Vocational Progression and a Decent Career:

Sectors, Locality and Early Adult Job Opportunities

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Abstract

The career achieved in early adulthood remains one of the most powerful indicators of future life chances. English higher-level vocational qualification reforms aim to improve vocational 'middle' pathways to higher-skilled work. There is extensive social science interest in the reproduction of inequalities from education into the labour market, but little attention on early adult career pathways *within* employment, most especially in the 'missing middle' of the mid-skills space, with significant gaps in evidence on how employers and local labour markets shape early adult career pathways.

My thesis examines 'middle', higher-level vocational progression to higher-skilled work in early adulthood, employing a mixed method, three-sector comparison of construction, textiles manufacturing and digital, in Northern Region in England, to explore diverse skills profiles through a locality, sector, and institutional lens in complex education and labour market intersections. New secondary quantitative analyses reveal that 'middle skill' space is a more complex and important opportunity structure than policy suggests, providing new definitions of mid-skill equilibria. Mapping the distinct sector qualification patterns in early adulthood challenges the normative policy representation of vocational higher-level qualifications as 'one-size', instead arguing these are intrinsically situated by sector.

Careers sequencing through qualitative enquiry, drawing from twenty-nine in-depth stakeholder interviews, identifies the importance of situated vocational worker identities, and industry traditions and norms in the processes of early adult vocational progression, in imaginaries of 'becoming the high-skill vocational worker'. Place-based findings illuminate how local employer-education partnerships create informal opportunity structures or 'fields', normalising progression to higher-skilled work in communities with a limited history of professional work, contingent on multiple informal, employer-educator processes which are typically unrecognised. My study pivots the focus of 'youth transition' to early careers, arguing 'decent careers' into higher-skilled work are bound by 'horizons of possibility' through the locality, the sector, and its institutions in early adulthood.

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Abbreviations

A 'Level	Advanced Level
BSc	Bachelor of Science
CA	Combined Authority
CSR	Corporate Social Responsibility
CIAG	Careers Information, Advice and Guidance
CITB	Construction Industry Training Board
DfE	Department for Education
DWP	Department of Work and Pensions
FE	Further Education
FSM	Free School Meals
GCSE	General Certificate of Secondary Education
HE	Higher Education
HESA	Higher Education Statistics Agency
HMRC	His Majesty's Revenue and Customs
HNC	Higher National Certificate
HND	Higher National Diploma
HR	Human Resources
HTQs	Higher Technical Qualifications
IfATE	Institute for Apprenticeships and Technical Education
KS4	Key Stage 4
KS5	Key Stage 5
LA	Local Authority
LEO	Longitudinal Economic Outcomes
LEP	Local Enterprise Partnership
LSEq	Low Skill Equilibrium
LSIP	Local Skills Improvement Plan
MCA	Mayoral Combined Authority
NEET	Not in Education, Employment or Training
Ofqual	Office of Qualifications and Examinations Regulation

Ofsted	Office for Standards in Education, Children's Services and Skills.
OfS	Office for Students
PAYE	Pay As You Earn
RPA	Raising the Participation Age
RQF	Regulated Qualification Framework
SEND	Special Educational Needs and Disabilities
SME	Small, Medium Enterprise
T-Level	Technical-based Level
TVET	Technical Vocational Education and Training
VET	Vocational Education and Training

Chapter 1. Introduction

1.1 Early adults and vocational pathways to decent, higher-skilled work

There are long-standing concerns that England's education and skills system does not provide the skills employers need, or create vocational pathways to higher-skilled, decent work (Keep and James, 2012; Furlong et al., 2018). Access to quality work in the regions forms one of England's 'wicked problems' (Head et al., 2008). These are deeply entrenched social problems, created through complex intersections of multi-levelled processes and multiple actors, including employers, educators, trade bodies, local and national government, and workers. Policy solutions successively fail to significantly affect the quality of jobs on offer. Instead, policy can confound, recreating inequalities in old and often new forms (Keep and Mayhew, 2014).

Surprisingly, sociology pays limited attention to vocational workers and local progression to high-skilled work, reflecting a 'missing middle' of educational achievement and skilled work progression, despite the classed and lower socioeconomic framing of much English vocational education and training (Roberts, 2015; Avis and Atkins, 2017). My study highlights this sociological omission, exploring the pathways by which early adults might achieve higher-skilled work from vocational starting points (Knight et al., 2022). Developing higher-level technical vocational education and training progression to provide access to good jobs through employer-led skills systems is a national and local economic priority (DfE, 2024a). These typically require substantial education, training and /or work experience, for example, in technician or supervisory management job roles.

Access to higher-skilled work is increasingly credentialized and professionalised, requiring participation in higher education (Brown et al., 2003; Roberts, 2020). Vocational Education and Training (VET) is the skills and knowledge related to a specific trade, occupation or vocation (DfE, 2024e). In my research study, I explore higher-level vocational progressions, asking how early adults who take a vocational pathway might achieve higher-skilled work, and a 'decent career' (Masdonati et al., 2022). I define a decent [vocational] career as "*successful early career progression from entry-level vocational qualifications to higher-skilled work".*

In England, vocational qualifications are seen primarily as a route to low and middle-skilled work, with stratification by gender and class typical in occupational pathways (Jarman et al., 2012; Avis and Atkins, 2017). Disadvantaged socioeconomic groups and young people with parents in working-class job roles are over-represented in vocational pathways and are less likely to hold higher-level qualifications at Level 4 and above. Moreover, young workers who hold a vocational qualification are less likely to progress to higher-level qualifications and achieve highly skilled occupations (Bathmaker, 2017; Knight et al., 2022).

My thesis places concerns over the prospects for 'middle' young workers and vocational access to higher-skilled work, centrally in my study. In an age of increased higher education participation, 'mid-qualified' young workers typically continue in education or training to eighteen years, holding vocational qualifications at Level 2 or 3, and/or A-levels as their highest qualification, depending on sector entry job requirements, and the availability of apprenticeships (Richmond, 2020). Termed the 'missing middle', in youth transition theories, the relatively 'unproblematic' nature of mid-qualified workers' initial labour market transition means there is limited sociological interest in 'middle' transitions, and few empirical studies of the processes of education-in-work, and career progression towards high-skilled work for mid-qualified young workers. Instead, the sociological and policy gaze typically rests on those young workers who are Not in Employment, Education or Training (NEET), or who participate in higher education (Roberts, 2011; Roberts, 2015).

Moreover, there is increasing public concern regarding the supply-side model of the English Higher Education (HE) system, with over one-third of graduates reporting they are overqualified for their job, in comparison to graduate median wage returns suggesting long-standing, albeit narrowing premiums, particularly in comparison to vocationally qualified workers across the life course (Willetts, 2025). National data masks significant regional disparities and private concerns as to the individual value of a 'degree' (Xu, 2023). Evidence suggests that for large numbers of young workers, 'middle' Level 3 qualifications remain their highest qualification across early adulthood and beyond, with limited adult participation in Higher Level 4,5, or Level 6 qualifications (Social Mobility Commission, 2024). Historic middle routes to high-skilled

work appear to be contracting, and middle-skilled young workers are increasingly displaced by graduates (Green, 2019). Although youth transitions aged 16-25 years have extensive research traditions and empirical studies, there is relatively little known about the labour market progression of middle-skilled, early adults aged 25-34 years (Roberts, 2012; Irwin, 2020). The use of 'early adult career' is used to describe a bounded temporal career phase aged 18-34 years, when progression to high-skilled work might underpin processes of creating a 'decent ' career; otherwise, a more flatlining career is established (Green, 2021). This means that 'middle' pathways provide a valuable lens on the dynamics of the reproduction of inequalities from education into the labour market and of occupational progression prospects in early careers (Roberts, 2015; Irwin, 2020).

Policy debates suggest vocational reforms will create new routes and consolidate existing pathways to higher-skilled work for groups of young adults in local areas (DfE, 2024b). But such processes also risk the reproduction of disadvantage in new forms (Esmond and Atkins, 2020; DfE, 2021). England's skills and qualification system is fragmented and complex, with longstanding criticisms that vocational qualifications are poorly aligned with employer needs for skills (Wolf, 2011; Raffe, 2015; DfE, 2024b). There is an important gap in the sociological literature exploring local skills approaches, early adult career progression and vocational access to higher-skilled work, which my thesis seeks to address.

Current vocational reform seeks to create higher-skilled progression pathways for young workers, through employer-led qualification design (Sainsbury, 2016; DfE, 2021; Knight et al., 2022; DfE, 2024b). In addition, in significant skills-based reforms, employers' demand for skills is being placed at the heart of the English skills system in leading local skills approaches through Local Enterprise Partnerships and the devolution of Adult Skills through the Mayoral Combined Authorities (Keep, 2022; Mayhew, 2022). Practically, this means that employers take the lead on identifying skills needed in a local area, and the education and training provision required. My research design foregrounds this policy direction, placing employers, educators and local policymakers centrally in my study. I build on existing locality skills ecosystem studies, which problematise and operationalise how multiple actors in a locality influence skills

and qualifications (Finegold and Soskice, 1988; Hodgson and Spours, 2016; Sissons, 2021). Scholars argue that skills and education policy intersect with the rationales of local actors: employers, educators, [local] policymakers, and young adult workers who navigate and negotiate skills or qualification processes to meet their agendas and best interests (Raffe, 2014; Roberts, 2020). A local area study provides a dynamic theoretical 'space' in my study, providing evidence on how supply-side, education, and individual worker processes intersect with employer demand side processes of skills and occupational structures and create opportunities or constraints for progression.

My introductory chapter takes the following structure. Section 1.2 introduces my research aims and objectives. Section 1.3 provides a brief contextual background to early adult transitions from education to employment, the policy context for employer-led skills systems and the reform of vocational education in England. Section 1.4 details my study approach and outlines my thesis structure and chapter content, highlighting the original contribution of my thesis.

1.2 Research aims and research questions.

My thesis explores the phenomenon of early adult career progression in higher vocational pathways in three different sectors, construction, textiles manufacturing and digital, in a Local Enterprise Partnership (LEP) geographic area: 'Northern Region'. Skills and vocational qualifications are intrinsically linked through the occupations that qualifications allow access to, and employer demand for occupations (Dalziel, 2017). I examine the policy claims that improved progression in Level 4+ technical pathways; Higher Technical Qualifications (HTQs) at Level 4,5, and Level 6 degree apprenticeships will produce enhanced progression prospects for vocationally qualified workers in early adulthood and support improved intragenerational mobility. My research study asks :

Across diverse industries, how do mid-to-high-level vocational progression opportunities influence early adult employment pathways and related inequalities?

Local skills and education transition regimes are characterised as multi-levelled and multiple-actor systems, which present significant complexity, where national policy, education and industry labour market structures intersect with the rationales and

agendas of local actors, local employers and educators, and young workers (Raffe, 2014; Hodgson and Spours, 2016). Drawing on the traditions of the sociology of youth transition, education, work, skills and inequalities, my thesis examines the following three sub-questions:

- ***(i)*** *Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?*
- ***(ii)*** *How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?*
- ***(iii)*** *Do place-based, sector, and institutional factors impede or enable improved mid-higher-level vocational progression opportunities for early adults, including less advantaged workers?*

My study takes a 'locality' approach to understand local skills processes, employer demand and their intersection with national qualification systems through the insights provided by local actors (Hodgson and Spours, 2016). I use a three-sector, mixed methods, comparative study of construction, textiles manufacturing and digital higher vocational pathways to understand the use of higher vocational pathways and access to higher-skilled work in a local skills area, Northern Region, in England. Employer-educator 'partnerships' in each sector provide a lens to explore early adults 'in the middle', typically holding a Level 3 vocational qualification and working in a mid-skilled job role of a skilled trade or technical work. Through secondary quantitative analysis and twenty-nine semi-structured stakeholder interviews, I explore the sector and institutional processes which support or constrain opportunities for vocational progression to higher-skilled work. I am interested in how we can better understand the vocational education and early labour market processes which make, shape and bind early adult 'middle' career progression opportunities (Evans, 2007; Roberts, 2015; Holford et al., 2023). I seek to 'cut' through recognised skills and vocational complexity by exploring the vocational progression process in three ways; first, quantitatively through 'formal' qualification and occupation structures at a local level, secondly, qualitatively through perceptions of sector norms and traditions of progression, and

finally, continuing qualitative enquiry to examine progression through an institutional education or employer lens (Hammersley, 2011; Orum, 2015, p.1510; DfE, 2024b).

1.2.1 The value of my research

This study explores higher-level vocational progressions to higher-skilled work for early adults, which form important 'middle' skill and qualification routes. Ordinary, 'middle,' young workers, who hold 'middle' vocational qualifications, and move into middle-skilled jobs, are represented as relatively unproblematic in sociological debates, but in under-researched processes (Roberts, 2015). But in an age of increasing credentialed and professionalisation of job roles, the 'ordinary' jobs that 'middle' young people hold are 'unlikely to provide stepping stones or provide any form of social mobility' (Roberts, 2015, p.578). My thesis foregrounds the interplay of local actors in a local skills and vocational education system: employers, educators, local policymakers and young workers, to deepen understanding of the intersection of skills, education and training in a locality, and ask how concepts of a 'decent career' might be applied to 'ordinary' work pathways (Green, 2021; Yates, 2022).

In my study, I argue that the 'middle' skills and qualifications space represents an important site of labour market and educational inequality for early adult workers. In an under-recognised group, there are significant empirical gaps in how middle occupational and vocational qualification structures contribute to career opportunity and constraint (Bathmaker, 2017). Access to higher-skilled work via vocational qualifications is important in questions of social justice, decent work prospects and second chances in the English education system, particularly for disadvantaged young workers (Irwin, 2020; Knight et al., 2022). Employer-led skills processes seek to align vocational qualifications with employer demand for skills and to influence provision in a local area. But little is known sociologically about how vocational qualifications intersect with local skills processes, the career trajectories of young workers, or how they might support improved prospects. My study extends theories of opportunity structures in early adult career pathways to include the significant employer, educational and industry body locality effects experienced by young workers (Evans, 2007; Roberts, 2009; Friedman and Savage, 2018; Holford et al., 2023). Institutions,

and the opportunity structures they create, become important to understand how institutional actors might affect inequality of opportunity and condition (Baron et al., 1986; Kalleberg and Mouw, 2018). Importantly, cultural traditions of progression allow an exploration of the propensity of sectors to support progression from vocational routes into qualification and occupational domains that are considered higher status, higher-skilled, and influential (Brown et al., 2020; Sandel, 2021; Altreiter, 2021; Friedman, 2023). This thesis contributes to how decent work and work quality concepts might be extended to reflect the prospects of progression and what might constitute a 'decent career' (Kalleberg and Mouw, 2018; Green, 2021).

1.3 Background and context of my study

My research study focuses on 'middle' young people and their higher-level vocational progressions, with this introductory section providing the key background and context of vocational progressions to high-skilled work, the themes of which are expanded and placed more fully in the empirical and theoretical literature in Chapter 2. Sociological transition studies typically focus on 'supply-side ' processes, with limited engagement with employer processes and the structures of the labour market (Irwin, 2020). First vocational reform and higher technical pathways are situated in the English education context (Raffe, 2014; Roberts, 2020; Esmond and Atkins, 2020). Next, the continuing patterns of vocational stratification in the 2020s are discussed, the reductions in 'middle' pathways, and the enduring effects of disadvantage on vocational education and occupational pathways (Avis and Atkins, 2017; Social Mobility Commission, 2024). The move to place employers 'in the driving seat' in vocational and skills reform is examined (Huddleston and Laczik, 2018; DfE, 2021). Finally, the different structural, cultural, and individual decision-making traditions of explanatory 'youth' transition theories are outlined (Roberts, 2009; Hodkinson et al., 2013; Bathmaker, 2015; Reay, 2017). In the 2020s, the vocational system continues to experience constant change and churn (Wolf, 2011; Richard, 2012; Sainsbury, 2016; Hubble and Bolton, 2019b)**:**

> *"Post-18 (or 'tertiary') education in England is a story of both care and neglect, depending on whether students are amongst the 50 per cent of young people who participate in higher education (HE) or the rest." (Hubble and Bolton, 2019b p.7)*

Significant reforms at all vocational qualification levels include the creation of technical vocational qualifications pathways from entry Level 2,3, typically taken at age 16-18 years, through higher-skill occupational progressions through Higher Technical [1] and degree apprenticeships, which allow access to technical and professional job roles (DfE, 2021; IfATE, 2024). The aim is that reformed pathways will support improved social mobility through Level 4,5 Higher Technical Qualifications, which form the first rungs of Higher Education participation, and onwards to degree Level 6+ apprenticeships. Improved qualification quality and alignment with employer needs will contribute to increasing workforce skills and economic productivity (Hubble and Bolton, 2019).

However, in Anglophone countries, Vocational Education and Training (VET) is typically a 'worker', not a professional pathway, which James Relly (2022, p. 51) describes as a 'peculiarly English' cultural position. Vocational qualifications and their standing are disproportionately aligned with lower-skilled work, lower-ability individuals, stratified by class perceptions (Esmond, 2024). Studies suggest that higher vocational Levels 4,5, and 6 pathways are increasingly taken by experienced older workers, or by more advantaged young people seeking funded degree-level study (Richmond, 2018; Casey and Wakeling, 2022). Moreover, higher level 4+ qualifications are dominated by degree-level study through the university system, where a higher vocational lens creates a complex intersection of the cultural standing of 'the degree', the 'university' and vocational education (Bathmaker, 2017). The history of vocational reform is one of outcomes often confounding policy assumptions, creating contingent risks of vocational reforms reinforcing rather than addressing existing economic inequalities. This question runs throughout my enquiry (Keep, 2020; James Relly, 2022).

1.3.1 Vocational stratification and access to higher-skilled work

[1] https://find-employer-schemes.education.gov.uk/schemes/higher-technical-qualifications

Empirical studies show that social and educational inequalities tend to reproduce in the occupational pathway secured and the career pathway achieved (Furlong, 2012; Avis and Atkins, 2017). 'Youth', typically studied aged 16-25 years, is seen as a key turning point in long-term career trajectories as inequalities of outcomes and opportunities in the education system are reproduced in the transition from formal education to employment (Roberts, 2009; Heinz, 2009; Furlong, 2016). Young people's early career transitions are typically framed as 'supply-side' processes and theories, shaped by individual choice to study qualifications, rather than from employer demand for skills (Roberts, 2009; Irwin, 2020).

Influential commentators argue for greater engagement with employer demand side processes to better understand the processes whereby early adults are distributed within and through the labour market to better affect enduring inequalities, including who achieves higher skilled work. Young workers are more qualified, have spent longer in education, and enter the labour market later than any previous generation (Mann and Huddleston, 2017). Extended time in education is a protective factor, seen during the Covid-19 pandemic, providing time to access increasing levels of qualifications, and reducing the risks of youth unemployment and subsequent economic scarring (Edwards and Weller, 2010; Irwin and Nilsen, 2018; Henehan, 2021). Moreover, England's education system is deeply unequal for some groups of young people, typically those who are socioeconomically disadvantaged and have lower educational attainment, for whom full-time education typically finishes aged 16-18 years (Ball, 2017; Reay, 2017). Disadvantaged gaps at all levels of education have widened since the Covid-19 pandemic (Education Policy Institute, 2024). Socioeconomic disadvantage is 'sticky': for disadvantaged young workers, educational participation gaps widen at every education stage (Farquharson et al., 2022). Background remains the primary indicator of future life chances and occupations, against increasing public concerns over work quality and the prospects for social mobility for their children (Social Mobility Commission, 2024).

The English education-to-work regime is relatively rapid compared to other developed nations; by the age of 24 years, most young people are in full-time employment (Roberts, 2020). Research studies suggest that degree-level study is increasingly

required for professional work routes, and where vocational pathways tend to have ‘qualification ceilings’ with very limited ‘middle pathways' (Schoon and Lyons-Amos, 2016; Roberts, 2020). However, longitudinal quantitative data suggest that early pathways are far more complex than a simple five-pathway transition model typically represented in youth studies; two main higher education pathways to lower middle or higher status occupations, two vocational routes to lower working class, lower skilled work or to the upper working class of skilled trades, and finally educational failure, which leads to precarity, including unemployment (Schoon and Lyons-Amos, 2016). Instead, young people’s transitions to employment appear to be elongating and becoming more unpredictable in early careers (Mann and Huddleston, 2017; Savage and Flemmen, 2019; Irwin, 2020).

In vocational pathways, young people enter full-time work earlier than their university counterparts, where Wolf (2011, p. 37) notes it is ‘the exception not the rule’ that young people occupationally progress through vocational levels, instead becoming stuck in vocational dead ends, and can make frequent career changes (Raffe, 2015). Importantly, early adults in vocational pathways are disproportionately drawn from lower socioeconomic backgrounds (Avis and Atkins, 2017). Vocational ‘choices’ mean young workers can be bound by the local education possibilities and labour market opportunities available, entering job pathways which disproportionately lead to lower-skilled work, where family and community resources may be insufficient to support access to higher-skilled pathways (Evans, 2007; Green and White, 2008; Snee and Devine, 2015). Importantly, complexity and precarity in employment were once the experience of the least qualified, or most disadvantaged, but increasingly have become normalised for many young workers (Mann and Huddleston, 2017). Furthermore, vocational pathways can require significant experience and training to achieve higher-skilled work (Wolf, 2011; Roberts, 2015). Vocational trajectories, particularly for male workers, are contingent on the employment pathway entered into as well as the qualifications achieved (Vogt et al., 2020; Anderson and Nelson, 2021). Some technical vocational qualifications at Levels 4 and 5 provide very high earnings compared to graduates at similar career stages, but participation in higher-level vocational qualifications is low (Farquharson et al., 2022). These qualifications tend to be in

industries and sectors which are traditionally male, for example, construction and engineering, with a history of valuing vocational skills and occupational progression (D'Arcy and Finch, 2016; Espinoza and Speckesser, 2019).

There are long-standing concerns that educational disadvantage reproduces in the labour market (Furlong, 2012; Farquharson et al., 2022). Only one in six low-skilled workers escapes low-skill work (Luchinskaya and Dickinson, 2019, p.7). Furthermore, local area opportunities shape or constrain the vocational education choices and the employment possibilities available to early adults (Green and White, 2008; Social Mobility Commission, 2020). This combination of socioeconomic disadvantage and the limitations for young workers of their locality casts a long shadow through place-based education and job opportunities, resulting in England having some of the widest regional gaps in economic inequalities in Europe (Social Mobility Commission, 2020; Francis-Devine, 2024, p.6). In addition, once 'in-work', there are significant barriers to future transition to higher-skilled work for vocational groups, because of the paucity of employer-funded education and training at lower qualification levels, mistrust in the Student Loan system and questions of affordability of higher education for lower socioeconomic groups (Schoon and Lyons-Amos, 2016; Luchinskaya and Dickinson, 2019). Importantly, the cost of living crisis has exacerbated the need for lower-income young people to enter employment and contribute to family finances rather than accrue more qualifications in an unpredictable labour market (Brown and James, 2020; Xu, 2023). In an increasingly professionalised workforce, without higher level 4+ qualifications or a degree, access to large numbers of higher skill and higher paid jobs is not possible for 'middle' young adults (Bathmaker, 2017).

In the 2020s, risks are increasing through labour market restructuring into lower-skill, 'lousy jobs', and higher-skill ' lovely jobs' with contingent differences in work quality (Goos and Manning, 2003; Yates, 2022). Vocational pathways may or may not lead to decent work routes and the possibilities of progression (Roberts, 2015). England's policy approach to increasing employer demand for higher-skilled work in the past thirty years has been almost solely via the expansion of university degree provision to increase the supply of graduates (Keep, 2020; Brown et al., 2020). Vocational education and training have long been the 'Cinderella' of post-18 education and training; under-

resourced and overlooked, but where lifelong learning, including in-work learning, has limited traction despite the policy recognition that reskilling and upskilling opportunities need a more central place in the English economy (Norton, 2012; DfE, 2021; DfE, 2024b). In the 2020s, 'holding a degree' divides the young population almost in half, with the other 50% relatively ignored in policy, despite many vocationally qualified young people holding a Level 3 qualification, which would provide access to higher-level study and occupations (Bathmaker, 2017; Anderson and Nelson, 2021).

Once in the labour market, there are changing employment patterns which affect the jobs available to early adult workers who hold vocational qualifications (Espinoza et al., 2020). The OECD defines middle-skilled work:

> *"As occupations whose average wages place them in the middle of the wage distribution" (Green, 2019, p.6).*

Mid-skilled work is typically considered a 'quality' job which forms part of a career, with the potential for progression (Yates, 2022). Debates about 'decent work'[2] and work quality discourse are typically framed around the patterns of low-wage, low-skills traps in the English economy, where deskilling, job degradation, outsourcing and precarity have created limited progression prospects with limited focus on the possibility of a 'career' (Kalleberg and Dunn, 2016; Green, 2021). Changing labour market demand manifests in fewer mid-level vocational job roles. In addition, since the 2000s, the large numbers of graduates and the relative shortfall of graduate-level roles mean that there is increased competition for the middle-skilled job roles that remain, which are seen as a step to an eventual graduate career, as elongated and frequent career changes are normalised (Wolf, 2011; Mann and Huddleston, 2017). 'Middle' routes are reported as reduced, or 'missing', with academics and policy focus on the top and bottom of the labour market (Roberts, 2012; Roberts, 2015). However, evidence suggests this is a middle-skills decline, not a hollowing, with the remaining

[2] https://www.ilo.org/topics/decent-work

'middle' skills space relatively robust, and my thesis argues, increasingly important to understand in questions of vocational progression to mid and high-skilled work (Anderson, 2009; Bathmaker, 2017). Importantly, in understanding the links between skills and qualifications in the middle to high-skilled space, there is evidence in skills shortage areas that employers do not choose to train in the 'middle space, instead relying on informal upskilling, or utilising overqualified graduates (Green et al., 2020; Costa et al., 2023). In these debates, the importance of 'middle' skill pathways is as a route to quality work with security and promotion prospects from lower middle-class employment in white-collar work (Roberts, 2012; Green, 2019). In an increasingly professionalised workforce, without higher level 4+ qualifications or a degree, access to large numbers of higher skill and higher paid jobs is not possible for many 'middle,' vocationally qualified young adults (Bathmaker, 2017).

1.3.2 Putting employers in the 'driving seat': employer engagement in qualifications and local skills

In England, there are long-standing disconnections between education, training and employer demand for skills (Finegold and Soskice, 1988; Sainsbury, 2016; Hubble and Bolton, 2019b). Policy changes are placing employers at the centre of local skills systems and vocational qualification reform, including new forms of vocational progression to higher-skilled work (Knight et al., 2022; Yasin, 2023). The English skills and v

ational qualification system is moving to an 'employer-led' system, where employers are central to decision-making about local skills provision and vocational qualification design (Huddleston and Laczik, 2018; Keep, 2022). There is increasing interest in local skills 'solutions' for communities because multiple empirical studies show the intersecting effects of socioeconomic disadvantage, class and place on the educational achievement of young people, and the career opportunities of early adults (Green and White, 2008; Social Mobility Commission, 2020). The creation of Skills England was one of the first acts of the Labour Government (2024):

> *"Skills England aims … to bring together the fractured skills landscape and create a shared national ambition to boost the nation's skills…. It will bring*

> *businesses together with trade unions, mayors, universities, colleges and training providers to give us a complete picture of skills gaps nationwide..." (DfE, 2024c)*

This includes an increased focus on local approaches to decent work and the importance of increasing the number of more highly qualified workers, to support regional employer-led skills approaches to increase long-standing low productivity and improve the qualifications of workers (Keep, 2022; DfE, 2024b). However, the efficacy of local skills approaches is contested, with suggestions that local actors have limited capacity to influence the local skills system, and that austerity is reported to have left few financial resources to support adult education and training at higher-skill levels (Payne, 2018).

Employers are already central to who is trained and how in a lightly regulated English labour market (Roberts, 2020). England's employer investment in education is one of the lowest in Europe, with much investment in existing employees already qualified for Level 4+ (Luchinskaya and Dickinson, 2019). Employers are characterised as reluctant to train, and critical of a vocational qualification system which is in constant flux and of variable quality (Keep, 2020). My study foregrounds employer and education local skills and qualification processes, where I argue that using the informal 'partnerships' that exist between education providers and employers as a lens allows my study to examine local vocational processes, where the action is' (Irwin, 2009). Literature suggests employer behaviours create contradictions with the renewed policy focus on 'employer-led' skills and qualification systems, where employers lead in identifying local demand for skills, and provision from education and training providers, including Further Education in a local area, and national qualification design (DfE, 2021, pp.12–13). However, there is no agreed definition of what constitutes 'employer-led' and no statutory requirement for individual employer involvement, but where employer-led skills systems need a critical mass of employers in which to function (Keep, 2020). In my study, I foreground education-in-work processes and the importance of understanding sector perspectives alongside the characteristics of education regimes. Once in work, the employing industries become significant in the distribution of young workers as to who progresses, and how (Roberts, 2020).

1.3.3 Reviewing sociological explanations and theories of early adult vocational progression, and access to higher-skilled work

Sociologically, transitions from education to work have been conceptualised in three main forms. First, in debates of structure versus agency in education, employment opportunities and decision-making in which early adult decision-making is 'bound' by the social, educational and labour market structures, where young adults make pragmatic and rational choices based on the economic resources available to them, and the likely occupational returns (Goldthorpe and Breen, 1997; Evans, 2007; Roberts, 2009)**.** Secondly, in classed theorisations of the reproduction of inequality based on Bourdieu's concepts of power through dominant social, educational and occupational structures which maintain, and protect the 'status quo'. Explanations centre on the intersection of 'habitus', 'capital' and 'field' processes in individual navigation and negotiation of education and employment pathways (Edgerton and Roberts, 2014; Bathmaker, 2015; Friedman and Savage, 2018). Finally, there is a body of work which specifically focuses on the cultural and institutional effects of higher education in the reproduction of disadvantage, where holding vocational qualifications can create additional barriers to achievement (Reay et al., 2010; Esmond and Atkins, 2022). There is limited attention paid to the processes of intragenerational mobility or of early careers (Kalleberg and Mouw, 2018).

First, the importance of structure versus agency debates to questions of occupational progression and higher-level vocational pathways lies in the insights qualification and occupation structures can provide as to opportunity and constraint for early adults (Kalleberg and Mouw, 2018). In debates of structure versus agency, Robert's (2009) work on opportunity structures in the education and labour market is influential in explanations of the factors which determine opportunity and constraint through the qualifications a young adult holds, the education and training required for a job, the local job opportunities, and the access to higher-level qualifications. The extent to which a young adult has the agency to 'choose' any career pathway is heavily mediated by their background, the educational qualifications they hold, and the resources available to them (Evans, 2007; Snee and Devine, 2015). The work of Goldthorpe and Breen (1997) on Rational Action Theory provides authoritative sociological arguments

that early adult processes are ‘rational actions’ based on economic decision-making and choices through a young adult’s circumstances and knowledge of future job possibilities, which reflect individual opportunity structures.

Secondly, scholars extend the structural debate, arguing for a more cultural perspective where decision-making processes and occupational prospects within education and labour market structures are a form of ‘bounded rationality’ by cultural norms and traditions, by class, family and community (Evans, 2007). Rationality in career decision-making, or ‘horizons of action’, is argued by Hodkinson (2013) to be based on pragmatic assumptions by individuals of their ability to navigate recruitment processes and secure a job in the local labour market, where community knowledge is an important factor in the complex and fragmented vocational education and training system (Hodkinson, 2008, p.6).

Analyses are heavily influenced by Bourdieu, and typically centre on the reproduction of ‘habitus’, the internalised habits and beliefs inculcated through a young worker’s past and present family and educational experience and circumstances, where ‘value’ is that of a middle-class upbringing and education (Lareau, 2002a; Edgerton and Roberts, 2014; Bathmaker, 2015). Scholars argue that power structures reproduce as individuals move within social ‘fields’, in my study of vocational education and early adult employment, in the reproduction of class advantage, where progression is contingent on ‘knowing the rules of the game’ and dependent on family background, educational access to resources and networks rather than meritocratic process (Ball, 2017; Reay, 2017). At its extreme, individuals are categorised through their ‘employability’ through the signals their educational qualifications, institutions attended, and wider work experience accrued provide to employers (Brown et al., 2003; McQuaid and Lindsay, 2005; Bathmaker, 2015). This includes the increased individualisation of risk through Post 18 years individual funding of university study as the primary route for access to higher-level qualifications through the student loan system (Sutton Trust, 2021). Evidence shows that young people who are socioeconomically more advantaged, or who have parents in professional job roles and so can ‘see’ pathways to higher-skilled employment, are more comfortable with personal ‘debt’, can afford extended education, and elongated periods to find a

‘career’, and are less exposed to financial and personal risk (Devine, 2004; Snee and Devine, 2015). The importance of these processes lies in whether access to higher levels of qualification, via vocational routes for under-represented groups, can be affected by the education and skills system, with limited evidence of their efficacy (Edgerton and Roberts, 2014).

Finally, there is extensive literature on the pathways into and through higher education, the patterns of socioeconomic reproduction, and the institutional effects of organisations on young people's outcomes. Again, theories are heavily influenced by Bourdieu and the cultural framing of education pathways, and middle-class perceptions of educational value through ‘academic’ qualifications (Bathmaker, 2015; Avis and Atkins, 2017). Multiple studies suggest that the higher education ‘field’ is a space of educational and institutional social and cultural practice, power and inequality, where forms of disadvantage, monetary, educational or class become both apparent and a barrier to academic achievement (Bathmaker, 2015, p.65). Here, debates centre on notions of ‘fitting in’, particularly in higher tariff institutions, of understanding the hidden curriculum, where study norms and expectations are not explicit, and where vocational qualifications can have gaps in knowledge forms and approaches (Reay et al., 2010; Reay, 2022). Evidence suggests that similarly qualified young people, who are from less advantaged backgrounds, and/or who hold vocational qualifications, underachieve in comparison to those who entered through traditional A-level routes, but this is institutionally specific (Reay et al., 2010; Baker, 2020). However, these debates place only limited reference to vocational processes and access to higher-level qualifications beyond the traditional three-year Bachelor's degree, but where the vocational institution becomes an important local framing in my study.

Influential youth scholars argue for new transition paradigms to support a better understanding of the opportunities and constraints faced by early adults in early vocational careers through ‘the middle’ (Roberts and MacDonald, 2013, p.40; Irwin, 2020b). These three broad sociological traditions are typically based on empirical ‘supply-side’ analyses from an individual and education perspective, meaning there are significant gaps in the literature. Moreover, theoretical frameworks attempt to explain enormously complex education and employment processes, occurring over time, often

through multiple job sequences in early adulthood. Further, social mobility discourse appears trapped in highly technical debates about the measures of intergenerational mobility, and commensurate focus on occupational mobility across the working adult life course, whilst ignoring the importance of the early life course, and, for my study, the vocational prospects for intragenerational mobility improving access to 'quality', and higher skilled jobs (Knight et al., 2022). Once young adult workers are in the labour market, occupations are significantly bound by the behaviours, attitudes and traditions of employers, in a vocational education system which provides limited second chances for early adults to achieve higher-skilled work (James Relly, 2022). Importantly, the traditional 'youth' focus of *education to work* transition age 16-25 years forms only part of the 'early adult career', where early adulthood beyond 25 years becomes important to understand early adult transitions, including the processes of *education in work,* and their concomitant opportunities and inequalities (Holford et al., 2023).

In summary, there is long-standing evidence of the polarisation of academic and vocational opportunities created by the English schooling system, which reproduces into the labour market (Reay, 2017; Ball, 2017). Less advantaged young people are more likely to take a vocational pathway, and vocational pathways are more likely to lead to occupational ceilings on earnings and disproportionality in lower-skilled work (Bathmaker, 2017; Avis and Atkins, 2017). There is evidence of the displacement of vocationally qualified workers in middle-skilled job roles by graduates, as the labour market struggles to create sufficient high-skilled jobs for the number of highly qualified young workers (Green, 2019). In addition, vocationally qualified young workers are less likely to achieve Level 4+ qualifications, despite some high-earning job routes, typically in traditional, male-dominated industries. Where higher level qualifications are accessed, transitions tend to be less linear, and aged 25 years plus (Bathmaker, 2017). There is a reorienting of the English skills and vocational qualification system to better reflect employer demand, in 'employer-led ' processes, but where theories of youth transition tend to focus on supply-side processes, with education-to-work transitions aged 16-25 years, the locus of the reproduction of inequalities. Pathways are typically framed through the qualifications young workers hold, rather than the skills or occupations employers need (Keep, 2017; Irwin, 2020). Moreover, dominant academic

and policy narratives are for those young workers who are graduates, or at risk of labour market precarity and exclusion, with limited attention paid to 'middle' workers (Roberts, 2015). These processes collectively shape my study design exploring vocational progressions and access to higher-skilled work. The following thesis overview section draws from these patterns, outlining the research study and analysis that form my thesis.

1.4 Overview of my thesis

My thesis explores early adult vocational progression to higher-skilled work drawing on a mixed-method, locale study during Covid-19, in three important local industries, which were diverse by their skills profile in Northern Region: construction, textiles manufacturing and digital. Through secondary quantitative analysis and twenty-nine in-depth qualitative interviews and 'education-employer partnerships' as a lens, I argue that my research design of using a locale, a three-sector comparative approach, and the lens of education-employer partnerships allowed me to locate my study insights 'where the action is' in the processes of higher-level vocational progressions at a sector level in Northern Region (Irwin, 2009, p.1135). My research design allowed insights into the informal processes by which educators and employers work together in developing and delivering local education and training, which are under-recognised but provide an important understanding towards the processes of local skills systems, of opportunities for vocational access to higher skilled work, and local sites of the reproduction of opportunity and inequality (Keep, 2020). Throughout, ethical considerations of participant care during the pandemic formed a key aspect of my research design.

I assert that mixed method studies, combining quantitative, system-level patterns, with purposefully sampled, in-depth, qualitative participant insights, provide a methodological framework and access to rich detail into the social processes of education to work transitions, employment and progression (Mason, 2006; Creswell and Plano Clark, 2023). Through my research design, comparative sector perspectives allowed cross-sector and cross-qualification patterns to be identified and explored, including structural and cultural dimensions of vocational progression (Green and

Pensiero, 2017). New quantitative secondary analyses of local skills, occupations and vocational qualifications provided evidence of 'what ' was happening, and my qualitative data provided the 'why'. Taking a career sequencing approach allowed sector progression processes to be located in established occupational and vocational pathways (Kalleberg and Mouw, 2018). A key informant approach, and in-depth qualitative interviews of employers, educators, local policymakers and young adults provided subjective perceptions of local sector vocational qualification progressions, the prospects for higher-skilled work, and institutional effects, including for less advantaged young workers (Emmel, 2014). Through a thematic, and convergent analytic approach of analysing quantitative and qualitative data separately, then combining them into an integrative analysis, I argue my analysis allows the objective, occupation, skills and qualification structures by locality, and sector to be elicited, together with a subjective, sector framing of vocational progression (Warhurst et al., 2017; James Relly, 2022). These are shaped by the traditions and norms of higher-skilled progression within a sector, and the effects of local institutions on early adult pathways (Evans, 2007b; Roberts, 2009; Green and Pensiero, 2017).

My findings and analysis allow me to challenge the normative framing of vocational policy of employer-agreed qualifications presented as achievable career steps, and available to all workers. Instead, my comparative study highlights the distinct sector cultural framing of vocational progression and of '*becoming a higher-skilled worker'* (Braun and Clarke, 2006a; Kalleberg and Mouw, 2018; Byrne, 2022). Although all social enquiry is partial, and my study comprises only three sectors, I argue that my design, based on the purposeful sampling of skills diversity and transition regime actors, indicates new presentations of 'skill' and vocational progression at a local level (Sissons, 2021). My thesis contributes to debates on how traditional concepts of localities as Low Skills Equilibrium (LSEq) might better reflect the diversity of mid and high-skilled workers between and within sectors in the 2020s. I am interested in how an improved understanding of locality skills might develop explanatory frameworks of intragenerational mobility in early adult careers in a local area (Kalleberg and Mouw, 2018).

1.4.1 Theoretical contribution

In my study, through my mixed methods findings and analyses, I argue that career sequencing approaches and mixed method studies provide objective and subjective insights into the local, Northern Region mid and high-skilled job structures of the labour market and how early adult vocationally qualified workers might progress to higher-skilled work in three diverse and contrasting sectors. My thesis makes a theoretical contribution in three ways. First, education and skills policy operates in multi-levelled education transition and skills processes, where multiple actors navigate and negotiate within industry and education boundaries to position themselves for the best effect in the constant renegotiation and reformation of opportunity structures or the occupational field (Raffe, 2014; Sissons, 2021). A career sequencing approach allows these processes to be captured, showing single descriptors of high, middle or low 'skills can only represent broad industry patterns, not the prospects by pathways (Buchanan, Anderson, et al., 2017a; Sissons, 2021).

Secondly, my thesis contributes to the situated and cultural framing of vocational progression, distinct by sector, with early adulthood and early careers forming a key site of the reproduction of inequalities (Hodkinson, 2008; Snee and Devine, 2015; Irwin, 2020; Roberts, 2020). In addition, cross-comparative perspectives shed light on conceptualisations of 'who progresses and how', which theories suggest is embedded within sector traditions and norms of perceptions of the 'higher-skilled worker', the value placed on education, training and experience, and stakeholder perceptions of what constitutes worker potential or 'talent' (Lloyd et al., 2008; Buchanan et al., 2017; Warhurst et al., 2017; Brown, 2020; Green, 2021b). Finally, I argue that youth transition theories need to better reflect '*education-to-work'* and '*education in work'* as two key life course career transitions, where career prospects might better be conceptualised as *horizons of possibility,* not of 'action or choice' (Hodkinson et al., 2013, p.3). My study extends debates from the frequently used, supply side, education and qualification framing of 'youth' transition to reflect employer demand side processes in local vocational progressions to higher skilled work through 'the middle', where I argue that local institutions provide important progression 'field' effects to support access to higher skilled work (Roberts, 2015; Irwin, 2020).

1.4.2 Thesis chapter structure and contents

The following section sets out my thesis structure and Chapter 2-7 content.

Chapter 2 is a critical review of the literature, introducing and reviewing the key debates and theories in the sociological literature of vocational progression and early adult access to high-skilled work, where I identify important gaps in the literature. My review foregrounds young workers who form the 'missing middle'; mid-qualified workers who are an under-researched group and at increasing risk of becoming trapped in lower-skilled work, examined as three intersecting processes. First, the reproduction of inequality from education into vocational career pathways, including an increasingly academic-focused curriculum, the standing of VET and higher-level vocational pathways, where 'youth' transition literature typically focuses on entry to the labour market. Then, employer demand for middle and high-skilled workers, the processes of labour market polarisation and segmentation, and the importance of local skills processes in vocational progression explanations are identified. Finally, 'youth' transition frameworks are examined, typically positioned in supply-side, education processes, where different writers tend to distinct theoretical traditions, those of opportunity structures and pragmatic rational choices made by young workers, of Bourdieusian traditions of cultural class reproduction through habitus and field processes, and of explanations which combine structural and cultural opportunity and constraint, in bounded choices of 'who progresses and how'.

Chapter 3 discusses my research design and methodology, including the rationale for a mixed-methods, locale, three-sector comparative study in Northern Region, and the ethical approach to my pandemic research design. My research design examining higher level vocational qualifications and progression pathways to higher skilled work in construction, textile manufacturing and digital provided rich comparative opportunities by industry sector. A new secondary quantitative analysis provided important local sector skills and qualification patterns, challenging the traditional low-high skills focus of much literature and demonstrating the importance of understanding vocational progression through a sector lens. Strategically sampled, in-depth, semi-structured key informant interviews of local employers, educators, young workers and

local policymakers, and a comparative perspective allowed common sector vocational phenomena of the intersection of the structural processes identified through secondary quantitative analyses to be identified, and the importance of sector culture and traditions and norms of early adult, higher skilled progression to be compared, getting 'under the quantitative' patterns identified. In my three local study industries, their distinct sector characterisation of vocational progression became a central theme of my thesis. Analysis followed an iterative approach between quantitative and qualitative insights, with sectoral comparative analyses bridging between the large-scale patterns identified through quantitative data and participant qualitative interview insights.

Chapter 4 draws on a new secondary quantitative analysis of local skills and qualification patterns in a local skills system, Northern Region, and my three study sectors of construction, textile manufacturing and digital. I use comparative perspectives, which allow patterns of similarities and differences to be elicited, to broadly answer the research sub-question (i):

(i) *Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?*

In answer to my research question, new secondary quantitative analysis shows three main patterns. First, in Northern Region, the middle-skilled worker space is more complex than polarisation narratives suggest, with extensive lower-mid and upper-mid-skilled work based on SOC (2020) classifications. From my analysis, I argue that the typical operationalisation of local skills processes, seen through the lens of Low Skill Equilibrium (LSEq), needs to extend to that of middle-skill processes to better understand opportunities and traps towards 'good' work and a decent career. Secondly, sectors form distinct qualification patterns and value placed on occupationally specific, vocational qualifications, where in some routes, for example, construction, median earnings at Level 4,5 were above those of graduates at a similar age, 25-30 years. But vocational progression 'through the middle' is limited by the age of 25-30 years, when numbers in all sectors at Level 4,5 were relatively low, reflecting

all England patterns, and with limited forward transition to Level 6 professional. Instead, Level 6 access reflected the predominantly A-Level route, which I argue has an under-recognised importance in the sector's perceptions of higher-skilled workers. Finally, and importantly, these qualification profiles seen in 2018-19 were reproducing into the reformed, employer-led technical vocational pathways of the 2020s, suggesting that higher-level vocational qualifications are highly situated by sector (IfATE, 2025). This suggests limited sector prospects for a 'decent vocational career', emphasising the importance of a better understanding of sectoral vocational progression processes.

In my second analysis chapter, Chapter 5 begins my qualitative enquiry, examining how in-sector stakeholders position vocational progression to higher-skilled work. Through a continued, three-sector comparative perspective and a career sequencing approach, Chapter 5 broadly answers the research sub-question (ii):

(ii) How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?

In answering my research question (ii), my findings and analysis show the importance of understanding sector vocational progressions, through three lenses: first, through the cultural position of higher Level 4,5,6 vocational qualifications with the overall qualification system; second, through the sector standing of VET, and finally through the progression prospects by occupational and qualification career sequence. I contend that how stakeholders perceive the utilisation of vocational skills in policy, and in the three local sectors, their status and value, create distinct, sector-situated forms of 'skills' for vocational young workers. Conceptualising qualifications and occupations as career sequences allows the identification of 'fast' technical routes in digital and construction, of 'slow', craft and trade routes in construction, and 'no' progression in textile manufacturing. This challenges the homogeneous presentation of higher-level vocational pathways, typically represented as an objective and achievable progression towards 'becoming the higher-skilled worker', which is instead distinct between and within sectors.

Chapter 6, as my third analysis chapter, extends my qualitative enquiry to further examine sector prospects for higher-level vocational progression by examining local institutional responses through the lens of employer-education partnerships to broadly answer the research sub-question (iii):

(iii)Do place-based, sector and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?

Theory, and increasingly, policy argue that employers form 'the most important actors' for young workers' employment prospects, but my participant accounts suggest that the role of educators in supporting higher-skilled progression through education-in-work processes is under-recognised in creating structural, social and cultural opportunity for progression, and in supporting early adults mediate 'employer-led ' skills processes. In my research, participants reported that for young workers in local skills areas, little has changed in vocational progression since the 2010s, with participants reporting fragmented pathways with limited visibility. However, within education and employer partnerships, sector traditions and norms of progression, discussed in Chapter 5, are bounded by place-based institutional progression; these include employer size and employment structures within a sector.

My research shows how local institutions mediate a fragmented and complex vocational qualifications system, where educational, industry body, and employer stakeholders try to improve higher-level progression opportunities for early adult workers, including those who are less advantaged. Institutional effects on vocational career sequences are little recognised, in comparison to an extensive literature of the [typically classed] explanations of access to more elite careers through the institutional effects of the university system (see, for example, Savage, 2015; Reay et al, 2010). However, in my research, stakeholders reported institutions and organisations formed important opportunity structures, or '*horizons of possibility'* in higher-level vocational progression. These processes suggest vocational progression to higher-level skilled work, and concepts of a 'decent career' will be contingent on not just the sector, but on

local, informal education and employer partnership processes currently little recognised in theory or policy.

My concluding Chapter 7 synthesises the collective findings of my research study into a locality approach to sector effects on early adult vocational progression and access to higher-skilled work. My study findings and analysis suggest the following four main factors are important in understanding how mid-to-high level vocational progression opportunities influence early adult employment pathways and related inequalities. First, through secondary quantitative analyses, the typical English regional characterisation as a 'low skill equilibria' is challenged by mapping Northern Region skills profiles, where mid-level skills appear extensive and more complex than labour market polarization theories suggest. Secondly, secondary quantitative analyses show distinct sector qualification profiles and progression, both longitudinally and in the reformed technical vocational pathways, but I argue that despite the binary presentation of much academic literature and policy into graduate and non-graduate pathways, higher-level vocational prospects cannot be examined in isolation from traditional graduate employment.

