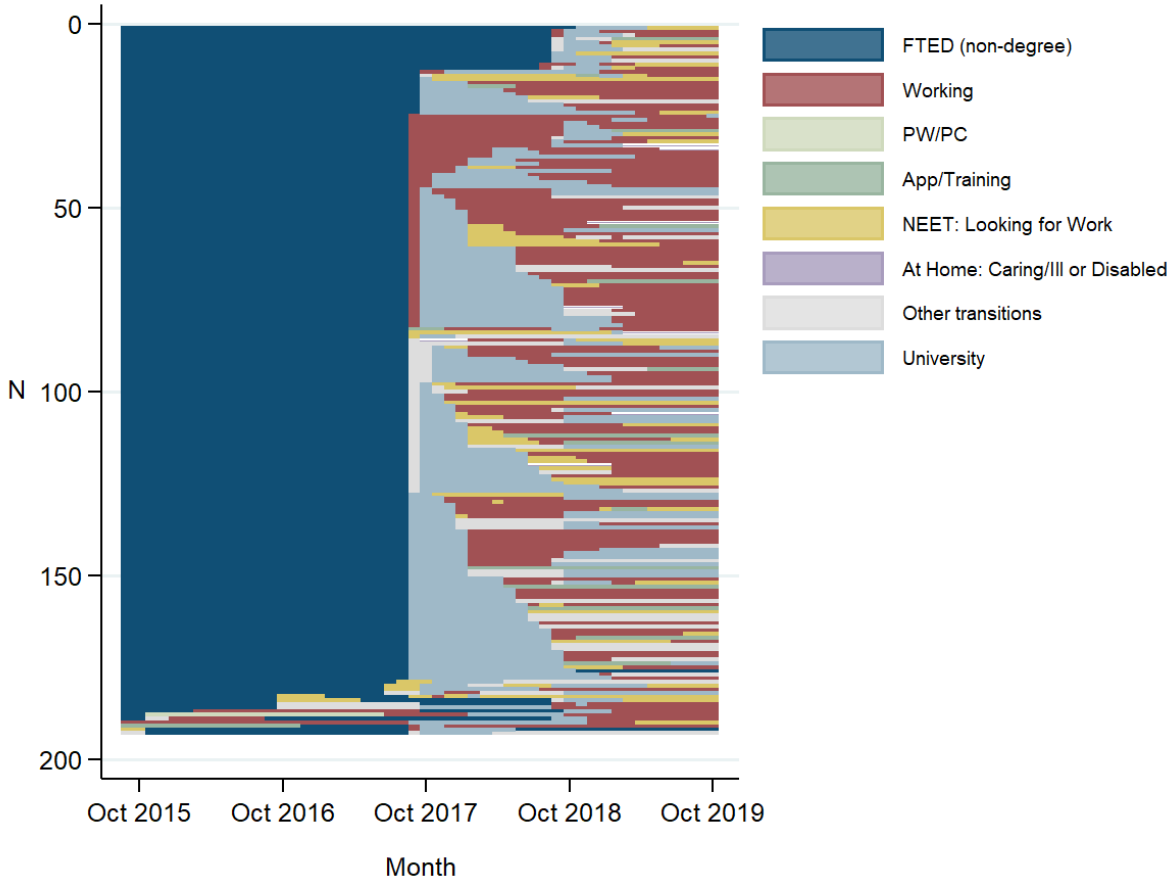


University Non-Completers

Figure 22 shows the sequence plots for young people who appear to have started university but left before completing their studies. They make up 4% of cohort and their activity histories are largely captured by one of three patterns:

- Young people who spend less than eight months in university in 'Year 14' and none in 'Year 15';
- Young people who spend less than six months in university in wave 7 and none in the previous year;
- Young people who spend less than six months in university in wave 6 and then return in wave 7.