Next, qualitative analyses of career sequences show that 'becoming a higher-skilled worker' is stratified by the traditions and norms of the sector, which can include strong, weak, or limited vocational identity, despite the homogeneous presentation of vocational qualifications and pathways in policy. Then my study provides insights into the opportunity structures, or progression fields created through local institutional effects of employers, educators, industry bodies and local policymakers, particularly important in communities with a limited history of employment in high-skilled, professional job roles. Finally, my study reorients the traditional 'youth' education-to-work transition framing of early careers to include age 25 years plus, and education-in-work transitions, placing the sector prospects for vocational progression to higher-skilled work and achieving a 'decent career' centrally to this debate.

Chapter 2. Literature Review

2.1 Introduction: Vocational transitions to high-skilled work

This literature review chapter sets the theoretical background to my study and introduces the key sociological concepts drawn from skills, education regimes and youth transition processes that underpin my analysis chapters. My study asks:

Across diverse industries, how do mid-to-high-level vocational progression opportunities influence early adult employment pathways and related inequalities?

Occupations and education remain central to sociological explanations of social stratification, individual status, class, socioeconomic outcomes and inequality experienced by young adults across the early life course (see, for example, Heinz, 2009; Furlong, 2012; Goldthorpe, 2016; Roberts, 2020). Young people's education transitions are increasingly elongated, often holding higher levels of qualification in comparison to previous generations, where vocational pathways can be increasingly uncertain and precarious, depending on the sector (Mann and Huddleston, 2017; Avis and Atkins, 2017). Moreover, vocational routes are disproportionately taken by less advantaged young people, with limited career visibility, where educational disadvantage in the increasingly academic English education system reproduces into and through the labour market (Roberts, 2009; Schoon and Lyons-Amos, 2016; Mijs and Nieuwenhuis, 2018). This literature review foregrounds the multi-dimensional sectoral, occupational, institutional, place-based and individual processes by which careers are shaped in early adulthood (Hodkinson et al., 2013).

In this literature review, I argue that there are significant gaps in the understanding of early adult vocational career processes, particularly beyond the age of 25 years (Arnett, 2014; Green, 2019). 'Missing middle' debates provide a lens through which to critically examine higher-level vocational progression, the processes of upward career mobility, and the prospects of addressing occupational inequalities through education-in-work processes (Knight et al., 2022; Esmond and Atkins, 2022). Explanatory frameworks tend to pivot around the end of compulsory schooling, college or university in 'education to work' transitions, with little attention paid to processes after early adults enter the

labour market (Irwin, 2020). Once in full-time employment, young people holding vocational qualifications are at risk from low-skill traps where there are reduced mid-skilled work routes that traditionally provide access to decent careers, and higher-skilled work (Roberts, 2015). Vocational education and training reform and the development of Level 4,5 and 6 vocational pathways have a central aim of improving progression prospects, including access to higher-skilled work, meeting employer skills gaps, and improving social mobility for less advantaged young workers (Hubble and Bolton, 2019b). However, there is limited evidence that early adults will choose higher-level vocational qualifications, or that employers will engage in higher-level vocational pathways (Woodman, 2013; Keep, 2020). There are significant gaps in 'youth' transition literature, with limited engagement in labour market processes and changing employment structures since the turn of the twenty-first century (Roberts, 2012; Irwin, 2020).

Sociologically, there is limited literature on 'middle' pathways to higher-skilled work, or the processes of early vocational careers, where instead the sociological gaze is fixed on the experiences of graduates, or those at the bottom of the labour market in low-wage, precarious 'bad' jobs, or those Not in Employment, Education or Training (NEET) (Roberts, 2011; Keep and James, 2012; Roberts, 2015). Moreover, higher-level vocational progressions are occupationally specific, presented as 'ladders' of qualifications or opportunities, meaning employers play central roles in who enters the vocational 'field', who progresses and how (Bathmaker, 2017; Hubble and Bolton, 2019b; Roberts, 2020). In this critical review of the literature, I argue that the positionality achieved through access to higher levels of qualifications, 'middle' education pathways, and young people 'in the middle' are ill-defined, and dependent on labour market opportunities as well as the highest qualification held. Moreover, sector employment patterns are under-recognised in education to employment transitions and patterns of early careers.

To this end, in this literature review, I interweave supply and demand side processes. First, Section 2.2 examines the supply-side patterns of Post 16 education and training in England, where background remains the single most influential predictor of education and labour market prospects (Furlong, 2016; Reay, 2017). Then Section 2.3 investigates

the demand side patterns of middle and high-skilled workers in the UK labour market, highlighting labour market polarisation models, and the changing structures of middle-skilled work provide an increasingly important site of inequality for vocational progression prospects (Anderson, 2009; Bathmaker, 2017). Finally, in Section 2.4, the main explanatory transition frameworks are examined, where I argue that the traditions of structure versus agency, and cultural and identity are inadequate alone to bridge between supply and demand side factors. Throughout, I argue that early adulthood and early career sequences need greater attention as sites of the reproduction of inequality, whereby at the age of thirty years old, career pathways are typically set, and the prospects for long-term earnings formed (Kalleberg and Mouw, 2018; Roberts, 2020). This literature review sets the foundations for this debate.

2.2 A 'missing middle' in early careers and education to work transitions

In this Chapter section, I argue that there are significant gaps in the literature on contemporary 'middle' vocational qualification pathways and early careers. There is limited debate as to how the normalisation of extended periods of education and training to eighteen years, and the widening of higher education participation to over 50% of young adults by the age of 30 years, is affecting vocational education to work pathways 'in the middle' (Roberts, 2020; Roberts, 2013). I argue that in an increasingly academic education system, vocationally qualified workers are disadvantaged through the standing of VET, and the stratification of vocational access to higher education and professional work (Bathmaker, 2017). First, patterns of extended participation in education reflect an increasingly 'academic' and credentialled post-16 education system, where education to employment 'risk' is transferred to post-18 transitions, and 'middle' qualifications and pathways are less visible (Edgerton and Roberts, 2014; Maguire, 2015). Secondly, vocational pathways and standing are examined, with the disconnections between entry-level perceptions of second-class, working-class routes for less advantaged young people, and the creation of higher-level vocational 4,5,6 opportunities (James Relly, 2022). Then, the 'stickiness' of disadvantage, and its ripples across educational trajectories, where background remains the single highest predictor of educational outcomes (Social Mobility Commission, 2024). Finally, in a labour market

that struggles to deliver 'good' jobs for all groups in the working population, a 'missing middle' exists of evidence of early adult pathways, where 'a degree' is no longer a 'magic bullet' to intragenerational mobility and access to professional work is increasingly stratified by access to Level 4+ qualifications and class (Irwin, 2020).

2.2.1 Vocational pathways in an increasingly 'academic' and credentialled Post 16 system and the 'rippling' of disadvantage

In developed Western economies, in the past 30 years, there has been a consensus of significant changes to the patterns of education and entry to employment in 'youth' and the life course (Arnett, 2014; Irwin, 2020; Roberts, 2020). Education is still widely perceived as a 'positional good', with the normalisation of extended education and training pathways to eighteen years since the turn of the 21st century (Maguire, 2015). Early adult job prospects and career trajectories are increasingly shaped by the qualifications young people hold, determining the occupational pathways they can choose or access, and the higher-level training opportunities available (Knight et al., 2022). In this section, the patterns seen in the English education system are examined of valorisation of the 'academic', with achievement in GCSEs at age 16 as the 'sorting engine' for future education and occupations (Mijs and Nieuwenhuis, 2018; Machin et al., 2020). Lower socioeconomic groups are disproportionally represented in vocational pathways (Avis and Atkins, 2017).

Internationally, England supports a relatively rapid education-to-employment transition regime, whereby at the age of 24 years, the very large majority of young people are in employment, but in a transition regime which stratifies higher-level occupations, particularly for less advantaged young adults (Roberts, 2020). These processes occur at pivots or 'turning points' in a young person's life course where the reproduction of educational and occupational inequalities appears marked (Roberts, 2009; Schwartz, 2016). 'Youth' transition is typically conceptualised as an '*education to work'* process at key educational transition points, typically at the end of compulsory post-secondary education and training aged 18 years, and of university age 21-22 years (Schoon and Lyons-Amos, 2016; Roberts, 2020). However, these patterns are rooted across schooling in the early life course, where educational achievement at 16 years remains a

dominant factor in class stratification in Britain, with stratification in the employment opportunities and life chances of those workers who go on to achieve Level 4+ qualifications and those who only achieve Level 2 or 3 (Laczik and Mayhew, 2015; Bathmaker, 2017; Anderson and Nelson, 2021; Social Mobility Commission, 2024). These are theorised as five main pathways from education to employment, based on empirical studies of the 2000s to 2010s (Schoon and Lyons-Amos, 2016; Roberts, 2019 p7):

- Two main university routes, where university study leads to employment in either an elite profession or a lower-middle-class professional career
- Two main non-graduate routes, where young people enter employment aged 18 years, either in an upper working class, or lower working-class jobs, perhaps via an apprenticeship, into typically Skilled Trades, technical, clerical, or routine, operative and manual job roles
- 'Educational failure 'leads to a precarious work route or unemployment.

Emerging longitudinal quantitative data suggest that early pathways are far more complex than standard sociological explanations suggest, with trajectories contingent on the employment pathway entered into as well as the qualifications achieved (Vogt et al., 2020; Anderson and Nelson, 2021). There is little recognition in English vocational policy of the labour market risks experienced by young workers through, for example, limited middle and higher-skilled job roles in a locality, increasing career precarity, and more elongated, 'jags, turning points and interruptions ' (Savage and Flemmen, 2019, p86). However, these risks begin from Post 16 transitions, in a reforming vocational system which is predicated on ladders of qualifications, but where there is limited empirical evidence of vocational progression prospects 'in the middle'.

There is surprisingly limited attention on 'middle' pathways, vocational progression and the 'other 50%' of young workers who do not access higher education (Webb et al., 2017a; Bathmaker, 2017). Sociology has disproportionately taken an interest in transitions at the bottom and top of the labour market, where inequalities might be expected to be more pronounced. But in the 2020s, there are disconnections between

qualifications held and employment opportunities available, meaning that the old patterns of educational positionality through increased levels of qualifications held are less certain, particularly for vocationally qualified workers (Keep, 2012). Youth employment and education structures are typically represented as dual narratives of high and low skill and low or no qualifications and graduates, with little attention on the 'middle' (Roberts, 2015; Irwin, 2020). 'Middle' early adults typically achieve 'average', Level 3 qualifications, and transition relatively unproblematically to 'ordinary', but increasingly lower-skilled work (Green, 2019). By age 26 years, over 50% of the workforce holds a Level 3 or below as their highest qualification. In contrast, there is increasing uncertainty in graduate pathways to high-skilled work, where over-qualification and displacement into lower or middle-skilled work are now a reality for over one-third of English graduates five years after graduation (Anderson and Nelson, 2021; Xu, 2023). Within this cohort, who forms the 'middle' by qualification, or access to skilled work, is little noticed. These are England's 'missing middle' of young workers; relatively ignored in academia and policy, living 'ordinary' lives which may lead to decent work, with the possibilities of progression and security on the one hand and insecurity and occupational ceilings on the other (Roberts, 2015). Holford et al (2023) position access to education and training in adulthood as a democratic process of social equity and justice in England's unequal education and employment system, where a failure to act creates a crisis of legitimacy in the democratic process and of who has access to decent standards of living (Reay, 2022). Young working-class men are the group least likely to attend higher education and are identified as the group which could most benefit from higher vocational progression routes (Wakeford, 2021).

2.2.2 Changing prospects: educational positionality in early careers

In England, young people aged 16 and 17 who have not attained Level 3 qualifications are under a statutory duty to continue in education or training until the young person's

18th birthday [3] (Maguire, 2020). The Raising of the Participation Age (RPA) was in direct response to concerns over high levels of unemployment in the post-2008 economic crash period, but legislative change was overtaken by changing social normalisation of remaining in education and training in the 2000s (Maguire, 2015). Edwards and Weller (2010a) argue that these changing post-industrial education processes reflect three changing behaviours in young people. First, the deferment of individual financial responsibility, coupled with increasing institutionalisation, through extended time in education. Secondly, delayed access to full-time employment means young people remain an economic responsibility on parents or family (familiarisation) for longer. Finally, young people act as "individual social actors who reflexively construct their biography and whose subjectivity is shaped by a sense of ability to make choices and carve out their destiny,". However, this positions early adult choices as centred on the individual and the family, reflecting longstanding concerns that youth transition theories remain focused on supply-side processes of education and individuals (Irwin, 2020). In contrast, Goldthorpe (2015) defined the positionality of education as meeting two objectives. First, those of a consumption positional good, where the advantages of knowledge and cultural acquisition inculcate personal well-being. Secondly, as an educational investment that positions an individual for competitive economic advantage over another, in an economic positional good, whereby the value of the investment is relative to the qualifications held by others and the signals or occupational value of skills the qualification represents for employers (Dalziel, 2017). In reality, an intersection of individual, education and economic factors is more likely, but this leads to complex intersections of processes.

Post-16 transitions are typically represented as homogeneous by discipline, occupation or sector, with stratification by academic or vocational pathways distributing young people into careers, where only educational failure leads to insecure futures (Evans et

[3] https://assets.publishing.service.gov.uk/media/660e971663b7f8001fde187f/Participation_of_young_people_in_education_employment_or_training.pdf

al., 2010; Schoon and Lyons-Amos, 2016; Roberts, 2019). Furlong (2009, p.145) argues young people pragmatically navigate early careers, where the narrower choices available to disadvantaged young workers mean initial ambitions are chipped slowly away:

> *'Despite strong initial ambitions, expectations change over time, falling into line with available opportunities and reflecting previous experience. ' (Furlong, 2009, p.145)*

An individual's agency is 'bounded' by educational achievement, socioeconomic status, family and community (Lareau, 2002b; Gillies, 2005; Evans, 2007a). Furthermore, Roberts (2020) suggests such effects now form enduring aspects of an English education transition regime, no matter the government, with young people's outcomes stratified by social class and socioeconomic background in academic and vocational pathways to employment.

There are enduring disadvantage gaps in the highest qualification held by young adult workers. Young people who enter vocational pathways are disproportionately drawn from lower socioeconomic backgrounds (Mijs and Nieuwenhuis, 2018; Machin et al., 2020). Educational policy in the past twenty years has been heavily influenced by concepts of the market delivering improved social mobility through improved educational attainment. Ball (2013) contests the efficacy of current educational policy to affect disadvantage, consistently arguing that policymakers' notions of meritocracy in the English system that suggest that talented disadvantaged young people can secure the same outcomes as their more advantaged peers ignore the reality of an increasingly socially stratified system, where socioeconomic effects are a complex mix of a 'young person's school, family and neighbourhood' (Mijs and Nieuwenhuis, 2018, p.4). Enduring differences in educational achievement exist from the Early Years Foundation Stage age 5 years, through to the educational and occupational outcomes seen at age 25-29 years. Hunt et al. (2025) report that in 2023, disadvantaged gaps at age 5 years were 4.6 months; by age 11 years, this difference was 10.3 months, and by the end of age 16 years of secondary schooling, this was at 19.2 months, where each age stage has seen widening attainment since 2019. There are significant gaps between disadvantaged and non-disadvantaged GCSE outcomes. Achievement aged 16 years in

GCSEs is described as the 'sorting machine' for future education and occupations: gaining five 'good' GCSEs at Level 4-9 provides a 'narrow' gateway to relatively linear academic pathways at A 'Level, BTEC and onwards towards university entry, and where failure to secure English and Maths GCSEs locks young people out of post-16 routes including apprenticeships, where around one-third of young people do not achieve a Grade 4 at GCSE English and Maths. Importantly, disadvantages in educational attainment 'ripple' across childhood, adolescence and the early adult life course, affecting the higher-level study opportunities available to young workers, including those who enter vocational pathways (Reay, 2017; Mijs and Nieuwenhuis, 2018; Reay, 2022). These effects are regional, with London's achievement overperforming all other regions of the UK (Social Mobility Commission, 2024).

Moreover, higher levels of educational qualifications are held by young workers as adolescent participation in full-time education aged 16-18 years is normalised. By 2022-2023, DfE participation data[4] shows 93.2% of 16-17-year-olds who left Key Stage 4 in 2021/22 were in sustained education, employment or training, with 86% in sustained education. A sustained destination is maintained for at least six months. This has implications for who is now considered a 'middle' student. Longitudinal[5] cohort data from the Key Stage 4 2016-17 (GCSEs) cohort in Table 2.1 shows the destination patterns across the following five years:

Table 2.1: Longitudinal sustained destinations from 2016-17 KS4: 1,3,5 years (%)

Sustained destinations from Key Stage 4 cohort 2016-17	Year 1	Year 3	Year 5
	2017-18	2019-20	2021-22
Number of pupils completing key stage 4	517,634	517,634	517,634
Sustained education, apprenticeship or employment (%)	94.2	81.9	82.4

[4]https://explore-education-statistics.service.gov.uk/find-statistics/key-stage-4-destination-measures/2022-23

[5] https://explore-education-statistics.service.gov.uk/find-statistics/longer-term-destinations/2021-22#

Sustained education (%)	86.7	48.2	43.2
Sustained employment (%)	3.2	24.8	33
Sustained apprenticeships (5)	4.3	8.9	6.1
Higher and degree apprenticeships (level 4 and above) (%)	Z	0.8	1.4
Advanced apprenticeships (level 3) (%)	1.3	4.8	3.5
Intermediate apprenticeships (level 2) (%)	3	3.3	1.2
Not recorded (%)	4.9	13.9	14.2
Activity not captured (%)	0.9	4.2	3.5

Source: DfE(2024) Longer Term Destinations (%)

The very low levels of apprenticeship participation one year after GCSEs are important for my study at only 4.3%, showing how this pathway is very limited as a route to work in comparison to remaining in full-time education. Similarly, early sustained employment is low at 3.2%. Instead, the historic risks of traditional and typically vocational early labour market transitions are transferring to those aged 18+ years (see Year 3 data) at the end of compulsory education and training, with Maguire arguing that "*many young people emerging from post-16 education and training at the age of 18 were experiencing difficulties in making successful transitions beyond that point"* with Post 18 years emerging as a defining site of inequality. Although the level of young people NEET is of emerging public and political concern, in the 2020s, this is now a function of increasing levels of post-pandemic economic inactivity, including rising levels of mental health, rather than the level of youth unemployment[6] seen in previous post-recessionary periods (Edwards and Weller, 2010).

2.2.3 Early adult progression: highest qualification held by age 25-29 years

Patterns of highest qualification held by age 25-29 years are typically predicated on achievement at 16 years in an increasingly academic GCSE system (Machin et al., 2020). The Social Mobility Commission (2024) analysis by class, gender and educational outcomes for age 25-29 years in the UK in 2021 showed the enduring effects of socioeconomic disadvantage on achieving higher qualification levels, with

[6] https://explore-education-statistics.service.gov.uk/find-statistics/neet-statistics-annual-brief/2024

advantage/disadvantage denoted through parental class. Figure 2.1 below shows how class and socioeconomic stratification in the highest qualification held, and academic versus vocational pathways continue through early adulthood.

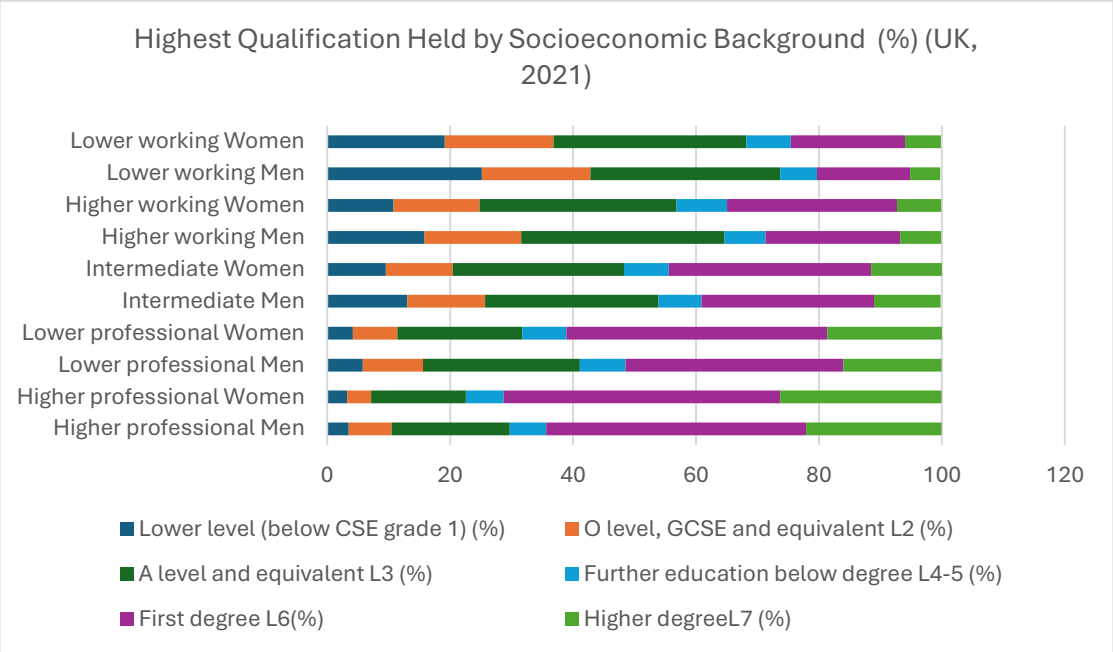

Figure 2.1: Highest qualification held aged 25-29 years, by socioeconomic background (%) UK 2021

Source: (Social Mobility Commission, 2024)

By age 25-29 years, working-class young people are underrepresented in higher Level 4+, and overrepresented in Level 2 and below qualifications (Eyles et al., 2022). Vocational qualifications are reported to create earnings ceilings at the age of 25 years for Level 2 and 30 years for Level 3 (Pember, 2019, p.6). These may not be visible or important to young workers aged 16-18 years who are making their first entry into the labour market and who need a job. By the age of 25-29 years, 64% of young men and 71% of young women with parents in the highest professional class held a degree at Level 6/7 as their highest qualification. This is compared to 74% of Lower working-class young men and 68% of lower working-class young women who hold A-Level or Vocational Level 3 or below. These patterns of stratification widen the higher the qualification; by Level 6+, for parents in Higher Working class and Intermediate level occupations, typically in middle-skilled work, their children, particularly young men,

hold only half the level of higher qualifications than those most advantaged; in Higher Working class groups, 21.9% of young people held a Level 6 and 6.7% at Level 7+, and at Intermediate levels only 28.1% at Level 6 and 10.8% at Masters level.

Importantly, these gaps are regional, with Holt-White et al. (2025,p1) reporting that:

> *"While 18% of FSM pupils from London are in the top 20% of earners at age 28, only 7% of those from the North-East are, as are 7% from the North-West and 7% from Yorkshire and the Humber".*

Traditional sociological explanations for low working-class male participation in higher levels of education are described as extensions of Bourdieusian 'habitus' (see section 2.4), with patterns recognised as cultural as well as socioeconomic in the reproduction of classed educational and occupational status through family and community norms and expectations (Edgerton and Roberts, 2014). This includes the valorisation of practical skilled work through family and community job networks, disaffection with school, and self-exclusion from study (MacDonald et al., 2020). However, sociological explanations ignore working-class communities that value vocational routes (Lareau, 2002b; Edgerton and Roberts, 2014). Importantly, these patterns ripple much further than simple polarised deprivation narratives, where explanations ignore the significant structural effects of socioeconomic status, class, and occupations on early adult outcomes, despite holding similar qualifications (Crompton, 2008). Within these debates, the place of higher-level vocational qualifications is complicated by their low participation rates and their position in a graduate-dominated Level 4+ qualified workforce (Boniface et al., 2018; DfE, 2019b).

2.2.4 Early vocational specialisation despite extended education.

English vocational post-16 policy is based on early vocational choice and specialisation, through narrow occupational trajectories, despite evidence that only a minority of young people choose a vocational career at the age of 16 years and then progress through associated occupational vocational levels (Wolf, 2011). Multiple education reforms in the 21st century have strengthened 'knowledge' in the curriculum and assessment frameworks at all Key Stages, including statutory examination at GCSE, valorising the 'academic knowledge' over vocational and creative subjects, where, for

example, there has been a 57% decrease in Design Technology entrants 2010-2018, of 154,000, and a 20% reduction in creative GCSEs (Laczik et al., 2018, p.12). Alongside, the 11-18 years curriculum has been narrowed, with the House of Lords Select Committee noting:

> *'Education [age 11-16 years] now prioritises a restricted programme of academic learning, delivered through a narrow set of subjects and teaching styles. We heard repeatedly that this approach fails to take account of wider societal and economic shifts. House of Lords (2023,p3).*

The UK government maintains central decision-making in England's secondary schooling and post-16 education system.

Table 2.2: Percentage of aged 16-17 population participating in education (full or part-time) or on an apprenticeship (2019-2022)

Participation aged 16-17 years (%)		*2019*	*2020 Covid -19 from Mar 2020*	*2021 Covid-19 until June 2021*	*2022*	*2023*
Total participation in education, including apprenticeships (%)		89.1%	89.2 %	89.0%	89.0%	89.8%
Higher education (level 4 or above)	Total higher education (%)	0.6%	0.7%	0.5%	0.7%	0.6%
Level 3	A/AS levels (%)	44.5%	45.9 %	46.9%	46.6%	45.2%
	T levels (%)	Z	0.1%	0.4%	0.9%	1.5%
	Other level 3: All (%)	20.0%	21.2 %	20.5%	19.3%	18.8%
Level 2	GCSE (%)	10.7%	9.2%	8.5%	9.7%	11.8%
	Other level 2: All (%)	3.9%	4.5%	4.0%	3.7%	3.3%
Level 1	Total level 1 (%)	2.8%	2.5%	2.2%	2.1%	2.1%
Other qualifications (unclassified level)	Total other (%) qualifications	2.4%	2.3%	2.4%	2.5%	2.6%
Apprenticeship /Work-Based Learning (WBL)	Apprenticeships/WBL (overlaps with education (FTE and PTE removed) (%)	4.2%	3.0%	3.5%	3.6%	3.7%

Source: (DfE, 2024a)

Academic A and AS 'Levels are the dominant Post 16 pathways, in 2023 forming 45.2% of young people's participation in Post 16 routes. Vocational education and training at Level 3 forms 20.3% of pathways, including only 1.5% T-Levels, at Level 2, only 3.3%, and 2.1% at Level 1. Apprenticeships only form 3.7% of young people's pathways aged 16-17 years. Vocational reform in post-16 pathways seeks to increase the quality of vocational routes for young people, most recently through the introduction of T-Levels, but where qualification developments reflect more 'academic' framings of qualifications, and narrower and earlier occupational specialisation than that required via A-Levels (Ofsted, 2023). Importantly, qualification changes continue narratives of the past thirty years of improving quality through wholesale system change, in this case, the defunding of large numbers of BTECs, but where decision-making is based on limited evidence, including how employers will use new qualifications (Anderson, 2018; Keep, 2020).

2.2.5 Limited vocational career progression in post-16 vocational transitions

Vocational education and training hold a poor economic position in the English educational landscape, reflective of Anglophone patterns where academic routes disproportionately favour access to higher-status work (James Relly, 2022; Robson et al., 2025). However, over 50% of young people take at least one post-16 vocational qualification, but where vocational qualification participation is disproportionately from lower socioeconomic groups, and if this cohort accesses higher education, it is typically into post-92 institutions (Baker, 2020). Goldthorpe(2013) argues that the long-standing belief that education policy can affect social mobility is 'far more limited ….than supposed', where the education and labour market conditions enjoyed by young people born in the 1960s and 1970s, who benefited from the expansion of higher education and the expansion of professional jobs in the 1980s to 2000s occurred when less than one-third of the population held a degree. The second-class standing of VET, described by James Relly, p. (2022, p.51) as a 'peculiarly English' framing, where high-skilled work is now typically accessed after university Bachelor's degrees (Machin et al., 2020).

Forward pathways from vocational qualifications are complex due to the number of individual qualification pathways in comparison to the relatively linear transitions from A-level to university (Anderson and Nelson, 2021). Despite extended time in education to eighteen years, the overall architecture of vocational routes is little changed, still demanding early occupational specialisation aged 16 + years (Atkins, 2017). Young workers are typically viewed as on an academic or vocational track from 16 years, with vocational occupations requiring early career decision-making at age 16 years, 'heavily mediated by social class, gender and serendipity' (Hughes, 2017; Atkins, 2017, p.643). Challenging the 'second-class' status of technical vocational education and training in England is one of the aims of vocational reform, to improve social mobility for the disproportionately disadvantaged vocational cohort (DfE, 2021). However, Guile and Unwin (2019) argue that vocational education and training is positioned as an instrument of government policy to address skills often at the bottom of the labour market, rather than as a qualification system part of a progressive accumulation of skills comparable to academic pathways. There is limited vocational permeability between vocational pathways and academic, Higher Education (Nikolai and Ebner, 2011; Green and Pensiero, 2017; Roberts, 2020). Importantly, early vocational decision-making is noted by Wolf (2011, p.37) as not typically leading to a linear occupational career track, but instead :

> *'Young people change what they are doing frequently, and the changes are major ones. The young person who follows first a level 2 course in a vocational area, then a level 3 one, and then goes on to a long-term career in that sector is the exception, not the rule.'*

The evidence of a lack of forward occupational specificity is in direct tension with the assumptions of the vocational education system, where D'Arcy and Finch (2016) found that occupationally specific career pathways, with access to further training, were aligned with future access to high-skilled work.

Vocational education and training emphasise the acquisition of job-specific skills and knowledge for a specific occupation or trade and its practical application in the workplace to construct learning. Sociologically, Colley et al (2003, p.474) argue that learning is 'a process of becoming', where vocational learning is not through acquisition of skills and knowledge, but through participation, where the situated nature of skills

within the workplace, and in the industry means that skills have meaning through performance at work. However, Willis (1977) in his study of working-class boys, argued that their co-construction of shared identities of detachment and dislocation from formal academic learning resulted in transitions to low-paid, low-skilled work (Nolan and Anyon, 2004). Work is inherently a socialisation process, in vocational learning through working as part of a community of practice, where newcomers learn from more experienced colleagues (Guile and Unwin, 2019). Lave and Wenger(1991 in Colley 2003) argue that vocational learning and skills acquisition are immersed in social, emotional and cultural aspects of work, where newcomers learn from more experienced colleagues (Lave and Wenger(1991) in Colley et al., 2003, p475). Apprenticeship traditions of 'community learning' are argued to be central to 'vocational skill' formation and early exposition (Guile and Unwin, 2019). Furthermore, these processes actively support young workers to 'fit in', and to understand employer boundaries, and the boundaries and opportunities of their particular job or occupation, their employer, and their industry (Altreiter, 2021). Colley et al argue that a situated and social perspective of vocational learning is needed to understand why young people choose to enter an occupation or to access further education and training. As young people gain experience, their vocational and workplace identity may also shift, where theories of 'becoming' align with situated theories of skills and how vocational learning is intertwined with learning 'on the job' from more experienced workers (Altreiter, 2021).

Vocational pathways in England remain stratified by gender, whereby traditionally male-dominated patterns in STEM and construction job roles are accompanied by typically stronger median earnings and vocational progression prospects either formally through occupational qualifications, or informally through experience, including self-employment (Fuller et al., 2005; Jarman et al., 2012; D'Arcy and Finch, 2016). Gendered patterns by occupation remain a feature of occupations within most societies, and where the feminisation of job roles typically reduces status and earnings in vocational and professional occupations, for example in the caring professions, service sector, and education workforce, often accompanied by historically more limited union representation, and gendered care responsibilities leading to more part-

time workers (Fuller et al., 2005; Jarman et al., 2012). However, vocational identity and status are specific to a sector. The Vocational Education and Training (VET) system retains significant risks of young people becoming trapped by holding lower-level vocational qualifications, which hold limited value to employers in low-road models of skill (Lloyd et al., 2008; Mayhew, 2015). Furthermore, the fluidity of early vocational careers, the work insecurity faced by large numbers of young workers, and the difficulties of their transition to decent work and progression possibilities, in a tight labour market with a large supply of low-wage work, create invisible boundaries for young workers, where the effects of sectors on these opportunities and constraints are underexplored. (Evans, 2007; Lloyd et al., 2008; A. Green, 2016). Patterns 'ripple' into future education and training pathways in early adulthood (Webb et al., 2017; Avis and Atkins, 2017).

2.2.6 Vocational pathways: the particular case of apprenticeships in Post 16 debates

The apprenticeship space provides an important context for changing 'middle' qualifications and skills pathways, together with the importance of understanding broad employer behaviours in the English vocational skills system, and the inability of a supply of qualifications to engage employers (Keep, 2020). Apprenticeships are suggested in academic discourse to embody a working-class vocational identity and skills formation, but there is a disconnection between historic perceptions and lived reality as a post-16 vocational entry route (Avis and Atkins, 2017; Altreiter, 2021). However, non-disadvantaged young workers now form the largest group in apprenticeships at 9.8%, three years after GCSEs (age 19 years), in comparison to 6.5% disadvantaged, with apprenticeships no longer a primary route for disadvantaged young workers to employment (Richmond, 2020; Powell, 2020). There is a shifting pattern of apprenticeships away from entry-level, younger workers towards upskilling experienced workers. There has been a reduction of 31% in total apprenticeships since 2015-16, but a collapse of 68% in Level 2 (intermediate) starts since 2015-16 from 291,300 to 91,520 in 2021/22 (see Figure 2.2) (Richmond, 2020).

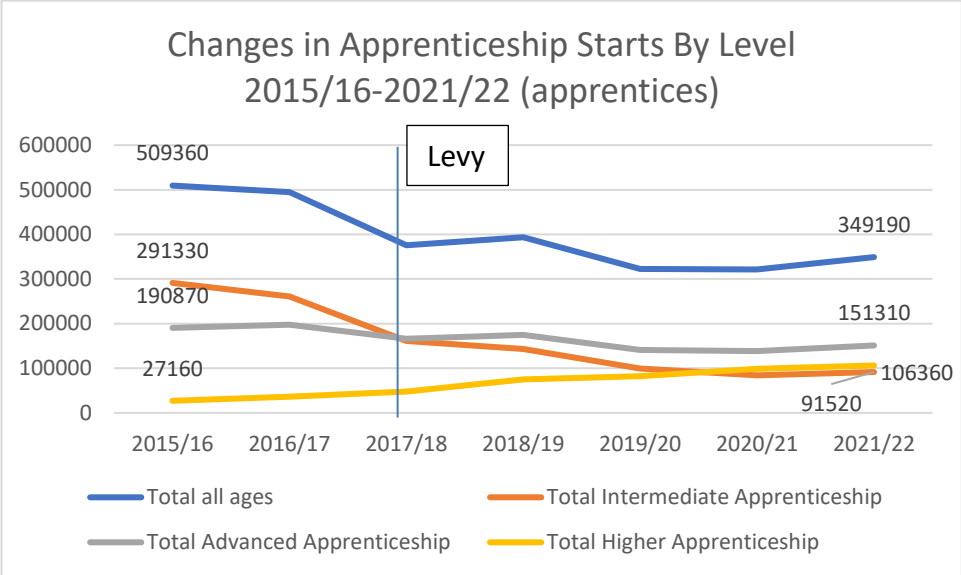

Figure 2.2: Changes in apprenticeship starts by level 2015-2022 (apprentices)

Source: Explore Education Statistics[7](2024)

Lower-level apprenticeships, with their paid element of earning whilst learning, only form 4.6% of early entry into the workplace at 16 years and 9.5% at 18 years in 2021-2022 secondary education transitions (DfE, 2023b). These patterns have significant effects on the possibilities for young workers to enter high-skilled progression pathways via apprenticeship routes, where starts have traditionally been working class and lower socioeconomic patterns (Altreiter, 2021). Apprenticeships are clustered in only six main industries (2020): Business, Administration and Law (30%); Health, Public Services and Care (25%); Engineering and Manufacturing Technologies (16%); Retail and Commercial Enterprise (10%); Construction, Planning and the Built Environment (7%); Information and Communication Technology (6%)(Cavaglia, McNally, et al., 2022, p.10). All other sectors make up 6%.

Employer motivations and the confounding policy impacts of the apprenticeship levy are important in understanding the difficulties of complex system changes such as

[7] https://explore-education-statistics.service.gov.uk/data-tables/fast-track

vocational reform (Gambin and Hogarth, 2021). The apprenticeship levy[8] was introduced in 2017. Employers with an annual salary bill of £3 million or more pay 0.5% of their wage bill as a levy. These are typically large employers of over 250 employees. Where industries are part of other levy traditions, for example, the Construction Industry Training Board levy[9], this is paid in addition to the apprenticeship levy. Levy funds can only be used to cover apprentice training, not wage costs.

The development of higher level vocational qualifications at Levels 4, and 5, and degree apprenticeship at Levels 6 and 7 are argued to be internationally reflective of, on the one hand, the economic need for increased competitiveness and productivity, and on the other hand, addressing questions of social equity, underrepresentation in higher education, and disproportionate representation in lower-skilled jobs for vocationally qualified young workers (Bathmaker et al, 2018). However, higher-level vocational qualifications, including apprenticeships, have no universal definition (Webb in Knight et al., 2022, p9). Their position, value and status are contingent on the institutional, policy, and context of higher education in comparison to vocational education in a country's transition regime. Webb (in Knight et al., 2022) argues that high-level vocational qualifications emerge when' the credential levels of vocational programs typically associated with technical vocational education and training (TVET) are raised to higher education levels, where the skills, knowledge and behaviours inculcated through these qualifications and work-based learning are necessary for economic growth and productivity. Secondly, in concepts of a 'knowledge economy', whereby increasing technological innovation requires increasing ranks of higher qualified workers, the focus on academic credentials excludes large numbers of workers for whom vocationally orientated, and manually based skills form the basis of their occupational expertise (Bathmaker, 2017; Dalziel, 2017). However, there remains

[8] https://www.gov.uk/guidance/pay-apprenticeship-levy#:~:text=Apprenticeship%20Levy%20is%20an%20amount%20paid%20at,pay%20Apprenticeship%20Levy%20each%20month%20if%20you:

[9] https://www.citb.co.uk/levy-grants-and-funding/citb-levy/about-the-citb-levy/

limited evidence that the development of higher-level vocational qualifications at Levels 4,5 and 6 is responding to employer demand for vocational skills at this level, where I argue evidence suggests any changes need to be viewed in terms of wider labour market structures, including graduate supply, and sector occupational patterns in the middle-skills space (Bathmaker, 2017). In England, analysis is complicated as Level 4,5 participation includes Level 5 Foundation degrees as well as Level 4 Higher National Certificates, and Level 5 Higher National Diplomas (DfE, 2019b). At Level 6, degree apprenticeships are typically considered as stand-alone degree qualifications, rather than as part of a vocational progression, with limited attention on their role as education-in-work qualifications, with most focus on degree apprenticeships as direct substitutes for a traditional higher education pathway age 18 years, and the disproportionate employer use of Level 7 management degrees (Hubble and Bolton, 2019a; Cullinane and Doherty, 2020).

DfE (2019) notes that the uptake of Level 4,5 is low in England compared to the countries where only approximately 10% of adults aged 18-65 hold a Level 4-5 qualification, where international patterns in Figure 2.3 show this is in comparison to 20% of adults in Germany and 34% of adults in Canada.

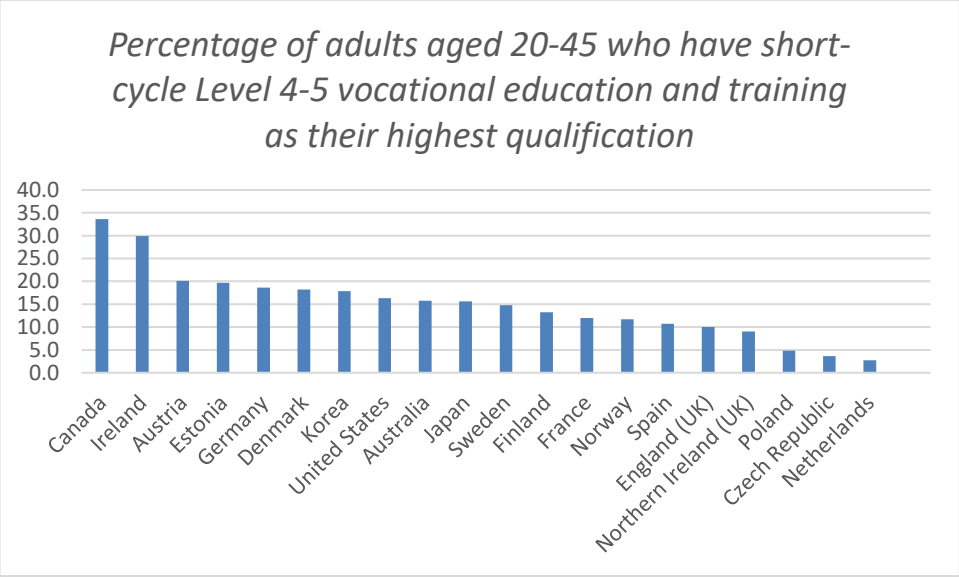

Figure 2.3: Percentage of adults aged 20-45 who have short-cycle Level 4-5 vocational education and training as their highest qualification

Source: Survey of Adult Skills[10] (PIAAC) (2012).

European and Australian studies suggest that vocational policy reform is at best ambitious but unlikely, and at worst indicative of the low standing of vocational and technical education in the English psyche (James Relly, 2022). James Relly (2022) argues that calls for parity of academic and vocational routes fundamentally misunderstand the nature and purpose of vocational education and training in comparison to academic pathways, where the fundamental purpose of vocational education and training is to prepare workers for specific occupations: plumbers, electricians, technicians, and hairdressers. James-Relly argues that although degree level plus study can be occupationally framed, it is not the rationale for taking a higher education pathway, in comparison to Bachelor degrees where the subject is often separate from eventual employment, but where the vocational system in comparison to academic pathways is subject to more policy and qualification churn (Norris and Adam, 2017a; James Relly, 2022, p.49).

Since the introduction of degree apprenticeships in 2015, and the changes to the employer levy in 2017, apprenticeships starts at Higher Level 4,5,6 and apprenticeships have increased from 27,160 in 2015-16 to 106,360 in 2021-22, a rise of 291%. Higher level starts are predominantly at Level 4-5; with 2022-23 starts at Level 6-7 at 22,060 (18%), against a total of 122,555 higher-level starts. Despite the relatively high policy profile of degree apprenticeships, starts rose by 14% to 22,060 in 2022-23 against 757,000 applications through UCAS for full-time undergraduate places (Bolton, 2024, p.5). Higher-level apprenticeships are more expensive to deliver; employers can claim back up to £27,000 per individual apprenticeship programme at higher levels. For example, in construction, a Plasterer at Level 2 has maximum funding of £10,000; a

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10 https://www.oecd.org/en/about/programmes/piaac.html#:~:text=It%20also%20gathers%20information%20and,interviewed%2C%20representing%201.15%20billion%20people.

Curtain Wall Installer at Level 3 attracts a maximum of £8000; a Construction Design and Build Technician at Level 4 has a maximum of £9000, a Design and Construction Management/Site Management/Quantity Surveying Degree at Level 6 a maximum of £18000, and Chartered Town Planner at Level 7 attracts a maximum of £27000 (IfATE, 2024). The use of apprenticeship funding to support MBAs has been removed since 2021, whereby employers were criticised on the one hand for using levy funds to support more experienced and already qualified workers, and on the other hand shows the lack of policy understanding of employer behavioural responses, which reflect many aspects of Goldthorpe Rational Action Theory of the economic balancing of educational opportunities in levy imposition (Goldthorpe, 1998; Gambin and Hogarth, 2021). Unspent levy funds go to support Small and Medium Enterprises (SMEs), but complicated funding processes are difficult to navigate for many SMEs (Richmond, 2020; Powell and Foley, 2020). Apprenticeship completion rates are only just above one in two for all apprenticeships, with overall apprenticeship completions at 57.7% in 2020/2021, with higher-level apprenticeships at 55.3%, showing the need to understand which young workers successfully enter and complete these qualifications[11] (Francis-Devine and Murray, 2024).

Employers argue recruitment risks are reduced through qualifications focused away from new and inexperienced staff, typically younger workers, to existing, known employees in mid-career age 25 years plus. Increased regulation of health and safety for site-based activities in some traditional industries that historically took large numbers of Level 2 apprenticeships at 16 years, for example, construction, has created difficulties in site access for young workers under 18 years old (Gambin and Hogarth, 2021b). Large employers view the apprenticeship levy as a budget revenue stream, reflecting rational choice theories of pragmatic economic decision-making in education and training (Goldthorpe and Breen, 1997). Raising the Participation Age (RPA) to 18 years means classroom training is available from the state (Maguire, 2020). The conflict

[11] These rates had reduced from pre-pandemic levels in 2018-19 of 65.1% total and 60.2% higher apprenticeships completions

between the education and training needs of younger workers 16-18 years at Levels 2 and 3, and those of adults aged 25 years + who may be existing employees' points to the tensions within a system where there are not sufficient good training opportunities, and where there are reductions in adult education for the over 25 years old in employment, and reduced training investment by employers (Richmond, 2020). Robson et al., p. (2025, p.5) studied six industry sectors in England: gaming, cybersecurity, fashion, food, automotive, and construction. They found that young people viewed apprenticeship pathways as generationally stratified through employers favouring older workers, but also socioeconomically stratified, with young people reporting that the best apprenticeships were taken by their middle-class peers. The importance of these patterns for my study lies not just in absolute attainment differences seen between the most deprived socio-economic groups, but in the lost potential through underachievement in an increasingly 'one chance' education system with narrow doors of opportunity between different educational stages (Machin et al., 2020, p.1).

Criticisms that the 'levy' is not working are extensive, with apprenticeships subject to ongoing reform, for example, through the Growth and Skills levy proposals, whereby employers can offset training beyond apprenticeships against levy payments, but where there may be further limits placed on Level 7 pathways (DfE, 2024a). But such structural changes show the continuing churn in vocational policy, and concerns that vocational policy is made by relatively few, large employers to meet their individual skills gaps (Norris and Adam, 2017; Robson et al., 2025). Moreover, in the case of higher level 4,5 and 6 vocational pathways, there is limited evidence that employer behaviour is led by a supply of qualifications, even where those qualifications are in response to employers' demand for skills(Keep, 2020). Webb (in Knight, 2022, p. 10) argues that:

> *'Policies and practices contain historical traces, and that different assemblages of policies for vocational or further and higher education lead to different spaces and opportunities for different students.'*

This rippling of historic practice into new reforms becomes important in my new secondary analysis of the effects of employer-led reform, and reflects studies by

Esmond and Atkins (2020), whereby they argue that the vocational space is delineated into three forms, of higher elite pathways of technical and typically male higher level 4,5 and Level 6 degree apprenticeships of increasing precarity and lower-skilled vocational work in once 'middle' skilled jobs, typically manufacturing in competition now from the oversupply of graduates, and a third, marginalised class of 'welfare vocationalism', whereby the service and caring sectors provide few returns on vocational education and training (Esmond and Atkins, 2022). Importantly, lower socioeconomic status (SES) groups are overrepresented in early adults who hold a Level 3 or below as their highest qualification. Studies suggest these groups hold very similar qualifications at Level 3 aged 18 years to young workers who transition to higher levels of qualifications, suggesting untapped potential for higher-level study in vocationally qualified 'middle workers' (Anderson and Nelson, 2021). Young workers' earnings are heavily sector-dependent, with the patterns seen in particular industries of good wage returns from vocational qualifications, including Levels 4-5 (Espinoza and Speckesser, 2019; Espinoza et al., 2020).

In summary, in setting supply-side patterns for understanding the prospects for higher-level vocational transitions, the following aspects are important. First, the increasingly academic English curriculum reinforces the second-class nature of the VET system, as well as further excluding young people who are practically orientated. Extended time in education is now normalised, with less than 10% of 16-17-year-olds entering employment or securing an apprenticeship (Roberts, 2019). Secondly, post-18 pathways become important sites for the reproduction of inequalities from education into the labour market (Maguire, 2013). Moreover, patterns of educational achievement and disadvantage ripple across childhood and the early life course, with long-standing reproduction of inequalities in who achieves higher levels of qualification at Level 4+ by the age of 25-29 years (Reay, 2022). Finally, in patterns of higher level vocational qualifications, despite assertions of skills gaps, particularly at Level 4,5, and of the need for alternative routes to rebalance higher education participation towards under-represented groups, particularly working-class young men, participation remains low, and where participation rates are higher for non-disadvantaged in comparison to

disadvantaged young people age 16-19 years, particularly in high-status degree apprenticeships (Webb et al., 2017; Hubble and Bolton, 2019a; DfE, 2019).

Despite the extensive and long history of youth transition studies, there is very limited empirical evidence of early adult transitions beyond the end of compulsory education and training age 18 years, or university, with limited post-25 years of examination of education in work processes (Schoon and Lyons-Amos, 2016). Despite vocational reform setting the expansion of higher level 4,5 and 6 vocational routes as a key social mobility strategy, these processes are little examined and are occurring in a labour market where there is intense competition from graduates (Brown et al., 2020). Finally, despite the focus on supply-side solutions, there is limited evidence that [vocational] education policy alone can affect young worker outcomes (Goldthorpe, 2013).

2.3 Middle skill pathways and the link between education and skills

Irwin (2020) argues that for 'middle' young people, the structural processes of the labour market are little recognised. Young people enter the labour market into 'middle' occupations, often in offices, technical, and skilled trades, where they are typically continuously employed, but where 'middle' work quality, median wages, and career pathways are variable and unclear (D'Arcy and Finch, 2016). This section explores the mid and high-skill structures of the labour market, and the intersection with vocational pathways, linking skills and education. First, in section 2.3.1, changing skills profiles are discussed. Next, in Section 2.3.2, patterns of high, low and mid-skilled work, and the intersection with vocational pathways are examined. Then, in Section 2.33, local skills processes and transition regimes are explored. Finally, in Section 2.3.4, 'good work' and progressions are placed in the processes of progression patterns to higher-skilled work.

2.3.1 Skills debates beyond the 'knowledge economy'

England has some of the widest range of regional economic outcomes in Europe, where limited access to 'decent' job opportunities forms a 'wicked' and intractable problem (Head et al., 2008; Keep and Mayhew, 2014; DfE, 2024a). Despite thirty years of English skills policy, little has changed in the regions since Finegold and Soskice (1988) characterised England's education and training regimes as 'low-skill equilibrium',

where self-reinforcing processes between the state and local actors maintain low-skilled work processes. Skills processes are typically described as supply-side dominated, where the supply of qualifications is a result of marketisation and individual choice to study, rather than employer demand (Green, 2016b). Human Capital Theory (HCT) assumes that individual investment in qualifications is a positional good, as an increasing supply of higher-level skills will mean employers utilise these to best effect, creating virtuous circles of employer demand (Brown et al., 2020). In the 21st century, developed economies are considered, in part, to be operating in a 'knowledge economy'. Theories of a knowledge economy are based on an economy increasingly dependent on knowledge and technical innovation, where economic growth is a product of increasing technological application, which requires increasing numbers of highly qualified workers, which was coined to describe the increasing trend in the 1960s of the centralities of 'knowledge', opposed to physical skill as the defining feature of new job creation in an increasingly technologically based world (Drucker in Brown et al., 2020, p.36).

'Knowledge economy' debates underpin the significant changes in the UK education and training system in the last thirty years. The premise is that individuals will invest in their education and training, and in doing so, sacrifice current earnings for future earnings gains through access to higher-skilled work and higher wages. Dalziel (2017, p.148) argues that:

> *'Time spent in education produces skills embodied in the individual that are then demanded by employers willing to pay a premium for those skills.'*

These theories underpin the significant international expansion of higher education since the 1980s. Human capital models are based on rational economic choices where human skills are enhanced and aligned with employer needs through securing a job or promotion (Goldthorpe and Breen, 1997; Goldthorpe, 1998). Similarly, HCT theories assume employers will identify skills gaps or shortages, and invest in their workforce to upskill or re-skill, with short-term cost, for longer-term economic gain (Dalziel, 2017). Moreover, in knowledge economy debates, an increasing supply of highly skilled labour is argued to incentivise employers to utilise labour in creating high-skill job opportunities, which will raise productivity and efficiency, creating a 'virtuous circle' of

ever-increasing prosperity through employers actively utilising the increasing supply of higher-level skills on offer. However, there is limited evidence that this relationship exists, with graduate oversupply a pattern in all major economies, and where influential scholars argue that such patterns, if they ever existed, are now overtaken, where background and education remain the primary indicators for access to high-skilled work (Brown et al., 2020; Sandel, 2021).

Green (2020) argues that 'skill' is a slippery concept, ill-defined, and difficult to conceptualise and operationalise. Green et al. (2020) note that concepts of skill tend to ambiguity, arguing that whilst it is possible to separate technical skills where dominant processes are those of cognitive application and manual dexterity, and behavioural skills which focus on social and personal interactions, employers often require a mix of skills. Similarly, 'skills shortages' often conflate current employer demand, future demand, and skills vacancies not filled by training of the existing workforce (Green et al., 2020). Payne (2017, p 58) argues that in the United Kingdom, discourse about 'the skilled worker' is framed in narrow terms, where 'skilled' and 'qualified' are separated. Payne notes that in part this is due to the focus of vocational qualifications since the 1980s on competencies, and with very limited 'general', non-industry specific education, typically limited to functional English, maths and digital skills. Clarke and Winch (2006) describe this as an Anglo-Saxon model of skill, typically found in liberal economies of the UK, US, and Australia, where skills are attached to specific occupations and jobs. This is in comparison to Germany, where 'skilled worker' carries a particular identity and skills formation process through undertaking an apprenticeship. Similarly, financial representations of skills are contested, which Lerman (2013) argues are disconnected from the functionality of 'skill', which disregards a worker's qualifications or experience. Instead, scholars suggest skills utilisation is highly situated, and socially constructed in questions of who is distributed into which job role, particularly in who achieves higher-skilled occupations in a complex and fragmented qualification system and a 'professionalised' and credentialed qualification agenda (Warhurst et al., 2017; Green, 2021b).

2.3.2 High and low-skill job polarisation in the UK labour market

Scholars argue labour markets in the 21st century tend to polarisation models of rising numbers of high and low-skilled workers, and a decline of 'traditional' middle-skilled job roles, but where notions of 'hollowing' or an 'hour-glass economy' appear overstated (Anderson, 2009; Mayhew, 2015). On the one hand, patterns in the UK labour market reflect the growth of high-wage work predicted in knowledge economy theories (Brown and Lauder, 2003; Dalziel, 2017). Figure 2.4 shows the change in employment by wage decile between 1993 to 2022, where decile 1 is the lowest 10% by earnings, and decile 10 is the highest:

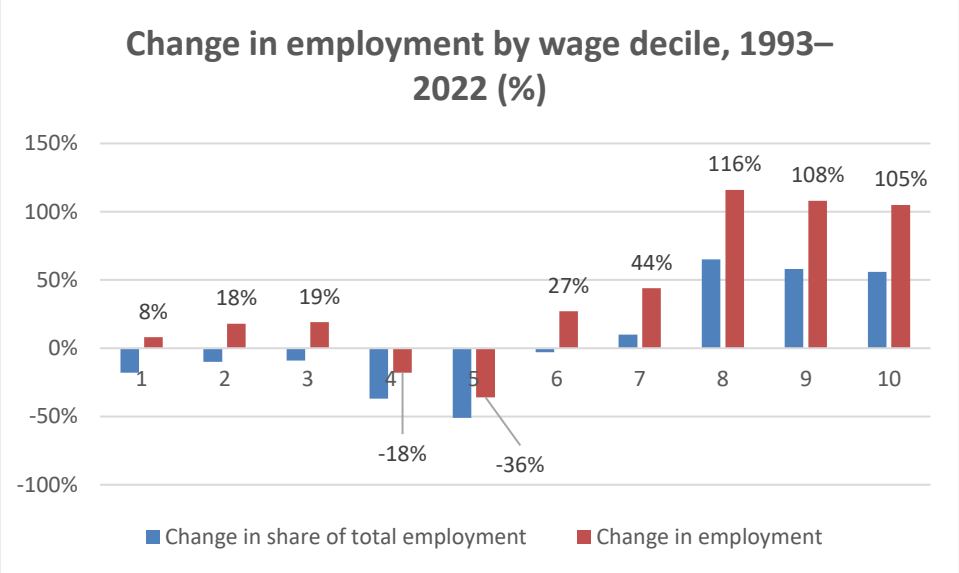

Figure 2.4: Change in employment by wage decile 1993-2022 UK (%)

Source: (Xu, 2023, p.5)

Occupations are grouped by median earnings, where data is collated by the absolute change in employment by decile, and the relative share of total employment. Studies show that in the UK, employment in high-paying occupations increased by 95% between 1993 and 2022, in part through new higher-skill job creations and in part through occupational upgrading as a result of increasing technology (Cominetti et al., 2022). There are significant regional differences, where Xu notes that in middle pathways, declines in traditional industries, for example, middle-skilled manufacturing pathways where decent work routes were available without a degree, have declined in the North and Midlands in England. High-skilled work is concentrated in London, and to a lesser extent in regional cities. In Inner London, approximately two-thirds (65%) of

graduates are in a job which requires graduate-level skills; in the regions, for example, in Lincolnshire, this reduces to four in ten (42%) (Xu, 2023, p.14). However, the extent of polarisation is contested, with Xu's analysis showing low-wage work increased by 14% in the period 1993-2022. Alongside this, 'traditional middle paying occupations' fell by 12%, but where analysis by Anderson (2009) by SOC(2000) skills levels showed that 'Intermediate' occupations in the period 1994-2004, those of Major Group 3 Associate Professionals, Major Group 5 Skills Trades and Sub-group 12 Other Managers were almost static with Anderson finding only a 0.3% decrease in intermediate workers (Anderson, 2009, p.172). This led Anderson to argue that the middle-skilled space required more attention, including whether longstanding SOC classifications were adequate to represent skills in the UK economy in the 21st century (Anderson, 2009; Elias et al., 2023).

On the other hand, Goos and Manning (2003, p.279) argue that the UK labour market is 'bottom-heavy' in terms of lower-skilled jobs, through 'ever-expanding numbers of lower service jobs' in low-wage, routine and unglamorous occupations. Roberts (2015) describes an academic and policy dualism where academic, political and policy gaze bifurcates complex education and labour market transitions into relatively simple pathways of 'fast' and 'slow', or 'graduate' and 'non-graduate' transitions to 'good' and bad' jobs. Keep and James, (2012, p.214) argue 'bad jobs' reinforce inequality by providing no route out of poverty through in-work progression, and where the cumulative effects of bad jobs "have a serious impact on the quality of life and mental well-being and happiness of workers and their families." These effects reproduce across the life course, with 43% of adults in poverty living in a household with one adult in full-time work (Joseph Rowntree Foundation, 2025, p.77). This results in increasing occupational inequality, which Goos and Manning (2003,p.3) term a process of segmentation into 'lovely and lousy jobs', or 'MacJobs and McJobs' (M. Goos and Manning, 2003, p.71). Within labour market polarisation, occupational inequalities are reproduced through occupational segmentation in high-road and low-road skills models. Here, occupations present as distinct and deterministic career possibilities through their bifurcation into:

> *'[a] primary sector….highly skilled, highly paid jobs with secure internal career pathways (the 'internal labour market') involving on-the-job training opportunities, whilst the secondary sector offers casual, low-skilled, low-paid jobs with little chance of training' (Dalziel, 2017, p.150).*

Labour segmentation theory argues that education pathways prepare young workers for one of these two pathways, where the sectoral and occupational distribution of employment helps to determine the sort of VET provided (Laczik and Mayhew, 2015). Mayhew and Keep (2013) suggest this has led to dual economic strategies, into high-skill, highly qualified and valued employees, and low-skill, vocationally qualified, and often precarious, 'disposable' workers. 'Lovely' jobs lead to higher wages, working conditions, benefits and progression prospects in comparison to 'lousy' jobs, which are characterised by low-quality work, low wages, few benefits and increasing precarity with little prospect for progression. However, the literature on job polarisation narratives relatively ignores middle-skilled occupational structures.

2.3.3 Middle-skilled workers and vocational prospects

Employer demand for higher-level vocational qualifications needs to be examined in the context of the changing demand for middle-skilled workers, because of the intrinsic position of 'mid-skilled' employment in vocational occupational ladders (Hubble and Bolton, 2019b). The OECD defines middle-skilled work "as occupations whose average wages place them in the middle of the wage distribution" (Green, 2019, p.6). 'Middle' skilled jobs are typically considered as 'quality' jobs which form part of a career, with the potential for progression (Yates, 2022). Since the late 20th century, middle-skilled jobs have declined across all major developed economies. Figure 2.5 shows the changing profile of middle-skilled work across the OECD between 1994 and 2018:

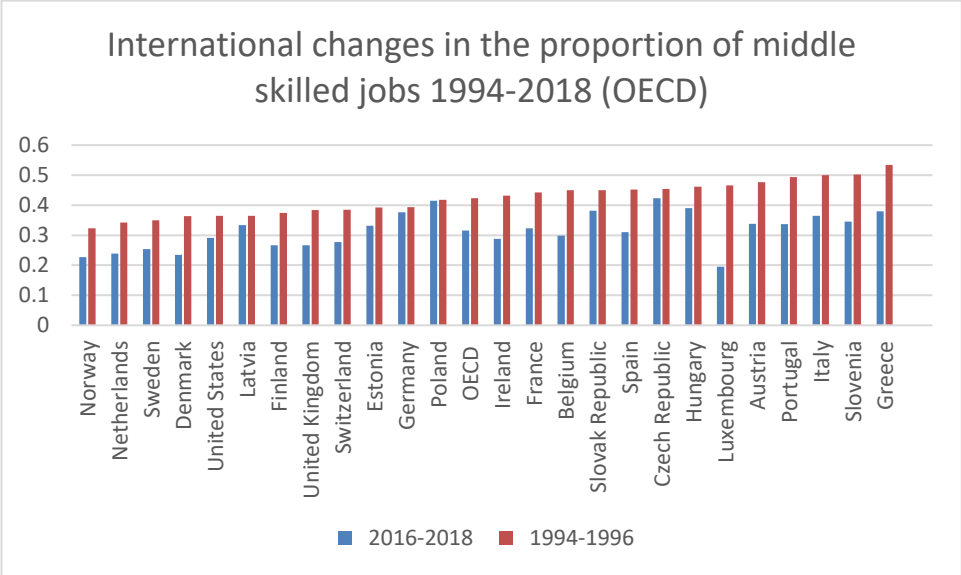

Figure 2.5: Changes in the proportion of middle-skilled jobs 1994-2018 (OECD)

Source: (Green, 2019)

Across OECD countries, the proportion of middle-skilled jobs changed from 42.3% in 1994-1996 to 31.5% in 2016-18. In the UK, middle-skilled jobs fell from 38.3% to 26.6%. This suggests decreases, but not the 'hollowing' of an hourglass model (Gardiner and Corlett, 2015). However, changes in mid-skilled work structures have been accompanied by changes in qualifications in the mid-skilled space. The international expansion of higher education since the 1980s has led to the corresponding increase in workers qualified to Level 4+ (Brown et al., 2020). Twenty-first-century patterns suggest a 'weakening of ties' between mid-skilled work and mid-level vocational qualifications, where Green (2019) argues vocationally qualified workers aged 15-34 years tend to low and mid-skilled jobs through 'weaker ties' between 'middle' vocational qualifications and 'middle' skilled jobs (Avis and Atkins, 2017; DfE, 2018b). Green (2019) argues that changing patterns are almost entirely due to workers who are not qualified at a tertiary level (Level 4+), where:

> *'Even those who would have been likely to start out in mid-skill jobs in the past are now much less likely to be working in middle-skilled jobs; more likely to be in low-skilled employment'.*

Sandal (2020) describes how the focus on unequal opportunities in the higher education system, and the de-stabilising effect on the social contract of personal investment in higher education leading to a 'good life' through enhanced salaries, is

magnified when vocational displacement occurs by degree qualified workers because of the working class upturns of [self] exclusion from the university system (Bathmaker, 2017). Green (2019) found that internationally, the largest increases in representation in low-skilled jobs have been those workers who hold an upper secondary qualification, typically a Level 2 or 3 equivalent. These headline figures mask the significant national differences in education systems, welfare regimes, and labour market structures referenced by Raffe (2015) as creating difficulties in policy borrowing and comparison across nations (Green, 2019).

Countries that disrupt lower skills vocational patterns are those with a strong tradition of valuing and integrating higher level vocational education into higher skills priorities: Germany and Switzerland, 79% and 74% of vocationally qualified workers are in middle or high-skilled work, with only 21% and 26% respectively in low-skilled jobs. Importantly, these countries also have relatively high proportions of young workers with vocational qualifications in high-skill jobs at 35% and 31%, with their strong traditions of vocational education and training. However, these patterns are stratified by socioeconomic status, with evidence suggesting that workers who successfully transition from vocational tracks into high-skilled work, reflecting permeability between the vocational and academic system, are typically those from more advantaged backgrounds (Ilie et al., 2021). Concepts of vocational permeability between the vocational system and higher education appear important (Nikolai and Ebner, 2011; Green and Pensiero, 2017). If workers enter low-paid work, empirical studies suggest that only one in six low-paid workers in England escapes (D'Arcy and Finch, 2017, p5; OECD, 2018). Men are more likely to escape than women, with over-representation linked to gendered responsibility for caring, the need for part-time work, and the wage depression of female-dominated work sectors (Fuller et al., 2005).

2.3.4 Early employment prospects in the 2020s

In the 2020s, patterns of intragenerational mobility by the age of 25-29 years remain significantly bounded by class, defined as the socioeconomic background determined through the occupation of their highest-earning parent. Crompton (2010, p.10) notes that, *for most people, 'class' outcomes are in large part a consequence of the kinds of*

employment available to them, which is itself closely linked to the kinds of employment available to the adults in their families of origin.' There is longstanding evidence of socioeconomic stratification in occupations from differentials in wages earned, benefits achieved, job status, quality and prospects for progression enjoyed by 'professional', in comparison to working-class occupations (Savage, 2015; Connelly et al., 2016; Goldthorpe, 2016). In addition, individuals who achieve professional job roles also enjoy the markers of a 'good life': more positive health outcomes, home ownership and longer life expectancy (Pickett and Wilkinson, 2010).

The Social Mobility Commission (2024)[12] identifies persistent gaps in who achieves professional work by the ages of 25-29 years. Early adult workers whose parents are from a working-class background remain only half as likely to achieve professional work by the age of 25-29 years as those young people whose parents are in the professions, despite thirty years of educational reform and an expansion of high-skilled job roles (Reay, 2017; Xu, 2023). Outcomes are predicated on a complex intersection of a young person's class, gender, race, family background, educational achievement, community and social networks, the education institutions attended, the career 'chosen' and the occupation entered, together with a young person's disposition, aspiration, ambition and tenacity to hold onto hopes and dreams (Hodkinson et al., 2013; Snee and Devine, 2015b; Roberts, 2020). At a lower professional status, teachers, nurses, those jobs which are now considered 'lower middle class', those with professional parents were still over-represented, but at lower levels of 55% in comparison to those with professional parents of 47%, reflecting Savage's (2015, p.197) analysis of professional work routes in more 'equal' careers. Similar, but reversed patterns were seen in lower working-class job roles, where 34% of early adults aged 25-29 years were in lower working-class job roles compared to only 7% of early adults whose parents were in higher professional job roles. In job queue theory, employers recruit into high-skill job

[12] https://www.gov.uk/government/publications/state-of-the-nation-2024-local-to-national-mapping-opportunities-for-all

roles using degrees as confirmatory 'shorthand' for forward high-skill work potential, as well as through sector processes of occupational professionalisation, including regulatory requirements. Similarly, employers will prefer a young person holding a degree, even where the job role does not require degree-level knowledge and skills, ahead of young workers with sub-degree qualifications (Di Stasio, 2017).

These patterns also reflect the increasing credentialism of the professions, where a degree is required as entry to professional routes (Brown and James, 2020). Typical early adult workers in vocational pathways are those of Bathmaker's (2017, p.3) 'other 50%':

> *'Those who do not progress to university higher education but go on to further vocational education and training or work, who tend to be from disadvantaged and lower socio-economic backgrounds, and who face lower funding and greater complexity in their choices.'*

This creates specific risks for early workers who choose a vocational pathway, where 'broken' rungs in occupational ladders or careers sequences for young workers holding Level 2 and 3 vocational qualifications mean occupational ceilings for these groups of young workers, as young workers pragmatically find work within the labour market employment structures visible and available to them (for example, see Raffe, 2015; Roberts, 2019; Pember, 2019). Bathmaker (2017) notes that for young workers, vocational qualifications which allow progression 'through the middle' form a liminal space, where knowledge boundaries are increasingly important to understand which vocational workers may access higher-skilled work. In an increasingly professionalised workforce, access to large numbers of higher-skill and higher-paid jobs is not possible for 'middle' early adults (Bathmaker, 2017).

However, Brown (2020, p.491) describes that "a fundamental shift is taking place in the way we think about the future of work and its relationship to education, training and the labour market….[where] technological innovation may not require the mass ranks of graduate knowledge workers". This reflects observations by Laczik and Mayhew (2015) who argue there is limited evidence that employers need increasing numbers of highly skilled workers, and where studies show that in the middle qualification space, employers pragmatically recruit overqualified graduates, or upskill existing

underqualified workers (Costa et al., 2023). In addition, Xu (2023) highlights the increasing disconnection of routine job roles; cleaning, catering, and security from middle and higher 'professional' work structures through outsourcing and subcontracting. This removes and separates internal progression steps and creates ceilings on work structures. Finally, in predominantly low-wage sectors, there can be very limited recognition of entry-level vocational qualifications at Levels 2 and 3 and little progression via qualifications from entry-level roles (Lloyd et al., 2008). These may not be jobs which are traditionally aligned with 'bad jobs', but where sector or employer structures mimic many of their patterns.

2.3.5 The importance of the sector in middle and high-skill progression

Young workers' earnings are heavily sector-dependent, with the patterns seen in particular industries of good wage returns from vocational qualifications, including Level 4-5. Ilie et al., p. (2021, p.20) in their analysis of vocational routes argue that there are two important stratification processes which need recognition of higher vocational prospects. First, the enduring low standing of vocational education and training in England creates a cultural framing of higher-level skills, where a lack of progression is ' *entrenched in the VET system and the corresponding labour market, [which] generally contributes towards VET participants being perceived as low-skilled, non-academic, and unmotivated'.* Secondly, in countries where vocational education and training have a higher standing, for example, Switzerland and Germany, and where there is established 'permeability' between vocational pathways and higher-skilled job progression, these routes are dominated by young people from higher socioeconomic backgrounds. This reflects emerging findings from degree apprenticeships in England, whereby providing higher-status vocational routes leads to an increase in interest in, and access by more advantaged young people (Nikolai and Ebner, 2011; Cullinane and Doherty, 2020). There is limited empirical evidence of sector and occupational progressions in the middle. Robson et al. (2025) in a six-sector study of vocational pathways in gaming, cybersecurity, fashion, food, automotive, and construction found that young workers reported little vocational visibility of pathways, poor career information and guidance for vocational routes, and a lack of interest in schools of apprenticeship routes. Employers reported that there were disconnections between

the vocational or graduate skills held by young workers, including practical knowledge of manufacturing, and changing technological needs, including in traditional industries such as construction (Robson et al., 2025). A literature review of the use of middle qualifications at RQF Levels 3-5 found limited empirical evidence of demand for mid-qualifications in this space (Green et al., 2020). The study looked at skills shortages and how migrant workers were employed. In Associate Professional and Technical job roles, the literature suggests employers actively recruiting graduates for sub-degree, vocational job roles, including migrant workers. However, graduates regarded themselves as overqualified and dissatisfied, and employers were reported as not making the gains they expected because their skill sets did not align with traditional vocational qualifications. Importantly for higher-level vocational progressions, these processes were not displacement or 'crowding out' seen in middle-skill patterns, but a lack of workers qualified at Level 3-5 (Green et al., 2020, p.40). Moreover, a key factor identified was that 'graduates were available' and willing to be paid below their qualification rate, reflecting known patterns of congestion in the labour market and a lack of 'graduate' jobs (Clegg, 2017; Brown and James, 2020). In comparison, some technical vocational qualifications at Level 3 and Level 4-5 provide very high earnings compared to graduates at similar career stages (Boniface et al., 2018; Espinoza and Speckesser, 2019). These industries tend to be traditional and male-dominated, where there is a history of vocational skills and occupational progression (D'Arcy and Finch, 2016). These include engineering and construction, in industry-specific responses to qualifications (Espinoza and Speckesser, 2019; Keep, 2020).

2.3.6 Low road and high road bifurcation in who accesses in-work education and training

However, Roberts (2020) argues that skills alone cannot explain the processes that make and shape early adult career trajectories. At a locality level, the dominant locality skills theories are those that conceptualise a local area as a form of 'low skills equilibria' (Sissons, 2021). Coined by Finegold and Soskice (1988, p.3), they argued that Britain had an intrinsically weak alignment between education and training and employer demand for skills, including the high skills increasingly required for

international competitiveness, through a poorly trained workforce, including managers, which creates poor quality goods and services, and exhibits low productivity. However Finegold and Soskice argued that this was not simply a disconnection between employers and education, but a wider systemic skills issue of political and economic institutions, including education and training regimes, where the intersection of skills processes meant that changing one part of the 'system' would not necessarily mean that desired change occurs, because of the self-reinforcing nature of many processes which actively maintain low skill processes (Finegold and Soskice, 1988; Sissons, 2021). Sissons (2021) argues that much of the focus at a local skills level has been on 'low wages' and not on skills. Instead, he argues that attention needs to be directed at the different levels of skills, occupations and qualifications, of sectors operating in the labour market, and their intersection with education and training regimes.

However, Raffe (2014) argues that wider transition regimes are a primary site in which intergenerational mobility and the reproduction of inequalities from education to occupational pathways occur. Raffe (2008, p.278) defines a transition regime as:

> *'The relatively enduring features of a country's institutional and structural arrangements which shape transition processes and outcomes.'*

Processes are an intersection of a country's education and training system and labour market, its welfare support, wider family and community structures, and other actors important to skills and training. Roberts (2019) argues:

> *"A transition regime … sets the contexts in which young people, educators, trainers, and employers act agentically…. The boundaries that separate different sequences of positions, or career routes, along which groups of young people travel, and the links between successive steps, are products of the interactions of multiple agents. The links and boundaries are negotiated, always subject to change". Roberts (2019, p 1)*

This is conceptualised by Hodgson and Spours (2016) as a multi-levelled regime:

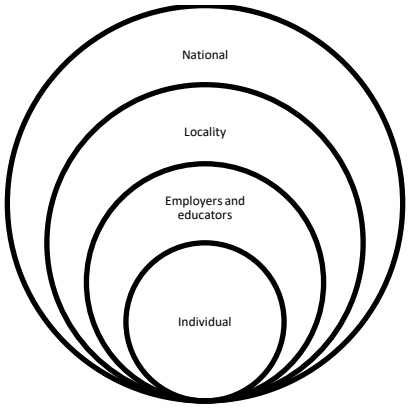

Figure 2.6: The intersection of education and labour market processes

Source: Based on Hodgson and Spours (2016), Local Ecosystems

Concepts of education and skills regimes as multi-levelled, and multiple-actor processes foreground important skills and qualification processes through the lens of national processes and patterns, localities, employers and educators, and individual workers (Hodgson and Spours, 2016; Hodgson et al., 2016). Roberts (2020) notes that the processes within a country's transition regime need to be considered as a system, not as individual components with career steps dependent on preceding and subsequent career transition processes. However, Keep and Mayhew (2014) suggest that in reality, boundaries are more fixed, and agents are more constrained by the structures of education and the labour market than is recognised, but where there is limited policy or academic engagement in those education and labour market structures.

2.3.7 Good work and career progression

The Social Mobility Commission states that an English priority is 'good, accessible, local jobs' as part of the narrowing of regional inequalities through 'good' work

opportunities for young adults (Social Mobility Commission, 2024, p.49). Decent work is defined by the ILO[13] (2025) as:

> *'Work that is productive and delivers a fair income, security in the workplace and social protection for all, better prospects for personal development and social integration, freedom ….express their concerns, organise and participate'.*

At the same time, theoretical frameworks which can adequately conceptualise the relationship between employment and a decent standard of living are taking on increasing importance in inclusive growth strategies (DfE, 2024a). Work quality debates tend to reach consensus on the characteristics of quality work: living wage levels and wider benefits, autonomy, access to education and training, union representation, and progression prospects (Kalleberg and Dunn, 2016; Green, 2021a; Yates, 2022). But in English policy and practice, discourse of 'good' or 'decent' work tends to be a reductive, and social justice framing in response to the conditions of low-paid, low-skill work, rather than applied across the labour market (Taylor, 2017; Green, 2021a; Yates, 2022).

In the English context, 'decent work' is not typically used to position all occupations, just those of low-skill, low-wage, precarious, or 'bad' jobs (Kalleberg and Dunn, 2016). Kalleberg and Dunn claim the centrality of work to human welfare makes work quality a priority for all countries, where 'employment' moves from an objective measure of 'being employed', to a subjective judgement of the quality of employment. Their criteria for a 'good' job encompass jobs that economically allow an individual to plan for the future, as well as support family life, worker health and wellbeing, and offer wider community benefits. Debates of good, fair or decent work in England have to date had limited engagement with career progression, where the prospects for occupational upward mobility are little acknowledged in work quality discourse (Hodkinson et al., 2013; Kalleberg and Mouw, 2018; Nilsen, 2024). This is in contrast to 'Fair Work' efforts by the Scottish and Welsh governments (Fair Work Convention,

[13] https://www.ilo.org/topics/decent-work

2016; Sissons, 2019). Importantly, Keep and James (2012) argue that bad jobs are created by a combination of an English labour market which is unregulated, and where low-skill jobs are often narrow 'tasks' with little incentive to upskill (Keep and James, 2012). Importantly, training through 'decent work' can act in a self-reinforcing manner of low-skill equilibrium, depending on the sector, being insufficient to escape low-skill work (Lloyd et al., 2008). In the English labour market, high numbers of lower-skill jobs require limited or no qualifications (Lloyd et al., 2008).

Decent or good work concepts and their links to lower occupational skills are important because of the polarisation of jobs in England, in common with many European nations. These transitions entrench the reproduction of socioeconomic status, class, and gendered patterns in low-wage, low-skill work, with vocational education being the main pathway to poor work outcomes (Atkins and Flint, 2015; Avis and Atkins, 2017a). However, job quality is a function of the sector and the employer, but where young workers are disproportionately in low-quality jobs, for whom wages are typically lower, there is significant precarity through temporary, part-time and zero-hours contracts in, for example, the hospitality sector, and with limited access to education and training (Roberts, 2019; Yates, 2022). Yates (2022), in his study of job quality for young workers in England through three sectors: advanced manufacturing, creative and digital, and business services, argues that youth transitions primarily focus on the processes of entry into the labour market, with more limited attention placed on labour processes which either develop or degrade the job quality experienced by young workers. Yates highlighted important sector processes which determined the quality of work available to young workers, including the use of technology, as autonomy and control, and access to training and career progression. Yates (2022, p.2) describes these through high and low-road business strategies to increase productivity through high-road models of investment in technology and /or qualifications, in comparison to low-road strategies of productivity through maximising existing lower-skilled labour processes.

But the everyday language of 'decent' or 'good' work masks complex definitions of job quality, which lack consistency, and have vague measures which are difficult to operationalise, with little agreement on what is 'good' education and training, or progression (Green, 2021a). This oversimplifies what are complex and multi-levelled

processes by which employers utilise skills and plan for training (Sissons, 2021). Furthermore, in England, the current return on investment in non-Higher Education (HE) is often weak, and adult learning opportunities are very limited (Luchinskaya and Dickinson, 2019). Only Spain, Portugal and Turkey have higher numbers of jobs which need such a limited set of qualifications, where the rise in graduates is displacing middle-skilled workers as the value of a degree is eroded through graduate congestion (Green, 2019). Importantly, there has been limited application of concepts of decent or fair work to career progression, where the potential for progression forms only one of a suite of decent work measures (Masdonati et al., 2022). Of importance to my study of vocational progression to higher skilled work is the increasing policy and political concern over the creation of 'good' jobs, but where little attention is paid to how processes of 'good', 'decent' and 'fair work' may look within the temporal perspective of a 'career' rather than the immediacy of an occupation (Hodkinson et al., 2013; Nilsen, 2024).

In summary, in middle-skilled work and vocational prospects, labour market polarisation theories are argued to overstate the hollowing of middle routes (Anderson, 2009). Traditional analysis of employer demand for middle and high-skilled workers through median earnings is problematic as a proxy for skills through increasing national minimum wage levels, and because of the effects of sectors on wage levels (Elias et al., 2023). Alongside this, vocational displacement is occurring from middle-skilled work by workers holding a tertiary degree in international patterns of displacement of vocationally qualified workers into lower-skilled work (Green, 2019). Labour market segmentation theories suggest that workers are prepared for a stratified labour market, with academic and degree-level qualifications leading to high-skill job roles and vocational qualifications preparing workers for lower-skilled work (Laczik and Mayhew, 2015). There are limited empirical studies of middle-skilled pathways, and in the literature, there is limited engagement with early career vocational progressions and the structures of the labour market (Irwin, 2020). Debates of work quality over-focus on lower-skilled occupations in objective framings of decent or good jobs, with only limited attention to career progression and the prospects for access to middle and high-skilled work (Kalleberg and Dunn, 2016; Yates, 2022a). Middle-skilled work is

under-researched, with most attention on graduate-level processes at low wages and precarious work (Roberts, 2012; Roberts, 2015). However, some vocational Level 4-5 routes provide high returns comparable to graduate earnings (Espinoza and Speckesser, 2019). At a local skills level, there has been limited development of local skills theories since Finegold and Soskice's (1988) low-skilled equilibrium. In the 2020s, development is needed at different levels of qualifications and by sector to better reflect the co-location and sector-specific nature of high and low-skill work in a local area (Sissons, 2021). I argue that the lack of attention to these processes and the risks to vocationally qualified workers means that 'the middle' forms an important, but little recognised, site of labour market inequality for young adult workers. In the following section, I draw on how different writers suggest theoretical frameworks to explain processes in the youth transition space.

2.4 Explaining vocational education transitions to middle and high-skilled work: 'youth' and early adult careers

This section identifies the main theoretical frameworks which seek to explain early adult education and employment trajectories. Different writers contest the extent to which labour market and educational structures affect individual occupations and careers, in comparison to the effects of family, financial resources, and social and cultural networks (Roberts, 2009; Edgerton and Roberts, 2014). Delayed transitions of leaving education, entering full-time employment, establishing independent households, and family formation reflect Arnett's (2014) 'emerging adulthood' as a key explanatory phase, where inequalities in the early adult life course become important to understand longer-term adult trajectories. However, the extent to which this is a change for all young people, or just those from more advantaged backgrounds, is contested. Arnett (2014, p22) argues there are many emerging adulthoods, depending on how a specific person navigates this age period. Variation is not necessarily based on the choices people make; it is often based on socioeconomic status. Roberts(2020) argues these structures form enduring aspects of an English transition regime, consisting of pivots or turning points in a young person's life course where the reproduction of educational and occupational inequalities appears marked, with young

people's outcomes stratified by social class and socioeconomic background in vocational pathways to employment (Roberts,2009). As transitions become more elongated, and competition for good jobs more intense, early careers can zigzag in non-linear upward, sideways and downward mobility trajectories(Savage and Flemmen, 2019).

Transition theories typically consider the end of formal education or university as the 'turning point' about which inequalities are reproduced in 'becoming an adult' (Snee and Devine, 2015b; Furlong, 2016; Schwartz, 2016). However, the sociology of 'youth' has a limited tradition of engaging in the structural effects of the English labour market beyond initial labour market entry (Irwin, 2020). Supply-side explanations tend to have two main traditions: first, a structural approach to opportunity and constraint, where young people's decision-making is 'bound' by social, educational, economic and geographic structures, and secondly, by explanations centred on culture and individual identity. Finally, I draw on theories which bridge between supply-side education processes and those of career progression, arguing that these frameworks are more likely to reflect the different levels of processes occurring in this space.

2.4.1 A structural approach to opportunity and constraint

In structure versus agency debates, the education system, labour market and a young worker's background bound the choices available (Evans, 2007a; Roberts, 2009; Schoon and Lyons-Amos, 2016). Roberts, p. (2009, p.355) argues that "opportunity structures are formed primarily by the interrelationships between family backgrounds, education, labour market processes and employer recruitment practices". In addition, individual factors, including geographic place, gender, and ethnicity, contribute to complex and intersecting progression processes. He argues that these form 'push and pull' processes, a push from family and education and a pull from employers and recruitment into the labour market. These opportunity structures create the conditions in which young people's decision-making occurs for education, careers, job changes, aspirations and ambitions, in forms of rational action, whereby actors make rational choices which are dependent on the individual circumstances and context(Goldthorpe and Breen, 1997; Roberts, 2009). This reflects Goldthorpe's Rational Action Theory,

which argues that decision-making can be understood by analysing the context in which young people act and that it is this rational choice, typically based on the resources available to young people, rather than individual factors such as class or gender (Goldthorpe and Breen, 1997, p.276). In contrast, Evans (2007, p.93) describes young people's decision processes as forms of 'bounded agency', whereby differing structural and cultural conditions affect the choices available to individuals as a form of 'socially situated agency'. Here, Evans argues that young people's decisions and actions are 'bound' both through past experiences and 'imagined future possibilities', but where forward transitions into employment are subjectively shaped through individuals' knowledge, perceptions and ability to negotiate employment structures: the labour market, occupations and local job prospects (Evans, 2007b, p.93). Such 'choices' are also made in the relatively limited visibility of forward pathways and possible career pathways, described by Hodkinson as horizons of choice or action, which 'bound' a young person's career choices and decision-making (Hodkinson, 1998).

Crompton (2008) argues for closer attention to be paid to structural occupational markers of class, suggesting that the lack of agreed sociological constructs of social class, and scholarly arguments of the meaning and importance of social class or the demise of 'class' in contemporary Britain, detract from the very real effects of social class in the labour market and the continued reproduction of inequalities seen in empirical studies (eg see Gorard, 2006; Reay, 2022). In a changing education and labour market context in the 21st century, family background has failed to loosen its effect on young adults' outcomes (Roberts, 2009). Devine (2004), in their studies of why disadvantage reproduces from education into the labour market, argues that middle-class parents' enhanced structural resources endure in multi-faceted social and cultural positioning through their education and employment trajectories, beyond simplistic class and financial descriptions. No matter the steps taken by the State to 'level up' educational opportunity, the middle classes will always maintain and enhance educational and employment advantages for their children through their ability to navigate and negotiate education and employment processes, recognise opportunities and provide resources, for example, access to smaller class sizes through private schooling, additional tutoring, work experience, support for gap years, financial

support to attend prestigious universities, in ways that are impossible for disadvantaged parents (Devine, 2004; Francis-Devine, 2024).

Within sociological youth transition debates, there is limited engagement with the demand side and employer processes of the labour market. Roberts (2019) notes that once in the labour market, employers become the most important factor in determining which young workers enter employment, and who then progress. However, despite the extensive sociology of work literature, there is a relatively limited examination from a youth transition perspective of the effects of labour market structures and employer decision-making in the career processes of vocationally qualified early adults. Irwin (2020) argues that discussions of young workers exercising rational choice in their forward employment trajectories negate the significant structural effects of the labour market, suggesting that sociological analysis of young people's pathways into and through employment emphasises agency and individual choice, often ignoring the powerful occupational structures and job opportunities which shape early adult trajectories. Importantly, for 'middling qualified' young workers, 'place' and local job opportunities shape the prospects for young workers, in processes that Roberts (2009) describes as a pragmatic negotiation of the opportunities and constraints faced through qualifications held, and resources available (Green and White, 2008). Furthermore, there is relatively limited discussion by sector or occupational pathway.

However, in concepts of opportunity structures, the number of factors is significant. In addition, subjective decision-making is required on the part of researchers as to its relative effects on individuals. Importantly, early adult transition processes are temporally bound and sequential, with each turning point or career stage requiring examination, whereby, for example, a socioeconomic disadvantage for one worker might suggest constraint, but for another might still lead to high-skilled work (Irwin, 2009a). The relatively deterministic framing of concepts of opportunity structures can lead to deficit models where a young person with lower socioeconomic resources will consistently face more constraints and fewer opportunities, where the social justice framing of 'education' as a positional good appears limited (Reay, 2017). These models can lead to policy 'solutions' predicated on intangible measures: those of aspiration,

ambition, grit and determination as being the deciding factor in who succeeds and who does not (Snee and Devine, 2015). Importantly, much structural youth transition theory presupposes that a 'good' and 'successful' outcome for young people is through access to Higher Education (HE) as a 'silver bullet'. But some groups, particularly working-class young men, have longstanding under-participation in HE, and where increasingly the labour market does not create the requisite number of high-skilled jobs (Goldthorpe, 2013; Roberts, 2020; Wakeford, 2021; Reay, 2022).

2.4.2 Transitions as shaped by culture and identity

The second main youth transition approach is one of the social and cultural shaping of young people's education and employment pathways, typically through Bourdieu's (1997) framing of opportunity as predicated on an individual's capital, their habitus and their field in theories of social [and classed] reproduction (Bourdieu, 1997, in Edgerton and Roberts, 2014). Bourdieu's capital processes, whereby an individual holds resources through their economic, social and cultural forms of capital, including class position available to a young person through their family background, their class, their education, the institution attended, and wider peer and community networks (Bathmaker, 2015). In a similar way to opportunity structures, the relative effects of these are subjective and multiple, risking deterministic explanations of working-class constraint, for example, when applied to questions of why less advantaged young people disproportionately do not achieve higher-skilled work (Lareau, 2002a). Here, economic resources are the most readily operationalised and recognised through the enduring effects of poverty on individual life chances (Furlong, 2009; Heinz, 2009). Devine (2004) argues that middle-class parents mobilise family capital for their children, through economic resources for additional activities to burnish 'employability', and through multiple social contacts, work experience, internships, mentoring, or hearing of job opportunities to give their children access to higher status education and job roles. The higher the status of a parental job, the wider the social networks conferred through employment. In addition, the idea of a social obligation means that those work-connected adults feel 'responsible' or obliged to continue to support a young person through those contacts, including once in the workplace. These processes are often invisible to an outsider yet form powerful bonds which are

increasingly used to explain how advantage reproduces, for example, in contacts to enter elite work (Devine, 2004; Friedman and Laurison, 2019). However, these bonds do not just confer access but also create cultural competencies and capital. At an individual level, this is 'embodied', as intangible knowledge of 'work', including understanding a work environment, job expectations, how to network and fit within education, or employment norms (Friedman, 2023). Furthermore, cultural capital can be objectified, through the appreciation of culture, typically that of advantaged society, or institutionally formed through time spent within a high-status institution, but where 'fitting in' is a classed as well as an educational process, including where vocationally qualified young people enter university pathways which assume an academic trajectory (Reay et al., 2010; Baker, 2020). This final process appears particularly important for my study.

Bourdieu's theories of habitus have been widely operationalised in the field of education, particularly to explain why different classes engage with education in different ways, which Lareau (2002) describes as 'concerted cultivation' through continuous parental shaping of a young person's dispositions and attitudes to reflect the norms of a 'middle-class' education system. Habitus is defined as 'the learned set of preferences or dispositions by which a person orients to the social world. It is a system of durable, transposable, cognitive 'schemata or structures of perception, conception and action' (Edgerton and Roberts, 2014, p.195). These theories suggest the strong effects of family and peers, experienced in a young person's interaction with education, and in their subsequent career decisions, where the traditions and norms of a community can shape a young person's identity and imagined future in work (Bathmaker, 2015; Bessant et al., 2020). The extent to which such conditioning exists, whether financial resources and pragmatic decision-making occur in forms of self-exclusion, or whether 'choosing' a 'working class' vocational education and occupation might equally represent agency, is little discussed (Avis and Atkins, 2017b; Altreiter, 2021b). Instead, in Bourdieusian explanations, the dominant 'middle class' and academic education lens reflects the enduring stratification of vocational pathways as second class, together with the hegemony of higher education and 'the degree' in the English education system (Reay, 2004; Reay et al., 2010; Edgerton and Roberts, 2014).

Finally, in concepts of 'field', the 'formal and informal norms governing a particular social sphere of activity', in my study, a career sequence within an occupation within a sector, and its associated higher level vocational qualifications and the relational position of actors are particularly pertinent (Edgerton and Roberts, 2014, p.195). Studies typically view these through the lens of university participation and becoming a graduate (Bathmaker, 2015). Actors are stakeholders in the occupational space; employers, education institutions, policymakers, sector bodies, professional associations, and the early adults themselves, who all create intersecting 'fields', where the defining principles are those of economic power, or access to financial resources, and those of cultural capital; knowing the 'rules of the game ' or the 'logic' of employment space (Edgerton and Roberts, 2014; Bathmaker, 2015).

Despite Bourdieu typically providing analysis of the production of middle and upper-class social norms, these applications are also applied to vocational qualifications and their traditions of [working-class] occupational identities, where particular forms of training, particularly apprenticeships, are valued because of their alignment with social values and worker identity (Altreiter, 2021). In their study of blue-collar workers and apprenticeships in Austria, Altreiter describes how the 'push' of young people away from the academic environment of school is widely explored, but with less attention on the 'pull' of the workplace and vocational working identity. These processes are relational, linked to social and cultural traditions and norms of work and identity as an apprentice, but importantly, in concepts of transition, have a temporal perspective, where Altreiter (2021, p.3) notes:

'Individuals do not move about in social space in a random way'

but are bound by the occupational field and its expected norms. Career decisions are not taken in a vacuum but embedded in a young person's attitudes, beliefs and self-identity of what is not only 'possible', but also 'probable', where imagined futures are formed through family and community, and a job is accessed through those networks (Altreiter, 2021b, p.3).

2.4.3 Bridging structural and cultural frameworks in transition theories

Early career progressions provide a rich site in which to explore intragenerational mobility and the sequencing patterns of early transitions into and through the labour market, wherein a third strand of sociological thinking, structural and cultural processes intersect, reflecting both structural, typically sequential processes with strong temporal dimensions, and a cultural framing of work and identity. Of most pertinence to my study are, first, those of Kalleberg and Mouw (2018) and their application of career sequences to problems of intragenerational mobility. Secondly, Hodkinson et al., p.(2013, p.3) theories of career decisions, explain how young people position themselves within a career sequence, where decisions are formed and performed through 'horizons of action' or 'choice' by young people dependent on their context, their networks of influence, and their life course. Finally, reflecting a temporal dimension, Nilsen, p. (2024, p.159), drawing from her studies of Norwegian women twenty years apart, describes transition processes as a form of temporal opportunity structure, whereby early adult decision-making takes place in both a structural dimension of the sector and institutional opportunity structures, and a temporal dimension of traditions or 'scripts' of educational and occupational progressions, for example, typical time in vocational education and training, or apprenticeships.

Kalleberg and Mouw (2018) argue that a 'career' presents as a series of:

> *"Time trajectories in earnings, occupational positions, or socioeconomic status" (Sørensen 2001, p. 295 in Kalleberg and Mouw, 2018).*

Intragenerational mobility is the relative upward occupational progression achieved within a cohort in a longitudinal period and is an underdeveloped sociological research area despite its pertinence to many pressing social inequalities (Kalleberg and Mouw, 2018). Intragenerational mobility positions the different outcomes between individuals in a single generation and provides an established theoretical framework for early careers with their temporal boundaries (Friedman and Savage, 2018). In comparison, intergenerational mobility is well-established as a measure of comparative social mobility through occupational distribution across generations, but where 'measures' are increasingly contested, complex and contingent on longitudinal employment processes across the adult life course (Payne, 2017; Lawler and Payne, 2018a). Kalleberg and Mouw (2018) argue that job sequences provide a temporal framework in

which to explore upward, sideward and downward mobility experienced by workers, where in early adulthood these processes are central to establishing forward careers and economic prospects. Despite concepts of social mobility being widely operationalised in policy, the tendency has been to base mobility judgements on the narrow framing of young people, 'academic' success and changing entrenched classed structures in elite universities and professions, rather than the more prosaic, granular, vocational career pathways (Friedman and Savage, 2018). This framing is complicated by patterns of academic valorisation, and of teachers' professional 'habitus' where young people from lower socioeconomic groups, and who prefer more 'practical' learning, are directed to vocational pathways (Hughes, 2017; Avis and Atkins, 2017; James Relly, 2022). Importantly, 'social mobility' has a political as well as social dimension, where theorisations originally developed in the last decades of the twentieth century, in very different professional and qualification structures, struggle to reflect non-linear progressions and changing class structures (Savage, 2015; Savage and Flemmen, 2019).

According to Hodkinson et al. (2013), career decision-making is shaped by a young worker's knowledge of their world and the possibilities open to them, as 'horizons of action or choice', but where career progression was typically non-linear, with career trajectories, in fact, a series of patterns which in some cases can produce a general picture of a pathway, and highly influenced by events or actions outside of the control of the young person. Trajectories are highly dependent on social class, gender, ethnicity, geographic location, historical context and academic achievement, reflecting the opportunity structure model (Roberts, 2009). Career choice forms a key aspect of an individual's transition from education to the labour market, defining educational qualification choices as well as labour market pathways. Hodkinson et al. (2013) studies suggested that policymakers wrongly focus on young people's choices as 'market-driven' consumer choices of qualification pathways. Instead, young people demonstrate rational decision-making by drawing on the experiences of their social circle, their knowledge of careers, and the opportunities visible to them, described as their 'horizons for action' to decide on future pathways (Hodkinson, 2008). Decisions were 'pragmatic rather than systematic'; young people often had only partial

information about specific occupations on which to base their decisions, and so Hodkinson et al suggest that decision-making was rooted in context, including family background, culture and life history (Hodkinson, 2008, p.8).