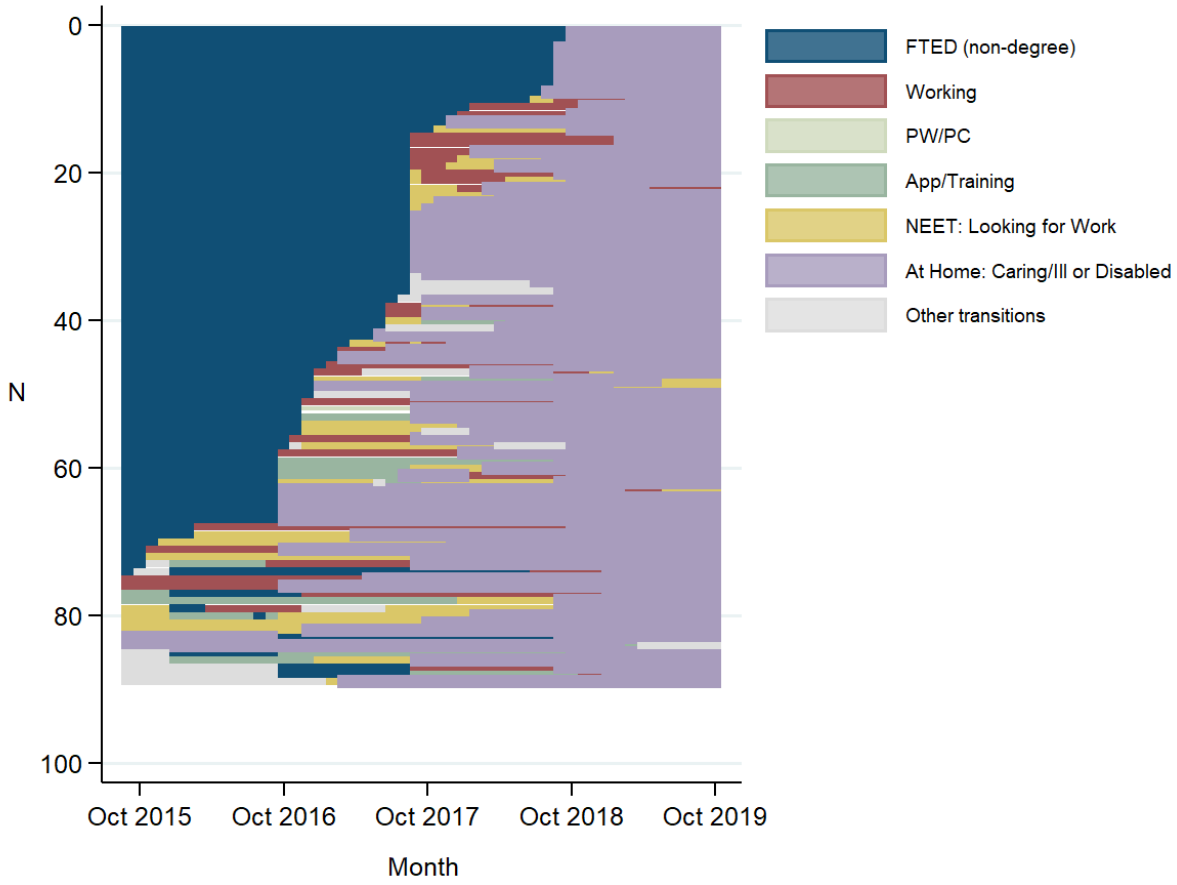
Figure 22: Individual Sequence Plots: University Non-Completers



At Home

Figure 23 shows the activity patterns for young people in the At Home group, 2% of the non-direct to university cohort. Young people in this group mainly move from full-time education (non-degree) into consistent and prolonged episodes of reporting being at home with caring responsibilities or are ill or disabled, some via periods of being NEET and looking for work.