Furthermore, the authors argue that Bourdieu's work provides a conceptual framing of the processes of career decisions through individual dispositions and attitudes shaped through habitus, including self-belief and expectation, and where concepts of 'field' reflect an individual's social positioning and relationships with wider stakeholders, for example, the attitude and belief of professionals and family to proposed career choices (Bathmaker, 2015; Altreiter, 2021). Moreover, the common discourse of 'trajectories' risks unwittingly projecting perceptions of the unachievable social realities of career pathways onto young workers that do not exist. Instead, conceptualising career pathways as a series of turning points, where pathways do not follow set norms for the majority of young people (Hodkinson, 2008). However, in the above approaches, there is little reference to the distinct and different progression prospects afforded by sectors and occupations.

In summary, youth transition theories of education and work tend to focus on the transition from school, college or university as the pivot around which inequalities reproduce, where sociological traditions tend to binaries of structure versus agency debates, and those of cultural reproduction within a developing individual identity as a worker (Reay, 2004; Roberts, 2009). However, these traditions over-focus on the context of the individual and pay limited attention to the structure of employment, occupations and the labour market. If the reproduction of inequalities is to be addressed in any meaningful way, theoretical frameworks are required which represent the processes of transition through the structures of education, the vocational qualification system and the labour market, together with those which reflect the cultural position of work and qualifications. For my study of higher-level vocational transitions, important theories which might bridge supply and demand side processes are those of a career sequencing approach, allowing steps within the labour market to be examined, together with those of career decision-making, which reflect the multiple cultural and community influences in which early adults 'choose' their occupational steps (Hodkinson et al., 2013). Finally, the temporal perspective of education

processes, including the occupational and educational normative scripts in education-in-work processes, is particularly relevant in early adult education experienced through in-work processes, including access to higher vocational qualifications, because of the training time required, including the place of experience in vocational transitions (Nilsen, 2024).

2.5 Conclusion

This chapter explores the literature pertinent to higher-level vocational progressions in England in the 2020s. Different writers describe transition regimes as capturing qualification processes in education-to-work transitions, typically at the end of compulsory schooling age 16-18 years, with relatively little attention placed on education-in-work transitions in early careers (Heinz, 2009; Schoon and Lyons-Amos, 2016; Roberts, 2020; Irwin, 2020). Processes typically conceptualise individual progression processes as those of utilising opportunity structures in rational choice theories of educational and employment decisions, or Bourdieusian economic, social, and cultural capital reproductive effects (Goldthorpe and Breen, 1997; Roberts, 2009; Edgerton and Roberts, 2014; Friedman and Savage, 2018). There is a more limited sociological conceptualisation of vocational transitions occurring within the early adult life course, or of the temporal dimensions of 'career' (Friedman and Savage, 2018, p.68; Friedman, 2023).

There is a 'missing middle' in skilled work and job quality debates, where the sociological gaze typically focuses on dualisms of 'good' and 'bad' jobs, graduates and those excluded from the labour market or experiencing precarity, with limited policy or academic attention to jobs or qualifications in the 'middle'. These are typically jobs which require significant learning in the post-16 education system at Level 3,4, or 5 academic or vocational qualifications, accompanied by significant experience in work, sometimes via an apprenticeship, and form an important gap in the literature (Webb et al., 2017b; Knight et al., 2022). A review of the literature highlights how, despite the significant vocational reforms in train, the linear, homogeneous career sequences suggested in policy are instead distinct by sector, suggesting very different vocational

prospects for progression, but with a very limited literature in vocational Levels 3,4,5 plus (Kalleberg and Mouw, 2018; Green et al., 2020; Sissons, 2021).

There are gaps in the literature on early careers in 'emerging' adulthood, aged 25 years plus, where instead debates centre on 'youth, and 'transition' as primarily pivoting as 'education to work processes at the end of compulsory education, or of university, with little attention paid to education-in work processes (Arnett, 2014; Roberts, 2018). However, such processes bridge the traditions of supply and demand side education and labour market processes, and where there is limited scholarship in the processes of vocational access to higher skilled work or of the early career processes of the early adults 'in the middle' (Roberts, 2012; Bathmaker, 2017). I argue that despite the different theoretical traditions of sociology, education and skills, structural and cultural paradigms bridge across supply-side and demand-side processes with many commonalities. These include concepts of opportunity structures, bounded agency, culturally situated work identities and practices, where the valorisation of 'the academic' and 'the degree' is extensively conceptualised through Bourdieusian 'field' processes (Evans, 2007b; Roberts, 2009; Edgerton and Roberts, 2014; Friedman and Savage, 2018). In concluding this review, I argue that inter-disciplinary, 'wicked' problems require intersectional thinking, where the processes of career sequences, and an intragenerational approach to progression are suggested as a means to disentangle complex processes, but where sector effects and career sequences as temporally bound appear important (Hodkinson et al., 2013; Kalleberg and Mouw, 2018; Nilsen, 2024). These processes will be further explored in my following research study and analyses.

Chapter 3. Research Design and Methodology

3.1 Introduction: a three-sector locale comparative study

This chapter provides the methodological and ethical considerations which underpin my research study, including the effects on fieldwork during the Covid-19 pandemic. My research study examines the claims that current reforms of Level 4,5 Higher Technical Qualifications (HTQs) and Level 6 degree apprenticeships might improve the prospects for vocationally qualified young adults to achieve higher-level skilled work and support improved social mobility for less advantaged young workers (DfE, 2021). My study asks :

Across diverse industries, how do mid-to-high-level vocational progression opportunities influence early adult employment opportunities and related inequalities?

Drawing from a mixed method, three-sector local comparative approach, my study explores Level 4,5 and 6 vocational progressions in 'Northern Region', a Local Enterprise Partnership (LEP) in England, during the Covid-19 pandemic in 2020-2021. My study examines stakeholder insights into vocational processes and high-skilled progression possibilities from three diverse sectors by their skill profiles: construction, textiles manufacturing and digital, using the lens of employer-educator partnerships. New secondary quantitative data analysis supports insights from twenty-nine key informant stakeholder interviews about the processes of vocational progression. These involve employers, educators, trade bodies, local policymakers, and young workers.

The value of my study and methodological approach lies in informing the current policy focus on local skills approaches and improved vocational progression pathways to address the significant and seemingly intractable 'wicked problem' of occupational inequalities experienced in the English regions (DfE, 2024b). 'Wicked problems' are intractable social inequalities which typically involve multiple actors, each with their own agendas, and where policy interventions often confound expectations or further entrench the social problem (Head et al., 2008; Keep and Mayhew, 2014). The English skills and qualification system is recognised as complex and fragmented, with significant regional inequalities in the number of 'good' jobs and the prospects for

career progression to middle and high-skilled work for early adults. Progression routes are unclear through the middle and into high-skilled work for young workers who hold vocational qualifications (Wolf, 2011; Roberts, 2012; Laczik and Mayhew, 2015; Roberts, 2015). Such problems are typically characterised by complexity; in skills and qualification regimes, this is conceptualised as a series of intersecting and multi-levelled skills and qualification regime processes (Finegold and Soskice, 1988; Raffe, 2014; Roberts, 2020). Large numbers of organisations, institutions and actors lay claim to the vocational education and training space: national and local government, employers and employer bodies, unions, education and training providers, and national and local policymakers, who contribute to shaping the progression opportunities available to early adult workers. Within these processes, multiple actors work towards individual agendas in continually shifting boundaries and spheres of influence. Overall, systems are described as 'complex', but individual processes are more likely to be complicated and able to be studied (Glouberman and Zimmerman, 2002). These factors shape my research study and methodology.

My study draws from three diverse sectors in the Northern Region: Textiles Manufacturing, Construction and Digital, chosen for their economic importance to the Northern Region as part of the region's growth priorities (DfE, 2024b). Each sector has a distinct skill profile, providing opportunities for a comparative perspective (Green and Pensiero, 2017). In my three local study industries, their distinct characterisation of skill and vocational qualification became a central theme of my thesis, together with more homogenous and isomorphic employer behaviours seen in wider empirical studies and policy (Huddleston and Laczik, 2018; Keep, 2020; Gambin and Hogarth, 2021a). Higher-level vocational qualifications and progression pathways to higher-skilled work provided rich comparative opportunities by industry sector (Hammersley, 2011; A. Green et al., 2017a; Priya, 2021). I drew on secondary quantitative analysis of routine education and labour market datasets, experimental Longitudinal Economic Outcomes careers pathway data, and labour market and skills projections to provide patterns and trends in local skills processes and industry sectors for young workers, occupations and qualifications held (DfE, 2022a; Wilson, 2023; Nomis, 2024). Documentary analysis of the IfATE technical vocational pathways provided the contemporary vocational and

occupational context (IfATE, 2024). Furthermore, a quantitative and qualitative approach reflected the gaps in the literature of the explanations of progression processes in career sequences, seeking to bridge the labour market structural processes of employer demand for skills and occupations and the economic, social and cultural processes of vocational progression pathways (see Chapter 2 literature review).

In section 3.2, I discuss my research design, where the processes of education and labour markets are typically explored through different knowledge paradigms, starting points and processes. In Section 3.3, I explain my rationale for a mixed-method local, three-sector comparative study of higher-level and degree apprenticeship Level 4,5 and 6 vocational qualification processes to middle and high-skilled work in three distinct industrial sectors. Section 3.4 examines the choice of secondary quantitative analysis. Section 3.5 examines qualitative interviews, including purposive sampling strategies and the use of key informants in the pandemic context. The ethical considerations, fieldwork adaptations in the pandemic context, and researcher positionality are discussed in Section 3.6. Finally, in Section 3.7, the processes of data reduction and the use of convergent thematic analysis of quantitative and qualitative data are outlined to create an integrated analysis for my study.

3.2 Bridging supply and demand side knowledge paradigms

My research aims to examine the processes of vocational progression to high-skilled work for early adults aged 18-34 years through vocational Level 4,5, and 6 qualifications and to understand important processes which support or constrain occupational mobility for young workers (Kalleberg and Mouw, 2018). The review of the literature in Chapter 2 showed the dualism that occurs in explanatory frameworks of education transitions and labour market progression, typically positioned in ‘supply-side’ or ‘demand-side’ knowledge paradigms (Mayhew, 2015; Roberts, 2020).

Theoretical frameworks of vocational transitions and progression bridge knowledge paradigms, tending first to ‘supply-side’ approaches, where the processes of the initial and higher education system make and shape the different prospects and transition pathways for early adults (Hodgson et al., 2019). Secondly, demand-side explanations examine employer behaviours in progression through education and training (Kalleberg

and Mouw, 2018). In comparison to rich and diverse empirical studies on 'youth transitions aged 16-24 years, relatively little is known about career progression for adults aged 25 years plus in early adulthood who are vocationally qualified typically at Levels 2 and 3, and who progress through higher-level 4,5 and 6 vocational qualifications in mid and high skilled work (Roberts, 2015; Knight et al., 2022).

My study is interested in the claims made for vocational reform of the prospects for increasing social mobility through improved access to middle and high-skilled work (Knight et al., 2022). Research sub-questions were structured to elicit an understanding of how local stakeholders perceive and experience vocational progression and the prospects for mid and high-skilled work (Mason, 2018). My sub-research question design supports the investigation of patterns and trends in middle and high-skilled employment and sector patterns of qualification in a locality:

- ***(i)*** *Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?*
- ***(ii)*** *How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?*
- ***(iii)*** *Do place-based, sector, and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?*

Early adults are defined as individuals above the age of 18 years, and typically younger than their mid-thirties, who are forming their early job opportunities and emerging careers (Arnett, 2014). I use a '*decent career*' as a tentative indicator of vocational progression to middle and high-skilled work and intragenerational mobility for less advantaged early adults (Masdonati et al., 2022). My study uses the qualitative accounts elicited from stakeholders: employers, educators, local policymakers and young workers, together with secondary quantitative analysis of the local labour market and qualification patterns to understand opportunities and constraints for young workers (Mason, 2006; Mason, 2007). This includes how multiple stakeholders

work within a locality to navigate and negotiate the complex and fragmented English skills and qualifications system. Of particular interest was a comparative perspective of similarities and differences across sectors (Green and Pensiero, 2017).

Considerations of what is 'real' in the social world of vocational transitions and access to high-skilled work are shaped by actor objective and subjective perceptions about the social processes of qualification and labour market progression, reflecting 'different versions of the essential or component properties of what *there might be (authors italics)* (Mason, 2018, p.6). A mixed methods approach allows disciplinary paradigms to be bridged (Creswell and Plano Clark, 2023). Despite significant attention to 'interdisciplinary' approaches in the academy, for example, see UKRI (2020), there is less attention paid to the practical management of academic differences between disciplines in framing knowledge, differing starting points, methodologies, and epistemologies (Pesch and van Uffelen, 2024). Furthermore, my research questions reflected intra-disciplinary differences within the sociology of education, youth and work, as well as cross-disciplinary boundaries. Disciplinary conventions shape how ideas are represented, where the processes of education and employment progressions tend to different theoretical frameworks through supply-side, or demand-side explanations of what are complex processes (Pesch and van Uffelen, 2024) These different scholarly traditions and explanatory perspectives on education, vocational skills, employment progression processes and the labour market space can lead to competing viewpoints on important processes (Pesch and van Uffelen, 2024). To address this, I assume complexity, including different epistemological perspectives and starting points, lends explanations towards pragmatic interpretations and standpoints, where reasoning follows the most likely explanation (Bryman and Burgess, 2002; Patton, 2002, p.73). In the following study, I reflect on differing knowledge paradigms by taking a pragmatic perspective in my analytic approach (Patton, 2002).

Further, I argue my thesis research design exemplifies researching in uncertain times, through the effects of the pandemic context on education and employment, nationally and on vocational progression processes (Lupton, 2020b). My original PhD research design aimed to better understand the processes by which young people achieved decent work through vocational qualifications, using an in-depth qualitative study of

over forty interviews planned, including extensive access to young workers, with participants drawn from institutions and organisations working together in a two local retail and textiles manufacturing skills interventions to support young people aged 16-18 years to achieve 'good' jobs (Raffe, 2015; Roberts, 2020; Sissons, 2021; Yates, 2022a). Ethical approval for my research study was received just before the university ceased face-to-face fieldwork, and the first national lockdown occurred (see Appendix A2 and A3). I used this time to monitor and track education and employment effects during the pandemic, and, as work pressures allowed, to draw on local intelligence from a Local Authority Skills Leader to the potential and ethical avenues for vocational research during the pandemic based on local knowledge of sector employment patterns and educational institution capacity (Lupton, 2020b). The pandemic necessitated redesign and ethical approval, initially for a two-sector comparative study of vocational progression in construction and textiles manufacturing to commence in September 2020. The effects of Covid-19 throughout my replanned fieldwork intensified the need for continuing researcher reflection, supervisory review, and my utilisation of an iterative approach to research design, data collection and analyses (Mason, 2006; Creswell and Plano Clark, 2023). Subsequent national and Northern Region lockdowns in Autumn/Winter 2020 necessitated a third subsequent further redesign to include digital in a three-sector study because of pandemic constraints on participant access (Blundell et al., 2020). A mixed methods approach was chosen to bridge both the different knowledge paradigms of supply and demand-side processes and to support navigation of the pandemic complexity, including specific Covid-19 ethical considerations (see Section 3.6). The following section examines the rationales for a mixed-methods research design approach during the pandemic context.

3.3 Mixing methods in the pandemic context

This section discusses the rationale for a mixed methods approach in the pandemic context. Adopting a mixed method, qualitative and quantitative approach in my study, together with an iterative approach to my research design, allowed me to investigate the structural, social and cultural processes occurring in higher-levels 4,5 and 6 vocational progressions to middle and high-skilled work during Covid-19. A local, three-

sector study of construction, textiles manufacturing and digital in Northern Region and Local Enterprise Partnership in England drew on twenty-nine key informant qualitative interviews to examine the processes of early adult access to Level 4,5 and 6 vocational qualifications and higher skill job opportunities. Moreover, fieldwork occurred during the Covid-19 pandemic, with a mixed methods approach supporting the ongoing pandemic contextual changes occurring (Creswell and Plano Clark, 2023). On the one hand, mixed methods bridge education and labour market knowledge paradigms, processes and academic traditions and support the examination of processes in what are acknowledged to be complex and fragmented skills and qualification systems (Mason, 2006; Plano Clark, 2019). On the other hand, there are methodological issues in mixing methods, which:

> *'You cannot simply pick and choose bits of one, and bits of another [research approach] in an ad hoc way and assume you can fit them together unproblematically' (Mason, 2006, p.6).*

Although mixed methods have become more established over the last twenty years, there is relatively limited academic engagement in integrated research strategies in comparison to the methodological and theoretical underpinning of qualitative and quantitative studies (Creswell and Plano Clark, 2023). Researchers need to build 'mixed methods' throughout the research process. First, through the research design, make decisions of whether 'mixing' will be concurrent or sequential in data collection and whether one method will have priority over another (Plano Clark, 2019). Furthermore, the design should clearly state whether mixing or integration takes place in data collection, analysis and/or interpretations or conclusions. Finally, a theoretical perspective, implicit or explicit, is needed to support a robust research design (Mason, 2007; Creswell and Plano Clark, 2023).

Combining methods allowed the investigation of how multiple stakeholders, important in local skills and qualification decisions, perceive, view, and experience Level 4,5,6 vocational qualifications. My design allowed career progression, conceptualised as career sequences, to be set in local sector patterns and trends of vocational qualification and labour market processes(Kalleberg and Mouw, 2018). This reflected a social world as inherently complex, and where a single method may be inadequate to

reflect the multi-dimensional processes occurring (Ritchie et al., 2013; Silverman, 2013; Mason, 2018). This is particularly important in seeking to understand career progression in early adulthood, where multiple actors, organisations and institutions intersect with a fragmented and complex English skills and education and training system (Raffe, 2014; Roberts, 2020). Furthermore, careers are shaped and formed in multi-layered processes, with the inclusion of quantitative approaches enhancing qualitative insights (Mason, 2006; Mason, 2007). The integration of quantitative and qualitative enquiry allowed iterative analysis and additional redesign and ethical approval within my pandemic fieldwork period (Emmel, 2015).

In summary, a mixed methods approach allowed navigation of fieldwork uncertainty from national lockdowns and health restrictions[14] by supporting an iterative approach of quantitative and qualitative methods, including research redesign (Lupton, 2020a; Keen et al., 2022; Creswell and Plano Clark, 2023). Appendix A1 shows the pandemic timeline. A mixed methods approach 'cut through' the complexity of the pandemic and fragmentation of local skills and qualification processes to better understand the processes of occupational progression in career sequences (Plano Clark, 2019; Creswell and Plano Clark, 2023). Quantitative employment data patterns and ongoing literature reviews supported qualitative interview insights as to the continuities of existing vocational qualification and employment processes and what were novel or new trends in what are recognised to be complex and fragmented skills and education and training systems in England outside of pandemic conditions (Mason, 2006; Blaikie, 2008a; Smith, 2011). These factors provided the theoretical logic for a mixed methods approach (Mason, 2006). The following section outlines the secondary quantitative approach.

3.4 Secondary quantitative analysis

[14] Key Covid-19 dates Institute for Government https://www.instituteforgovernment.org.uk/sites/default/files/timeline-lockdown-web.pdf

Secondary data analysis is relatively underutilised in education system research, where the large amounts of data available can support and expand explanatory frameworks beyond those achievable through qualitative interviews alone (Hampden-Thompson et al., 2011; Smith, 2011; Creswell and Plano Clark, 2023). The advantages of secondary data are access to data that a researcher may not ordinarily have access to and savings of time and money in data reuse (Blaikie, 2008a). However, researchers need to be aware that data may be collected with different aims and objectives or for different populations or time frames, with the researcher one step removed from the data sources and the methods used to collect them (Blaikie, 2008a). Two Department for Education (DfE) datasets were examined:

In an analysis of the dataset *Labour Market and Skills Projections 2020 to 2035* (DfE, 2023c), a new secondary analysis examined Northern Region patterns of employment by occupation, qualification and industry 2015-2035 projected. The dataset has been created through Office for National Statistics data from the Annual Business Inquiry/Business Register and employment survey, where the data has been placed in the public domain. Data is available at a national, regional and local enterprise partnership level, with the dataset primarily to support further analysis and represent one probable future scenario of employment and skills demand rather than to provide definitive predictions. The dataset builds on Working Futures projections (Wilson et al., 2020). The employment projections reflect the future size and shape of national and local patterns of industry, occupation, qualification levels, gender and employment status. Projections at a local level are extrapolated from national projections[15] and assume regional patterns continue to follow recent trends and industries perform in relatively similar ways in the future, as in the past, which creates some limitations (Wilson, 2023, p.10).

[15] Wilson, R. A., et al, (2022a). The Skills Imperative 2035: Occupational Outlook - Long-run employment prospects for the UK, Baseline Projections, Working Paper 2a. NFER and the related Technical Report.

In an analysis of *Career Pathways: Post 16 qualifications held by employees* (DfE, 2022a), I undertook a new secondary analysis of the Longitudinal Economics Outcomes (LEO) for over 2 million young workers who were in employment, and not in higher education, aged 25-30 years in 2018-19 for England and regional labour markets (DfE, 2022c). The Career Pathways data set is important because, in England, there is no routine collection of non-graduate longitudinal economic outcome data, and where multiple regulatory fields make comparison data across Levels 2-6 difficult to collate and compare. The dataset combines data from the National Pupil Database (NPD), the Higher Education Statistics Agency (HESA), Individual Learner Record Data (ILR) from Further Education institutions, Pay as You Earn (PAYE) employment data held by His Majesty's Revenue and Customs (HMRC), welfare benefits from the Department for Work and Pensions (DWP), and the Interdepartmental Business Register (IDBR)[16] . It allows exploration of vocational progressions and their intersection with Level 6+ outcomes by sector and subsector and provides a snapshot in time of early adult employment outcomes in 2018-19 by the median earnings achieved, the highest qualification held, and the sector and subsector worked in. In addition, for the top one-third of highest earning qualifications, the most common qualification pathways are identified. This is a dataset of patterns and trends rather than absolute comparators of the qualification profiles of English sectors and subsectors and the qualification pathways taken from below Level 2 to Level 7+ in post-16 pathways, excluding GCSEs and AS Levels (DfE, 2022c).

These two analyses were supported by a documentary analysis of vocational qualification progressions through *Occupational Maps (IfATE, 2025),* which allowed the identification of employer-agreed technical vocational qualification pathways and occupational progressions in England. Occupational maps provide employer-agreed

[16] https://explore-education-statistics.service.gov.uk/methodology/career-pathways-post-16-qualifications-held-by-employees

pathways that link different technical vocational qualifications from Level 2 to Level 6/7. Occupations are grouped by technical skills, knowledge and behaviours into fifteen progression routes linked to occupational standards (SOC 2020), which show the progressions which are possible from different technical vocational qualifications. Occupational maps are managed by route panels[17] made up of employers who lead on the skills needs and possible pathways for their sector. Occupational maps currently cover all apprenticeships, Higher Technical Qualifications and T-Levels, but not other Level 2 and 3 vocational routes. They provide within-sector transitions but with no indications of the transferability of non-sector qualifications (Wolf, 2011). However, occupational maps provide an understanding of the different Level 2 and 3 job roles and where Level 4-5-6 pathways exist for construction, digital and textile manufacturing. This was important in the fragmented skills system, but also to locate qualitative insights and to understand continuities in vocational pathways in the pandemic context through national, employer-led skills and qualification progression frameworks.

These three datasets provided rich comparative data on qualification profiles, pathways and occupations for my study. No dataset provides a 'complete picture' of what is widely recognised as a fragmented skills and qualification system. But together, the occupation and qualification patterns, trends and puzzles identified above in middle and high-skilled systems appear important for questions of sectors and vocational progression for early adults. Triangulation of qualitative interview data with new secondary quantitative analysis allowed a deeper understanding of the social process of vocational qualifications and access to higher-skilled work in the Northern Region (Creswell and Plano Clark, 2023).

3.5 Qualitative interviews: purposeful sampling in a three-sector comparison study

[17] https://www.instituteforapprenticeships.org/about/who-we-are/route-panels/

Qualitative interviews focused on insights from participants as educators or employers, local policymakers or young workers (Ritchie et al., 2013; Silverman, 2013; Mason, 2018). These allowed the vocational structural and cultural processes underpinning these claims to be explored in ways not available via quantitative data sources(Blaikie, 2008b). A qualitative approach allowed access to rich and nuanced data on the local skills and sector context, explained through participants' language of what participants considered important vocational processes (Mason, 2018). In the following section, first, purposeful sampling of employer-education partnerships in construction, textiles manufacturing and digital in the Northern Region is discussed, which formed a key aspect of research design to identify the study locality of the Northern Region (Emmel, 2014). Secondly, the use of comparative perspectives to identify vocational progression processes across sector cultures and traditions of vocational education and training (Green and Pensiero, 2017).

Purposeful sampling provides a means to achieve 'the richest information, the most appropriate comparisons with the information available, and always with an eye for the audience of the research' (Emmel, 2014, p.35). My study locality, Northern Region, is a Local Enterprise Partnership (LEP) and Combined Mayoral Authority (CMA)[18] in England and provides an example of a regional, 'local' skills system with devolved powers for adult skills[19]. Employment by industry reflects the patterns at a national (English) level. The region encompasses diverse urban and rural areas and has areas of significant deprivation, with Level 4+ qualifications held by the population below the national level. Three sectors, construction, digital and textiles manufacturing, were identified through local intelligence where Level 4,5 and 6 vocational qualifications were being delivered by education providers for employers. The three sectors were important for the Northern Region and form part of strategic growth priorities as part of the housebuilding, retrofitting and green energy, digitalisation and technological development, the creative industries and advanced manufacturing (DfE, 2023a)

[18] https://www.instituteforgovernment.org.uk/article/explainer/local-enterprise-partnerships)
[19] https://www.instituteforgovernment.org.uk/article/explainer/local-enterprise-partnerships

During the Covid-19 pandemic, 'high-contact' industries, those where production or sales were dependent on physical proximity were the most affected and the slowest to recover[20]. However, recovery did not negate the significant social effects being experienced by workers (Keen et al., 2022).

Qualitative inquiry involves entering the world of participants through their accounts of the processes of employer demand for skills and vocational education and training regimes situated within a participant's worldview, opinions, values, attitudes and beliefs (Mason, 2018). Drawing from three sector studies allowed comparative perspectives of important processes of education and employer partnerships to be examined. Comparative perspectives are typically used at a cross-national level; for example, they have been used to evidence similarities and differences in cross-national studies of vocational education and training, employer behaviours, and the cultural positioning of VET (Wolbers, 2007). Similarly, in cross-national studies of the structures of upper secondary education and training (16-18 years), for example, in understanding the different outcomes from different education and training regimes (Green and Pensiero, 2017). Comparative perspectives help to recognise contextual differences across and within nations in qualification systems, where there can be significant structural changes in, for example, apprenticeships over time, but where broad categorisation by levels is relatively constant and often cited as direct comparisons (Green and Pensiero, 2017). Moreover, comparative perspectives support the investigation of multi-levelled and subjective processes, for example, in applying an ecosystem approach to local skills areas or understanding different cultural perspectives of vocational identity and standing in national systems (Hodgson and Spours, 2016; Green and Pensiero, 2017). A comparative perspective allows common phenomena to be identified and similarities and differences to be compared, for

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20 https://www.ons.gov.uk/economy/grossvalueaddedgva/articles/effectsofthecoronaviruscovid19pandemiconhighcontactindustries/2022-05-06

example, inequality of opportunity and inequality of condition (Breen and Jonsson, 2005).

3.5.1 A three-sector, comparative perspective on vocational progression

My three studies provide three distinct framings of progression chances and the skills challenges at a sector level in supporting progression. Employer-education partnerships were situated at a locality or 'exo' level. These reflect national patterns of labour market structures and vocational qualification processes, but are bound by local networks to deliver vocational education opportunities, reflecting local skills ecosystem concepts (Hodgson and Spours, 2016). These were used as a lens to 'locate where the action is' to explore qualitatively stakeholders' perceptions, views and experiences of vocational Level 4,5,6 progression processes in occupational pathways and routes to high-skilled work (Bynner, 2005; Irwin, 2009a, p.1136). Employer-educator partnerships have no formal definition, with 'employer engagement' loosely used to describe a wide range of employer activities, including local skills planning, qualification design, work experience and placements, and support for Careers Information and Guidance (CIAG) (Payne, 2008; Mann and Dawkins, 2014). Within my study, I define 'employer and educator partnerships' as typically informal, localised networks or 'partnerships' centred on the education provider and where actors work to support access to education and training through multi-levelled processes where multiple actors navigate and negotiate skills and qualification processes to their agendas in ever-shifting boundaries (Roberts, 2020). My study focuses on early adult transitions aged 18 years plus, through early adulthood, reflecting the international life course framing of youth transition now extending to the early thirties (Arnett, 2014). This allows me to locate youth transition theories beyond the typical 'youth' study focus of ages 16-25 years and into a key career mobilisation period, age 25 years plus (Kalleberg and Mouw, 2018). This age grouping captures crucial and potential progression points in early careers, where non-linear occupational progression is increasingly common (Atkins, 2017).

Employer-education partnerships continued despite the pandemic in fluid, informal forms, supporting progression pathways through vocational qualifications to higher-skilled work in different forms:

- In Construction, the Further Education College is a large training provider working with multiple local and national employers, in a sector with traditions of strong vocational standing, and long-standing Level 4 and 5 routes.
- In Textile Manufacturing: a small, employer-led provider where training is cluster-based, many jobs are lower-skilled operatives, and where progression routes at Level 4 are beginning to be offered
- In Digital, a single provider, the university, works with a single, large corporate employer, where there are well-established graduate-level routes to high-skilled work, but degree apprenticeships are a developing area.

These three locale studies provide distinct education-employer contexts with different actor perspectives on local vocational progression to high-skilled work (Green et al., 2017a). Appendix A8 shows the qualification offer of the three education providers in the locale study. All three education-employer partnerships had common actors: the LEP, the Local Authority, the DfE, Ofsted, and employer trade bodies. Importantly, provider participation data suggest the three-sector education provider learners are from more diverse and less advantaged socioeconomic backgrounds than those typically seen in higher education participation through traditional three-year Bachelor's degrees (see Appendix A9). Occupations in all three sectors were stratified by gender, reflecting national patterns of gendered occupations in construction, manufacturing and digital (Colley et al., 2003; Fuller et al., 2005; Jarman et al., 2012).

3.5.2 Construction: employer-education partnership

The Construction study provided an example of a large Further Education (FE) college, with extensive links to local and national construction employers. It involved a large FE College, located in a large Northern city, delivering Level 4,5 qualifications, which works in partnership with a local university, to deliver degree apprenticeships at Level 6 and closely with regional trade bodies, the Local Authority and the Northern Region Local

Enterprise Partnership. The FE College works with over 600 construction employers, of which 93% are SMEs, at a local and national level:

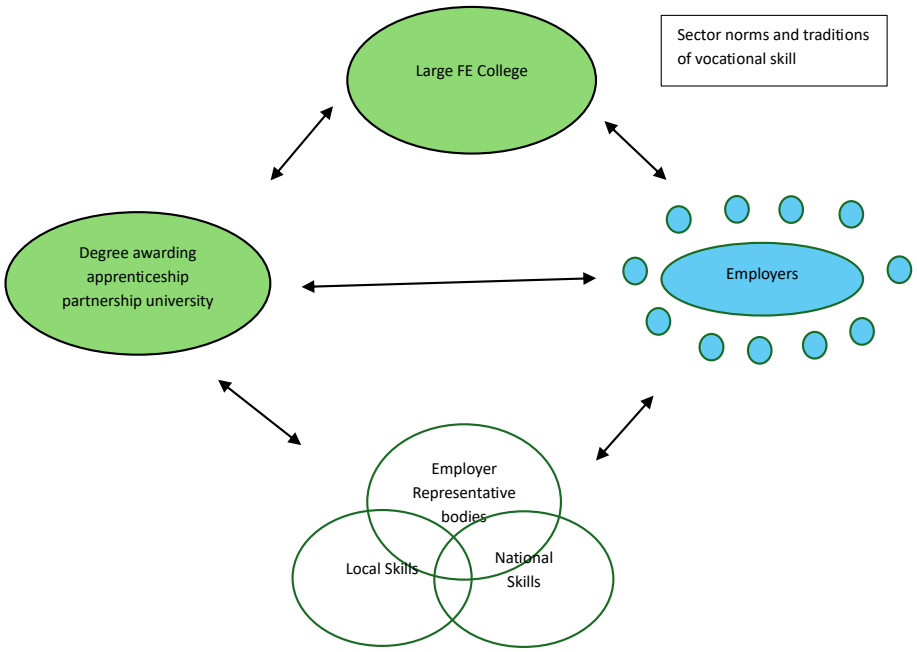


Figure 3.1: Construction: large FE College, local and national employers

Source: Research study

The construction sector has a cultural tradition of valuing apprenticeships, Level 4-5 routes to professional qualifications through HNC and HND, and longstanding Construction Industry Training Board levy systems, in addition to the apprenticeship levy system (BMG Research-CITB, 2023). The large FE College offers vocational provision from Level 1-Level 6, in partnership with a City University through classroom learning and apprenticeships, plus 14-16 years and SEND provision.

3.5.3 Textile Manufacturing employer-education partnership

This study provided an example of employer-led vocational education and training, and the prospects for high-skilled work in an industry with large numbers of lower-skilled jobs. The textile manufacturing study centres on an employer-led, not-for-profit regional textiles training provider located in a historic textile industrial town, with partnerships with a national trade body, textiles manufacturers, the LEP and a local university, developing skills through technological innovation. Textile Manufacturing is

a regionally based industry with an extensive heritage in global and increasingly digitalised manufacturing processes, where employers cluster within geographic areas in regional specialisms in textiles manufacturing (Harris et al., 2021).

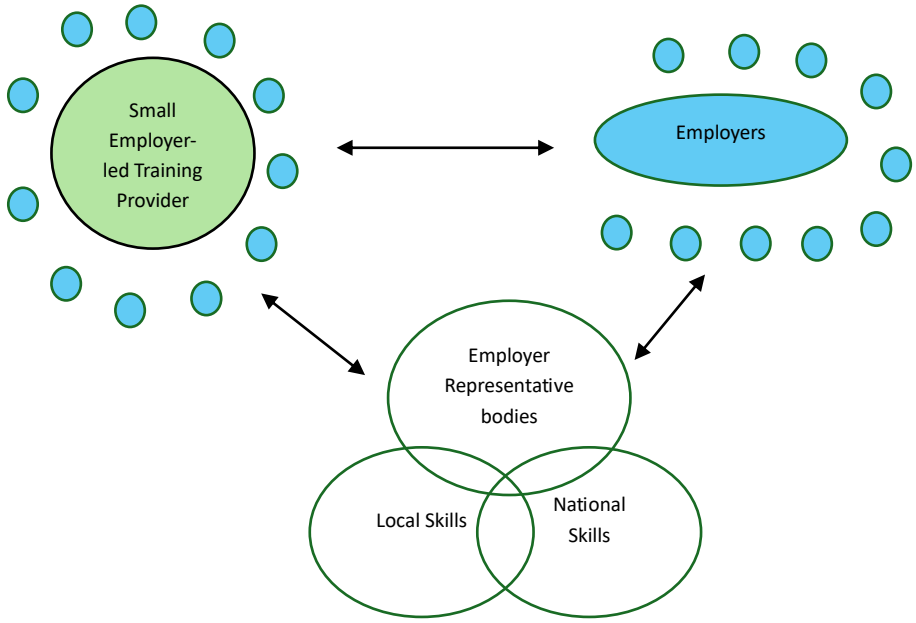


Figure 3.2: Textile Manufacturing: regional employer-led provider

Source: Research study

The training provider is relatively small with approximately 90 textile manufacturing apprenticeship starts per year, from Level 2-4, with other vocational provisions for generic leadership and health and safety qualifications. The focus on Level 2-4 qualifications provides important insights into progression prospects in textiles manufacturing and the importance of understanding sub-sectors, and regional demand for skills from employers, which may present very differently to the narratives of the manufacturing sector, as typically an industry with strong (male) traditions of vocational education and training through apprenticeships (James Relly, 2022). SMEs dominate the sector, with 82% of businesses employing ten or fewer employees (Harris et al., 2021, p.3).

3.5.4 Digital (in professional services) employer-education partnership

The Digital study centred on a large graduate professional services employer, a Northern Region University, City University, and a single Level 6 digital degree apprenticeship in Digital and Technology Solutions.

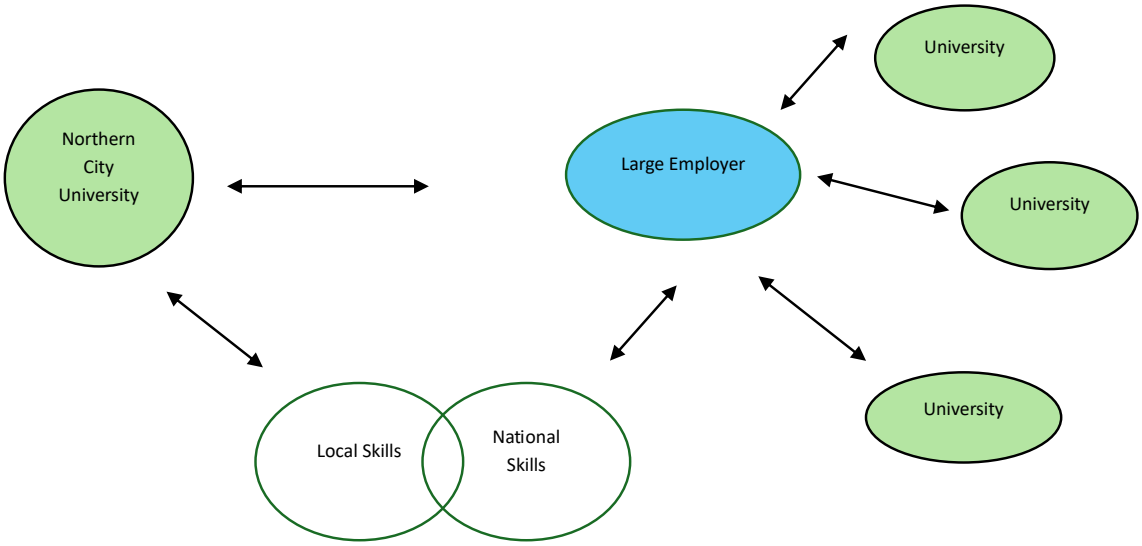


Figure 3.3: Digital: Large university and large corporate employer

Source: Research study

This study provided an example of a large, corporate employer shaping a single university institutional digital apprenticeship in an employer with large numbers of high-skill, typically graduate jobs. The employer runs parallel digital degree apprenticeships across three other UK locations and a wide range of other undergraduate pipelines into employment. The University is a relatively high-status university, where the very large majority of its undergraduates are aged 18-20 years and studying for full-time degrees. It has a limited apprenticeship offer at Levels 5-7, where the majority of apprenticeships are with single-employer bodies. The employer is a large graduate employer with social mobility publicly stated as a corporate priority.

Qualitative interviews can create risks of subjective interpretations of vocational processes through participants' experiences, opinions and perceptions (Patton, 2002). In my study, the structures of employer-education partnerships provided a framework around which to locate quantitative enquiry through secondary analysis, addressing some of the critiques of qualitative research of working-class disadvantage centred on small samples and the difficulties of showing studies provide explanations for the

reproduction of inequalities (Bynner, 2001; Irwin, 2009a, p.1125). Sampling strategies for data collection across the three education-employer partnerships and local skills actors adopted a key informant approach, discussed in the following section.

3.5.5 A key informant sampling strategy

Sampling strategies were purposeful, using a key informant approach, which is widely used in qualitative interviews, particularly in research which is related to policy (Emmel, 2014; Lokot, 2021). Data collection centred on stakeholders in employer-education partnerships and local skills: employers, educators, policymakers, trade bodies and young workers who were by their profession 'experts' on vocational education, employer engagement in vocational education and training, and young worker vocational progressions in the three different employer-education partnerships by sector, or in the local skills system. Stakeholder expertise included a contextual knowledge of employer demand for skills, higher vocational Level 4,5 and 6 qualification pathways, institutional arrangements and the effects of processes on less advantaged young workers (Emmel, 2014; Lokot, 2021). In adopting a key informant approach, I recognise professional participants negotiate the education and skills system to their institutional agendas, 'drawing on the wisdom of their informed perspectives but keeping in mind that their perspectives are selective' (Patton, 2002, p.331). Explanations are a function of employers' and educators' motivations and perceptions of opportunities and constraints in vocational and occupational progression (Silverman, 2013; Mason, 2018; Roberts, 2020).

Initial identification of key informants was via local intelligence, interviews and introductions from a senior skills leader in a local authority (Emmel, 2014; Lokot, 2021). Key informant recruitment from gatekeepers who are senior leaders can present ethical issues, given the hierarchical power relationships over those more junior employees in workplaces (Lokot, 2021). Research takes place in external power dynamics of institutions and professional expectations, where participants may feel that they have to take part in the study and whether there are expected responses (Emmel, 2014). To address this, I emphasised to all participants that their involvement in my research was voluntary and that they could withdraw at any time or refuse to

answer specific questions. Participants reported they were comfortable with the research process and had sufficient time to ask questions (Mason, 2018).

Senior leaders in education providers formed the initial contact for each sector study and acted as gatekeepers. This was particularly important in the pandemic context, as it provided insights into continuities and changes in vocational provision, including the post-pandemic context (Lokot, 2021, p.3). Engaging senior leaders conveyed trust and acceptance of my research value to participants, which is particularly important given the professional demands of the pandemic context (Mason, 2018, p.153). Moreover, seniority through an institutional hierarchy supported care for participants when identifying possible interviewees for my study. This meant invitations were made with the best knowledge available that individuals were not experiencing stress from the pandemic. These factors are discussed in more detail in the following Section 3.6.

Furthermore, senior leaders could identify continuities in vocational reform that would endure post-pandemic (Patton, 2002, p.321). For this purpose, senior leaders' knowledge was situated as ‘extraordinary’ in comparison to other community members in terms of the pandemic impact (Lokot, 2021). Critiques of key informant approaches centre on the lack of consideration of the power dynamics operating within communities, including who is perceived to hold knowledge and how more senior key informants who also act as gatekeepers might influence more junior colleagues or community members. In addition, there can be different agendas together with political, economic or social rationales for who is nominated as a key informant (Lokot, 2021, p.3). In my study, key informants were not only senior leaders but also included teaching staff, support staff and young workers, where the inclusion of senior leaders was recognised in ethical considerations of power and influence. Importantly, senior leaders were also the public face of organisations, used to framing their organisation's processes positively for their stakeholders (Patton, 2002, p.321). This meant building rapport became an important consideration in the interview process to move beyond ‘standard’ responses. Ethical considerations played an important part in key informant recruitment, with particular risks due to the pandemic context. The following section discusses the ethical approach and considerations of participant care.

3.6 Ethical considerations for recruitment and interviewing during Covid-19

Ethical processes for my research study followed and upheld the guidelines of the University of Leeds[21]and the British Sociological Association Statement of Ethical Practice[22] (2017). All interviews in my study were remote and conducted across Teams or Zoom due to the Covid-19 constraints (Lupton, 2020b). Interview topics were not anticipated to form any risk to participants, with questions centred on topics that form part of everyday workplace conversations of how decisions are made, within what influences in which processes, and of what works to support vocational progression and access to high-skilled work, but which would generate 'meaningful knowledge' (Mason, 2018, p.66). Pre-pandemic, remote interviewing already had established qualitative methodologies for telephone and Skype, which were adapted for Covid-19 (Keen et al., 2022). This section explores the ethics of qualitative interviewing in the pandemic (Lupton, 2020b; Keen et al., 2022). These include a discussion of the care for participants in the Covid-19 health emergency in a key informant approach, together with longstanding ethical considerations in qualitative interviewing of participant informed consent, confidentiality and anonymity, professional hierarchies and power relationships, and the ethical considerations of working with young people aged 18 -25 years. Finally, data storage and data protection formed important ethical considerations and regulatory processes (Mason, 2018). Recognition of my positionality as a researcher supported reflexive awareness within the changing pandemic context (Darwin Holmes, 2020). Appendix A1 shows the pandemic timeline and its intersection with my fieldwork processes.

3.6.1 Managing Covid-19 risks to participants.

Remote interviews meant that the health risks of the pandemic and the need for social distancing were not practical considerations in interview locations, where participants

[21] https://ris.leeds.ac.uk/research-excellence/university-of-leeds-research-ethics-policy/
[22] https://www.britsoc.co.uk/ethics

were typically interviewed at their own home or work environment, within their usual working day, and subject to their employers' risk assessments and health control measures (Lupton, 2020b; Keen et al., 2022). Instead, risks were centred on possible distress and its recognition in the remote context.

> *'Consider the increased possibility of distress when interviewing in light of COVID-19. Signs of distress can be more difficult to spot in remote interactions.' University of Leeds ethical approval, Ethical approval Amendment 1. Appendix A3*

The role of Gatekeepers made important contributions to ethical participant recruitment during the pandemic by reducing the risk of distress through senior leaders' knowledge of their staff and their situations. Although hierarchical gatekeeping roles are often critiqued by managing or limiting access to particular participants for researchers, in the pandemic context this management provided additional participant safety beyond what is possible as a researcher (Lupton, 2020b; Lokot, 2021). A senior leader in the FE sector explained:

> *"It's difficult because everybody is experiencing it, so you've got members of staff trying to support [students] whilst also being very stressed themselves, whether that's through their own kids, that they're having to homeschool, or you know other aspects as well ……."James Senior Leader FE College, Construction*

Professionally, senior leaders were managing ever-changing health restrictions through the changing and unknowns of the Covid-19 operating context and the disruption of repeated lockdowns to student learning, education processes and support. Sarah, a senior leader with student responsibility, described the ever-changing uncertainty:

> *It's just the worry of this new lockdown….about 30% of our students don't have broadband…." Sarah Senior Leader FE College, Construction Autumn 2020*

James described the professional pressures of constantly changing social restrictions on his Further Education College:

> *"We're looking at our risk assessment on a weekly basis and adjusting or amending it as appropriate and trying to do our best to manage this situation ……everybody is getting to the view that we need to, you know, work with this and live with this." James Senior Leader FE College, Construction*

Leaders assumed significant professional responsibility for their community's health beyond anything expected in 'normal' times, with James, a Senior Leader in FE, sharing the reality of Covid-19 deaths within his community:

> *"But then, when you get, you know, a member of staff who's lost her mother at 60 years old because of it. It is very, very difficult to say to staff, you know, you must come in, and you must continue…. if somebody died on your shift, I'd never forgive myself." James, Senior leader, FE College, Construction*

All professionals were very aware of pandemic pressures on young workers, who proved almost impossible to engage despite gatekeeper support. This reflected UK-wide patterns of pandemic effects on young people (Serafino, 2020; Lee, 2020). A senior leader in digital shared that for their young employees:

> *"I think isolation has completely derailed their approach to what they thought [their apprenticeship] was going to be. Their education and their career have not kind of planned out how they expected, and that's pretty tough to deal with for some of them, isn't it?" Molly, Senior HR, Early Careers, Digital large employer*

Although the recessionary risk of youth unemployment did not materialise in the pandemic in comparison to previous recessions, young people were disproportionately affected by isolation and mental health at a key life course phase that should reflect increasing independence. University students who were only experiencing online learning were particularly affected (Edwards and Weller, 2010; Arnett, 2014; Serafino, 2020; Henehan, 2021). Interview planning included checks on participants and their comfort during the interview (Ritchie et al., 2013). Approaches reflected 'empathy without becoming over-involved' (Rubin and Rubin (2012) in Ritchie et al., 2013, p.201).

3.6.2 Informed consent

Ensuring informed consent in the pandemic context formed central ethical considerations and followed the University of Leeds protocols (University of Leeds, 2023). These stated the purpose of collecting interview data to inform a vocational education and employment study, the interview focus, data handling and the risks and

benefits of the study. All participants were anonymised, but the limits of anonymisation, particularly the risk that participants might be identified, were described in the participant information sheet and verbally discussed as part of the consent process. For early adult workers, interview questions reflected everyday conversational topics about their ambitions, career decision-making, and vocational pathways (Ritchie et al., 2013, p.149; Mason, 2018). Only one participant was aged under 25 years, and all were over 21 years. Participants' information sheets, together with the Research Participant Privacy Notice, were shared at least one week before interviews to ensure time to understand the process, the value of their participation and the purpose of the research, and how the research would be reported (For participant information, privacy notice and consent see Appendices A5 and A6). No participants were under 18 years old, and the research was communicated in accessible language (Ritchie et al., 2013, p.87; Mason, 2018, p.93).

Consent was obtained for the interview process, including video and audio recording, data storage, and future dissemination of information. Participant information sheets shared participants' rights within the research and how consent could be withdrawn. Consent was verbally checked before each interview, and participants were invited to ask questions before and after the interview. Before each interview commenced, consents to record, including video recording for transcription, the proposed content and the interview timings were rechecked with participants, together with the option to finish at any point (University of Leeds, 2023). Interview planning included checks on participants and their comfort during the interview(Ritchie et al., 2013). Interview questions were suitable for paired interviews as participants were not anticipated to share sensitive information, but care was taken to ensure that participants were asked separately whether they were happy to be interviewed with the other participant (Mason, 2018). Only two participants requested a paired interview. Throughout, I recognised that participants may not be familiar with the formalities of consent and anonymisation (Mason, 2018, p.95).

3.6.3 Participant recruitment

Recruitment followed Manzano's (2016) view that there is no 'right' number of interviews needed to adequately explain the processes and mechanisms that are occurring in social processes. Twenty-nine in-depth, semi-structured key informant qualitative interviews were completed Sept 2020-Sept 2021 (Mason, 2018; Mason, 2020). A sample recruitment email is in Appendix A4. Table 3.1 summarises the relative success of gatekeeper, snowballing and personal networks in comparison to limited engagement through cold contacts by email recruitment. Recruitment was significantly affected during the national lockdown periods. Where employers were difficult to engage due to Covid-19, for example, in textiles manufacturing, the employer-led provider and trade bodies to represent employer views were used.

Table 3.1: Participant recruitment methods

Recruitment	Construction	Digital	Textiles Manufacturing	Local Policymakers	Total
Gatekeepers/ Snowballing	11	0	4	1	16
University/ personal networks	1	1	1	6	9
Cold contacts		1		2	3
Total	12	2	5	10	29

Source: Research study

Sixteen participants were recruited through gatekeepers and snowballing following an initial interview with a senior leader, with recruitment via email or verbal introduction, with eleven recruited through the university and personal networks. Only two participants were recruited through cold contacts using online contact details. These patterns reflect the importance of trusted connections during the pandemic, with very limited success from cold calls during the pandemic context (Emmel, 2014a; Lokot, 2021). Important stakeholders for my study included:

Educators and training providers (10 participants): These were educators and training providers who worked practically with employers and trade bodies in developing vocational qualifications and apprenticeships but who also worked in partnership with government regulatory bodies such as the Institute for Apprenticeships and Technical Education (IfATE), Office for Students (OfS), Ofsted, Department for Education (DfE), and with professional institutions with responsibility for professional qualifications

such as Institute for Chartered Surveyors, Institute for Transport Planning. Stakeholders were Further Education staff, training providers, or universities involved with the design of, or delivery of higher level 4,5 and 6 vocational pathways and who had direct experience in supporting adult workers, including young adults 18-32 years in recruitment and progression through VET qualification pathways, including those young adults who experienced disadvantage. These included senior leaders of a large Further Education College, a senior leader of a trade body and a textiles manufacturing training provider, a senior researcher for a multi-million textiles manufacturing research project, an apprenticeship lead for a university for digital degree apprenticeships, and a career lead for two secondary schools in Northern Region.

Employers: large and small-medium enterprises (SME) and trade bodies (7 participants): This group consisted of employers who worked in partnership with education and training, developing and funding level 4-5-6 qualifications for young and older workers. Trade bodies had an employer mandate at a national (English) skills level for the planning of training and qualifications to meet the skills demand of employers in the sectors. This allowed insights into the rationales for skills gaps and recruitment decisions, investment in training and younger workers, and the visibility of inequalities. Participants included senior leaders in training in two large corporate employers in construction and professional (digital) services, a senior leader in an SME in construction, a senior leader for a construction trade body, and a UK textile manufacturing trade body.

Local (and national) policymakers (9 participants): these included professionals who work in the vocational skills policy space, with direct responsibility for higher-level skills provision, or who have specific insights into the Vocational Education and Training (VET) qualification space at a local or national level. Participants included a senior education leader in the Local Enterprise Partnership (LEP) with responsibility for young people's education outcomes, a senior employment leader with responsibility for post-16 and adult employment and skills provision, a national senior policy adviser, a local employment leader responsible for 16-25 years provision for signposting and supporting any young adult including graduates to employment, and senior leaders for employment, skills, and careers at the LEP.

Young adults (3 participants): This was one of the hardest groups to engage, despite employer and education gatekeeper support to access. Limited take-up was achieved, where it was hoped for higher numbers. Difficulties of engagement reflected national studies showing early adults, including university students, experiencing some of the highest impacts on employment, education and training from the pandemic through disruption to employment, remote learning, and social isolation in lockdowns (Henehan, 2021). These were young working adults between the ages of 19-32 years old who had direct experience of Level 4,5,6 qualifications and the working space in my sectors that these qualifications operate in, including entry to qualifications, progression, and interactions between education and employers. Table 3.2 summarises the interviews by sector and stakeholder group:

Table 3.2: Number of interviews by sector and stakeholder group

Sector/Stakeholders	Educators/training providers	Employers/trade bodies	Young adults	Total
Study 1- construction	6	4	2	12
Study 2 – Textile manufacturing	3	2	1	6
Study 3 -Digital	1	1	0	2
Local policymakers				9
Total	10	7	3	29

Source: Research study

However, the interview process also saw an emerging pragmatism about the pandemic and its impact on vocational education and employment processes of:

> *'Work with this and live with this' (James, FE College Senior Leader, Construction)*

This reflected the continuities in vocational qualifications, including the significant vocational reforms which continued across the period, see for example '*Skills for Jobs*' (DfE, 2021). The pandemic fieldwork experience, albeit challenging, was also one of the generosity of participants, who were often under significant personal and professional constraints during Covid-19, but where the changing pandemic context meant fieldwork moved from 'coping' with the pandemic into emergent opportunities through remote methods (Keen et al., 2022). The breadth of participants allows

confidence in the reliability and validity of my study approach and the insights gained from vocational processes (Ritchie et al., 2013).

3.6.4 Opportunities and constraints from remote interviews

During the pandemic, the widespread use of digital platforms by education, employers and policymakers meant interviewees were comfortable with Teams and Zoom as interview tools and had access to appropriate technology (Keen et al., 2022). Options of telephone interviews were also offered, but not taken up. Interviews were scheduled to last up to one hour at the most convenient time for the interviewee within the working day, with completed interviews lasting between 45-90 minutes. The invitation email is in Appendix A4. Question frames supported each interview, with the order and structure of questions revised to consider interviews completed, allowing the best use of interview time and providing a systematic way of identifying topics to be discussed (Patton, 2002, p.343). Any contextual differences between providers and sectors, for example, their breadth of provision, were also reflected. Appendix A7 shows a sample interview question frame (Ritchie et al., 2013, p.155). The semi-structured nature of interviews meant I reframed questions within the interview depending on participant responses and the direction of the discussion, coming back to subjects or asking for clarification or more detail, and interjected as required to keep discourse flowing, for example, 'I see…'; 'Can you explain a little more…?'; 'Why might this be ….?'; or merely 'umm' (Ritchie et al., 2013, p.197). Participants' explanations, particularly within fluent and expansive discourse, could zigzag back and forth through processes (Silverman, 2017). This was subsequently reflected in the extracts used in coding and thematic analysis (see section 3.7). Interview approaches reflected 'empathy without becoming over-involved' whilst being aware of possible pandemic pressures (Rubin and Rubin (2012) in Ritchie et al., 2013, p.201).

Although remote interviews created opportunities through easier and cheaper access than face-to-face, there were limitations, including the loss of tacit knowledge from remote interviewing and the need to build rapport quickly in the online context (Keen et al., 2022). First, the wholesale switching of research designs from face-to-face to remote interviewing changed the possibilities of knowledge formation in the interview

context through being physically present in the community, education or employer location (Lupton, 2020b). Grey literature on interview contexts took on increased importance to meaningfully situate data generated through interviews in an institutional and community context (Mason, 2018, p.66). Secondly, planning for remote interviewing included time allocated within the interview process to 'build rapport and curate the conversation'(Lupton, 2020b, p.6). The platform medium of Zoom and Teams removed many social facets of the social interview process: walking to a location, settling down in seats and introductory small talk, setting the interview context as one of mutual respect (Mason, 2018). Online platforms such as Zoom and Teams, by their nature, are immediate connections, where professionals frequently switch from one meeting to another back to back across a working day. This can lead to fractured starts of "Can you hear me?" In online interviews, the need to balance opening conversation to support the transition to open questions and deep responses created some challenges, particularly where participants and researchers were new to each other (Keen et al., 2022). To support the transition into open, deeper responses, I asked participants about their career trajectories early in the interview. Participant accounts tended to be detailed and in-depth, building rapport and insights into the intellectual puzzle of the processes of sector career pathways (Mason, 2018, p.118).

3.6.5 Confidentiality and anonymity

Confidentiality and anonymity formed central ethical considerations, which, as a researcher, I needed to do everything possible to maintain. This included not disclosing who had taken part, using generic job titles, and not including in written analysis any characteristics or circumstances that might identify an individual, an organisation or a locality (Mason, 2018). The limits of anonymisation were discussed with participants as part of the consent process. Despite the large geographic area that local skills areas cover, education and employers can be highly networked and present distinct characteristics, for example, their size, their qualifications or product offer. A key informant approach also meant that there was a risk that participants might recognise each other in writing. Participant contributions were anonymised, with pseudonyms allocated, including place identifiers used in interview extracts, with location-specific citations and references redacted. Participants' official job titles were not used,

replaced with generic employer and education identifiers. The consequence of this is that data is reported less explicitly, with identifiers removed or pseudonymised, meaning at times some richness or contextual nuance was lost, but where protecting participants' identities was paramount (Ritchie et al., 2013, p.98). Moreover, the pandemic created additional complexity in maintaining confidentiality in interviews through a blurring of the public and private spheres in the move to working from home, where it was not possible to know who else was 'in the interview'. Interview topics were those of everyday conversation about vocational qualifications and career pathways, and were not anticipated to breach personal privacy. Participants did not share who else was in their working space (Carr and Tatham, 2021). Family life could suddenly intrude mid-interview, as children were sent home from school due to Covid-19 outbreaks, or parents juggled childcare and the interview. Care was taken that participants did not unintentionally reveal more of their personal lives than they felt comfortable with, with verbal checks and care to capture only the participant's interview discussion (Mason, 2018, p.98).

3.6.6 Data management

Data management followed the University of Leeds Protocols. Interviews were audio and video-recorded via Teams and Zoom and transcribed. Portable electronic devices were password-protected. Recordings were only retained until transcription and analysis were completed. Personal information was assigned a serial number and was stored separately from audio and video recordings and transcripts (Ritchie et al., 2013, p.102). Personal data was processed in line with the Information Commissioner's Office (2012) code of practice guidance for anonymisation (ICO, 2012). All data collected, including NVIVO coding files, which included place-based identifiers to support analysis, was stored securely on the password-protected University of Leeds OneDrive (Mason, 2018, p.102; University of Leeds, 2023). Interviews did not involve commercially sensitive information.

3.6.7 Reflexive awareness and researcher positionality

Finally, reflective awareness of my positionality as a researcher formed part of my study's ethical considerations, accepting that the processes of social research are not

'value-free', where epistemological assumptions and personal values can shape the research study and the interpretation of research findings. Furthermore, two researchers might interpret the same data in very different ways (Darwin Holmes, 2020, p.2). In my interactions with participants and interpretation of data, I draw from Savin-Bader and Majors (2013) ways of developing reflectivity as a researcher, first, by locating myself within the research, second, by considering how participants may view me, and finally, how I might affect my research study. I recognise my individual experiences, beliefs, and values will subjectively shape my perception and interpretations of the social world, in my study, my interpretation of the processes of vocational education, the labour market and the experiences of young workers. This includes the lived experience of working as a professional in education systems, being an employer, balancing commercial and social responsibilities, and managing vocational training decisions, opportunities and constraints in food manufacturing and education environments. Moreover, my working life has taken place in working-class communities where the young adults in my community, typically young parents, may have few community education routes to achieve higher-skilled work.

To ameliorate possible biases, I purposefully chose to research in an area of vocational provision I was not familiar with and in sectors I had not worked in (Darwin Holmes, 2020). I shared no previous employment details with participants, only stating I was a mature student to reduce any risk of participant bias towards me. Taking a reflective stance meant self-questioning and self-understanding, reflecting Patton's (2002, p.64) ongoing examination of 'what I know' and 'how I know it', and I apply this throughout my research study. However, my experience and knowledge meant that in interviews, this provided 'tacit knowing', described as the inner essence of human understanding that we can't articulate, where hunches and vague insights provided a means to refocus or expand conversations (Polanyi in Patton, 2002, p 108).

3.7 An integrated qualitative and quantitative analytic approach

My study took a primarily qualitative approach, but where quantitative secondary analysis played an important part in triangulating labour market and qualification

structures in iterative quantitative and qualitative analysis to answer the research question:

Across diverse industries, how do mid-to-high-level vocational progression opportunities influence early adult employment pathways and related inequalities?

In this section, I discuss the approaches I took to data reduction and analysis in my mixed methods study. First, I examine mixing quantitative and qualitative analytic approaches drawing from Plano Clark's (2019) models of mixed methods convergence, where quantitative and qualitative data are analysed as two separate strands and then integrated. Then, secondary data analysis, qualitative interview data reduction and thematic analysis are discussed (Smith, 2011; Braun and Clarke, 2023). Finally, the integration of my analytic findings, including the use of abductive reasoning to merge and integrate my analyses, is examined (Sandoval-Hernández and Rutkowski, 2024).

3.7.1 Creating a convergent, integrated mixed methods analysis

Mixing methods is a mainstream methodological approach, but where less attention has been paid to how quantitative and qualitative approaches can meaningfully be integrated or combined in a study and the challenges that occur from such combinations (Mason, 2007; Plano Clark, 2019; Creswell and Plano Clark, 2023). Furthermore, there has been relatively limited application of thematic analysis to mixed methods studies and creating an integrated analysis (Byrne, 2022; Proudfoot, 2023). In my study, secondary quantitative datasets and qualitative interview data were analysed as two distinct strands before analyses were merged to synthesise concepts of vocational progression and a decent career (see Figure 3.4):

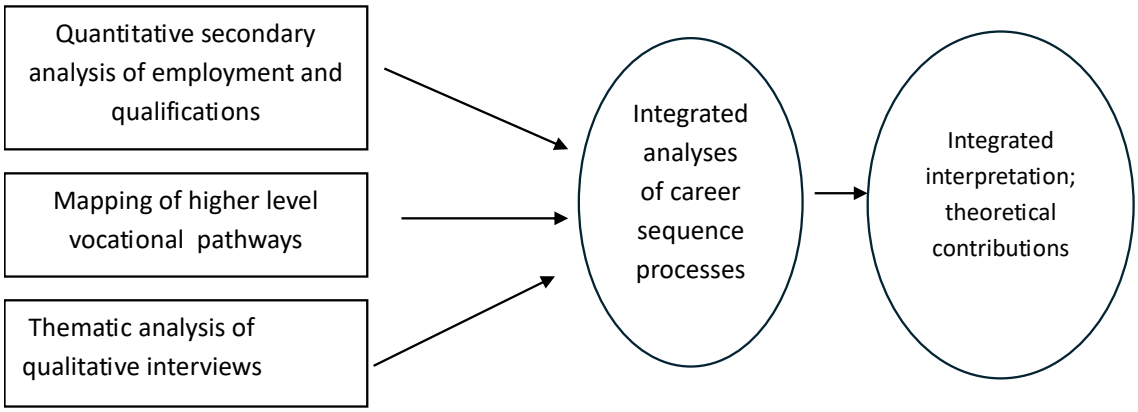


Figure 3.4: A convergent analytic approach

Source: Based on Plano Clark (2019, p.107)

Analytic processes were not linear but iteratively integrated across qualitative and quantitative analyses, but are listed by quantitative and qualitative methods for clarity (Byrne, 2022). The following sections examine the approaches taken for secondary quantitative analysis and thematic analysis of qualitative interviews:

3.7.2 Secondary quantitative analysis

Secondary quantitative analysis broadly answered sub-research questions (i) in Chapter 4:

(i) *Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?*

Utilising quantitative secondary analysis became increasingly important in the pandemic and post-pandemic context to understand continuities and changes in education processes, and also to triangulate qualitative insights in the complex and fragmented post-18 skills and qualifications system. The secondary analysis took the following broad process: familiarisation and testing of disaggregation techniques; the creation of pivot tables and graphs in comparison to published patterns; and finally, disaggregation of new data analysis via Excel pivot tables and data visualisation to answer the research sub-questions. Following secondary analysis, themes were

identified in quantitative as well as more traditional qualitative datasets to support a common analytic framework.

First, drawing from the *Labour market and skills projections 2015-2035 dataset, a* new Excel secondary analysis was built on and extended Anderson's (2009) study of intermediate-skilled employment (DfE, 2023c). My analysis provided patterns and trends of employer demand for high, middle and low-skilled work based on SOC 2020 skills classifications (ONS, 2022). There are limitations to the dataset. First, there are critiques of UK occupational and skills classifications as unnecessarily complicated, fragmented, and unable to fully represent employer demand for skills (Elias et al., 2023). Secondly, data covering the pandemic period 2020-21 is more volatile, and so analyses extend to 2025 projections onwards (Wilson, 2023, pp.12–13). Importantly, because the dataset draws from the Labour Force Survey (LFS), it is important to note the well-documented difficulties of participant counts[23]. Finally, regional data cannot always reflect 'normal statistical criterion in terms of sample size'; it is advised that only counts of at least 10,000 individuals are reported (Wilson, 2023, pp.12–13). To ameliorate these difficulties, my analysis takes a patterns and trends approach to the industries of the Northern Region, particularly construction, manufacturing and digital (information technology), rather than comparing absolute values from the dataset.

To understand the highest qualification held by sector, I draw on a new secondary analysis of the '*Career pathways Post 16 qualifications held by employees'* dataset, allowing patterns of the highest qualifications held and longitudinal economic outcomes to be explored by sector (DfE, 2022a). New Excel secondary analysis produced locality-level patterns by sector and sub-sector of the highest qualification held and median earnings. Data was disaggregated into pivot tables and graphed to show patterns of middle and high-level highest qualifications held, median earnings and qualification trajectories based on the highest earning qualification pathways by sector and subsector. There are some limitations to the dataset. Northern Region

[23]https://www.ons.gov.uk/news/statementsandletters/statementonthelabourforcesurvey

employment profiles for workers aged 25-30 years by industry will not follow the geographic boundaries of a Local Enterprise Partnership because of different education system boundaries, but will provide regional comparative perspectives. Self-employed workers are not included in the dataset; the construction sector has some of the highest levels of self-employment by industry in the UK. In 2022, 42% of construction workers were self-employed, and although self-employed workers were less likely to be working towards qualifications than employees, levels were low at 10% and 15% respectively (Eykelbosch, 2021, p.6; BMG Research-CITB, 2023, p.48). Employee numbers are rounded to the nearest ten, where u denotes fewer than ten employees. Employee numbers below five are denoted 'low' (DfE, 2022c). Finally, a non-numeric secondary analysis of 'Occupational maps' extracted the contemporary pathways and occupational steps available to holders of technical qualifications in construction, digital and textiles manufacturing, and example sub-sectors (IfATE, 2025) to support participant insights of career sequencing possibilities discussed by participants.

3.7.3 Qualitative data analysis

Qualitative data analysis drew from a thematic approach and broadly answered sub-research questions (ii) and (iii) in Chapters 5 and 6:

(i) *How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?*

(ii) *Do place-based, sector, and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?*

I define a theme as constituting 'domain summaries', or 'summaries of what participants said in relation to a particular topic or data collection' (Byrne, 2022, pp.1392–3). Thematic analysis of qualitative data is widely used. However, the identification and interpretation of themes are subjective, and different researchers may interpret themes in different ways. Moreover, the initial analysis may lead to large numbers of possible themes (Byrne, 2022). To ameliorate these factors, analysis was based on Braun and Clarke's (2006b) six-phase thematic analytic process, which

practically became five main steps: Step 1: familiarisation with the data, Step 2: generating initial codes; Step 3 and 4 generating and reviewing potential themes and sub-themes, Step 5 and 6: naming and defining themes and sub-themes (Byrne, 2022). This allowed the defining and naming of the key themes, sub-themes and theoretical frameworks important for my study of vocational progressions to high-skilled work, together with understanding how such factors could contribute to conceptualising pathways to a ‘decent career’. Throughout, I adopted Braun and Clarke, (2023, p.1) philosophy that thematic analysis is not a rigid approach but one in which the ‘knowing practice’ of ‘deliberate decision making’ and reflectivity is developed without strict adherence to published thematic analysis protocols. The main qualitative data processes were:

Familiarisation with the data included the transcription process, collation, and summarising of interviews. Transcription can be presented as a functional step to be achieved before getting on with the 'real 'work of coding and analysis, and is often outsourced (Mason, 2018). However, in my study, I found the transcription process reflected Braun and Clarke's (2006) argument that transcription is a deeply social process in which the researcher can reconnect but also take a more reflective stance on the interview content and subsequent analysis, which was also important to understand pandemic continuities and chains reported by participants, and subsequent analysis (Mason, 2018, p.133). Importantly, in the pandemic context, immersing in transcripts provided a temporal distance from the interview, allowing reflection on continuities and changes discussed by participants (Lupton, 2020b). Each interview was transcribed verbatim, with online interviews allowing auto-transcription, but with review for local accents and technical content (Keen et al., 2022). Transcription reflected pauses, ums, and errs, but with repetitions removed. Where local dialect led to omissions, for example, ‘t’ instead of ‘the’, these were recorded as the full word to ameliorate stereotypical judgements, for example, of a participant's social standing and education through written language representations (Levon et al., 2022).

Anonymity was a central ethical concern, but in the secure storage of transcripts, contextual identifiers important to understanding local and national vocational processes were retained. Pseudonymisation was used in interview excerpts of names,

job positions, and place-based identifiers. Participants were identified only through their employment, reflecting Silverman's (2017, p.15) observation that these are the 'identities actually invoked by the participants' rather than offered by researchers. Transcripts were collated by sector in chronological order of access, allowing the context of the interviews across the pandemic to be understood by sector, and loaded into NVIVO by sector and by stakeholder type. This meant that as coding progressed, insights could be extracted in different groupings as part of the initial identification of themes (Jackson and Bazeley, 2019).

Codes were relatively simple categorisations, where interview excerpts could then be coded to multiple codes to reflect the richness of narrative discussion. Codes were identified through repetitions of ideas by asking questions: who, what, why, and what consequences, to develop relational codes, for example, vocational identity, and by comparing and contrasting similarities and differences (Jackson and Bazeley, 2019, p.72). The aim was to create codes in which 'sufficient depth exists to examine the patterns within the data and the diversity of positions held by participants' (Byrne, 2022, p.1402). Codes included processes related to the research question and identified through the literature, for example, the vocational qualification system and occupational progression to high-skilled work, attitudes and beliefs about vocational education and training (James Relly, 2022; Esmond and Atkins, 2022). Moreover, the situated nature of skill and its cultural position became increasingly important to understand (Green, 2021b). Interview questions asked about the system as well as individual effects in vocational pathways, where participant explanations and insights could refer to multiple codes, given that 'narrative is inherently complex'. Use of NVivo-supported coding to multiple codes and for easy extraction and collation of data, including responses coded as the sector and the stakeholder (Jackson and Bazeley, 2019, p.71). Importantly, explanations and insights by participants of the vocational education system and progression processes were embedded within extended narratives. Coding was an iterative process, often requiring returning to the original transcripts to understand the prompt for a particular direction or subsequent explanations (Silverman, 2017).

Themes were inductively generated and reviewed across the analysis period (Byrne, 2022). In generating themes, meaningful or important themes were not the most commonly recurring, but those that contributed to answering the research questions and provided an understanding of participant perceptions of the importance of topics being discussed. Care was taken not to create 'topic themes', those themes which could have been identified from the literature or data collection questions (Braun and Clarke, 2023). Interpreting the qualitative data was an iterative and abductive reasoning process, accepting that social observations will be incomplete and where the most likely, 'best' or most plausible explanations are determined, typically through a mix of logic and triangulation through new hypotheses (Meyer and Lunnay, 2013; Sandoval-Hernández and Rutkowski, 2024, p.8). It is suited to the complexity of vocational qualifications and career pathway analysis because no observations will be 'complete'. However, in choosing an abductive approach, care must be taken to recognise the subjectivity in which the 'most plausible' explanation may be situated. Furthermore, there can be difficulties in validating hypotheses, particularly in complex systems, where entrenched 'wicked' social problems are embedded in often confounding policy and practice spheres (Head et al., 2008; Lönngren and van Poeck, 2021). My analytic approach balanced abductive limitations by converging theory-driven quantitative methods with qualitative analyses, suggested to be effective in exploring layered and complex problems such as local skills system processes (Proudfoot, 2023, p.309). Qualitative data analyses were triangulated with qualitative insights, identifying the main themes. An analytic framework supported the integration of main and sub-themes to narrow down to the most likely explanation to answer the research questions and reflect gaps in the literature (Ritchie et al., 2013, p.337). These formed the basis for the three-sector comparative analyses discussed in Chapters 4,5, and 6:

- Chapter 4: Localities, sectors and vocational pathways to mid and high-skilled work.
- Chapter 5: Becoming a vocational, higher-skilled worker: a three-sector comparison.

- Chapter 6: Institutions as ‘opportunity’ or ‘fields’: supporting higher-level vocational progression for early adults.

Integrating these three analyses offers possibilities for a better understanding of what might constitute a ‘decent career’ in a locale, including access to higher level 4,5 and 6 vocational qualifications, allowing a more nuanced understanding by sector of how early adult transitions play out in the labour market. The processes of generalisation from studies have been discussed as empirical and theoretical generalisations (Ritchie et al., 2013). In Chapters 4, 5 and 6, the empirical and theoretical generalisations that can be inferred from my study and their limits are discussed with the Chapter findings.

3.8 Conclusion

In designing and conducting my research study, my central concerns were navigating the pandemic context to capture insights as to the likely effects of vocational reform on early adult access to high-skilled work (Lupton, 2020b). My research study adopted a mixed method, qualitative and quantitative approach in the Northern Region, a Local Enterprise Partnership (LEP) in three comparative sectors of construction, digital and textile manufacturing (Green and Pensiero, 2017; Creswell and Plano Clark, 2023). Each provides a different mid and high-skilled profile. Taking a mixed methods approach bridged the different paradigms of supply side and demand side qualification, skills and employment processes (Pesch and van Uffelen, 2024). The strength of a locality approach reflected the importance of local skills and education or training processes for vocationally qualified early adult workers. Further Education and training providers draw their students, in the main, from the local area, including for higher-level and degree apprenticeships, and employers recruit for non-graduate roles (Hodgson and Spours, 2016). The use of ‘local’ quantitative data also reflects the challenges of conceptualising ‘local’ skills and employment structures, as Local Enterprise Partnership areas and increasingly Mayoral Combined Authorities cover large and diverse regional geographies, and where the current local level employment, qualification and skills data is limited (Wilson, 2023). Furthermore, the identification of informal employer-education partnerships allowed access to a range of key informant stakeholders: employers, educators, young workers and local policymakers, who were

‘experts’ in vocational transitions and the prospects for young workers to achieve high-skilled work (Emmel, 2014). Comparative perspectives across three sectors allowed insights from distinct and different qualification and occupational profiles, allowing examination of stakeholder perceptions and experiences of qualifications and progression (Bynner, 2001; Green and Pensiero, 2017). A thematic analysis approach supported the identification of meaningful themes to answer my research questions. In parallel, the inclusion of quantitative secondary analysis allowed my qualitative interview findings, collected during the significant pandemic disruption, to be placed in a post-pandemic vocational context relevant to current skills debates. Mixing methods necessitated an integrated analytic approach, whereby the convergence of secondary quantitative and qualitative interview analysis allowed my research questions to be answered, and local progression theories developed, including those of achieving a ‘decent career’(Byrne, 2022).

Chapter 4. Localities, sectors and vocational pathways to mid and high-skilled work

4.1 Introduction

The English labour market struggles to deliver decent work and progression opportunities, damaging early adults' long-term economic prospects (DfE, 2021; Costa et al., 2023):

> *"In industrial societies, occupations are the most powerful single indicator of levels of material reward, social standing and life chances" (Parkin, 1971 in Connelly et al., 2016,p.1).*

There are long-standing debates about employer demand for middle and high-skilled workers, and the utilisation of higher-level qualifications, where on the one hand, polarisation debates argue that 'middle-skilled occupations have been hollowed, together with the displacement of vocationally qualified young workers by graduates, reducing occupational progression prospects for young people who choose vocational pathways age 18 years and above (Autor et al., 2006; Green, 2019). On the other hand, commentators argue that both the loss of middle-skilled roles is overestimated, the development of a knowledge economy, and continuing high-skill job creation are more aspiration than reality (Anderson, 2009; Roberts, 2020). Drawing from new secondary quantitative analysis, I examine the occupational structures and vocational pathways which support access to higher-skilled work in local, higher vocational progression processes in Northern Region, broadly answering the first sub-research question:

(ii) Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?

This first analysis chapter examines vocational progression prospects for early adults to higher-skilled work, the sector patterns of highest qualifications held, and median earnings achieved by early adult workers aged 25-30 years. I use a local, three-sector comparative perspective to examine occupation and qualification patterns, and progression opportunities across three diverse, but important industries in the Northern Region: construction, textiles manufacturing and digital. Each sector has a

distinct industry profile and demonstrates different, important characteristics for vocational progression opportunities (Wilson et al., 2020; James Relly, 2022). Higher-skilled vocational qualifications are those at Levels 4,5, and 6, which typically map onto intermediate and professional occupations. Higher-skill work is typically more secure, well-renumerated, and with training and progression prospects (Roberts, 2019; Yates, 2022). My study uses the term 'early adult workers' to reframe higher skilled transition debates beyond the traditional 'youth' life course of 16-25 years, with evidence suggesting career steps which occur above the age of 25 years into the mid-thirties are important in vocational pathways in the prospects for higher skilled work (Boniface et al., 2018; Espinoza and Speckesser, 2019; DfE, 2019b). The occupation achieved by the age of 30 years provides a powerful indicator of future economic well-being, with occupations central to debates of income, socioeconomic status, well-being, worker autonomy, health, life expectancy and social inequality (Arnett, 2014). Moreover, I argue progression patterns need to be understood through the 'bounded opportunity structures that localities, sectors and the vocational education system create for early adult careers (Evans, 2007; Holford et al., 2023).

Bridging transition and local skills systems, a new secondary quantitative analysis examines middle-high skilled occupational patterns and the prospects for higher-skilled vocational progression for early adults (Finegold and Soskice, 1988). First, in Section 4.2, the middle-skills level is examined as a more complex and extensive skills and qualifications space than wage-based polarisation models suggest (Autor et al., 2006; Anderson, 2009). Next Section 4.3 discusses the local occupational and employment patterns in the three study sectors of construction, [textiles] manufacturing and digital. Sector qualification progression pathways are examined by the age of 25-30 years in 2018-19 in the Northern Region through Longitudinal Economic Outcomes (LEO). Analyses show the importance of the sector and vocational specificity, and how patterns are reproducing in the 'new' vocational technical pathways determined through employer-led Trailblazers. To conclude my first chapter analysis, findings and analysis are integrated towards conceptualising a sector, mid-skill equilibrium and how this might affect prospects for low, mid and high-skilled work.

4.2 Northern Region: a middle-skilled equilibrium?

In the 2020s, English local skills strategies seek the twin outcomes of improved economic productivity and reductions in employment inequality (Green et al., 2017a; Payne, 2018a; Keep, 2022). There is a longstanding operationalisation of skills systems through the lens of skill equilibria, but where there is limited evidence that increasing the supply of 'skills' through more highly trained young workers will increase the number of high-skill jobs, and where equilibria models are more reflective low-wage concerns (Finegold and Soskice, 1988; Laczik and Mayhew, 2015; Sissons, 2021). In these debates of localities as forms of skills ecosystems, scholars have refocused explanations to 'skills patterns at different levels' to better reflect the co-existence of low, mid and high-skilled employment within sectors, and a local area (Sissons, 2021). However, the very 'ordinariness' of 'middle' transitions means little attention is paid to the effects of labour market structures on middle-skilled career prospects. Labour market structural analysis typically focuses on broad high, middle and low skills classifications, where measures of occupational switching between low, mid and high-skilled categories provide a limited understanding of progression processes (Vassilev, 2020). Despite moves to align occupations with qualifications in recent reforms, qualification levels are imprecise proxies for skills (Elias et al., 2023). In this section, I argue that labour market structures which form progression pathways in the mid and high-skilled occupational space are under-explored yet form important career steps for vocationally qualified workers in the prospects for achieving higher-skilled work, and improved intragenerational mobility (Kalleberg and Mouw, 2018).

First in this section, based on Anderson's (2009) study of the 2000s labour market, new secondary analyses examine patterns in local, 'middle' and higher skilled work 2015-2035(projected). Low, middle and high-skilled work is defined through skill levels based on Standard Occupational Classifications (SOC 2020), using 2-digit sub-group occupational data for the Northern Region. Local labour market patterns are drawn from 'The Skills Imperative', a labour market and skills dataset which allows disaggregation by researchers of regional labour market data, with actuals 2015-2020, and projections 2025-2035 (DfE, 2023c; Wilson, 2023). These analyses show the complexity of the 'middle' skilled space, the importance of Major Groups 3 Associate

Professional and Technical, Major Group 5 Skilled Trades, and Sub-Group 12 Other Managers to questions of 'middle' progression to high-skilled work, and the parallel importance of more granular regional data (Anderson, 2009; Wilson, 2023). Then, a second analysis draws from the Skills Imperative data to show patterns of under and over-qualification in the middle-skills space, where the importance of 'the degree' for Professional job roles, and in the Associate Professional and Technical space in the 2020s, in comparison to the dominant vocational Level 2 and 3 patterns in Skilled Trades is seen (Green et al., 2020; Costa et al., 2023). These two patterns are important to understanding middle vocational progressions and the prospects for higher-skilled work for vocationally qualified young adults.

4.2.1 Understanding middle and high-skilled employment structures through the classification of skills in Northern Region

The following middle-skill analysis draws on the work of Anderson (2009) and applies the patterns seen in the 2000s to those of the local skills area, Northern Region, between 2015 and 2035 (projected). Northern Region is a Local Enterprise Partnership (LEP) and Combined Mayoral Authority (CMA)[24] in England. Its geographic boundaries encompass large, cosmopolitan university cities, which have some of the highest levels of regional professional jobs in England. In comparison, post-industrial, smaller cities and towns in the region are still struggling to transfer local economies from the historic traditional manufacturing and heavy industry jobs (DfE, 2024b). The region employs 1,093,600 workers (Nomis, 2024). In the Northern Region, the number of adults holding a Level 4+ qualification is 43.4% of the working age population aged 16-65 years, below Great Britain's average of 47.3%. Level 4+ is typically the entry qualification for access to higher-skill and professional job roles (Nomis, 2024). The proportion holding a Level 4+ is increasing in lower age groups through higher education expansion effects, where in 2023, 56% of 25-29 years held a Level 4+ qualification in the Northern Region, and aged 30-49 years between 51-52%, reducing

[24] https://www.instituteforgovernment.org.uk/article/explainer/local-enterprise-partnerships)

to 41% of the population above the age of 50 years holding a qualification at Level 4 or above (Nomis, 2024). Standard labour market reporting reports Level 4 and above as one category, despite primarily consisting of Level 6+ qualifications. This lack of routine reporting of vocational higher qualification data in comparison to repeated reports of skills shortages at intermediate technical skilled job roles and the reported need for Level 4+ qualifications presents difficulties of routine analysis (Boniface et al., 2018; DfE, 2019b; Wilson, 2023).

Despite the centrality of occupations to employers and individuals, there is no UK-agreed definition of high, middle or low-skill work, with qualifications and length of training typically used as a proxy for skills (Connelly et al., 2016; Elias et al., 2023). In middle-skill transitions to high-skilled work, Bathmaker (2017) notes the importance of jobs defined through the occupational classifications of the 'middle' technical and skills space: Major Group 3 Associate Professional and Major Group 5 Skilled Trades. Bathmaker (2017) describes Major Groups 3 and 5 occupations and the higher level qualifications which support them as forming a liminal space between the boundaries of traditional, technical job roles and those of the 'professional'. This liminality and graduate congestion mean that this is also a vulnerable space for vocationally qualified young workers, where OECD evidence suggests international patterns of vocational displacement into lower-skilled job roles (Green, 2019; Green et al., 2020). Furthermore, in lower-wage, lower-skilled occupations, studies have found employers do not necessarily require formal qualifications, or recognise, or utilise qualifications beyond work-based or health and safety training (Lloyd et al., 2008; Mayhew, 2015).

My new secondary analysis allows the investigation of contemporary labour market structures through a sub-major group occupational lens using the '*Labour market and skills projections 2015-2035*' dataset. This Department for Education (DfE) Skills Imperative dataset shows national, regional and local level employment and skills patterns from 2015, projected to 2035, to provide longitudinal data projections by industry and locality. It provides labour market employment data at an occupational level not available through routine NOMIS reporting, which would usually require specialist quantitative analysis. This means data is accessible through new secondary analysis (DfE, 2023c). The dataset builds on '*Working Futures',* which provides labour

market and skills projections by sector for the UK 2017-2027 (Wilson and Homenidou, 2012; Wilson et al., 2020). To better understand occupational structures in mid and high-skilled work in Northern Region, in the following analyses, I build on Anderson's (2009) model of analysis of the early 2000s labour market structures of intermediate and professional occupations. There are significant gaps in routine labour market data at a local level, hampering efforts of more detailed interrogation of occupational structures that vocationally qualified workers are negotiating, together with limited opportunities for examination of the progression prospects afforded by a local area (Woodman, 2013; Roberts, 2015; Wilson, 2023).

The dataset is timely as it allows skills patterns to be assessed across the pandemic period, showing the relative stability of the broad labour market during Covid-19 from a longitudinal perspective. 2015-2020 reflects actual employment, but 2025-2035 is presented as 'one probable future', where the labour market projection provides one probable scenario of the structures of the middle to high-skilled space, based on historic patterns, and subject to the post-pandemic effects of the Ukraine war, and the cost of living crisis which can affect the reliability of forward labour projections, (Wilson, 2023). The data set uses the UK Standard Occupational Classification (SOC 2020). These are revised each decade and form the primary UK measure for the distribution of workers by occupation within the labour market. Within the classifications, the concept of a job is defined as 'a set of tasks or duties to be carried out by one person, where the notion of a job represents a basic element in the employment relationship' (ONS, 2024b). Jobs are classified into nine Major Groups, commonly by the qualifications, training and experience required to competently perform the job role, which form the routine reporting of labour market outcomes at a national and local level (Nomis, 2024). Major Groups are further categorised into twenty-five different two-digit sub-major and ninety different four-digit minor groups, allowing the main jobs performed by UK workers to be placed into hierarchies of skill for occupations see Appendix A11). Note these categorisations relate to skills and not wages or job quality. Occupational classifications of 'skill' are based on the level and length of training, and/or work experience required to competently perform a job role, in four skill levels (ONS, 2024b):

- Skills Level 4 are professional occupations, usually requiring a degree, or an equivalent period of work experience.
- Skills Level 3 requires education and training, but below degree standard, and /or significant work experience.
- Skills Level 2 requires some post-secondary education and lengthy work experience.
- Skills Level 1 requires a general education with short work-based training.

Skills levels are aligned with two-digit subgroups to allow labour market patterns for occupations to be aligned with 'skill'. Table 4.1 shows the 2-digit classification by Skills Level:

Table 4.1: Skills Levels by 2-digit Sub-group

Skill Level	*Sub-major groups of: SOC2020*
***High Skill Level 4**: "Professional" occupations and high-level managerial positions in corporate enterprises, or national or local government. Occupations at these levels normally require a degree or an equivalent period of relevant work experience.*	11 Corporate managers and directors
	21 Science, research, engineering and technology professionals
	22 Health professionals
	23 Teaching and other educational professionals
	24 Business, media and public service professionals
***Middle Skill: Level 3:** Normally requires a body of knowledge associated with a period of post-compulsory education but not normally to a degree level; a significant period of work experience is typical.*	12 Other managers and proprietors
	31 Science, engineering and technology associate professionals
	32 Health and social care associate professionals
	33 Protective service occupations
	34 Culture, media and sports occupations
	35 Business and public service associate professionals
	51 Skilled agricultural and related trades
	52 Skilled metal, electrical and electronic trades
	53 Skilled construction and building trades
	54 Textiles, printing and other skilled trades
***Middle Skill Level 2:** Large group of occupations, all of which require the knowledge provided via a good general education, but which typically have*	41 Administrative occupations
	42 Secretarial and related occupations
	61 Caring personal service occupations

a longer period of work-related training or work experience.	62 Leisure, travel and related personal service occupations
	63 Community and civil enforcement occupations[1]
	71 Sales occupations
	72 Customer service occupations
	81 Process, plant and machine operatives
	82 Transport and mobile machine drivers and operatives
Low Skill Level 1: *the competence associated with a general education, usually acquired by the time a person completes his/her compulsory education; will also involve knowledge of appropriate health and safety regulations and may require short periods of work-related training.*	91 Elementary trades and related occupations
	92 Elementary administration and service occupations

Source: Adapted from (SOC 2020)

There are criticisms that Standard Occupational Classifications, as an occupational model, do not recognise emerging forms of occupational stratification occurring as a result of changing occupational and class structures. But to date, Standard Occupational Classification remains the primary analytic occupational tool in the UK (Connelly et al., 2016).

Employment by skills level was extracted for 2015-2035 through the disaggregation of two-digit sub-groups comparison in a longitudinal perspective of employment changes 2015-2035 (projected) for the Northern Region, allowing the skills context of pre-Covid-19, pandemic and post-pandemic labour markets to be represented and examined. Visualising these skills categorisations, Figure 4.1 shows that “middle-skilled work” appears as a complex and significant skills occupational grouping which challenges labour market polarisation models and discourse of the declining importance of the ‘middle-skill’ space (Autor et al., 2006;Xu, 2023). My analysis reflects Anderson’s (2009) ‘middle skills’ profile seen in national data in the 2000s, suggesting that the Northern Region could be thought of as pivoting around an extensive ‘middle’ skilled profile by occupational classifications. The dominant ‘low skill’ equilibria framing of local skills systems is contradicted by occupational patterns which suggest a local, ‘middle’ skills equilibria may be more apt (Sissons, 2021).

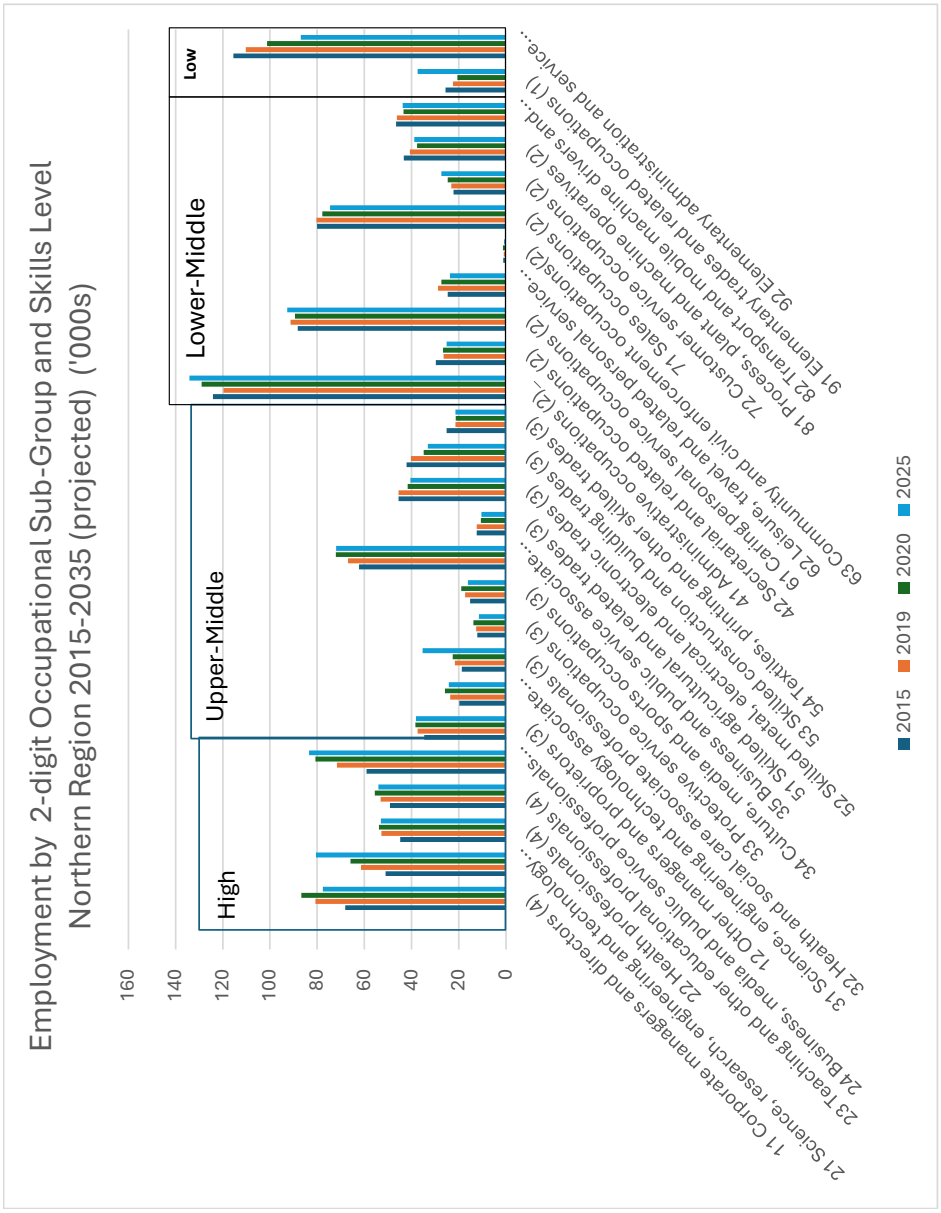


Figure 4.1: Employment by 2-digit occupational sub-group and skills level in Northern Region 2015-2035 ('000s) Source: New analysis (DfE, 2023c)

First, analysis suggests a significant occupational grouping of "*lower-middle skilled workers*" which consists of SOC 2020 Major Group 4,6,7,8. In these occupations, job competency can typically be achieved through education and training at a 'good standard of general education', which typically is educational achievement to age 16 years, plus GCSE English and Maths at Grade 4-9 equivalent, together with further vocational education and in-work experience and training. Occupational groups are typically those of the service sector, business support functions and manufacturing: Major Group 4 Administration and Secretarial; 6: Caring, Leisure and Other Services; 7: Sales and Customer Service, and those of Major Group 8: Process Plants and Operatives. These occupations are also those found in industries typically categorised as containing large numbers of 'low-wage workers, where there are disconnections between vocational policy and employer behaviours for training in some sectors (Lloyd et al., 2008).