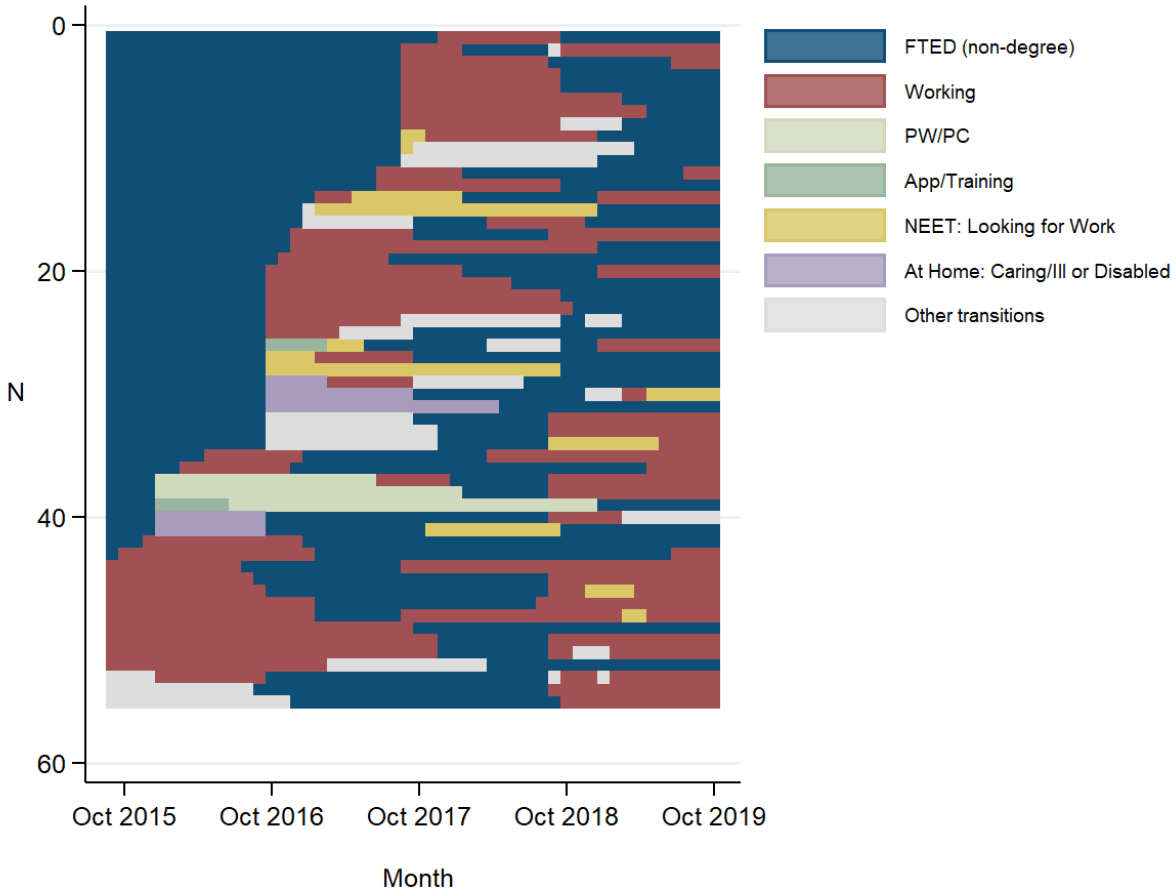
Figure 23: Individual Sequence Plots: At Home



Returners

Similar to the Extended Full-time Education group, Figure 24 shows that Returners' transitions are marked by lengthy periods in full-time (non-degree) education but separated by continuous blocks of six months or more in activities, typically employment. This group make up 1% of the non-direct to university cohort.

Figure 24: Individual Sequence Plots: Returners

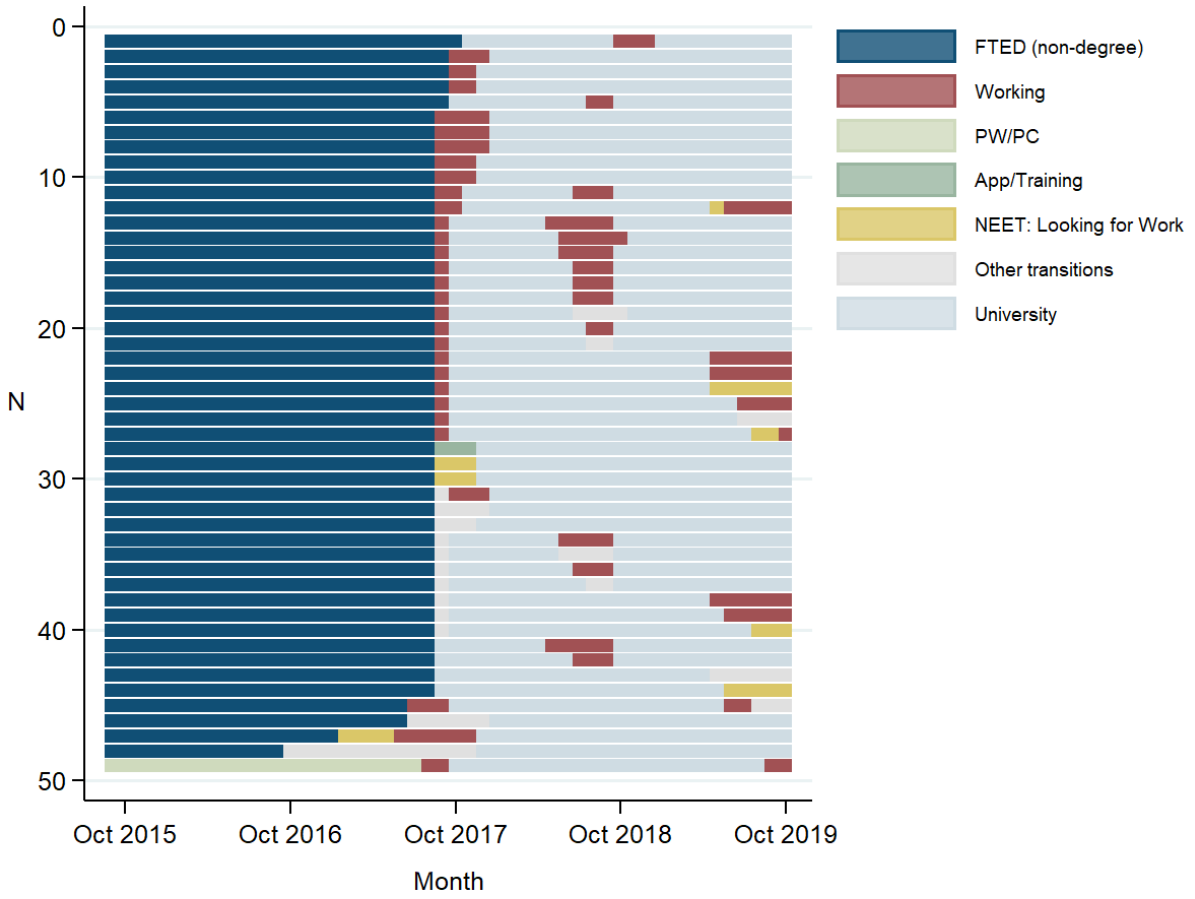


“Apple-Pickers”

This small group (1%) appear to be made up of young people on the typical direct-to-university track, but because they very accurately reported their employment activities during the seasonal / university holiday months were not captured by the definitions used to initially reduce our analytic sample (see Chapter 3 and Table 6 for further detail).

Individuals in this group were not included in the main analyses since they fall outside of the “non-traditional university track” focus of this report but Figure 25 is shown to highlight how the detail present within the monthly activity histories recorded by young people.

Figure 25: Individual Sequence Plots: “Apple Pickers”



Appendix C "Fine tuning" the pathway groups

The process to reallocate some young people to what we think is a more accurate reflection of their pathway classification is based on a detailed, iterative examination across a number of different variables over the period when cohort members were aged 18/19 and 19/20 (waves 6 and 7) and followed three distinct stages:

- First, using further information on the other activities young people were engaged in, including any courses they reported undertaking, we found a number of those whose main activity was recorded as 'waiting for a course or job to start' were in fact studying for a first degree in an HE institution, some of whom were in their second year.
- Second, detail on the types of courses young people were studying also enabled us to "fine tune" our education clusters, moving non-HE first-degree students out of Direct to University, Delayed University Entrants and University Non-completers and into either Extended Education: non HE or Returners depending on the year those courses were being studied.

  Thirdly, we were also able to identify a number of young people who, whilst not studying for a first degree, were nevertheless engaged in Further Education despite being recorded as waiting unusually long periods for a course or job to start.

Appendix Table 1 shows the number of individuals moved from their initial grouping based on the first clustering undertaken to their adjusted pathways based on the three-stage process outlined in Chapter 2. The table is read from left to right by row with the adjusted pathway grouping detailed in the column header and the values in each cell showing young people who stayed in the same category and where movement has taken place.

So, for example, based on additional information gleaned from other reports from the young person regarding courses they were studying for, 46 individuals were moved from the FTED into Employment group into the Delayed University Entrants group (those who also reported doing a degree at wave 7), 21 to the University Non-Completers (those who reported studying for a degree at wave 6 but not at wave 7), and 67 to Direct to University (those who were engaged in degree studies at both waves 6 and 7). It may be that these young people were studying alongside their studies, hence their "main activity" was recorded as "In Work" but given our focus is primarily on education tracks, we reallocate these individuals to their primary education cluster first.

Detail on all the reallocations made are available on request from the authors.