Secondly, a grouping of "*upper middle-skilled workers"* consists of SOC 2020 Major Groups 3 and 5, and Sub-Group 12. In these occupations, job competency typically requires significant post-secondary education and training, and in-work experience. Major Group 5 Skilled Workers typically require a substantial period of training, often through work-based training. Major Group 3 Associate Professional and Technical roles are described in vocational policy as typically requiring a high-level vocational qualification, with substantial work experience and/or formal training. But increasingly, there is blurring at the Associate Professional and Technical occupational level as some employers for these occupations require a degree, which has led to the reclassification of Associate Professional job roles into Professional, where the job requires a degree, at the ten-yearly SOC 2010/2020 reclassifications (ONS, 2024b). Disaggregating the proportions of employment by Skills Level, for the pandemic period of 2020, shows the 'shape' of employer demand for skills in Figure 4.2:

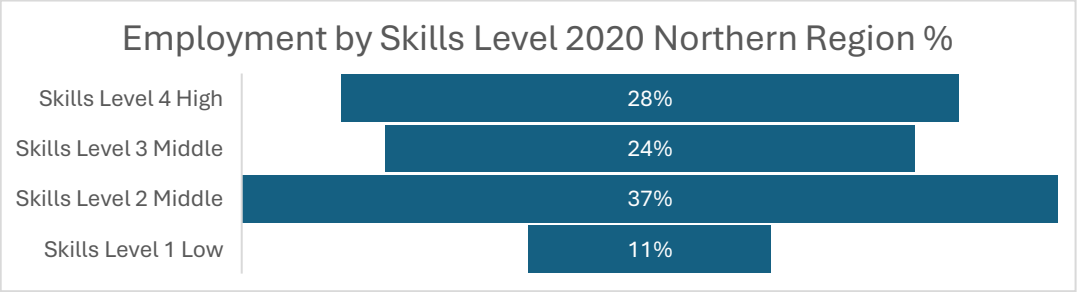


Figure 4.2: Employment by Skills Level 2020 Northern Region (%)

Source: New analysis (DfE, 2023c)

It is important to note these are 'skills', not wage profiles, and designating a skills system as 'mid-skilled' does not negate the significant issue of low-wage work, particularly in groups classified as lower-middle occupational groups in sectors characterised by low-wage work; for example, care, leisure, customer services, retail, food processing (Lloyd et al., 2008; Clark, 2014). Less prominent is the increasing prevalence of contracted-out services in sectors which historically provided progression routes, and where good quality jobs still exist, for example, public services as well as private businesses, but where sub-contracting creates two-tier workforces for progression prospects (Xu, 2023)**.** Skill level patterns reflect the patterns seen in Anderson's (2009) work, and importantly, remain in future projections, shown in Figure 4.3 below:

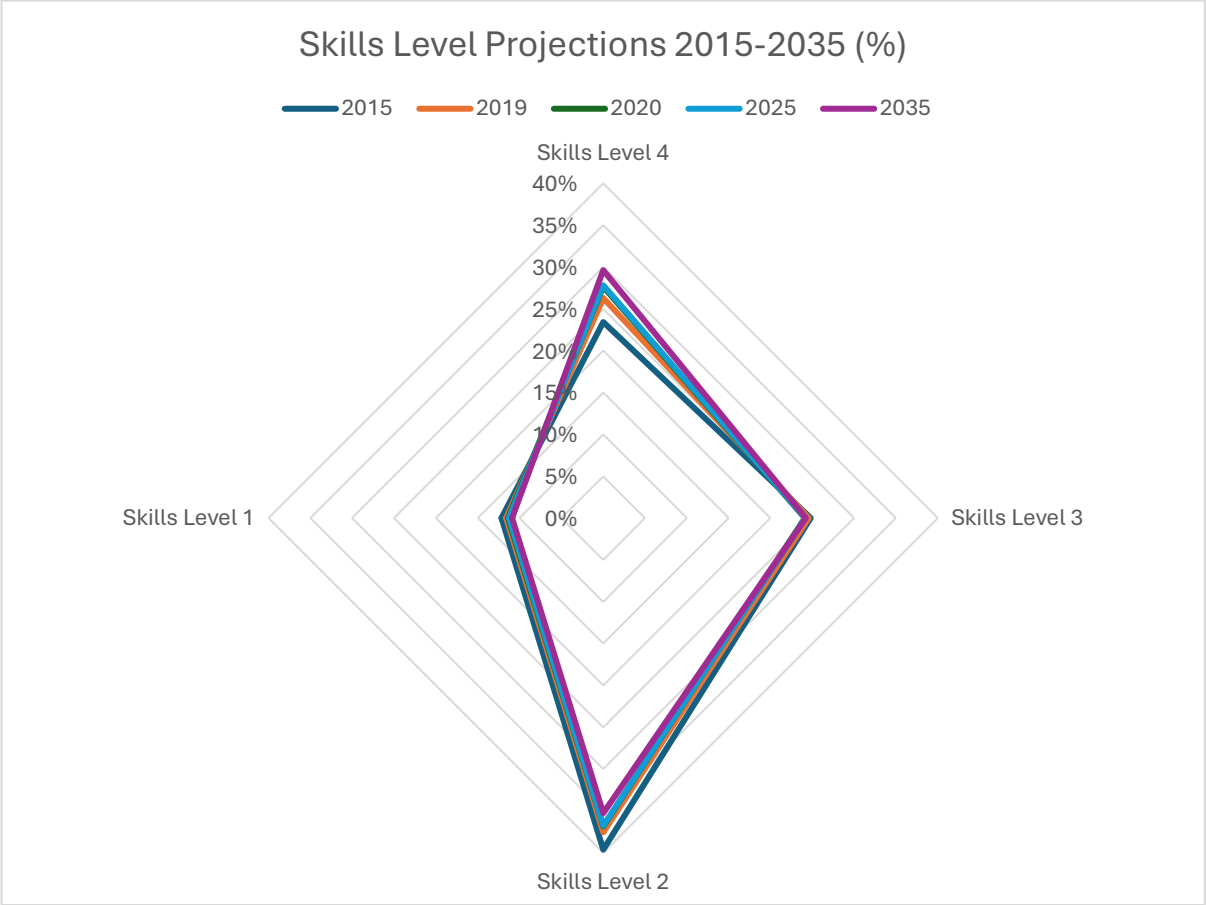


Figure 4.3: Proportion of skilled workers by Skills Level 1-4 (2015-2035) (%)

Source: New analysis (DfE, 2023c)

The homogeneous representation of the 'middle' skilled worker masks significant differences in work quality, pay and status in what constitutes a decent middle-skilled job (Yates, 2022). Importantly, concerns of work quality in some occupations, categorised as Middle Skills Level 2, and the progression prospects afforded by some occupational roles at Middle Skills Level 3 (and to a lesser extent Level 2) means the 'middle' becomes an important local site of inequality, particularly in processes of vocational progressions given wage stratification in some service sectors (Anderson, 2009). Although studies have critiqued Finegold and Soskice's (1988) analysis, particularly through the increasing proportion of high-skill jobs since the 1990s, and whether low, mid and high skills can be separated by typologies, rather than bound by the sector. Important for my study of vocational progression prospects, is that the 37% of jobs characterised as 'middle-skilled' at Skills Level 2 are predominantly those of the lower wage, and often lower quality service sector: care, retail, call centres,

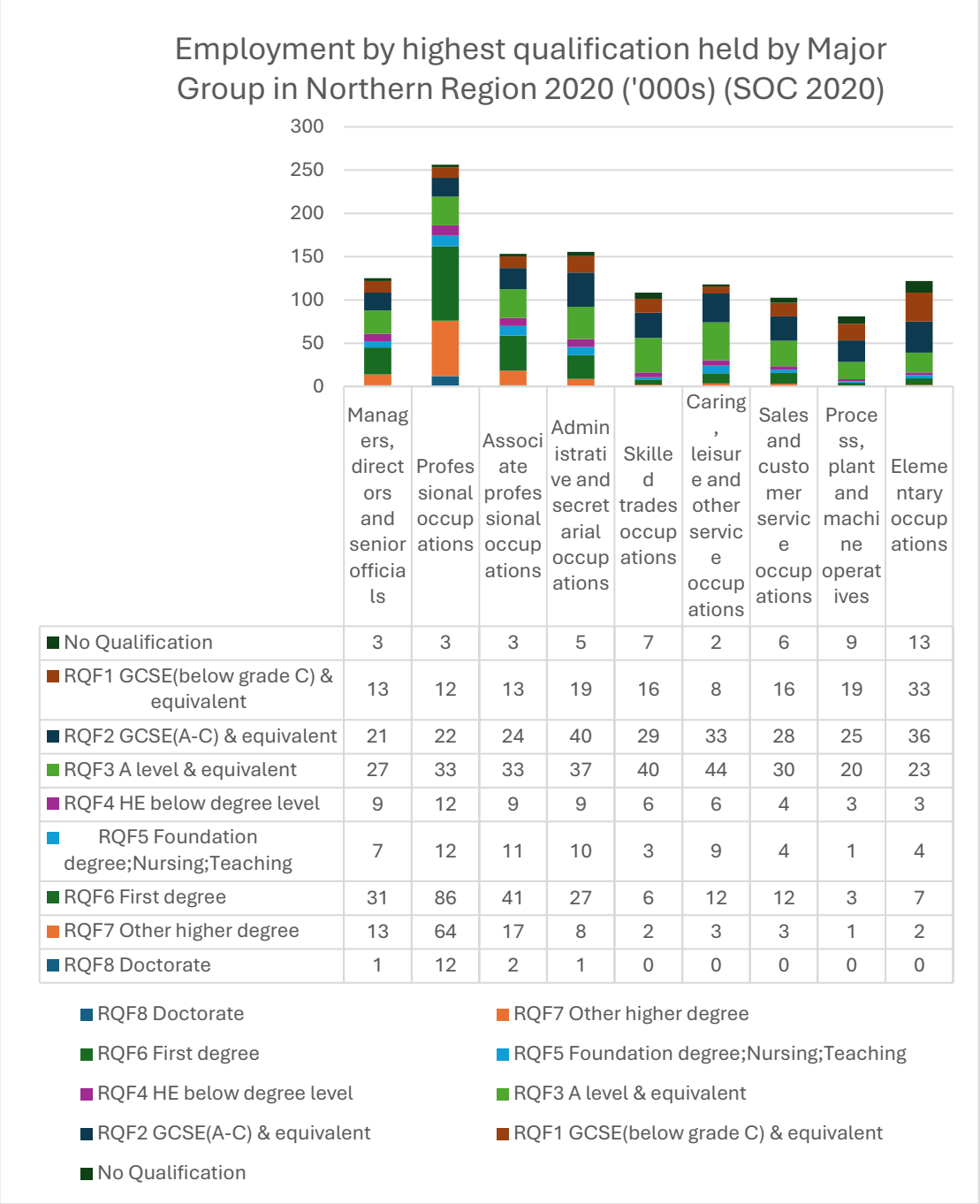
warehousing, and process and plant operatives in manufacturing, construction, where jobs can be characterised by the patterns described by Finegold and Soskice (1988) as those of low skill; low wage levels, poor job quality, and limited progression prospects (Lloyd et al., 2008; Mayhew, 2015). Sissons notes that the dominant discourse and operationalisation of regional or local skills remains a low-skill equilibrium approach, with the low-skill equilibrium 'an influential framing for policymakers but where definitions of low-skill equilibria can be 'fuzzy', as more often "a label to describe a predominance of comparatively low-paid work, and less an explanatory concept" (Sissons, 2021, p.1545). There has been limited development of Finegold and Soskice's (1988) critiques of the disconnections and poor quality of education and training in the UK and the low supply of skills, but where the significant changes to the education system and the increased supply of workers with qualifications at Level 2,3 and 4+ are not reflected (Sissons, 2021, p.1544). Importantly, skills demand patterns need to be placed in the current realities of over-qualification in the English labour market, particularly through the supply of graduates, and displacement of vocationally qualified young workers from traditional vocational 'middle' routes (Robson et al, 2025; Green, 2019).

4.2.2 Qualification profiles in the 'middle' and high-skills occupations

Northern Region

In this section, I examine qualification patterns by Major Group in Northern Region, continuing to draw from the Skills Imperative Labour Market and Skills dataset. Appendix A11 shows the typical qualifications assumed in policy for each occupational grouping (SOC 2020). However, evidence suggests that there is approximately one-third of graduates are over-qualified in the English labour market, but the regions experience higher levels of overqualification (Xu, 2023). This is particularly important in questions of middle pathways (Green, 2019; Bathmaker, 2017). Occupational qualification mismatches occur where employees hold qualifications beyond those required for the job (overqualification), or in underemployment, where formal qualifications are beneath those deemed required to perform the job competently, but where in informal work training, experience, or in skills shortages, employer adaptation of the

requirements for a job role means a worker is employed (Dalziel, 2017). Experience plays a significant part in job competency, particularly in traditional vocational routes (Guile and Unwin, 2019; Altreiter, 2021). Figure 4.4 shows the analysis of Northern Region employment by highest qualification held for 2020, allowing examination of patterns of qualifications held by Major Group by the number of workers (thousands):



	Managers, directors and senior officials	Professional occupations	Associate professional occupations	Administrative and secretarial occupations	Skilled trades occupations	Caring, leisure and other service occupations	Sales and customer service occupations	Process, plant and machine operatives	Elementary occupations
No Qualification	3	3	3	5	7	2	6	9	13
RQF1 GCSE(below grade C) & equivalent	13	12	13	19	16	8	16	19	33
RQF2 GCSE(A-C) & equivalent	21	22	24	40	29	33	28	25	36
RQF3 A level & equivalent	27	33	33	37	40	44	30	20	23
RQF4 HE below degree level	9	12	9	9	6	6	4	3	3
RQF5 Foundation degree;Nursing;Teaching	7	12	11	10	3	9	4	1	4
RQF6 First degree	31	86	41	27	6	12	12	3	7
RQF7 Other higher degree	13	64	17	8	2	3	3	1	2
RQF8 Doctorate	1	12	2	1	0	0	0	0	0

Figure 4.4: Highest qualification held by Major Group (SOC 2020) employees in Northern Region (2020) ('000s) Source: New analysis (DfE, 2023c)

Major Group 5 Skilled Trades is an outlier in the educational hierarchy presented in Table 4.1, requiring 'a substantial period of training' against more general and some vocational qualifications in Major Groups 4,6,7,8. Figure 4.4 shows two important patterns for my study of vocational progression pathways, centring on the mid-high skills space. First, in Skilled Trades, the dominance of Level 2 and 3 qualifications in this workgroup, where extended work-based training, typically through apprenticeships, is the norm, and where progression in 'Skilled' intermediate level work involves experience as well as formal qualifications. Secondly, Associate Professional and Technical job roles are a site of increasing professionalisation of job roles. Only 6.4% of workers hold a degree in Skilled Trades, and 9% a Level 4 or 5 qualification. This suggests limited overqualification in Skilled Trades, where, instead, the higher qualification profile more closely reflects Dalziel's (2017, p.152) suggestion that :

> *" The decision to invest in education is made at a single point in a person's life, based on a good knowledge of future income prospects with or without a qualification."*

In comparision, as a proportion of workers, 39.3% of workers in the Northern Region hold a degree at Level 6+, but in Major Group 2, Professionals, 63% of workers hold a Level 6+, and 9% a Level 4 or 5 qualification, and in Major Group 3, 39% hold a Level 6 + qualification, with 20% holding a Level 4 or 5. This reflects Felstead et al (2013) 'professionalisation' patterns, with a degree required for certain occupations. However, Bathmaker (2017, p.2) describes an "increasing blurring of divisions between Associate Professional and Professional occupations, particularly where a particular level of qualification is not required as a licence to practice. It is also difficult to ascertain what is overqualification in Major Group 3, and what qualifications are agentically determined by workers to further their careers. For this analysis, the pandemic period is chosen to reflect my fieldwork, recognising some disruption to employment patterns through Covid-19, but where I argue that the occupational patterns seen in Section 4.2 suggest relative stability of occupations across time (ONS, 2025).

Furthermore, there is extensive evidence of the lack of visibility of vocational pathways, with qualification traps and ceilings on earnings (Raffe, 2015). Hodkinson et al. (2013) argue that investments in post-compulsory schooling need to be seen as

sequential, whereby individual decisions are subject to past opportunity and constraint, meaning that if vocational qualifications have been difficult to access in the past, or have brought limited reward, an individual is less likely to risk further investment. Importantly, these two perspectives point to the importance of understanding the processes which support individual career turning points, or job sequences, particularly in less certain and visible vocational routes (Kalleberg and Mouw, 2018). These patterns are important because of the need to situate vocational progressions, here the typical requirement of sub-degree but extensive training and experience at Major Group 3 Associate Professional and Technical, with the realities of the English labour market and patterns of graduate overqualification.

Over and under-qualification in the UK labour market occurs across the labour market with commentators suggesting that skills mismatches are forecast to continue as there is no 'engine of jobs' awaiting technological change but forecasting that employers will continue to recruit highly qualified workers to perform lower-skilled work in international patterns of labour market and qualification mismatches (Clegg, 2017; Sloane and Mavromaras, 2020; Brown et al., 2020; Xu, 2023). Future job projections are predominantly 'replacement' demand, the workers required to compensate for leavers and retirees, rather than new jobs (Wilson, 2023). The review of the literature showed how studies suggest 'middle' occupations are vulnerable to employers using graduates to fill job roles, or existing workers being informally upskilled, with evidence of the difficulties of aligning qualifications to occupations, with no guarantee that employers will utilise those qualifications (Green et al., 2020; Keep, 2020; Costa et al., 2023). These patterns, on the one hand, challenge notions of 'ladders of opportunity through higher vocational pathways at Associate Technical. This also shows that workers are holding Level 4,5 qualifications in Professional job roles, but these may be historic, older worker levels, or reflect more recent analyses of employers pragmatically upskilling in job roles outside of formal qualifications (Costa et al., 2023). These patterns suggest that how employers utilise qualifications in the mid-high skills space is not as simply aligned as vocational policy and reform suggest (Hubble and Bolton, 2019b).

4.2.3 Conceptualising skills in the middle: a mid-skill equilibrium?

To date, there have been limited conceptualisations of progression 'through the middle' by skills and qualifications in a local area, where the workforce is becoming increasingly qualified, but there are longstanding concerns about job quality (Sissons, 2021). There is a need to better represent different skills and industry levels, where I argue that if vocational reform is to succeed, the structures of mid to high qualifications and occupations require a new analysis through the lens of the middle-skilled space (Sissons, 2021). Employment by occupations provides one framework through which to explore local skill structures and vocational progression prospects (Anderson, 2009). Sector occupational classifications orient the 'middle' to dual upper-mid (Skills Level 3) or lower-mid (Skills Level 2) skilled work categories:

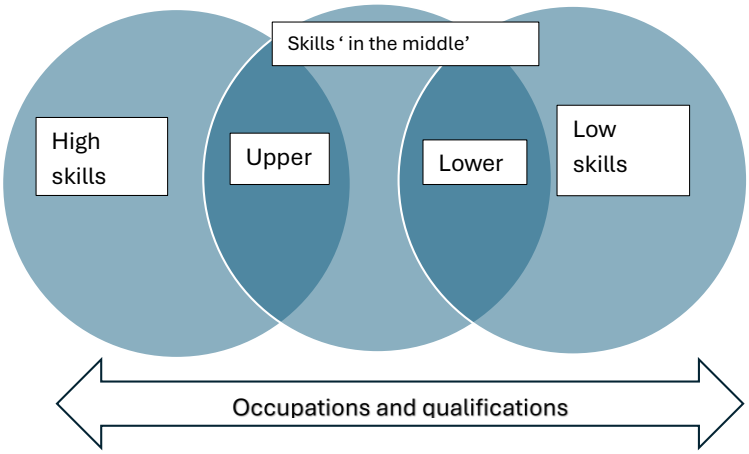


Figure 4.5: Towards a new Mid-Skill Equilibria

Adapted from:(Finegold and Soskice, 1988; Finegold, 1999)

These two groupings reflect two different progression prospects. In Skills Level 3, occupational groups of Other Managers and Proprietors, Associate Professionals and Skilled Trades in Skills Level 3 provide decent career progression prospects (Anderson, 2009). Northern Region appears to be a dominant upper middle to high skills system, where 60% of the region's jobs are in Major Groups 1-3 or Major Group 5, which are categorised as high or upper middle-skilled, at Skills Level 3-4. At Skills Level 2, many of the occupational groups are those which, despite being classified as 'mid-skill' in

Standard Occupational Classification, present concerns over job quality and earnings in predominently low-wage sectors (Lloyd et al, 2008). Thus “middle-skilled” employment at Skills Level 3 and 2 is a significant, but also complicated local skills grouping, forming over 53% of Northern Regions job roles by SOC classifications, and challenging narratives of reducing numbers of ‘middle-skilled’ workers, rather than ‘middle pay’ jobs, with implications for how progression ‘in the middle’ occurs (Kalleberg and Mouw, 2018). Furthermore, occupations in the middle, intermediate-skilled worker space of Associate Professionals and Technical occupations, important for progression to professional occupations, are at risk of graduate displacement of vocationally qualified workers, where evidence suggests graduates may signal higher potential, or employers may benefit from more highly qualified young workers at lower occupational gradings (Green, 2019). I recognise that there are limitations to a skills and occupations approach, where assumptions that diverse occupations can be categorised into just four levels of skill are problematic, and where ‘experience’ rather than formal qualifications is difficult to identify or categorise. However, skills categorisations provide a basis to explore patterns of occupational skills, education and training structures in the labour market through a nationally recognised occupational classification (Connelly, 2016).

The following section builds on the patterns identified in Section 4.2 at a local skills level, to examine the vocational qualification progression patterns occurring at a local sector level for early adults aged 25-30 years.

4.3 Local vocational progression prospects: a three-sector comparison

This section examines the local progression patterns for higher-level vocational progression. Vocational reform aims to create new pathways to higher-skilled work, with occupational structures explicitly linked to qualification progressions, and objective presentations of qualifications as ‘*possible and probable’* (author's own italics). Reforms aim to emulate more socially inclusive and equitable vocational education systems, such as in Germany, where the dual vocational system actively works alongside the higher education system to support ‘permeability’ between the two systems for access to higher levels of qualifications (Nikolai and Ebner, 2011; Laczik

and Mayhew, 2015; Green and Pensiero, 2017). In the UK, successive governments have encouraged increased participation in higher education. It is in this established and politically powerful university Bachelor's degree qualification landscape that vocational reform is attempting a foothold of mid-high skilled work progression, through higher level vocational qualifications; those at Levels 4,5, and 6+; Higher Technical Qualifications (HTQs) at Level 4-5, and Level 6 Degree apprenticeships (Hubble and Bolton, 2019b). Currently, there is limited vocational progression or engagement with Level 4, 5 qualifications (DfE, 2019b). In comparison, the success of the degree apprenticeship programme is leading to intense competition for pathways beyond the traditional and original focus of a vocational demographic (Hubble and Bolton, 2019a; Cullinane and Doherty, 2020). This means the higher level vocational space allows examination of both occupational traditions, norms and processes of career progression, and the intersection between demand for mid and higher level skills, and the opportunity structures and cultural position of the technical vocational education system (Roberts, 2009; James Relly, 2022; Knight et al., 2022). There are two main routes for higher level vocational progression from Level 2/3: progression through Higher Technical Qualifications (HNC/HND and Foundation degrees) at Level 4,5, which allow a reduced pathway to Level 6 completion, and through higher level apprenticeships at Level 4-5-6 where HTQs have struggled to gain traction against the expansion of Level 6 Bachelor degree study, and the steady increases in higher level apprenticeships (Hubble and Bolton, 2019a; Knight et al., 2022). These two pathways are argued in the literature to show the different social positioning of qualifications depending on the heritage and tradition of the qualification (Esmond and Atkins, 2020). Discourse about ‘high-skilled workers’ is embedded in the (English) social and aspirational framing of the value of higher education as the route to high-skilled work (Roberts, 2018, p.79). Literature suggests limited social expectation that vocationally qualified early adults will achieve high-skilled work, or hold higher level qualifications, where job and in-work training opportunities in a local area create forms of geographic ‘bounded agency’ (Evans, 2007).

There is very limited longitudinal economic outcomes data for early adults routinely collected by industry, sub-sector and region (Wilson, 2023). In this section, I draw from

an under-explored dataset, *Career Pathways: Post 16 qualifications held by employees* (DfE, 2022a). Building on the initial DfE (2022a) analysis, and drawing on new secondary quantitative analysis, I examine vocational progression through three local sectors in the Northern Region: textiles manufacturing, construction, and digital, which provide distinct occupational, skills and qualification profiles. It is important to note that Longitudinal Economic Outcomes data for qualifications reflect the Department for Education's geographic boundaries, rather than those of Local Enterprise Partnerships. This disconnection in routine metrics of reporting highlights some of the difficulties of integrating qualification patterns and employment outcomes (for example, see Wilson, 2023). The dataset provides a pre-pandemic qualification context for my study, allowing interrogation of sector and sub-sector patterns and trends in qualifications held and median earnings achieved. This section explores the opportunity structures created through different sectors and qualification structures. The dataset includes all young workers aged 25-30 years, employed through PAYE in the industry, and holding Regulated Qualification Framework (RQF) from qualifications below Level 2 to Level 7 academic and vocational post-16 qualifications. My analysis shows the potential of local-level data in a better understanding of the prospects for progression through 'middle' vocational qualifications, towards, and into high-skilled work (Roberts, 2012; Roberts, 2015).

First, through new analysis, Northern Region 'local area' occupational patterns of middle and high-skilled employment are determined in three sector comparisons, to show similarities and differences in Major Group presentations, including gendered patterns. Sectors were chosen for their support for higher-level vocational progressions, which, by their STEM framing, follow wider gendered industry norms (Fuller et al., 2005). Secondly, a new analysis explores early adult [vocational] qualification progressions, qualification patterns by industry, median earnings and occupational alignment in educational pathways aged 25-30 years in the pre-pandemic context of 2018-19 (DfE, 2022a). Finally, new analysis shows how existing sector qualifications patterns are reproducing in the new, 'employer-led' TVET pathways, where reproducing patterns of opportunity and constraint were seen in a documentary analysis of the 'new' IFATE occupational mapping. These three effects 'bound' the

vocational qualification system, providing emergent explanations as to the processes and prospects for access to higher-skilled work through vocational pathways. They form only a ‘snapshot’ of three sectors but reflect wider patterns seen in a four-sector analysis of England’s highest employing sectors for early adults aged 25-30 years (Tatham, 2024). Identified patterns form the basis for the analysis of my qualitative interviews in Chapters 5-6 (Evans, 2007a; Holford et al., 2023).

4.3.1 The local context: patterns of middle and high-skilled employment in construction, textiles manufacturing, and digital sectors

My three case study sectors provide insights into occupational patterns and worker prospects for progression in three diverse, but important industries. These form part of Northern Region growth priorities: Engineering and Advanced Manufacturing (Textile Manufacturing), Low Carbon (Construction), Digital and Technology (Digital), Creative Industries (Textile Manufacturing) and Construction. Employment presents distinct occupational patterns by industry. Figure 4-6 shows the very different profiles of the middle and high-skilled workforce and the relative size of occupational groupings across the three sectors. Note Manufacturing is used as a proxy for textile manufacturing because sub-sector data isn’t available at this level (Wilson, 2023). These patterns are important because for middle and high-skilled progression to occur, the jobs must exist, and the following comparative perspective shows the different numbers of workers by Major Group by sector.

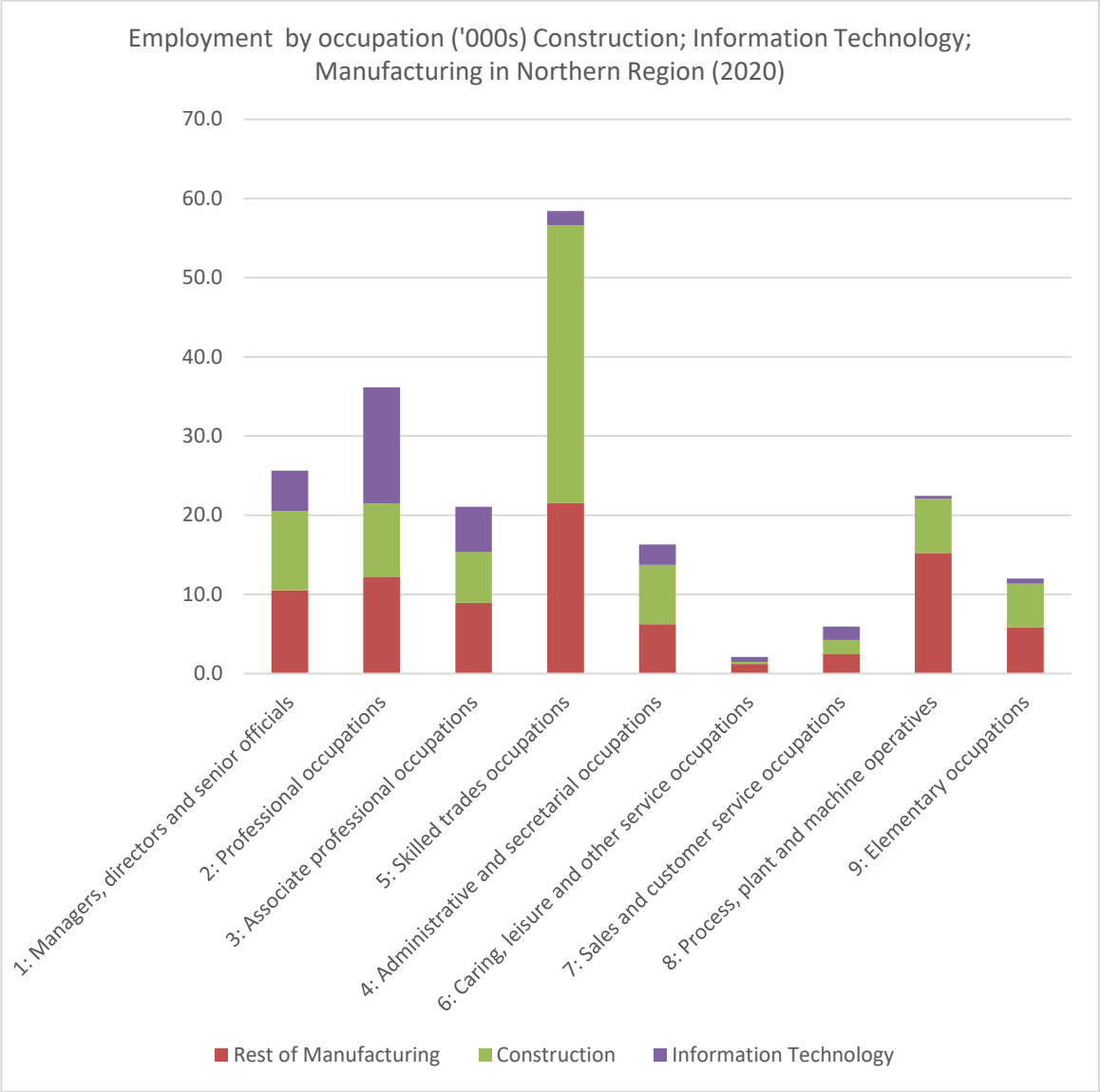


Figure 4.6: Employment by occupation (all workers) Construction, Information Technology and Manufacturing in Northern Region (2020) (000's)

Source: New analysis (DfE, 2023c)

In middle pathways, construction and manufacturing in Major Group 5 Skilled Trades are the largest occupational groups with 42% and 26% of workers employed, respectively, in a significant grouping reflecting the practical, Skilled Trades job roles of manufacturing and building processes (BMG Research-CITB, 2023). This is in comparison to only 5% of the digital workforce. However, Associate Professional and Technical job roles form 17% of the digital workforce, reflecting the number of technician job roles; in comparison, only 8% for construction, and 11% for manufacturing. Importantly, construction and manufacturing Skilled Trade jobs reflect

decent work routes, reflective of strong middle pathways at upper middle skills levels, but where there is limited evidence that Skilled Trades provide routes to more highly qualified work, instead, experience manifests itself typically in small business ownership and self-employment (BMG Research-CITB, 2023).

Occupational profiles indicate the propensity of a sector to support progression to higher-skilled work, given the importance of Associate Professional job roles as a stepping stone to Professional careers (Bathmaker, 2017). Moreover, the professional nature of job roles in the digital sector of 44% of job roles at Major Group 2 Professional, in comparison to 11% for construction and 15% rest of manufacturing, reflecting Brown's (2020) 'knowledge economy' industries requiring high numbers of highly qualified, professional workers. Managers and directors form similar proportions across the three sectors. Nationally, Figure 4.7 shows young workers make up approximately one-third of the workforce in the construction, manufacturing and digital industries:

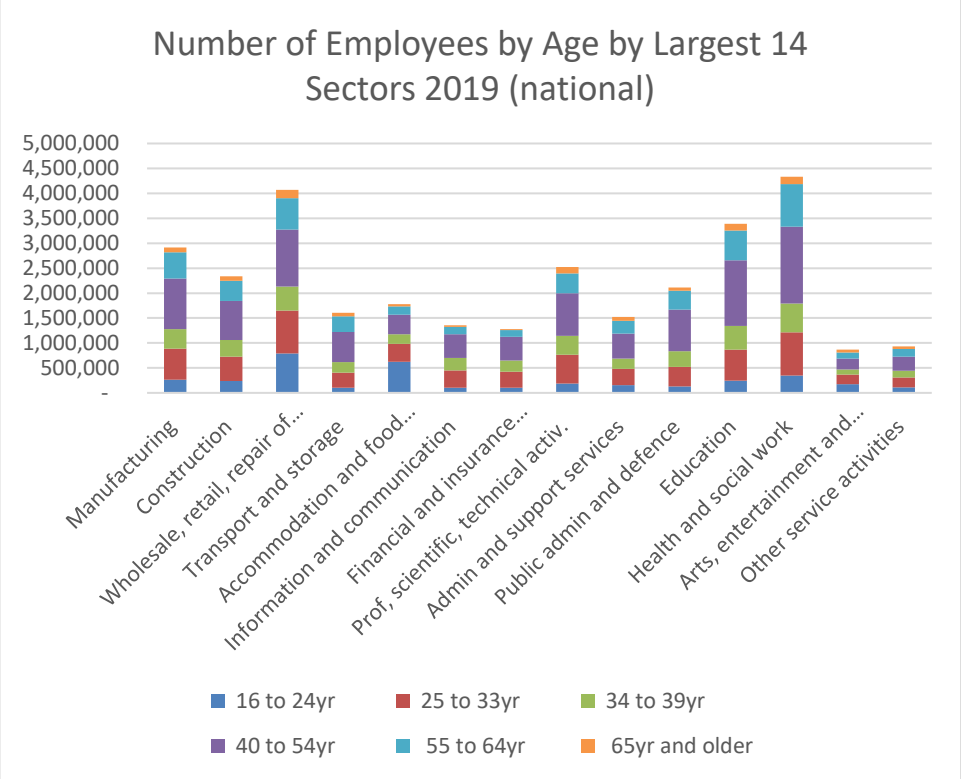


Figure 4.7: Number of employees by age by the largest 14 sectors (national) 2019

Source: New analysis (ONS, 2020)

Disaggregation of 2019 data shows the number of young adults 16-33 years form 30% of the manufacturing workforce, 31% of construction and 33% of the information and communication workforce. Manufacturing and Construction sectors are characterised by ageing workforces, where 21% of the manufacturing and construction workforce are over 55 years old, against only 13% in information and communications technology (ONS, 2020).

Employment in the three sectors is also highly gendered. The effects of gender were not the primary focus of the research study; more than in seeking higher vocational progressions, identified routes were in male-dominated industries (D'Arcy and Finch, 2016; Espinoza and Speckesser, 2019; Roberts, 2019). Table 4.2 shows that in the three study sectors, females are underrepresented at every upper-middle and high-skill occupational level (SOC 2020 Skills Levels 3 and 4):

Table 4.2: Employment by occupation, sector and male and female workers in Northern Region (2020) ('000s)

Skills Level	Northern Region Employment ('000s)	Rest of Manufacturing		Construction		Information Technology	
	M=Male; F=Female	F	M	F	M	F	M
4/3	Major Group 1:Managers, directors and senior officials	2.0	8.5	2.4	7.6	1.2	3.8
4	Major Group 2: Professional occupations	2.6	9.6	1.7	7.6	2.5	12.2
3	Major Group 3: Associate professional and technical occupations	2.8	6.1	1.7	4.7	1.6	4.1
3	Major group 5: Skilled Trades occupations	1.4	20.1	0.4	34.7	0.1	1.7
2	Major Group 4: Administrative and secretarial occupations	4.4	1.8	4.4	3.1	1.4	1.2
2	Major Group 6: Caring, leisure and other service occupations	0.7	0.5	0.1	0.2	0.3	0.3
2	Major Group 7: Sales and customer service occupations	1.3	1.1	0.9	0.9	0.8	0.8
2	Major Group 8: Process, plant and machine operatives	2.4	12.8	0.1	6.7	0.1	0.3
1	Major Group 9: Elementary occupations	1.7	4.2	0.5	5.1	0.1	0.5

Source: New analysis (DfE, 2023c)

Occupations are further stratified with fewer females in Skilled Trades in comparison to Associate Professional and Professional job roles, reflecting entrenched patterns of gender stratification in occupations and technical vocational education. In construction and manufacturing, the number of females in the workforce is very low in comparison to the male skilled workforce. This is important given the potential of these routes to provide progression to decent work. This data is for manufacturing overall, with the database not providing textile manufacturing-level data, reflecting the gaps that exist in routine reporting (Wilson, 2023). Separate studies of women in manufacturing show that although textiles manufacturing in the UK is more evenly balanced at 44.5% of the workforce female, where subsectors reflect industry-wide patterns of under-representation in Skilled Trades such as electricians, upholsters, and managers and professional job roles including engineering and IT (Castañeda-Navarrete et al., 2024, p.14). Digital has some of the widest professional gender gaps across the three sectors, but where gaps reflect long-standing stratification age of 16-18 years in STEM and construction subjects (Jarman et al., 2012; D'Arcy and Finch, 2016). The gendered segregation of many technical vocational and STEM sectors is extensively explored, and the stronger non-graduate progression routes are typically seen in male and occupationally specific career pathways. Described by D'Arcy and Finch (2016, p8) as 'ladder climbers', studies show workers who progressed were mainly older males, working in the top half of occupations by pay, including Skilled Trades, where their 'success' was a function of the industry, occupationally aligned training, and access to further training (D'Arcy and Finch, 2016, p.8; Espinoza and Speckesser, 2019). This group reflect Roberts' (2019) assertions that in some, mainly male working class routes, there are strong occupational returns from vocational routes, typically accessed via an apprenticeship in traditional industries.

In the following section longitudinal economic outcomes analysis builds on the three distinct 'skills' sector types: textiles manufacturing as low-mid technical occupations, but with large numbers of process and plant operatives and skilled trades; construction as predominantly a 'mid-skills' occupational profile, but with relatively low numbers of Associate Professional and Technical job roles; and digital with high proportions of professional job roles.

4.3.2 Understanding qualification progression as 'flow' to age 25-30 years

Longitudinal patterns of qualification progression in early adulthood are important to determine the patterns of qualification acquisition seen in sector pathways. A temporal perspective is needed because of the importance of the life course phase, age 25 years plus and the transition to high-skilled work (Roberts, 2009; Kalleberg and Mouw, 2018; Nilsen, 2024). This section uses Sankey diagrams to show the 'flow' of qualifications achieved by early adult employees by age 25-30 years. Sankey charts allow indications that these are movements within 'fields', rather than more static quantitative bar and line representations, and show the different volumes of employees by sector by qualification level by age 25-30 years (Anderson and Nelson, 2021). By the age of 25-30 years, the highest qualification achieved takes on a distinct sector profile, or qualifications 'field'. Note these are the highest qualifications held, and do not guarantee that those qualifications are utilised by employers, or in the current occupation of the employee. Table 4.3 shows the proportion of employees by sector who hold which highest qualifications by level.

Table 4.3: Employment by sector(employees) and highest qualification held in Northern Region 25-30 years (2018-19)

Northern Region Sector Employees and highest qualification held aged 25-30 years (2018-19)	Below Level 2	Level 2 (excluding GCSEs)	Level 3 (Inc A 'Level)	Level 4/5 HNC/HND	Level 6 (Degree)	Level 7(Masters)	Total Employees
Manufacturing (a proxy for Textiles Manufacturing)	980 (7%)	4690 (36%)	4590 (35%)	700 (5%)	2180 (17%)	58 (<1%)	13198
Construction	600 (6%)	3280 (36%)	3590 (40%)	370 (4%)	1040 (11%)	180 (2%)	9060
Digital	(<50) (<1%)	650 (12%)	1620 (31%)	280 (5%)	2210 (42%)	460 (9%)	5220

Source: New analysis (DfE, 2022b)

Important patterns are, at Level 3 and below, in construction (82%) and manufacturing (78%) of the workforce aged 25-30 years holds a Level 3 qualification or below. Level

4+, higher qualified employees form 17% and 22% respectively of the highest qualifications. In digital, in contrast, 56% of the workforce hold a Level 4+ qualification, with a significant number of young employees (44%) qualified at Level 3 and below, but with qualifications concentrated 'in the middle' at Level 3. However, to understand how these qualification profiles are reflected in Northern Regions employment, employee numbers better reflect sector size and job opportunities.

By the age of 25-30 years, employees in the three sectors in Northern Region hold distinct qualification profiles by sector. In Figure 4.8, a Sankey representation of the highest qualification held by sectors in comparative perspective shows the qualification opportunity structures of Level 2,3, Level 4,5 and Level 6,7 qualifications by sector achieved by 25-30 years:

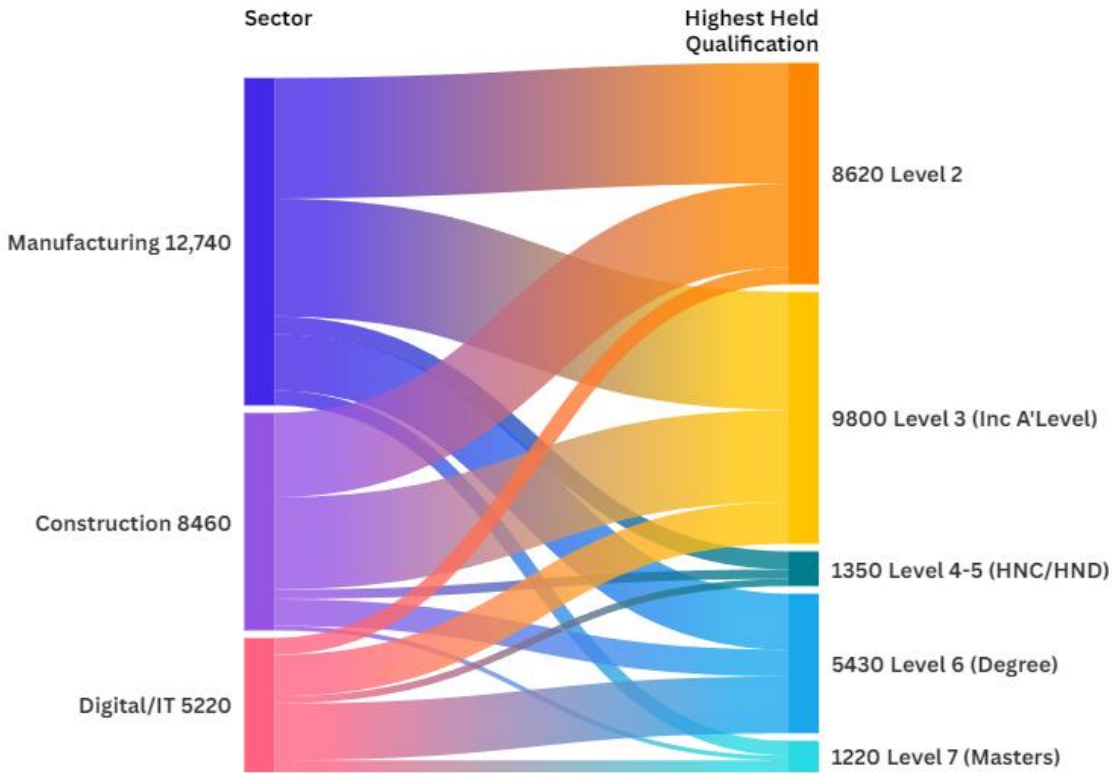


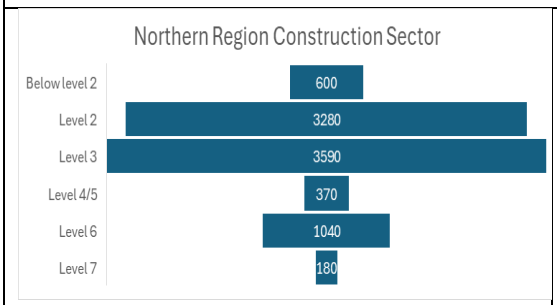
Figure 4.8: The 'flow' of highest qualification achieved by total employees by sector by age 25-30 years in comparative perspective Northern Region (2018-19)

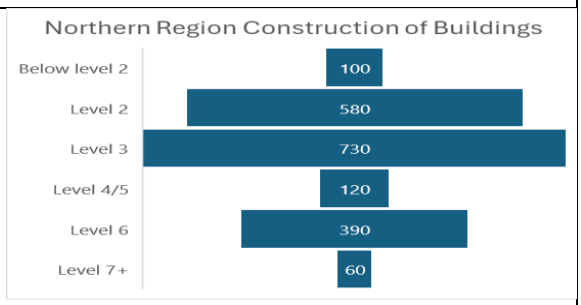
Source: New analysis (DfE, 2022b)

Textiles manufacturing (below) shows very similar patterns to manufacturing overall, but with relatively low numbers of workers aged 25-30 years. Transition theories of

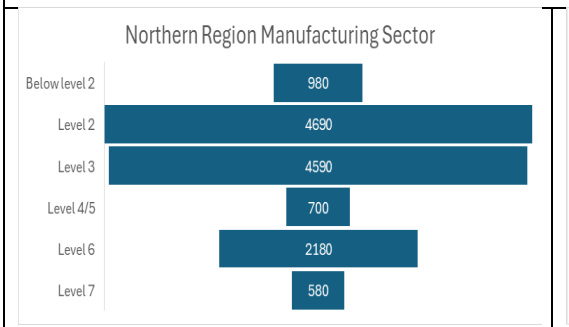
early adult decision-making of career steps or qualifications are predicated on rational economic choices, whereby early adults make choices within the visible opportunity structures available to them (Guile and Unwin, 2019b). By age 25-30 years, young workers are typically embedded in a sector and occupational field (Cominetti et al., 2022). In my analysis, visualisation by qualification profiles and flow indicates the types of skills equilibria processes that may be occurring in a sector (Sissons, 2021). Rather than the traditional skills models of localities as predominantly low skill equilibria, instead, sectors form distinct qualification profiles by early adult employees aged 25-30 years by highest qualification held (Figure 4.9), which indicate a sector tendency to lower (textiles manufacturing), middle (construction) or high (digital) skills and qualification processes.

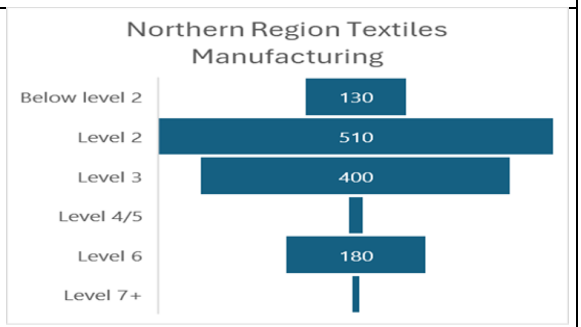
Construction as a Middle qualification and skills systems





Textile manufacturing as a lower-middle skills and qualification system





Digital as a high skills and qualification system

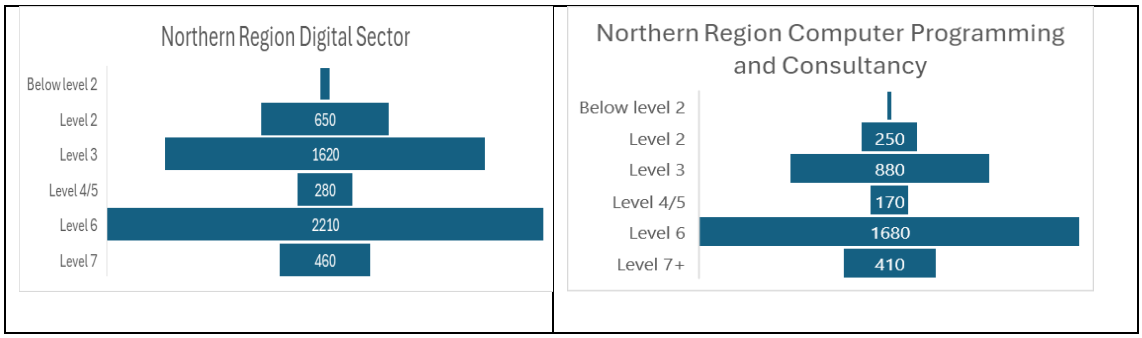


Figure 4.9: Employment by sector (employees) by highest qualification held, aged 25-30 years Northern Region (2018-19).

Source: New analysis (DfE, 2022a)

From my analyses, building qualification profiles allows the examination of under-researched 'skills problems' in a local area (Sissons, 2021, p.1554). Importantly, Buchanan, Anderson, et al (2017a, p.459) argue that even where these skills arrangements might seem 'sub-optimal' in qualifications or skilled workers, they are adequate for employer needs. The very different progression flows by sector broadly reflect industry occupational structures in distinct patterns at Level 2-3 and Level 6, achieved by early adult workers aged 25-30 years, reflecting more than occupational demand for qualifications, but the different ways in which experience and progression might be represented (for example, see (Harris et al., 2021; Steer Economic Development, 2021; BMG Research-CITB, 2023).

Importantly, rather than the typical youth transition focus of the pivot for employment outcomes through an age-based, temporal and institutional framing at the end of compulsory schooling or university, Longitudinal Economic Outcomes (LEO), begin to move important career sequences processes into an early adult life course framing, where evidence suggests the career pathway achieved by age 30 years is indicative of longer-term economic prospects, but where highest qualification held, and the sector employed becomes an important pivot for future progression (Arnett, 2014; Nilsen, 2024). Within these broad sector qualification structures, there are distinct within-sector processes. To better understand qualification steps within early careers to 25-30 years, secondary analysis, the dataset of the top third of highest earning pathways allows extraction of longitudinal qualification steps by age 25-30 years. The data is limited by only providing the top one-third of earning pathways for progression from

Level 2 and 3 qualifications, respectively, and at a national level, by sector, not sub-sector level. However, these qualification sequences provide important comparative insights into the prospects for vocational progression in the three sectors, including non-progression. As the highest earning pathways, these are predominantly those of occupationally specific qualification progressions for vocational pathways, or academic A-levels. Common patterns across all three sectors were very high proportions of non-progression beyond Level 3 and from Level 4,5. However, Level 3 is well recognised as a key pivot for forward transition; in academic routes, this is normalised through the relatively linear A-Level to degree level study transitions that typically occur 18-20 years. However, in vocational routes, the pattern is very different, reflecting the 'middle' complexity seen in Section 4.2. Anderson and Nelson (2021) argue in their analysis of total qualification pathways, that there appears little difference between groups of young people who hold A-Levels and those that hold Level 3 vocational qualifications, but where studies suggest early adults will choose to invest in education as a form of rational choice as to the future income prospects available to them with, or without a qualification, where the sector forms a key opportunity structure. In all three sectors, there was very limited transition from Level 4,5 into Level 6 pathways by age 25-30 years.

First, in construction in Figure 4.10, at a national level, by age 25-30 years in construction transitions from Level 3 to Levels 4,5 and 6, the following pathways are seen:

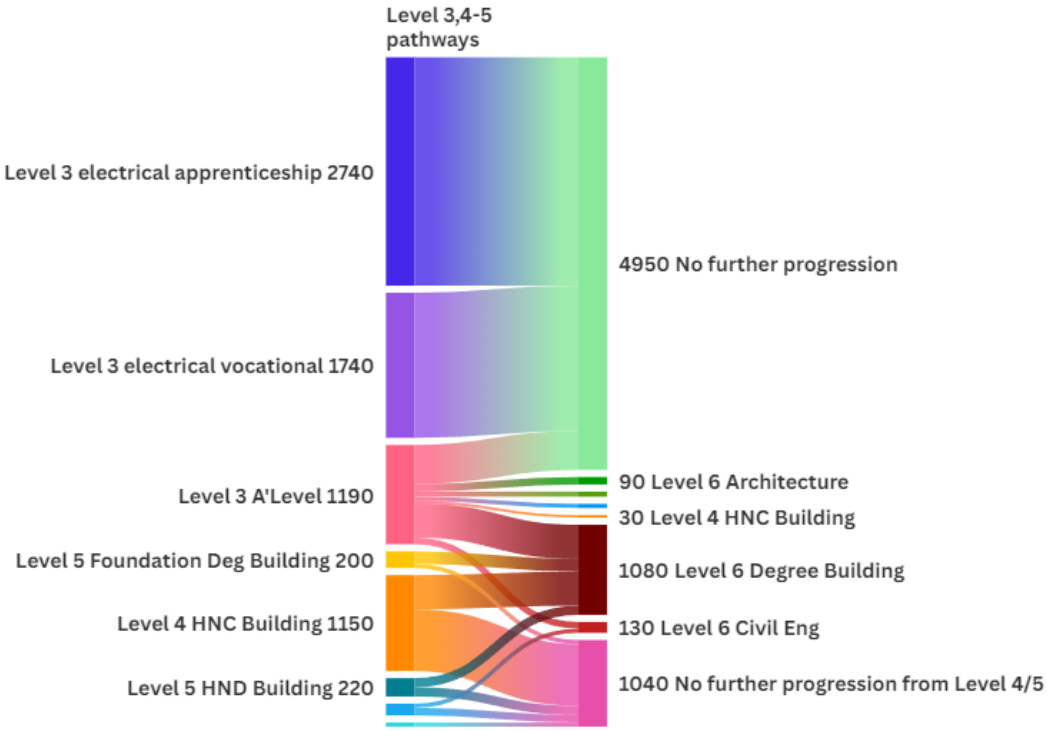


Figure 4.10: Construction Level 3,4-5 progression for employees in the highest earning pathways aged 25-30 years, England (2018-19)

Source: New analysis (DfE, 2022a)

Out of 7,240 Level 3 high-earning pathways, the most common progression was 'No further progression', with 87% of workers holding a Level 3 as their highest qualification. This reflects the very high proportion of workers in the industry for whom Level 3 is the highest qualification. This pattern also brings into question whether large numbers of higher-skilled, professional jobs are needed if young workers choose to upskill. Electro-technical pathways are the most common high-earning pathway in construction, and where no employees progressed further than Level 3. All other Level 3 highest third earning pathways were A-Level pathways, of which 61% translated to degree level study, with 39% with no further progression. Of 1,760 Level 4,5 qualifications, 1,040, or 59% resulted in no further progression by the age of 25-30 years, but 41% transitioned to a Level 6 degree pathway. Secondly, that Level 4,5 progression typically occurs at age 25 years plus. There was only a limited Foundation degree progression. This suggests Level 3 is forming a key site of the reproduction of inequalities, but also opportunities in the employment structure of the industry where

decent work and strong wage returns are possible for young adult employees holding Level 3 and below qualifications.

Next, in manufacturing, the top third, highest earning pathways are engineering and electrical routes, shown in Figure 4.11:

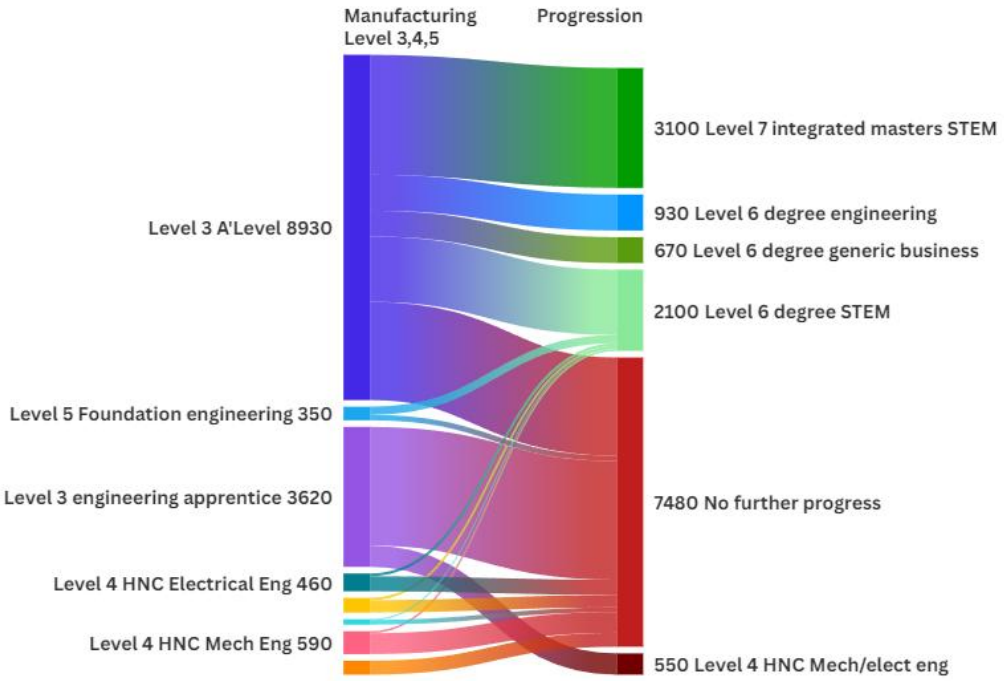


Figure 4.11: Manufacturing Level 3,4,5 progression in the highest earning pathways for employees aged 25-30 years, England (2018-19)

Source: New analysis (DfE, 2022a)

In my analysis, Level 3 engineering apprenticeship transitions are important to understand the very different progression patterns seen between academic A-Level cohorts and vocationally qualified young workers who hold a similar Level 3 qualification (Anderson and Nelson, 2021). Of 3,620 Level 3 engineering apprentices, only 16% went on to Level 4 study level study, with 84% having no further progress, in one of the highest earning pathways by age 25-30 years in Manufacturing. Further disaggregation shows that in textiles manufacturing in the Northern Region, Level 3 engineering apprenticeships median salaries were £34,100 pa. Studies suggest that Level 3 qualifications reach a ceiling at the age of 30 years, whereby afterwards the absence of Level 4 qualifications can negatively affect progression, and where graduate earnings continue to rise across the life course aged 30-40 years old (Britton et al.,

2020). In comparison, in A-level pathways, 72% of employees had transitioned to degree-level study. Manufacturing has some of the highest proportions of Levels 4-5, but where only a small proportion of young employees transition to Level 6 in comparison to A-Level entry to degree pathways. Two Level 4 pathways had participation too low to register in the graphing above. Moreover, where vocational progression from Level 4-5 to Level 6 occurred, it was to only Level 6, rather than the high-status Integrated Masters. Overall, there was limited evidence of large numbers of higher-level vocational transitions, reflecting the low participation seen in wider studies, and where there was little evidence of vocational permeability beyond Level 4,5, and with the majority of Level 3 vocational qualifications leading to no further progression by age 25-30 years.

Finally, in digital, at Levels 3,4 and 5, Figure 4.12 shows a twin-tracked higher-skilled progression process, where, through predominantly academic qualifications, young people progress to high-paying job roles with degree-level qualifications. There are very limited Level 4,5 routes, but these are Level 5 Foundation degree and Level 4 HE Certificate access courses, rather than vocational qualifications. The digital technology apprenticeship, which forms part of this study, was just beginning in 2018-19, where only 10 employees were recognised nationally in the highest earning pathways.

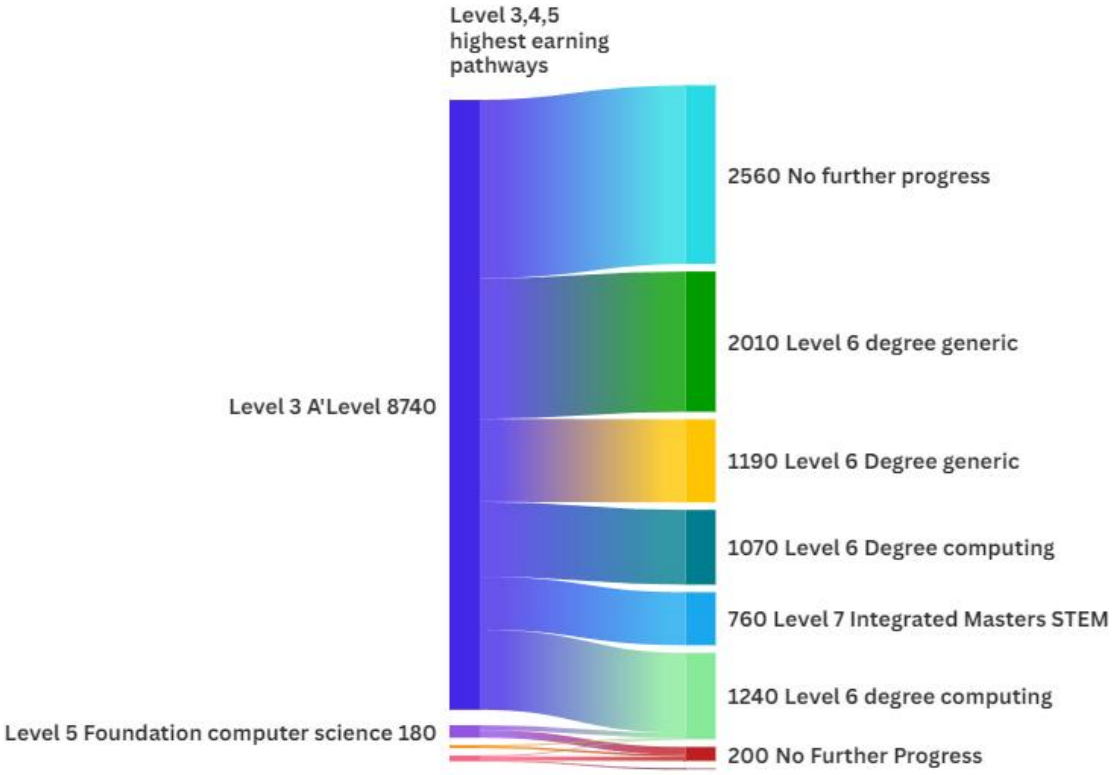


Figure 4.12: Information and Technology Level 3,4,5 progression to the highest earning pathways for employees aged 25-30 years, England (2018-19)

Source: New analysis (DfE, 2022a)

In digital, there were very limited, higher-earning pathways via vocational qualifications, where the dominance of A-Levels as the primary progression route was clear. Two progression pathways were too low to register on the visualisation above; the Level 5 IT apprenticeship had only 80 participants in this cohort, of whom only 10 (12.5%) went on to a Bachelor's degree, and 12% progressed to a Level 6 digital degree apprenticeship. Secondly, there were a small number of Level 4 HNCs in computer science. These patterns show the predominant patterns of non-progression via vocational qualifications in Level 2 and 3 pathways in the digital Level 4,5, and 6 qualifications, which provide access to high-skill and high-earning professional job roles. Less than 1% of workers hold below Level 2 qualifications. Level 4-5 is at relatively low levels of 4.5%, where dominant pathways to high-skilled work are via traditional Bachelor's degrees. Importantly, in highly skilled STEM occupations, there is disproportionately lower access to STEM subjects in Higher Education for lower socioeconomic groups and to more prestigious courses (Ro et al., 2021). Savage (2015)

suggests that industries such as the digital sector support relatively high levels of social mobility through sector support for rapid access to professional work in early careers, and then long-term access to considerable graduate premium across the working life course (Britton et al., 2020). For early adult workers who do not choose a full-time degree route, this is more problematic, where early career mobility in the digital sectors is one of the relatively fast degree transitions in comparison to early adult workers who take a digital occupational vocational route, and who become 'stuck' or face ceilings at Level 3 qualifications by the age of 25-30 years.

4.3.3 Median earnings: distinct by sector, and by occupational specificity

In a final analysis, sector patterns of median earnings by qualification also provide distinct sector patterns. These are between sectors and within sectors. Education is regarded as a 'positional good' in the English labour market, where my literature review discussed the increases in median earnings achieved by individuals from accessing increasing levels of education, reflected in human capital theories but also social-cultural presentations of the value of knowledge and a 'degree' (Brown et al., 2013; Tan, 2014; Brown and James, 2020). Labour market segmentation theory positions vocationally qualified occupations as lower-skilled, of lower quality, and typically poorer working conditions in low-road models of skill (Laczik and Mayhew, 2015; Mayhew, 2015). However, in the following analyses, sectors value similar qualification levels in different ways, with my analyses reflecting strong relationships between occupational specificity in some sectors, for example, construction (Espinoza and Speckesser, 2019; Tatham, 2024).

First, using a new secondary analysis of median earnings and qualification profiles for Northern Region, disaggregation of the 'middle' qualification space of Level 3,4, and 5 qualifications demonstrates distinct employer 'value' through median earnings inculcated through Level 3,4 and 5 qualifications, including wage-earning at and beyond graduate levels at a similar age. In comparative analysis, Table 4.4 shows typical median earnings by highest qualification held across the three sectors in the Northern Region:

Table 4.4: Northern Region Three Sector Comparison: Construction, Textiles Manufacturing, Digital Median Earnings (£ pa) for employees aged 25-30 years in 2018-19

£ median earnings pa Northern Region age 25-30 years in 2018-19	Below level 2	Level 2	Level 3	Level 4/5	Level 6	Level 7+	Median
Construction	£22,100	£25,500	£28,100	£31,300	£29,000	£31,200	£26,900
IT	£18,700	£21,300	£24,600	£25,000	£28,600	£30,000	£26,000
Manufacturing	£20,300	£22,400	£25,800	£33,000	£25,800	£30,600	£24,400

Source: New analysis(DfE 2022b)

In Northern Region, in 2018-19, construction, despite its mid-skilled qualification profile, has the highest median earnings at £26,900 pa in the three sectors, reflective of the decent career afforded through Skilled Trades routes for predominantly male workers, which typically are a function of occupational specificity, on-the-job experience and access to further education and training through employers (D'Arcy and Finch, 2016) This is seen in construction in the strong median wage levels of Level 3 qualifications at £28,100 in 2018-19. Manufacturing and Digital Level 3 earnings were lower than construction, but still reflective of median graduate earnings at a similar career stage.

Level 4,5 median earnings in traditionally strong vocational sectors of construction and manufacturing were above graduate earnings for the sector. Data for Northern Region was not available by sub-sector of textile manufacturing. Chapter 5 shows that where the (limited) Level 4 progressions exist, there are strong median earnings. In comparison, graduate earnings five years after graduation in 2018-19 in the Northern Region were reported as £25,400pa. Although the graduate premium needs to be regarded as lifetime effects through the ability of graduate entry to place young workers on progression tracks which lead to accelerated learning, at age 25-30 years, construction occupationally specific qualification routes at Levels 2 and 3 were

achieving salary levels approximately 25% more than regional median graduate salary levels five years after graduation (Bridge and Matthew, 2019; DfE, 2022d; Xu, 2023a).

However, empirical studies suggest that the highest-earning vocational pathways are also those which are occupationally specific (D'Arcy and Finch, 2016; Espinoza and Speckesser, 2019). Disaggregation of the data by subject showed a strong relationship between occupational specificity at Levels 3,4, and 5 and median earnings. Importantly for all three sectors, the number of occupationally qualified young workers only formed a proportion of the workforce, where disaggregation of 'subject' by qualification levels begins to reveal the importance of occupational specificity in early careers in the three study sectors. Table 4-6 shows the most common subject areas and the number of early adult employees who hold qualifications at each level:

Table 4.5: Comparison of median earnings for construction, manufacturing and digital by most common subject aged 25-30 years 2018-19 (£ pa)

Northern Region Construction sector comparison across the most common subject areas						
Median Earnings by subject area £ pa	Business, Finance	Construction	Engineering and Manufacturing	Science and Mathematics	Leisure,	Median Salaries
Below level 2	U[25]	U	U	£23,700	U	£22,100
Level 2	£21,000	£27,500	£26,500	£24,300	£26,000	£25,500
Level 3	£22,500	£29,400	£33,100	£22,500	£25,500	£28,100
Level 4/5	£21,800	£35,900	£34,400	U	£28,400	£31,300
Level 6	£26,700	£37,900	£27,800	£24,700	£24,700	£29,000
Level 7+	£26,000	£36,600	£31,400	£26,400	U	£31,200
Median Salary	£23,300	£30,300	£31,100	£24,200	£25,400	£26,900
Employees	720	2720	1900	500	550	9000
Employees %	8%	30%	21%	6%	6%	

[25] In the dataset Employee numbers are rounded to the nearest 10, annual median earnings are rounded to the nearest 100 and percentages are provided to the nearest one decimal place. Figures have been suppressed with the value 'u' for annual earnings based on fewer than 10 employees; Data Guidance (DfE (2022))

Northern Region Manufacturing sector comparison across the most common subject areas						
Median salaries per annum £	Arts, Media	Business,	Construction	Engineering and Manufacturing	Science and Maths	Median Salaries
Below level 2	U	U	£21,800	£19,900	£21,200	£20,300
Level 2	£22,400	£20,800	£23,700	£23,900	£22,800	£22,400
Level 3	£21,500	£22,000	£25,700	£32,000	£24,700	£25,800
Level 4/5	£19,500	£25,500	£33,900	£37,900	£24,000	£33,000
Level 6	£21,900	£27,600	£27,200	£34,100	£26,600	£25,800
Level 7+	£21,700	£31,500	£29,400	£36,200	£28,000	£30,600
Median Salary	£21,700	£23,300	£24,600	£30,500	£24,700	£24,400
Employees	1410	1310	1320	3790	1230	13710
% Employees	10%	10%	10%	28%	9%	

Northern Region IT sector comparison across the most common subject areas						
	Arts, Media	Business, Finance	Information Technology	Engineering and Manufacturing	Science and Maths	Median Salaries
Below level 2	U			U	£17,700	£18,700
Level 2	£22,100	£20,200	£22,300	£25,100	£24,000	£21,300
Level 3	£22,500	£24,600	£26,300	£27,000	£21,900	£24,600
Level 4/5	£25,100	£28,000	£25,400	£28,500	£21,500	£25,000
Level 6	£23,700	£31,200	£30,300	£30,100	£30,000	£28,600

Level 7+	£23,900	£27,500	£32,500	£32,800	£31,700	£30,000
Median Salary	£23,300	£26,300	£28,900	£28,600	£27,300	£26,000
Employees	670	870	1460	310	530	5260
% employees	13%	17%	28%	6%	10%	

Source: New analysis (DfE, 2022a)

Alignment with occupational standards is suggested by Kalleberg and Mouw (2018) as a key component of whether a job role will support upward career mobility for young workers. Construction has strong traditions of male apprenticeship pathways, typically in occupationally specific pathways. In construction and manufacturing, the strong earnings achieved from Level 3 occupationally specific qualifications are seen in the Level 3,4,5 and 6 earnings: construction £29,400 (Level 3); £35,400 (Level 4,5); £37,900 (Level 6), providing more detail as to the sector patterns of skills value and utilisation. Engineering qualifications at Level 3 provide very strong earnings at £33,100, together with Level 4,5 at £34,400. In textiles manufacturing, there is a lack of occupational specificity to the majority of qualifications held; the exception is for Level 3 engineering apprenticeships, showing a return of £34,100, mirroring Roberts's (2019) decent working-class routes from apprenticeships, and well above all-industry graduate returns, which average £27,400 (2018-19). Until the 2020s, there were no textiles-specific Level 4 vocational qualifications (see Chapter 5). This reflects the combination of the qualifications and work experience providing enhanced earnings aged 25-30 years from Level 3,4, and 5 qualifications seen in the research of strong working-class, male routes (Boniface et al., 2018; Roberts, 2019; Espinoza et al., 2020). ‘Winners’ in construction and manufacturing reflect D’Arcy and Finch, p. (2016, p.9) ‘escapers’; those [male] young workers who enter a traditional industry, typically with a history of apprenticeships, and for whom progression to Level 3 and Level 4,5 produce median earnings above those of graduates in the region at a comparable temporal career stage (D’Arcy and Finch, 2016). In comparison, the digital sector reflected the expansive nature of graduate STEM recruitment from many disciplines into graduate-level work. Less than one-third of the workforce held an information and technology qualification as their highest qualification. Level 4 and 5 qualifications for four out of five subject

areas were at or above median graduate salaries five years after graduation in 2018-19, but in all cases, graduate salaries outperformed the region and Level 3,4,5 qualifications. However, median graduate salaries were below those seen from occupationally specific qualifications in construction and manufacturing. However, the dataset only includes employees. In construction, 42% of the workforce is self-employed, where qualifications generally reflect employees who are more likely to be in Skilled Trades (BMG Research-CITB, 2023, p.7).

However, for large numbers of young workers, their pathway is not occupationally specific, instead reflecting a zig-zagging career of occupational switching, carrying risks of reduced earnings and qualification mismatches (Wolf, 2011). Regional patterns of sector subjects for construction mirrored national patterns identified by the DfE(2022) of approximately 50% of the workforce holding a construction-specific qualification. Only one-third of the manufacturing workforce held 'manufacturing' qualifications. In the three sectors, it is difficult to ascertain the number of early adults employed in generic business support roles, for example, finance, sales and marketing, and Human Resources(HR), or where a lack of subject specificity might indicate overqualification and skills mismatches. In construction, the highest earnings are from occupationally specific subject pathways of construction and engineering, taken by 30% and 21% of early adults, respectively. However, the numbers of early adults who do not hold an occupationally specific qualification in part reflect the patterns of overqualification seen in Section 4.2, showing the need to better interrogate young adult career sequences and the distribution of young workers in sector occupations (Keep and Mayhew, 2014).

There were two patterns seen in industries with traditions of graduate recruitment rather than strong vocational traditions (Brown, 2020; James Relly, 2022). First, in Textiles Manufacturing, in a polarised workforce between lower-skilled operative routes and graduate, professional job roles, the oversupply of graduates appeared to depress degree earnings. Textile Manufacturing median salaries are low at Level 6 at £22,700. The textiles manufacturing sector had high numbers of fashion and design graduates in comparison to the number of graduate jobs, with Prospects (2023) reporting that fifteen months after graduating, only one-fifth (19%) of textiles design

graduates are working in the sector, in fashion (12%) and design occupations (6%)(Harris et al., 2021). Then, in digital (Information Technology), qualification profiles reflected the 'graduate' nature of the workforce, and presented high median salaries, but below those of the construction sector. Level 6+ workers earn a median salary of £28,600. Importantly, Level 4-5 returns (£25,000) were more reflective of Level 3 returns (£24,600) than Level 6 (Warhurst and Thompson, 2006; Brown, 2020). For young people who choose an apprenticeship route, returns at Level 3 are above those of average regional graduates (£24,600) at a similar career stage.

These patterns underpin further distinct patterns seen by vocational and academic pathways by sector. In the following section, the analysis explores progression by qualification type, where the long-standing stratification of academic and vocational pathways, particularly at higher vocational levels, is marked in some sector pathways.

4.3.4 Employer-led vocational pathways: the [re]production of opportunity and constraint by sector

In the final analysis, I turn attention to the new employer-led higher-level vocational pathways emerging. I argue that there has been little attention paid to whether the unequal progression prospects seen in by sector will reproduce into the 'new' vocational pathways, reproducing existing structural inequalities, or if new forms of inequality may emerge (Laczik and Mayhew, 2015; Bathmaker, 2017). These processes directly affect the career sequences available to early adults, presented as objectively '*possible and probable'* [author's own italics]. These were noted in the interview by Robert, a Senior Skills Adviser, Thinktank, to Parliament, as 'new' insights into the 'national architecture' of occupations (IfATE, 2025):

> *" There needs to be a bit more national architecture for standards……I like the way that IfATE are moving with the occupational maps…. not take employers'….involvement away, but to just streamline it a bit and make sure that everything connects….There aren't gaps rather than just letting them rush away with lots of different occupations." Robert, Senior Skills Adviser, Thinktank, to Parliament*

Technical vocational qualification sequences are designed by and agreed upon with employers through National Trailblazer groups, thereby legitimising qualification

pathways and the opportunities or inequalities they represent. Technical vocational qualifications are grouped through related knowledge, skills and behaviours into one of fifteen occupational routes (Sainsbury, 2016). Technical Vocational Education and Training (TVET) qualifications are now aligned to a 4-digit occupational standard[26](the move to 'standards'), which consists of the knowledge, skills and behaviours required for a worker to be competent to perform a job role. My analysis draws on IfATE (2025) occupational mapping to provide an understanding of employer-determined vocational progressions. Included in this analysis are T-Levels, apprenticeships and Higher Technical Qualifications (HTQs) from RQF Level 2-7. Table 4.6 shows the links between qualification progressions and occupations for construction, digital and textiles manufacturing industries:

Table 4.6: Technical Vocational Progressions: Construction, Textiles Manufacturing, Digital Occupations

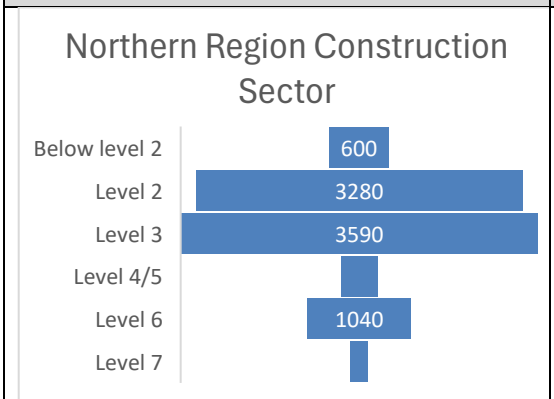
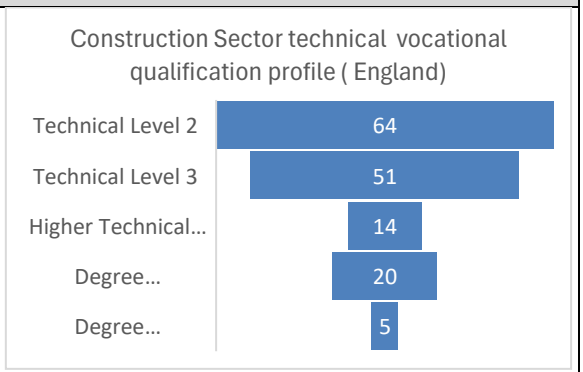
Pathways	Technical Level 2	Technical Level 3	Higher Technical Level 4-5	Professional Level 6	Professional Level 7+_
Technical qualification	Level 2 TVET Level 2 apprentice	Level 3 TVET T-Levels Level 3 apprentice	Higher Technical Qualifications (HNC/HND) Level 4 and 5 apprenticeships	Degree level 6 apprentice	Level 7 apprentice
Typical occupational level	Major Group 5 Skilled Trades Major Group 8 Process and Plant Operatives		Major Group 3 Associate Professionals Major Group 5 Skilled Trades Major Group 1/Subgroup 12 Other Managers and Proprietors	Major Group 2 Professional Occupations Major Group 1 Managers, Directors and Officials	
Construction: On-Site Construction	E.g. Carpenters, plasterers, bricklayers, scaffolders, site supervisors and managers				
Construction: Building Services/Engineering	E.g. Electricians, gas fitters, heating engineers and plumbers, site supervisors and managers				
Construction: Design, Planning and Surveying	E.g. Civil engineering technicians, quantity surveyors, town planners				

[26] https://www.instituteforapprenticeships.org/occupational-maps/what-is-an-occupational-standard/

Textiles Manufacturing specific	E.g. Textiles Manufacturing Operatives/Sewing Machinists, Pattern Cutters, Garment Makers, Team Leaders, Fashion and Textiles Product Technologists, Technical Specialists
Digital	E.g. Software development technician; Information Communication Technician; Cyber security technologist Digital and Technology Solutions Professional

(Adapted from IFATE,2025)

Progression is presented as objective reality, aligned with occupational standards into progression pathways which are homogeneous by sector. Occupational maps allow the interrogation of vocational progression processes, making visible possible career sequences, where reformed vocational pathways are explicitly linked to improved intragenerational mobility (DfE, 2021). These qualification profiles are qualifications, not the number of employees, but provide an understanding of the type and levels of qualifications demanded by employers. Mapping these sequences by qualification levels shows the 'shape' of employer demand for qualifications by level in Figure 4.13, and how those patterns compare to those seen by sector, aged 25-30 years:

Qualification profile by sector, Northern Region, aged 25-30 years 2018-19	**Technical vocational pathways (IfATE, 2024)**
	

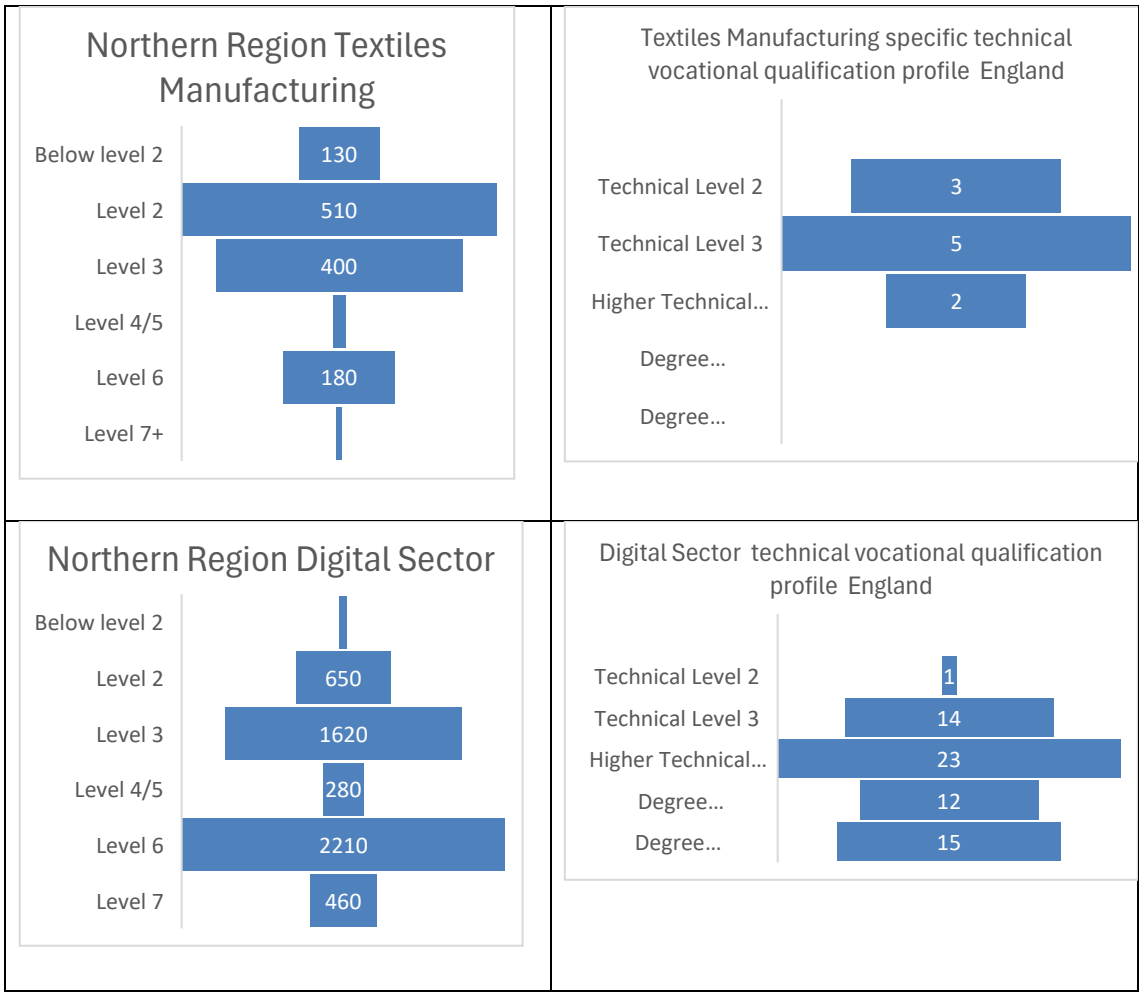


Figure 4.13: The reproduction of historic qualification patterns into reformed TVET pathways

New analysis (IfATE, 2025)

These representations can only provide a broad pattern and trend comparative approach, where qualification demand by employers at different TVET levels indicates the differing complexity of occupational structures which require distinct training. However, cross-comparison of sector longitudinal patterns of highest qualification held by age 25-30 years, present similar profiles to qualification profiles by level in the reformed TVET employer-led pathways, raising questions as to whether the desired improvement in higher level vocational progressions will be realised, or whether the effects of sector occupational structures and how progression inequalities are reproduced are little recognised.

In summary of longitudinal patterns of highest qualifications held by early adults by age 25-30 years, in sector comparison, through new secondary analysis of Northern Region

Longitudinal Economic Outcomes (LEO) data for Levels 3, 4, 5 and 6 qualifications, shows that sectors present distinct opportunity structures or ceilings, with important within sector as well as between sector differences (Kalleberg and Mouw, 2018; Green, 2021a; Sissons, 2021). My findings suggest important vocational patterns are first, those of the 'qualification profile' of the sector, where progression to the highest qualification held by age 25-30 years suggests textiles manufacturing forms a low-mid skills profile, construction, a mid-skill, and digital a high skills profile. I argue that these indicate the low, mid or high skills equilibrium processes likely to be important in employer and educator processes of sector skills. Next, the diversity of the sectors by highest qualification held patterns by age 25-30 years suggests that education-to-work and education-in-work transition processes are diverse by sector (Vogt et al., 2020). Rather than the current youth transition focus of employment transitions which are explained through the pivot of the end of compulsory schooling and /or university aged 18-25 years, where vocational progressions are typically represented through two main pathways, one to upper working class job roles, and one to lower middle-class occupations, my new analysis suggests a more complex framing of early adult vocational career progression, which are reflective of international studies, and the extant literature of higher vocational pathways, including degree apprenticeships (Vogt et al., 2020; Esmond and Atkins, 2020).

Moreover, the prospects for higher-level vocational transitions also have to be placed within graduate sector patterns, including oversupply and overqualification. Longitudinal Economic Outcomes vocational data is limited, but analysis of the 2018-19 dataset for 25-30-year-olds from the examination of only three sectors, emerging patterns suggest in-career transition processes at vocational qualification Levels 4,5,6 reflect the following occupational progression to higher skilled work, with distinct temporal positioning, and occupational specificity. However, there appears to be limited vocational permeability between the vocational system, existing higher level 4,5 pathways, and transition into degree-level pathways. Within all pathways, there is evidence of bifurcation of 'academic' traditions of knowledge formation and that of vocational traditions, particularly in how 'skill' and qualification pathways are reflected in vocational manual skilled pathways in comparison to technical pathways. These

patterns, described by commentators as a 'peculiarly English' positioning of vocational skills, have significant implications for cultural tensions in vocational qualification pathways and the highly skilled worker in the expansion of vocational routes to higher-skilled work (James Relly, 2022).

4.4 Conclusion

Chapter 4 analysis answered the sub-research question (i):

(i) *Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?*

Through my new secondary quantitative analyses, two important patterns emerged. First, in the high and low skills (and wage) focus of much academic and policy debate, new analyses suggest a substantial and complex 'middle' occupational profile remains, despite some reductions through high/low skills polarisation since the 2000s (Anderson, 2009; Xu, 2023a). Secondly, my new analyses suggest there is limited evidence that higher-level vocational opportunities are evenly distributed by sector, or possible for all vocationally qualified young workers in 'false' horizons of choice (Hodkinson et al., 2013).

First, a local, Northern Region mid and high-skilled occupations analysis provides important challenges to conceptualising employer demand for skills as typically operationalised as Low Skill Equilibria (LSEq) (Sissons, 2021). At a local skills level, new analyses of mid and high-skilled occupational patterns through SOC 2020 classifications suggest that attention needs to pivot to a middle-skills perspective, centred on differing skills demands between and within sectors to reflect a more complex 'middle' than polarisation literature suggests, but where qualification mismatches between occupations and highest qualification held suggesting more limited [vocational] alignment than TVET reform policy suggests (Dalziel, 2017; Elias et al., 2023). Further, recognising middle skills profiles and progression prospects becomes important given traditional markers of labour market structures through median wages are affected by rising National Minimum Wage levels, now reflective of historic markers of 'middle '

work at two-thirds of median earnings[27](Green, 2019). From my new secondary quantitative analysis, I argue that these patterns mean increased research attention is needed on 'middle' occupational structures and their prospects for vocational progression, particularly in pathways through 'upper-middle' Skills Level 3 job roles, if vocational progression to higher-skilled work is to be realised (Buchanan, Anderson, et al., 2017b; Sissons, 2021).

Secondly, in new secondary analyses of longitudinal economic outcomes and qualification pathways, I show these patterns are distinct by sector, broadly reflecting sectors as low-mid, mid and high skills systems, but with 'narrow doors' of vocational progression through Level 4,5. The three sectors show the following patterns. In construction, qualification profiles reflect a mid-skilled system, where in 2018-19, four out of five construction and textiles manufacturing employees aged 25-30 years in Northern Region hold a Level 3 or below qualification, showing the Level 3 ceilings in the vocational qualification system by sector. Narrow Level 4 and 5 pathways exist, but where only 4-5% of workers in all three sectors by the age of 25-30 years hold a Level 4,5, reflective of national patterns of access to Level 4,5 at above 25 years old. However, in construction, vocational qualifications provide many of the top third earnings routes, with strong relationships between occupational specificity, and earnings achieved, where median earnings from Level 3,4 and 5 qualifications can match or exceed those of graduates, suggesting sector processes of vocational skills value, likely to reflect economic skills shortages as well as from literature, sector cultural values (Roberts, 2019; Espinoza and Speckesser, 2019). The patterns of highest qualification held in textile manufacturing reflect lower-mid skills profiles, where in 2018-19, over four in five workers hold a Level 3 or below. Participation in Level 4,5 is very low at less than 1% by age 25-30 years but reflects that until the 2020s, there

[27] https://www.gov.uk/government/publications/the-national-minimum-wage-in-2024/the-national-minimum-wage-in-2024#:~:text=We%20currently%20project%20that%20a,2024%20rate%20of%20%C2%A31.44.

were no textiles industry-specific TVET pathways at higher level qualifications at Level 4, despite traditional manufacturing discourse of strong vocational routes drawing attention to the need to understand industries by their sub-sector prospects of vocational progression, but where limited local data is routinely disaggregated (Wilson, 2023). Occupational specificity and median earnings were strong in only limited pathways. Finally, in the high-skilled local profile of digital, where over half of early adults aged 25-30 years held a Level 4+ qualification, with over 50% holding a Level 6+ degree as their highest qualification by the age of 25-30 years, but only one in ten at Level 4,5, in a high-skilled sector. Bifurcation was seen between the normative and dominant degree level progressions from A-Level and the very limited vocational progressions to Level 4 and 5 qualifications, suggesting a distinct positioning by sector of vocational prospects.

Distinct and different sector outcomes are seen through quantitative analysis by highest qualification held, with limited middle progression routes through Level 4 and 5, where A-level transitions dominate access to Level 6 pathways (Reay, 2022; Social Mobility Commission, 2024). Mapping median earnings by qualification level and subject held shows distinct sector value placed on qualifications between and within sectors. However, where these sector positive patterns exist, participation is still limited in Level 4+ qualifications, and historically, very limited translation of vocational qualifications through to Level 6 professional degrees by the age of 25-30 years. My analyses of age 25-30 years show how an early adult approach begins to capture important patterns in the processes by which early adults vocationally progress in the labour market, and might achieve a '*decent career, with progression prospects*' (Kalleberg and Mouw, 2018). Together, my Chapter 4 analyses suggest that in an age of elongated education and employment transitions, 'youth' transition research needs to pivot from examining 'education to employment' as the primary site of the reproduction of inequalities, to the processes of an early career and the sector effects on progression. However, quantitative analysis can only show the broad vocational patterns experienced by early adults by age 25-30 years in the dataset.

However, quantitative analysis can only show the patterns of 'what' is happening. It is unable to explain 'why', including the differences between sectors (Anderson and

Nelson, 2021). It is the ‘why’ that forms the foundation of the last two qualitative analysis chapters. To understand the important processes at play by sector for vocational transitions and the prospects for progression, in Chapters 5 and 6, I turn to in-depth qualitative enquiry to examine the sector social and cultural processes which shape sector higher-level vocational progression in early adult career sequences (Kalleberg and Mouw, 2018).

Chapter 5. Becoming a higher-skilled, vocational worker: a three-sector comparison

5.1 Introduction

In this Chapter analysis, I build on the diverse sector technical vocational qualification structures explored in Chapter 4, drawing from the detailed accounts from in-depth, key informants, and qualitative interviews with local policymakers, educators, employers and young adult workers to answer the research sub-question (ii):

(ii) How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?

Local policymakers' perceptions of the national and local standing of Level 4,5 and 6 higher-level vocational qualifications were examined. Three local sectors: construction, digital and textile manufacturing provided distinct and different framings of vocational progression prospects, using sector employer-education partnerships, which were active in Level 4,5 or 6 vocational provisions (Sissons, 2021). Cross-sector comparison of the processes of higher-level vocational progression allowed participant accounts to be situated within common patterns of the vocational qualification system, and those that were distinct and different by sector (Hodkinson, 2008; Roberts, 2009; Nilsen, 2024).

Analysis of participants' accounts identified three important themes in the prospects for vocational progression to mid and high-skilled work. First, participants identified a cultural value of, and trust in 'the degree', with employer mistrust, and limited employer perceptions of value in higher level 4,5 qualifications (Bathmaker, 2017; Warhurst et al., 2017). Secondly, participants attributed very different vocational standing to vocational skill and identity between sectors, presenting the process of becoming a vocational worker as contingent on sector traditions and norms, presented as a strong, weak and functional vocational identity (James Relly, 2022). Finally, by examining vocational career sequences, stakeholder assumptions of the prospects for higher level progression situated early adult access to higher skilled work as '*fast, slow*

and no' routes of progression (*author's italics*) (Abbott, 1995; Kalleberg and Mouw, 2018).

Through my findings and analysis in Chapter 5, I argue that 'becoming a higher-skilled vocational worker' is culturally framed through sector norms and traditions of who progresses and how (Bathmaker, 2017; Warhurst et al., 2017). Participant accounts challenge homogeneous approaches by sector in theories of vocational progression and individual choice of investing in qualifications to incrementally make economic gains through access to higher-skilled occupations. Instead, common accounts were of employers placing value on higher-level qualifications through sector traditions and norms of which routes, and which workers lead to higher-skilled progression, with more limited examples of groups of workers being incentivised to individually upskill and signal their potential as a 'high-skilled worker (Dalziel, 2017). In Section 5.2, tensions between vocational policy, the cultural standing of higher-level vocational qualifications and employer [mis]trust in the vocational qualification system are examined (Huddleston and Laczik, 2018). Section 5.3 provides a comparative perspective on the distinct ways in which 'vocational standing' is positioned by participants in the three sector studies. Finally, in Sections 5.4-5.6, the distinct progression patterns by sector challenge the homogeneous representation of vocational higher-level progression and the prospects of access to higher-skilled work. Sectors' varying propensity to support a 'decent career' further reveals and reinforces Chapter 4 analysis of complexity in the mid-skills space. Further, my analysis shows how sector-specific processes influence early adult life chances and appear to embed social inequalities through qualification ceilings and narrow doors of vocational progression (Sissons, 2021; Esmond and Atkins, 2022).

5.2 A cultural standing of higher Level 4,5,6 vocational qualifications

Developing higher-level 4,5 and 6 vocational qualifications represents a policy response to England's 'wicked problem' of economic inequality through occupational inequalities (Keep and Mayhew, 2014). This section analysis begins to explore the higher-level vocational space through policymaker insights into the cultural standing of higher-level vocational qualifications, and the paradoxes of the higher vocational space

of repeated calls for technical skills, in comparison to a limited take-up of higher-level 4,5 qualifications. Despite the central place of higher level vocational qualifications in Post 16 education and skills reform, Robert, Senior Skills Adviser, Thinktank, suggested government interest in Level 4-5 pathways had dropped out of the 'policy rhetoric':

> *"It's really notable in the rhetoric there how much they've replaced any mention from government of what used to be higher apprenticeships […] at level four and five." Robert, Senior Skills Adviser, Thinktank, to Parliament*

Participants reported policy disinterest was reflective of long-standing 'missing middle' and limited policy engagement in middle pathway debates (Roberts, 2015; DfE, 2018). Robert compared this with the consistent reporting of skills gaps at technical, mid-high skill levels:

> *"And at the same time, we know from the economic data that those kinds of technician levels of training are the ones that have the most potential to be productivity gains". Robert, Senior Skills Adviser, Thinktank, to Parliament*

This paradox in employer-identified need, in comparison to the limited higher Level 4,5 qualification debate, was culturally situated by Robert as a function of the instruments of government, where Civil Service recruitment is typically from higher socioeconomic backgrounds (Friedman, 2023):

> *"There's that really deep kind of cultural challenge which, to be fair, is not unique to England, [….]and it is really reinforced by the fact that nearly every civil servant has come through the kind of academic route because it just automatically means that, you know, FE and vocational options are thought of second." Robert, Senior Skills Adviser, Thinktank, to Parliament*

My findings reflect longstanding conceptualisations of the English education system through a cultural framing, through a valorisation of knowledge achieved through academic qualification pathways as signalling cultural and social worth, further inculcated through family background and access to university education (Devine, 2004; Reay et al., 2010; Edgerton and Roberts, 2014). Robert's report of the disconnection of many civil servants from the VET system from their own predominantly academic and degree-based educational experience, and that of their families, was felt by Robert to be emblematic of deep-seated patterns in public policy of a lack of traction for vocational reforms over the past thirty years (Head et al., 2008).

Robert contrasted this with the enthusiasm in government and business for degree apprenticeships:

> *"Degree apprenticeships are interesting in this context because…. they are so popular with government…. they are trying to do that classic thing of piggybacking on the branding of the academic route." Robert, Senior Skills Adviser, Thinktank, to Parliament*

Roberts' insights into the political branding of degree apprenticeships, and their positioning of degree apprenticeships as an aspirational 'academic degree' route of study, reflect the academisation of the English education system and the valorisation of the degree seen in literature (Edgerton and Roberts, 2014). Empirical studies show the disproportionate middle-class patterns of access to degree-level apprenticeships, in direct contrast to the patterns of access for groups under-represented in higher education that the degree apprenticeship was set up to address (Cullinane and Doherty, 2020; Smith et al., 2021). Robert continued:

> *"It is like there are quick, easy wins because they're called degrees. They're popular with kind of middle-class Tory voting parents….an interesting sway and swing there." Robert, Senior Skills Adviser, Thinktank, to Parliament*

In this explanation, Robert reflects that it is the political system that is aligning educational opportunities, in the legitimisation of more privileged access to what was originally seen as routes to widen participation in higher qualification levels beyond traditional university demographics (Ball, 2017; Reay, 2017). Head et al. (2008, p.104) argue that in public policy, 'problem domains' change over time, or become undermined by circumstances; here, the political appeal of educational reform to a middle-class audience of parents, who are not the original target of reform. Participants reported patterns reflecting wider literature on the nuanced processes by which middle-class parents can position and reposition themselves and their children to their best advantage, beyond the classed 'standing' of the degree and the utilisation of family resources and networks (Devine, 2004; Roberts, 2009). Importantly, in literature, the siloing of academic and policy gazes to 'the vocational' or 'the low skill, low wage' omits the significant intersections, for example, in degree apprenticeships, that contest 'vocational permeability' within the higher education and qualification system (Webb et al., 2017; Knight et al., 2022).