Appendix Table 1: Reallocation of individuals from initial to adjusted grouping

Initial Grouping:	FTED into Emp	Delayed Uni Entrants	Extended FTED (non-degree)	App'ship & Training	Uni Non-Completers	FTED into NEET	Other NEET	At Home	Returners	Always Uni	Total	Total % moved:
FTED into Employment	915	46	0	0	21	0	0	0	0	67	**1,049**	**2.3**
Delayed Uni Entrants	0	562	11	0	6	0	0	0	5	277	**861**	**5.0**
Extended FTED (non-degree)	0	62	578	0	30	0	0	0	0	43	**713**	**2.3**
Apprenticeships & Training	0	0	0	663	0	0	0	0	0	0	**663**	**0.0**
University Non-Completers	0	0	0	0	176	0	0	0	0	17	**193**	**0.3**
FTED into NEET	0	26	5	0	9	248	0	0	6	3	**297**	**0.8**
Other NEETs	0	17	14	0	8	0	47	0	5	130	**221**	**2.9**
At home	0	0	0	0	1	0	0	90	0	0	**91**	**0.0**
Apple Pickers	0	5	1	0	11	0	0	0	0	32	**49**	**0.3**
Returners	0	3	0	0	0	0	0	0	52	0	**55**	**0.1**
Always Uni	0	2	24	0	0	0	0	0	0	1,717	**1,743**	**0.4**
Total	**915**	**723**	**633**	**663**	**262**	**248**	**47**	**90**	**68**	**2286**	**5,935**	**14.4**

Notes: Source: LSYPE2: waves 4 to 7 (unweighted)

Appendix D Summary statistics

Appendix Table 2: Summary statistics for the non-immediate HE cohort (Complete Cases)

	N	Mean	Std. Dev.	Min	Max
Achievement					
YP has KS4 L2 Basics	3,518	.51	(.50)	0	1
YP KS4 Points Score	3,518	295.9	(94.9)	0	475
Individual Characteristics					
YP is female	3,649	.46	(.50)	0	1
Yr 9: YP has LSID	3,617	.18	(.38)	0	1
Yr 9: YP has SEN status	3,424	.25	(.43)	0	1
Term of birth: (ref = autumn term)					
Winter	3,645	.24	(.43)	0	1
Spring	3,645	.25	(.43)	0	1
Summer	3,645	.26	(.44)	0	1
SES and family-level characteristics					
Yr 9: Mother's age	3,549	42.5	(6.3)	21	83
Highest Household Education: (Ref = None)					
5 or more A* - C GCSEs	3,629	.19	(.39)	0	1
A/AS levels/HE below Degree level	3,629	.31	(.46)	0	1
Degree plus	3,629	.21	(.41)	0	1
Yr 9: YP in receipt of FSM	3,424	.30	(.46)	0	1
Yr 9: YP lives in a single parent household	3,631	.29	(.46)	0	1
IDACI: (Lower score = more deprived area)	3,437	5.0	(2.8)	1	10
YP Ed Attitudes & Aspirations					
Yr 9: YP plans for age 16: (ref = Sixth Form)					
College/Other Inst	3,363	.28	(.45)	0	1
Apprenticeship	3,363	.08	(.27)	0	1
Work	3,363	.04	(.20)	0	1
Something else	3,363	.01	(.10)	0	1
Yr 9: YP thinks it very likely/likely they will apply to uni	3,620	.69	(.46)	0	1
Yr 9: YP attitude to school	3,580	.70	(.15)	0	1
Yr 9: "RPA changes have affected my plans" (ref: No)					
Yes or Unsure	3,620	.24	(.43)	0	1

Appendix Table 2 (continued)

	N	Mean	Std. Dev.	Min	Max
YP Experiences & Behaviours					
Yr 9: YP has a paid job	3,613	.14	(.34)	0	1
Yr 9: YP was bullied	3,620	.43	(.49)	0	1
Yr 9: YP truants	3,275	.12	(.33)	0	1
Yr 9: Number of risky behaviours	3,589	.78	(1.3)	0	10
Yr 10: GHQ score (higher score = higher distress)	3,010	10.7	(6.9)	0	36
Yr 10: Equates success with hard work	3,294	7.1	(1.4)	0	9
Yr 10: Locus of Control	3,124	5.4	(1.6)	0	9
Yr 9: Freq. talks to teachers about plans to study in the future (ref: Never / rarely)					
A little	3,613	.38	(.49)	0	1
Quite a lot/A lot	3,613	.17	(.37)	0	1
Yr 9: Does school offer careers advice?	3,620	.61	(.49)	0	1
MP Ed Attitudes & Aspirations					
Yr 9: MP educational aspirations: (ref = Continue in FTED)					
Apprenticeship	3,594	.11	(.31)	0	1
Start Work	3,594	.06	(.24)	0	1
Be unemployed / Start Family / Something else	3,594	.01	(.07)	0	1
Yr 9: MP school rating: (low to high)	3,626	4.3	(.81)	1	5
Ethnicity					
% Non-white	3,616	.15	(.36)	0	1
Region: (ref: North-East)					
North-West	3,550	.13	(.34)	0	1
Yorkshire & The Humber	3,550	.11	(.31)	0	1
East Midlands	3,550	.09	(.29)	0	1
West Midlands	3,550	.11	(.31)	0	1
East of England	3,550	.12	(.33)	0	1
London	3,550	.11	(.32)	0	1
South-East	3,550	.17	(.38)	0	1
South-West	3,550	.10	(.31)	0	1

Source: LSYPE2: waves 4 to 7 (weighted)

Appendix E Cohort comparisons

Appendix Table 3: 'Non-immediate HE' and 'Direct to Uni' Cohort: Mean Comparisons

	Non-immediate HE Cohort	Direct to Uni Cohort	*Diff.*	*Sig.*
Achievement				
YP has KS4 L2 Basics	.51	.84	*.33*	***
YP KS4 Points Score	296	380	*84*	***
Individual Characteristics				
YP is female	.46	.56	*.10*	***
Yr 9: YP has LSID	.18	.11	*-.07*	***
Yr 9: YP has SEN status	.25	.07	*-.18*	***
Term of birth:				
Autumn term	.25	.26	*.01*	
Winter	.24	.23	*-.01*	
Spring	.25	.26	*.01*	
Summer	.26	.25	*-.01*	
SES and family-level characteristics				
Yr 9: Mother's age	42.5	44.3	*1.7*	***
Highest Household Education:				
None	.29	.12	*-.17*	***
5 or more A* - C GCSEs	.19	.11	*-.08*	***
A/AS levels/HE below Degree level	.31	.29	*-.02*	†
Degree plus	.21	.49	*.27*	***
Yr 9: YP in receipt of FSM	.30	.16	*-.14*	***
Yr 9: YP lives in a single parent household	.29	.19	*-.11*	***
IDACI: (Lower score = more deprived area)	5.0	5.8	*.84*	***
YP Ed Attitudes & Aspirations				
Yr 9: YP plans for age 16:				
Sixth Form	.59	.81	*.22*	***
College/Other Inst	.28	.18	*-.10*	***
Apprenticeship	.08	.01	*-.07*	***
Work	.04	.01	*-.03*	***
Something else	.01	.00	*-.01*	***
Yr 9: YP thinks it v likely/likely they will apply to uni	.69	.93	*.24*	***
Yr 9: YP attitude to school	.70	.76	*.07*	***
Yr 9: "The RPA changes have affected my plans"				
Yes or Unsure	.24	.10	*-.14*	***

Appendix Table 3 (continued)

	Non-immediate HE Cohort	Direct to Uni Cohort	*Diff.*	*Sig.*
YP Experiences & Behaviours				
Yr 9: YP has a paid job	.14	.13	*.00*	
Yr 9: YP was bullied	.43	.35	*-.08*	***
Yr 9: YP truants	.12	.05	*-.07*	***
Yr 9: Number of risky behaviours	.78	.34	*-.44*	***
Yr 10: GHQ score (higher score = higher distress)	10.7	10.5	*-.24*	
Yr 10: Equates success with hard work	7.1	7.5	*.42*	***
Yr 10: Locus of Control	5.4	6.0	*.53*	***
Yr 9: Freq. talks to teachers about plans to study in the future				
Never / Rarely	.45	.41	*-.04*	**
A little	.38	.38	*.00*	
Quite a lot/A lot	.17	.21	*.04*	***
Yr 9: Does school offer careers advice?	.61	.65	*.04*	
MP Ed Attitudes & Aspirations				
Yr 9: MP educational aspirations:				
Continue in FTED	.83	.97	*.15*	***
Apprenticeship	.11	.02	*-.09*	***
Work / Unemployed / Start Family / Something else	.07	.01	*-.06*	***
Yr 9: MP school rating: (low to high)	4.3	4.5	*.24*	***
Ethnicity				
% Non-white	.15	.24	*.09*	***
Region:				
North-East	.05	.05	*.00*	
North-West	.13	.14	*.01*	
Yorkshire & The Humber	.11	.09	*-.02*	*
East Midlands	.09	.09	*.00*	
West Midlands	.11	.11	*.01*	
East of England	.12	.10	*-.02*	*
London	.11	.18	*.07*	***
South-East	.17	.15	*-.02*	*
South-West	.10	.08	*-.02*	**

Source: LSYPE2: waves 4 to 7 (weighted)

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