Participants suggest professional academic values and beliefs, or habitus ripple across the education system, contributing to the second-class perceptions of VET, and importantly, the perceptions of what status a VET career might confer on an individual (Hughes, 2017; James Relly, 2022). Bob, an Education Director in a Local Authority, including for Post 16 Skills, argued that the effects of the higher education system and the cultural position of being a 'graduate' on stakeholder perceptions of VET are under-recognised as to the effects on vocational ambition and progression to higher skilled work (Hughes, 2017; Guile and Unwin, 2019). Bob argued these were equally embedded at an institutional level, through a professional mono-cultural experience of education through an academic degree lens for teaching staff, which was reinforced by a limited experience of the working world outside of education:

> *"So, let's look at the typical life cycle of a teacher. You go to school. You go to secondary school. Go straight to university. Go back to school. Typically, a teacher will go through an English degree, a history degree… occasionally a science degree." Bob, Education Director, Local Authority*

Bob placed the narrowing of occupational perceptions through the very closed, narrow and rapid transitions of teaching practitioners from full-time education, typically non-STEM university subjects, and into 'graduate' employment, in forms of 'unknowing' reflecting Reay's (2006) unconscious class in the teaching profession:

> *"There is this whole thing about being very middle-class, you know, teachers, we typically… don't entirely, but typically, we still come from middle-class families where we were encouraged to aspire [to a middle-class career]. " Bob, Education Director, Local Authority*

These embodied positions of education and its value, unconsciously and consciously shape professional practice through individual and institutional professional habitus, which in turn shape professional responses to vocational education and training, but also conscious or unconscious responses to disadvantage (Reay, 2006; Hughes, 2017). This was framed by Bob simply as:

> *"They don't know what it's like to be **'us'**." Bob, Education Director, Local Authority*

Bob described an education system where practitioners and policymakers often expressed a limited understanding or belief that vocational career pathways provide

aspirational and higher skill routes because of their stereotyping as second-class, working-class routes (Avis and Atkins, 2017a). However, the limited understanding of higher level vocational qualifications and value in policy and the education system was mirrored in participant perceptions from employers as one of mistrust in the vocational qualification system, and low appetite for higher level vocational qualifications.

5.2.1 Employer [mis]trust in vocational qualifications

Participants reported widespread employer confusion with the qualification system, where employer size exacerbated these effects, with SMEs reporting that they could not keep up to date with qualifications (Huddleston and Laczik, 2018). In the Northern Region, 88.1% of employers were micro-businesses, employing 0-9 employees, with a further 11.4% as SMEs employing 10-249 employees. Only 0.5% of enterprises were large employers, the most likely to engage in training (Nomis, 2024). Penny, Senior Skills and Employment Lead for the LEP, explained:

> *"So how many employers still talk about O-Levels? …. They keep changing those qualifications and we're meant to be streamlining them, but we've now got…. who understands T-Levels? Apprenticeships? HNC? It's just a minefield for a businessperson who is not in this field." Penny, Senior Skills and Employment Leader LEP*

Employers' lack of trust in the vocational system was reported by participants through the constant churn (Norris and Adam, 2017; Keep, 2022; Keep and Richmond, 2022; IFF Research, 2023). Jenny, Senior Skills Leader for a Textiles Trade Body, shared:

> *" I'm saying it never, ever settles. So, it's really hard with the God…. what did it used to be called, the qualification credit QCA thing, uh, we developed brand new qualifications for that. Then it changed again. We had NVQs initially… they changed again." Jenny, Senior Skills Leader, Textiles Trade Body*

Jenny continued,

> *" [Our employers] They think 'not another bloody change. What are they up to now…"Aggh"…. and so, they end up giving up." Jenny, Senior Skills Leader, Textiles Trade Body*

Jenny reported tensions and disconnections for employers between qualifications and skills, and the policy responses to align them. Evidence shows that disproportionately, it is larger employers who engage in qualification design to align those skills, but who

also have a wider range of job roles, which tend to be more narrowly occupationally aligned than in an SME, where workers might fulfil multiple job roles (Elias et al., 2023).

Stacey, a Skills Leader for the LEP, discussed how, despite the policy position of Level 4,5 qualifications, and reported skills shortages, this did not translate to employers wanting another qualification. Employer trust was considered key to employer buy-in:

> *"It's also about the businesses trusting the qualifications that are out there because we've had a lot of feedback from businesses saying they don't know what [Level 4,5] are, and they don't trust them, and they don't see how they translate into their workplace." Stacey, Skills Leader, Northern Region LEP*

Participants reported that many employers did not see the relevance of higher-level vocational Level 4+ qualifications to their skills needs, reflecting observations by Laczik and Mayhew (2015) that there is limited evidence that employers have increasing numbers of high-skilled jobs that require increasing numbers of higher-level qualifications (Ofsted, 2023; IFF Research, 2023). Green et al. (2020) report that employers pragmatically address skills shortages at intermediate Level 4,5 by employing graduates in processes of overqualification, or through upskilling experienced employees, through informal in-work training. Penny concurred with this view:

> *"[Employers] say…. "Well, we don't need it. We don't need that mid-range. We're fine going from [Level]3 to [Level] 6,"… although it's a massive jump for the learner"(laughs). Penny, Senior Leader, Skills Northern Region LEP*

There appeared to be limited employer recognition of the exclusionary processes that a jump from Level 3 to Level 6 might mean for vocationally qualified young workers, including temporal barriers to higher-level study, particularly in adults above the age of 25 years who may also have extensive work or family commitments (Holford et al., 2023). These patterns reflect vocational displacement by graduates reported more widely in the literature, where displacement and overqualification by graduates inadvertently affirm a 'missing middle' of employer demand (Roberts, 2012; Green, 2019). Moreover, participants reported that despite the increasing integration of employers into vocational qualifications design through Trailblazer groups, the

misalignment of formal qualifications and employer need for skills was a repeating theme, particularly in SMEs:

> *" But, if an employer is faced with an individual who has Level 3 and is trainable…will they invest more time in training them [on the job], than spending money on sending them on a course? ….Because you've got to tick all the boxes to get the qualification, and only one-third of it might be what the business needs?" Penny, Senior Employment and Skills Leader, LEP*

Participants noted how employer frustrations in one part of the vocational education and training system rippled into the wider vocational system. As Emma, Senior Employment and Skills Lead in a large Local Authority, shared:

> *" So, there's no point in me saying everyone's got to be qualified in Digital Skills to Level 4 when we can't get most people qualified to Level 2 in English and Maths." Emma Employment and Skills Lead, Northern City Local Authority*

This misalignment was reported by Emma as meaning that local skills policy required a complex balancing act of working across employers, education providers and young people to try and improve qualification opportunities for early adults (and all workers), with Level 4,5 emblematic of the challenges:

In summary, participants reported there is limited attention paid to the attitudes and beliefs of education and policy professionals to the standing of vocational education, inculcated through the predominantly academic framing of the school and university system, of classed family practices, and the brand of 'the degree' (Devine, 2004; Edgerton and Roberts, 2014). Participant insights of the fragmentation and mistrust in the vocational system, and how employer perceptions of the second-class standing of lower levels of vocational education and training ripple into mistrust of new qualification initiatives, including those at Level 4,5 and risks for early adults in a lack of employer take-up of objectively presented qualifications in policy (Schoon and Lyons-Amos, 2016). There are political and policy dangers in not recognising these tensions, where in a free market economy, 'employer-led' decision-making and processes of 'rational economic choice' underpin the education and training system (Goldthorpe and Breen, 1997; Laczik and Mayhew, 2015). These processes are under-recognised at

a local level, including differences between sectors, and by employer size (Raffe, 2008; Roberts, 2020).

5.3 Sectors and the ‘standing’ of VET: becoming the ‘high-skilled’ worker

This section examines the distinct and different sector positioning of vocational education and training (VET) (James Relly, 2022). Each section begins with a documentary analysis of common TVET pathways drawn from IfATE (2025) occupational mapping of employer-agreed career sequences and TVET qualifications. These were noted in Chapter 4 as an important step in understanding the national architecture of TVET occupational progression, providing a framework in which to locate participant discussions of progression (Kalleberg and Mouw, 2018). The description of pathways is followed by analyses of sector employers' and educators’ perceptions and experiences of the standing of VET, presented relatively homogenously in policy. Across the three sectors, three distinct presentations of ‘vocational’ were seen, of strong vocational identity typically through apprenticeships in the construction sector, of limited vocational identity in predominantly operative textiles manufacturing where craft and skill were communicated through ‘heritage’ and ‘place’, and of a functional, economic response to degree apprenticeships in digital pathways, with limited vocational tradition. Participant accounts demonstrate the highly situated nature of vocational skill in some sectors, typically traditional industries such as construction, with strong traditions of apprenticeships, where vocational identity was intertwined and embodied with that of the skilled worker (Altreiter, 2021b). In contrast, in the newer industry of digital, with limited vocational tradition, and large numbers of graduate workers, the employer situated ‘vocational’ degree apprenticeship provision through a functional, economic rationality lens (Gambin and Hogarth, 2021a). These patterns contest the relatively homogeneous presentation of ‘vocational skill’ by sector in policy (Laczik and Mayhew, 2015; Keep, 2020).

5.3.1 Construction: an embodied vocational identity; ‘I’m construction through and through’

In Construction, the study centred on employer-education partnerships in a large construction provision in a Further Education college, in Northern City. Over 600

construction employer partnerships existed, of which 93% were SMEs, and the College was an early adopter of Level 4,5,6 construction qualifications. In participant interviews, employers and educators positioned the construction sector's approach to progression as twin-tracked progression processes of craft/trade, or technical from a skilled trade 'middle' workforce, reflecting Chapter 4 pathways. Examples of employer-designated technical vocational pathways are shown in Table 5.1 below (IfATE, 2025):

Table 5.1: Construction example TVET pathways including median earnings per annum (£ pa)

Construction (SOC 2020) Median earnings (£ pa)	**Technical Occupation Level 2**	**Technical Occupation Level 3**	**Higher Technical Occupation Level 4-5**	**Professional Occupation Level 6**
Qualifications	A/VQ	Q/VQ/T-Level	A/HTQ	DA
On-Site Construction pathway **Craft Stepped vocational route**	5316 Site Carpenter £28,827	5316 Craft Site Carpenter £28,827	5330 Construction Site Supervisor £38,682 Or no Level 4-5 step	1251 Construction Site Manager (A) £38,560
	5313 Bricklayer £29,461 /year	5313 Craft Bricklayer £29,461		
	No Level 2 step	5315 Plumbing and Domestic Heating Technician £33,405		
Design Surveying and Planning Pathway **Fast technical route**	No Level 2 step	3114 Surveying Technician-Buildings Surveying £32,975	No Level 4,5 step	2454 Chartered Surveyor: Building/Property £39,920 per year
	No Level 2 step	3114 Civil Engineering Technician £32,975 per year	3113 Civil Engineering Senior Technician £37,744 per year Or no Level 4/5 step	2121 Civil Engineer £44,341 1122 Civil Engineer Site Management £48,866 1251 Construction Site Manager £38,560

A= apprenticeship HTQ= Higher Technical Qualification TL=T-Level VQ =Vocational Qualification DA=Degree Apprenticeship

Source: Researcher analysis IfATE (2025)

These pathways provide a framework for the following participant insights of vocational qualification utilisation by employers in occupational progressions in construction. Level 2 and 3 qualified job roles were situated in Major Gp 5, Skilled Trades intermediate job roles (SOC 2020), reflecting a mid-skills system with 'decent work' outcomes through skilled work routes on entry, and at lower career stages, with median wage returns above average levels, and with strong professional work structures from the combination of long-established professional bodies, trade associations and union representation (Green, 2013).

5.3.2 Entry into a cultural and vocational 'field'

In the construction sector, interviews with employer stakeholders situated vocational standing as a function of the traditions and norms of the sector. First, in regulatory processes, participants reported training was valued as a function of the intrinsic risks associated with construction occupational job roles, but also industry structures of subcontracting and worker mobility across geographic site locations, where the sector is one of only three which retains a statutory Industry Training Board[28] together with a training levy[29] collection from construction employers to support training and development. Secondly, vocational skills were embodied through vocational identity and the occupational progression experienced, in industry traditional, and typical 'male' pathways often through apprenticeships (D'Arcy and Finch, 2016; Altreiter, 2021b). James, Senior Leader in construction at the FE College, shared:

> *" I'm construction through and through, so if you cut me in half, you'd see construction…." James, Senior Leader FE College (Construction)*

Max was described by the College as a typical large construction employer, now a Senior leader responsible for the employment and training of 4,000 construction

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[28] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485876/BIS-15-686-combined-triennial-review-of-the-industry-training-boards-December-2015.pdf

[29] https://www.citb.co.uk/levy-grants-and-funding/citb-levy/about-the-citb-levy/#:~:text=The%20CITB%20Levy%20is%20used,Standards%20and%20qualifications

employees in the Northern Region and neighbouring regions. Max entered the construction industry at 16 years old:

> *" I left school at 16, and got into construction, did an apprenticeship myself with a company…. my background's plumbing and heating…." Max, Senior Leader, Employment and Training, Large Employer (Construction)*

Construction participants discussed strong vocational processes, which were entangled in their professional identities, including those of Senior Leaders, and which reflected early career progression through Skilled Trades or Technician routes, particularly from apprenticeships, and onward progression to Level 4,5 (Boniface et al., 2018; Espinoza and Speckesser, 2019; Espinoza et al., 2020). In Skilled Trades in construction, the majority of participants reported a vocational background of entry through craft, trade construction routes, typically as apprentices, where young people 'naturally fall' or 'fit' into the sector:

> *"People that don't want to or haven't got the ability to go into further and higher education, naturally fall into that…. category of construction…. we get some real talent through that pipeline," Max, Senior Leader, Employment and Training, Large Employer (Construction)*

Construction participants framed 'talent' through vocational skills. Max positioned the 'choice' of construction as a binary of 'want', and a lack of 'academic' classroom ability, but where there is a 'natural fit', in deterministic framings of early work transitions and trajectories signalling individual worth. Ian, regional lead for skills for a trade body for the sector, representing 70,000 employees in the Northern Region, explained that apprenticeships were foundational for many construction careers:

> *Ian: "We've got examples of people starting as apprentices who are CEOs and directors of big companies now. So, you can demonstrate that progression." Ian, Regional Skills Leader, Trade Body, (Construction)*

Stories of social mobility by participants in my study in the construction sector typically centred on patterns of entry-level apprentices progressing to senior management positions or as owners running businesses. This reflects Savage's (2015) positioning of the prospects for social mobility within industries through distinct and typically classed patterns of higher-skill access. Despite the typical sociological presentation of vocational routes as classed and second class, progression to senior levels was deemed

'possible' and a result of 'talent', but participants recognised the challenges of an apprenticeship system where just over one in two entry-level apprentices complete (Avis and Atkins, 2017a; Francis-Devine and Murray, 2024). Joe, a twenty-two-year-old apprentice, reported:

> *"I left school when I was 16. Came out, passed all my exams, etc…. I didn't want to go to college. I didn't want to stay on at 16 … just kind of wanted to get straight stuck into a job and start learning on the job and earning money from being 16….. I did a two-year apprenticeship… it was classed as a 'Commissioning Officer'….it meant an Estimator." Joe, a young Quantity Surveying apprentice, Level 4,5*

The early desire to join the adult workforce reflects long-standing characterisations of vocational learners and imagined futures (Guile and Unwin, 2019). Mark, a Trade Body Skills Leader, argued that traditions of apprenticeships underpinned the cultural identity of the sector, but where discussions romanticised the early apprenticeship processes, here through the metaphors of parenting:

> *"Every apprentice has a different journey…. (laughs) It's getting them there kicking and screaming in some cases….not just … the apprentices. It's the employer as well! It's very much like a daughter and father relationship or father and son relationship when they take on an apprentice…. you're going to have good days and bad days, but it's how you navigate around that". Mark, Skills Leader, Trade Body, (Construction)*

This situated the apprenticeship in relational terms, which reflects Altreiter's (2021) characterisations of apprenticeship processes as a new form of habitus, shaped by the workplace community, its social expectation and norms inculcated through processes of 'becoming'. To participants who had come up through apprenticeship routes, it was not just a job description, but often a transformative process from 'youth' and school into the workplace (Altreiter, 2021).

In summary, in construction, participant perceptions of vocational identity were strong and embodied in senior leaders, where early vocational experiences, typically those of apprentices, were formative in worker identity, and challenged the normative framing of vocational access to higher-level qualifications, typically reported as conflicts of the habitus of working-class participation in higher education (Reay et al., 2010). Participant biographies reflected the positioning of vocational routes as an intersection

of a preference for practical work and wage labour as part of a vocational identity (Altreiter, 2021). Narratives of the industry as a route for social mobility were strong, where ‘talent’ was equally ascribed to people who ‘fell into the industry’ because of their non-academic preferences, and made conscious career decisions, but where an early desire to join the workforce was a driver for academically able young workers for whom the delayed adulthood of extended education held limited appeal. This complex framing of the vocational worker, begun from entry-level job roles, but embodied in senior leaders, was in contrast to the patterns seen in another traditional industry, textile manufacturing. The strong vocational identity of construction was contrasted with the weak vocational identity in textile manufacturing, where ‘skill’ was typically represented by participants through ‘heritage’ and ‘place’ rather than worker characteristics.

5.3.3 Textile manufacturing: weak vocational identity and ‘skill’ as heritage and place

The textile manufacturing sector was an example of a clustered, regional training provision, where examination of Level 4,5 pathways was through an education-employer partnership led by a regional employer-led training provider, supporting over one hundred employer partnerships, with the large majority of SMEs. Textile manufacturing presented with polarised job opportunities through the limited progression routes from vocational entry level to higher-skilled work, as seen in Chapter 4 analysis of operative vocational processes in comparison to graduate, design, technical and engineering routes (Harris et al., 2021). Analysis of formal occupational qualifications shows a very narrow pathway of progression to higher-skilled work via vocational qualifications (IfATE, 2025). Example qualification pathways are seen in Table 5.2:

Table 5.2: Textiles Manufacturing example TVET pathways, including median earnings per annum (£ pa)

Textiles Manufacturing Sub-Sector **Median earnings (£ pa)** **(SOC 2020)**	**Technical Occupation Level 2**	**Technical Occupation Level 3**	**Higher Technical Occupation** **Level 4-5**	**Professional Occupation** **Level 6**
Qualifications	A/VQ	A/VQ/T-Level	A/HTQ	DA
Stepped Technical route from a typical Level 2 or 3 operative entry **NB Level 4-5 8112 Technical Dyer and Colourist Awaiting development £24,155 per year**	8112 Textiles Manufacturing Operative £24,155 per year	8160 Team Leader £27,564 Or direct to Level 4-5	5223 Textiles Technical Specialist £34397 5419 Fashion and Textiles Product Technologist £22859	No degree apprenticeships
	8146 Sewing machinist £19,995 8112 Material cutter £24,155	8160 Team Leader £27,564 **8112 Fashion and Pattern Cutter** £24,155 3429 Garment Maker £30,052	5419 Fashion and Textiles Product Technologist £22859 5413 Bespoke Cutter and Tailor £21,656 per year	
Creative and Design pathway – 'academic' design route		3429 Fashion Studio Assistant, Product Development, Sales or Marketing £30,052	3422 Textiles Designer Creative and Design Industries (Level 4 Apprenticeship) Awaiting development	Suggests progression to a Foundation degree is possible

A= apprenticeship HTQ= Higher Technical Qualification TL=T-Level VQ =Vocational Qualification DA=Degree Apprenticeship

Source: Researcher analysis IfATE (2025)

Vocational pathways reflected participant insights into occupational progressions in textile manufacturing. In contrast to construction, textile manufacturing Level 2 and 3 qualified job roles were situated in Major Group 8, Production and Process Plant Operatives, and only Level 4 vocational qualification job roles formed part of Major

Group 5 Skilled Trades (SOC 2020). 'Design' pathways reflected the higher status access to Associate Professional Major Group 3 job roles, and there were anomalies, for example, Major Group 3 Garment Makers. However, the overall skills profile was one of lower status work even through Level 3 qualifications (Lloyd et al., 2008; Green, 2013).

5.3.4 The 'not great' nature of operative, entry-level vocational roles

In textile manufacturing, participants openly discussed the 'not great' nature of manufacturing jobs (Lloyd et al., 2008). Jon, Senior Leader at the training centre, and also Senior Leader of a national trade body, shared:

> *"They're not great. I mean, manufacturing jobs in the UK. Obviously, they're underpinned by minimum wages and increasingly now Living Wages, but they're not tremendously well paid." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

The majority of operative, entry-level job roles needed no qualifications or experience and reflected low wage patterns seen in wider studies, where qualifications stated in the education system did not reflect employers, particularly at Level 2 and below (Lloyd et al., 2008; D'Arcy and Finch, 2017; Green et al., 2020). Michelle, a Project Leader for Skills, explained the public perception of skills was of a polarised textiles manufacturing industry through a glamorous lens of design, and of 'dirty' mill jobs:

> *"Fashion and textiles is a really weird sector because everyone could see the benefit of being a top designer for Burberry, or Tommy Hilfiger, or Erdem … whereas this vision of manufacturers as 'dark satanic mills'….people see fashion as being glamorous, and manufacturing as being dirty." Michelle, Project Leader, Skills (Textile Manufacturing)*

The 'dirty' perception and positioning of jobs within manufacturing reflected the experiences of participants in the construction sector, particularly craft and trade routes, despite the differences in job quality (Pleasant, 2019). In textile manufacturing, participants reported a weak vocational identity and standing:

> *"A lot of operatives, I guess, in industry, <u>are</u> operatives. Their job is pretty straightforward. There will be 'craft' in it… and a lot of the fine woollen worsted industry, it really is a craft." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

Workforce structures were rationalised and pragmatically explained by participants as functions of the global marketplace for the luxury products woven in the Northern Region, where the brand, but not necessarily the finished factory product, commanded significant margins:

> *" I mean, the companies that we're talking about, that make massive margins, don't make massive profits. It's a tremendously competitive market. I mean, there are huge, huge amounts of money to be made. But again, on brands." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

Keep and James (2012, p217) describe the concept of weak occupational identities in skills, low wage work, where 'workers are recruited to perform a specific job, which in turn can be reduced to a bundle of fairly closely defined tasks', where in contrast to construction, the honing of experience resulted in limited progression despite those roles involving 'craft':

> *" These people know it and they can feel it….So they pick that up with years. You tend to get people to stay in the same part of the business, stay in the same profession." Jon, Senior Leader Training Centre/Trade Body, (Textile Manufacturing)*

These patterns reflected the literature, where Yates (2022) discusses how job quality aligns with low job satisfaction from low quality, low skill and limited technology, limited autonomy and a lack of skills and progressions, against high skill, high technology in advanced manufacturing. But this notion of job quality is a reductionist framing, ignoring the social and aesthetic aspects of work, described here as 'feel', which the participant, Jon, a senior leader nationally as well as locally, ascribes value to, and the factor in long-standing connections to employers of some workers (Warhurst et al., 2017). Skills were typically situated as embodied and rooted in craft representations in a heavily romanticised industrial heritage (Pleasant, 2019):

> *"The noise that looms make…. it really is like a heartbeat. And it makes me smile. That's fabulous. And it is that environment that people do love, because I mean, when you hear looms banging away, it's the sound of people making money from making world-class products. And the pride that comes with making things, that are <u>great</u>…. our sector, that stuff our companies make is just gorgeous." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

The discourse around the craft of the industry reflected Braverman's (1974) 'romanticisation' of craft workers, but without the corresponding status of the worker as the 'expert' through a lengthy apprenticeship (Attewell, 1987). Large machinery operators, for example, weavers, tended to be male, with small machinery, such as sewing machinists, predominantly female, but in an industry with almost parity between male and female workers (Castañeda-Navarrete et al., 2024). Despite the low pay of operative roles, participants reported that workers were engaged with the sector despite the low status of operative positions, reflecting the contradictions seen in decent work analyses of why workers remain in low-skill roles, including rationales of community, geographic locality, and for female workers, caring responsibilities and the need for part-time work (Green, 2021a).

5.3.5 'Skill' as heritage and place

Weak vocational identity was contrasted with significant pride in the heritage and [vocational] skills of the sector, where 'craft' was positioned through the heritage, design, quality and global reach of the finished product, rather than on a vocational 'worker identity' as described by construction sector participants. History and locality were important for the economic positioning of the industry and products as luxury, high-value products in global markets. There was a clustering of textile manufacturing employers with regions having distinct products and skills, and geography creating specialist skills boundaries (Harris et al., 2021).

> *"It has an incredible heritage. …..Some of the companies that were around at the beginning of the first industrial revolution are still with us…..rather than designing and manufacturing for mass markets, they're designing and manufacturing for luxury, high-value markets and many of them exporting globally… used by the world's biggest fashion brands ….Anyone that you can think of more or less uses fabrics that are made in Northern Region."*
> *Chris Senior Academic University Lead Skills, (Textile Manufacturing)*

The strong connection to the region and 'place' together with the heritage of the sector created contradictions of traditional low-skill narratives in sector descriptions, against craft, pride and community in the manufacture of high-specification products, including in new technologies:

> *"And then you have another part of the industry which is also innovative. …. Making fabrics for applications other than clothing…… medical products, wound dressings, implantable products. Companies that are making fabrics for civil engineering and roadbuilding filter fabrics. It's an amazingly diverse collection." Chris Senior Academic University Lead Skills, (Textile Manufacturing)*

'Skill' was geographically situated through the industry structures of local mills and their supply chains, and through often traditional manufacturing processes and products, centred on its manufacture in the Northern Region, but with strong axial links to London and then internationally (Norouzi and Richmond, 2016). This led to a more limited framing of vocational skills through individual workers, mirroring the deskilling narratives of operative job roles (Attewell, 1987):

> *"And the region….Northern Town is the only town in the world, the only place in the world, where having a name on the selvedge[30]…. where you can put 'Made in Northern Town' that adds value to the cloth. Nowhere else in the world does that." Jon, Senior Leader Training Centre/Trade Body, (Textile Manufacturing)*

The sector was seen as a product of its ownership structures, of long-standing private, inherited manufacturing bases in a tight-knit 'community' of owners across generations:

> *"But it's also a heritage because a lot of the businesses have stayed in private families. We have a guy on our Board of Directors … They made the red cloth for the red coats of the Battle of Waterloo, and they still make a lot of uniforms for the various services and armed services too…. the eighth generation of that family that's run the company. So, you know, that gives a certain amount of culture, and of course, these people grow up together. Our chairman …the fourth generation." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

There was little questioning by participants of whether these generational structures created any constraints on skill or limits on progression; generational industry ownership was part of the heritage and skills of the sector. Jon continued:

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[30] Edge of woven cloth that doesn't fray

> *"So…when people talk about "dyed in the wool", they made it with these guys. They have a, not unfair, reputation for being pretty hard in business, they are pretty miserable buggers as well, generally speaking, because they, you know, they weather the various economic and financial and political storms…." Jon, Senior Leader Training Centre/Trade Body (Textile Manufacturing)*

Heritage extended to company ownership, in elite forms of 'going through the ranks' through multi-generational ownership, where directors were described as knowing each other and growing up together.

In summary, participants' accounts of textile manufacturing positioned vocational standing and identity as entangled in conceptualisations of collective industry skills built on heritage and rooted in place. These perceptions were commercially as well as culturally important to the industry. Weak vocational identity led to the limited acknowledgement of individual vocational skills in workers; instead, machinery was described as part of the rhythm and skill traditions of the workplace, with commensurate weak worker progression routes. Skill was positioned as a 'heritage' through the history of the woollen trade, the Industrial Revolution and the growth of Northern towns and cities. Geographic place, as a regional centre for the woollen trade, was important in these narratives, but also practically in supporting the physical processes of cloth production through location.

Finally, in the following section, digital vocational progressions contrasted with the strong and weak sector vocational identities seen in workers in the preceding two sections, to illuminate employers and educators using a digital technology degree apprenticeship as a functional response to skills with little connection to technical vocational 'values', or traditions (James Relly, 2022).

5.3.6 Vocational standing as a 'functional' response to skill

The local digital study provided insights into the degree apprenticeship processes between a single large corporate professional services employer and a large university in Northern City. The local study is important because the degree apprenticeship provides an example of vocational permeability, whereby vocational qualifications at Level 4+ provide access to traditional higher education progressions (Green and

Pensiero, 2017). Pathway analysis of TVET qualifications showed the dominant high skills framing of the digital sector, but where IfATE (2025) suggests there will be Level 4,5 as well as Level 6 pathways. Example digital technical vocational qualification pathways are shown below:

Table 5.3: Digital example TVET pathways, including median earnings per annum (£ pa)

Digital (SOC 2020) Median earnings (£ pa)	**Technical Occupation Level 2**	**Technical Occupation Level 3**	**Higher Technical Occupation Level 4-5**	**Professional Occupation Levels 6 and 7**
Qualifications	A	A/T-Level	A/HTQ	DA
Digital Business Services Study	No Level 2	From A' Levels /BTECs AAA grade →	No Level 4,5 →	2133 Digital and Technology Solutions Professional: Specialist professionals: 11 pathways Software engineering; Data analytics; Digital business and enterprise systems architecture; System test and assurance; IT strategy; IT business analysis; Network engineering; IT operations management; IT project management; Cyber security technology; IT / digital futures management No occupation or salary link
Digital Business Services IfATE Progression	Digital Content Administrator [Identified but not yet in development]	No Level 3	2141 Digital Learning Designer Level 5 apprenticeship £43821 2493 Digital community manager (Level 4 apprenticeship) £36960	
Digital Production Design and Development	No Level 2	3131 Software development technician (Level 3 apprenticeship) 3131 Digital Production, Design and Development T-Level £35235	3549 Business analyst (Level 4 apprenticeship) £31,536 2139 Information technology professionals £42,670	2141 Digital user experience (UX) professional (Level 6 integrated degree) £43821 2142 Creative digital design professional (integrated degree Level 6) £31706
Digital Support and Services	No Level 2	3132 Information Communication Technician £32,984 2135 Cyber Security Technician £48,538	2137 Network Engineer No salary stated 2135 Cyber security technologist (2021) – 3 pathways	2133 Digital and Technology Solutions Professional: Level 6 2134 Game programmer - Game software programmer (Level 7) £54669

		5244 Digital Device Repair Technician £35,146	£48,538	

A= apprenticeship HTQ= Higher Technical Qualification TL=T-Level VQ =Vocational Qualification DA=Degree Apprenticeship

Source: Researcher analysis IfATE(2025)

Pathways showed similar stratification to other sectors in terms of higher status and faster academically aligned transitions, against slower, stepped vocational progressions from Post 16 entry-level qualifications. In contrast, although stepped processes did exist, entry was typically at Level 3, and the Associate Professional level of occupational classification, firmly in the higher intermediate space. Importantly, in comparison to the 'narrow door' descriptions used for construction progressions, elite digital degree apprenticeship routes led to expansive, multiple pathway opportunities, broadly reflecting the Bachelor's degree three-year pathway, albeit in longer timeframes from apprenticeship on-the-job training. The single qualification of the Digital Solutions Professionals Degree Apprenticeship gives access to six different industry occupations at Level 6 and thirteen at Level 7[31].

5.3.7 A digital disconnection from 'vocational' skill

The digital local participants provided a third perspective on the standing of vocational education and training, where the vocational qualification development was a functional response to employer skills needs and skills shortages. The digital degree apprenticeship was one of the six most commonly taken in England (Cavaglia et al, 2022, p.5). Participants positioned this functional approach to meeting skills needs as multi-layered, reflecting Goldthorpe and Breen's (1997) rational choice theories of the economic decision-making in education pathways and the employer-led patterns seen in apprentice levy reforms (Richmond, 2020; Gambin and Hogarth, 2021). Within these

[31] https://findapprenticeshiptraining.apprenticeships.education.gov.uk/courses/25

discussions, there was limited reference to 'vocational skills', beyond the framing of an 'apprenticeship'. Molly, a Senior Human Resource(HR) Lead for early careers positioned the qualification as a response to changing business skills needs and competition in the wider labour market for digital skills:

> *"We're not traditionally a tech house. You know, we're not Google, we're not IBM, SAP, you know… we're not that type of employer. People who know of us will probably think of us as accountants or consultants. So, therefore, in terms of technology…. we weren't people's first thought." Molly, Senior Human Resource(HR) Lead, Early Careers, Large Employer, (Digital)*

The employer and educator were not building a vocational pathway in the traditions of vocational training as an incremental, occupationally based process from entry to the labour market as school leavers, and typically via apprenticeships from 16 years old (Guile and Unwin, 2019). The development of the digital degree apprenticeship was a direct response to employer skills needs at a Level 6+ level, with similar bespoke employer provision of Level 6+ digital apprenticeships across three other locations in the UK. This functional approach to credentials was driven by a desire to utilise the apprenticeship levy, disconnected from the traditions of vocational education as part of a career progression, on the part of the employer and the university. Molly, Senior HR Lead for the large employer, explained:

> *"The business comes to us as their specialists in this area….to say that they have a need. This is a growth area for them….then there was the Apprenticeship Levy announced, and it seemed like, OK, we've not done this before, but let's try a degree apprenticeship" Molly, Senior HR, Early Careers, Large Employer (Digital)*

Decision-making reflected the status of the 'degree' discussed in Section 5.2 by policymaker participants. The driver of the levy was significant and also welcomed by the university because of the squeeze they were seeing from employers on reduced training budgets :

> *"If they can use their apprenticeship levy to be able to fund that, then that's just wonderful." Maddy, Apprenticeship Lead, University(Digital)*

However, Maddy, an apprenticeship lead who was also connected to national university networks, argued that employer and university decision-making about higher-level

apprenticeships was driven by political as well as economic policy, reflecting the political positioning of degree apprenticeships seen in Section 5.2. Maddy shared:

> *"The apprenticeship arena nationally….I'm talking about policy, has been quite volatile, ….it's quite politically driven, especially at the higher levels because higher levels take longer to deliver. … They're more expensive to deliver because of the time that people have to train." Maddy, Apprenticeship Lead, University (Digital)*

The 'expense' of the apprenticeship was in the increased management required to coordinate the work-based route of the apprenticeship, and apprentices were paid, with typical degree apprenticeship salaries of £18,000[32]. This meant that employers were making long-term education and training decisions in a 'volatile' or shifting policy landscape, and where such decision-making was only available to those employers with the financial and employee resources to be able to forward plan across four or five years, reflecting SME constraints seen in 'employer-led' qualification design (Huddleston and Laczik, 2018). Employer decision-making about degree apprenticeship was situated as rational economic choices; here, utilisation of an employer levy is perceived as a budget revenue stream to be recouped, whereas academically based, traditional degree access through a degree apprenticeship occurs because of the levy funding. Funding carried a significant temporal dimension: the Digital Technology degree apprenticeship was typically a 48-month completion, where funding that could be reclaimed from a Level 6 digital degree apprenticeship was £27,000 per apprentice[33]. The degree was an important employability signal, discussed in Chapter 6, in a predominantly high-skill and graduate professional workforce (Dalziel, 2017; Di Stasio, 2017).

In summary, participant insights in digital exemplified the cultural position of the 'degree' reported by policymaker stakeholders, through employer investment in degree apprenticeships as a stand-alone, and alternative to graduate entry, based on utilising

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[32] https://www.prospects.ac.uk/jobs-and-work-experience/job-sectors/information-technology/it-apprenticeships

[33] https://www.instituteforapprenticeships.org/apprenticeship-standards/st0119-v1-2

the apprenticeship levy, rather than through strong vocational standing leading to vocational progression from entry-level to degree. Participants recognised the political nature of decision-making around higher-level vocational qualifications, and where 'employer-led' provision, for digital, preferred to invest in higher levels of qualification, rather than entry-level apprenticeships, and with little evidence of the vocational-technical pathways through the 'middle' and Level 4,5 suggested in TVET policy.

5.3.8 Sectors and distinct and diverse vocational standing

A three-sector comparative study allowed participant perceptions and assumptions of the standing of vocational education and training to be elicited and compared. Literature pays only limited attention to the distinct sector positioning of vocational education and training, and how this might affect the prospects for higher-level vocational progression. Quantitative patterns seen in Chapter 4 began to ripple through my qualitative enquiry, where participant accounts provided details of important vocational processes at play, as participants across the three sectors presented vocational education and training in three distinct forms. In my study, on the one hand, construction participants reported that worker identity has a deeply cultural framing of incremental skills and workplace experience, particularly in traditional industries. In my findings and analysis, construction, with its tradition of vocational education and training, particularly apprenticeships (Altreiter, 2021)**.** This is a familiar framing of 'vocational' in literature, but in my interviews, surprises were the embodied nature of vocational skill in senior leaders, with strong vocational identity and value forming an industry habitus, which is in contrast to the literature of second-class routes and poor worker prospects common in Anglophone vocational narratives (Green and Pensiero, 2017). On the other hand, vocational processes reported by participants reflect labour queue, and educational positionality theories of increasing levels of qualification and experience signalling worker potential and value, for example, in digital pathways, but where a functional, rather than vocational approach to skills was central to employer and educator decision making (Dalziel, 2017; Di Stasio, 2017). Finally, in lower-skilled, low-wage occupations in textiles manufacturing, vocational standing took an unexpected turn, being situated through the sector heritage and [geographic] place, rather than its workers and/or vocational qualifications (Lloyd et al., 2008).

The variation in my qualitative enquiry, into how vocational skills are situated by sector participants, reflects debates of 'new' forms of situated or socially constructed skills (Warhurst et al., 2017). Here, participant accounts centred on sector traditions and norms, and classed and gendered in construction, and in part linked to qualifications through 'professionalisation' agendas, in digital, but rooted in the sector 'norm' of the high-skilled worker (Warhurst et al., 2017). However, vocational standing or identity forms only one aspect of how sectors differently position higher-level qualifications. In local skills systems, employers and educators navigate and negotiate higher-level vocational processes within individual agendas in local skills regimes, which are bound by sector employment structures and vocational norms (Raffe, 2014; Roberts, 2020). Building from career sequencing approaches, in the remaining Chapter, my findings and analyses of higher-level vocational progressions by sector suggest deeply cultural and temporal sector presentations of how progression to high-skill work is situated in a sector 'field,' including who progresses to become a high-skilled worker (Kalleberg and Mouw, 2018; Winders and Smith, 2019).

Participants report distinct temporal perspectives to different occupational routes of fast, slow and no progression prospects are analysed, reflecting Nilsen's (2024,p.160) discussions that occupational patterns of early adulthood are shaped through 'temporal' opportunity structures. In Nilsen's framing, the normative patterns of early adulthood, including education and employment 'choices', are shaped and influenced through a normative 'script' of biographical, early adult life course patterns, together with the negotiation of opportunity structures within career sequences (Roberts, 2009; Kalleberg and Mouw, 2018). This intersection of the structural and cultural-social norms reflects participant accounts of TVET pathways of 'becoming a higher-skill worker', with stratification by occupation and education for groups of workers. The following analysis of three local sector studies of employer-education partnerships in construction (Section 5.4), textile manufacturing (Section 5.5) and digital (Section 5.6) begins to reveal the sector-specific nature of career sequences and the dualistic structural, cultural and temporal processes which underpin and bind them (Evans, 2007a; Roberts, 2015; Nilsen, 2024).

5.4 Construction: Bifurcation in 'Coming up through the Ranks'

In the construction interviews, descriptions by participants of vocational progression were typified as 'coming up through the ranks', where the experience conferred through 'time served' was central to workers' vocational skill. Participants shared four common progression processes, providing insights into how the sector shapes different progression processes, and where apprenticeships were central to progression debates (Warhurst et al., 2017; Altreiter, 2021b). Participants discussed a binary of craft/trade and technical routes, of the role of self-employment as a 'progression', supported through longstanding industry practices, and of non-progression, where skills and progression ceilings were positioned as 'choice', and where 'talent' was uncritically described (Sandel, 2021). Accounts and assumptions by construction participants' position progression through sector norms and traditions of how different workers and/or occupations might become the 'higher-skilled worker', with very different outcomes from often similar entry-level positions.

5.4.1 Craft and Trade progression as '*establish…. prove….master*'

Participants reported continuing employer demand for skills post-Brexit, despite the pandemic, after a decade of strong demand for construction workers (Francis-Devine and Murray, 2024). James, Senior Leader at the College, shared:

> *"There's major skills gaps across the construction industry nationally… from labourers right through to management technician level, site supervisors…., right through the ranks." James, Senior Leader, FE College Construction*

The construction sector has an ageing workforce, with construction participants reporting replacement demand, reflecting national patterns (BMG Research-CITB, 2023). Participants reported employers could be stratified into two groups: first, those employers who prefer young workers who could be 'moulded' to the employer, as well as the sector, where the vocational identity inculcated through apprenticeship provision was a core sector training approach. Secondly, those employers who favour older and [construction] experienced staff, with vocational expertise signalled through age and experience (Simms, 2017; Altreiter, 2021).

> *"Some employers prefer people if they're new into the industry, to start them from young. But there's also a view out there that some of the younger people aren't as reliable as some of the mature people. But then it takes them longer, sometimes to train older people……whereas the younger ones, they're moulded straight away…… but there's definitely not a competition for mature and young people joining the industry……there are lots of roles out there." James Senior Leader FE College Construction*

James argued that skills demands in the sector meant that employers' approaches balanced out generationally. Literature reports employer confidence in young workers as unreliable and not work-ready, as a typical feature of employer feedback on skills and the workplace (Keep, 2020). Employer beliefs and attitudes of young workers as 'risk' is, in part, a rational response to well-known patterns of young people changing careers (Wolf, 2011), and of a lack of school preparedness for the world of work as opposed to continuing education (Winterbotham et al., 2020).

Construction interviewees shared that workplace experience in Craft and Trade routes formed a significant part of informal learning and signalling of occupational expertise. Importantly, the intrinsic mobility of the industry meant travelling for work was an inherent aspect of building that expertise, with the 'local' skills area spanning local and regional boundaries (Altreiter, 2021; Sissons, 2021):

> *"The big thing as well is the mobile nature of the industry, you know. Generally, you're rocking up…where you live, in the local firm's yard…. and then going out in vans. If you're not there at 7:30, seven o'clock, six o'clock in the morning, you're left behind, it's as simple as that. …. Is it everybody's cup of tea?" James Senior Leader FE College (Construction)*

James described routine geographic mobility as a standard part of many construction job roles, meaning young workers had specific [adult] responsibilities from entry at 16 years old to be on time and prepared for work. This was not just a function of large employers, who, as typically national actors, were operating regionally on projects such as housebuilding, and nationally on larger infrastructure, with consequent mobility needs for their workforces. However, mobility applied to SMEs, who formed part of the sub-contracting structure of the sector (BMG Research-CITB, 2023). Participants described mobility as an occupational opportunity and something all construction participants reported experiencing. Participants saw being mobile as an opportunity structure that allowed young workers to see other sites, or take advantage of

geographic opportunities, including in London and the Southeast. But mobility also acted as a constraint for young workers in early careers, prescribing a particular (masculine) culture of work, getting in a van early in the morning with fellow workers, and time away from home. Participants' expectation of progression was equated with the ability to travel, work long hours and be mobile. There is extensive empirical evidence in the literature of how workplace cultures and norms can exclude female workers, carers and parents in an intersection of gender, care and the performativity of situated skill (Warhurst et al., 2017). This cultural presentation reflects Bourdieusian frameworks of a 'field' of practice, particularly as an apprentice, where social 'fit' is a function of practical aptitude, and the willingness to learn on the job, which includes mobility (Fuller et al., 2005; Altreiter, 2021).

Max, Senior Employment Leader in a Large Employer, described how qualification level descriptors do not adequately frame the acquisition and consolidation of vocational skills in craft and trade routes, where 'time served' was described as essential to '*establish … prove …master* craft and trade job roles:

> *" They've just got to establish themselves in a role, and then prove, because the apprenticeship is one thing, you need a good few years then to actually 'master' the role." Max Senior Leader Employment and Skills Large Employer (Construction)*

This need for significant early career experience in career sequences created tensions for future progressions; Skilled Trades command relatively high median wages as young adults, but while mastering a trade, young workers are typically out of the education system. In the 'slow' progressions of craft and trade routes, there were progression routes to higher-skilled occupations, primarily site supervision and management roles via Level 4+, but the number of options was limited, reflecting the narrow profile of progression pathway options. Max continued:

> *"But it's like, say your joiners, the typical route of work, do your job, do it well, and you'll naturally, if you're doing that… well, when I say naturally, but potentially then go into a supervision". Max Senior Leader Employment and Skills Large Employer (Construction)*

Participants consistently used a meritocratic and 'natural' framing of progression, communicating that the sector skills demand and training opportunities were under-

recognised, and there for the taking for skilled workers, with expertise in manual skills providing signals of wider leadership potential, rather than qualifications (Di Stasio, 2017; Guile and Unwin, 2019; Altreiter, 2021). Ken, Senior Leader at the FE College, positioned higher-level vocational workers as respected for their experience and 'hands-on working':

> *"I don't think [employers] always appreciated graduates coming in. 'Cause they have then got to teach them how to work. ….whereas people who are coming through the ranks have done the work and they're doing the knowledge at the same time…. it just takes a few years longer" Ken Senior Leader FE College (Construction)*

In craft and trade routes, supervision was typically a Level 4 role and marked the 'middle' interchange between skilled workers and higher-level skills and involved moving away from the individual practical application of skills, into managing site-based quality and workers.

5.4.2 Craft and trade progression as 'ambition'

Progression typically required the opportunity to work 'off the tools' in site offices as the catalyst for further occupational progression by young workers, who were seen as a particular 'sort of person', with 'ambition', echoing 'aspiration' discourse. James shared:

> *"Where you get more ambition, where you get the people at Level 3 and beyond, where they start being in the office, then they want to become a site supervisor, then they want to become a manager…. You get a lot more passion, a lot more ambition coming out of those sorts of people." James, Senior Leader FE College Construction*

The sector has significant skills shortages at a site-manager level, and so participant accounts of expectations of being able to progress are reflected in job openings (BMG Research-CITB, 2023). Sociological narratives of aspiration are set in individual desires for an imagined future, which also provides horizons for action. Participant accounts of ambition through progression reflected the work of Kintrea (2015), where 'to aim for a job which requires qualifications and skills is taken to be indicative of higher aspirations while leanings towards early school leaving and a lower skill job is taken as a sign of lower aspiration' (Kintrea et al., 2015, p.667). In my interviews, participants described how young construction workers are deemed to have 'lower aspiration' by schools

because of their desire for a construction career and its contingent early labour market experience (Hughes, 2017). There were disconnections between sector 'success' in Craft and Trade routes, predicated on manual expertise and narratives of school 'success'. Construction craft and trade routes were also seen as a second chance route following a poor school experience, where Ian, Regional Skills Lead for a Trade Body, argued that everyone in the sector knows 'someone' who has progressed in the industry having entered with few if any academic qualifications:

> *"I was talking to someone yesterday who's now a very successful consultant in the industry and had worked in industry for many years, who was telling me he left school at 14. No qualifications whatsoever. Started, you know, as a labourer- construction site operative within the industry and worked his way up all the way through. So, it is an industry where there is still opportunity to do that……" Ian, Regional Skills Lead, Trade Body (Construction)*

However, there was a caution from participants that these social mobility 'successes' typically described trajectories that were not possible for all workers, particularly because construction workers disproportionately hold low levels of qualifications. By the age of 25-30 years, Chapter 4 showed that 43% of employees held a Level 2 qualification as their highest qualification, in comparison to national levels of Level 2 and below 24.3% (DfE, 2022). Ian further elaborated that this involved the industry recognising the constraints of longstanding qualification pathways, and the relatively low completion rates of 53% for apprenticeships in construction in 2022-23 (Francis-Devine and Murray, 2024, p.11). Participant accounts reflected the tendency of social mobility discourse to focus on outlier stories, for example, in academic pathways, those most disadvantaged young people who entered elite universities and into elite careers (Lawler and Payne, 2018, p.133).

5.4.3 Technical progressions: 'You are on a route from day one'

In contrast, in 'fast ' technical pathways, vocational progression was an intrinsic feature of the pathway. Max, a large employer, explained:

> *" Whereas if you're a construction technician, it's very much you're on a pathway from day one….you do your Level 3, you think then…. "What route am I going into? Is it QS? [Quantity Surveying], Is it site supervision?" Then you've got higher [qualifications], and you've got a degree route to get you*

> *right to the top, and they typically progress through that a lot quicker." Max Senior Leader Employment and Skills Large Employer (Construction)*

Max described how in technical routes, entry was typically at Level 3, and occupational classifications at this level were at the higher status, Associate Professional, Major Group 3 in the intermediate skills space, into multiple and more expansive higher-level 4,5,6 routes, reflecting academic pathways in relatively linear, defined progressions, leading to swifter formal knowledge accumulation (Bathmaker, 2013). Max framed these pathways as '*probable*', rather than *'possible'*. Participants suggested this led to unconscious advantages of technical, more academic routes, perceived as 'clean' construction work routes in comparison to the 'dirt' of craft and trade jobs typically described in the literature as a form of embodied masculinity in apprenticeships in traditional industries (Pleasant, 2019). These temporally 'fast' transitions to higher-skilled work were in comparison to slow, 'dirty', craft and trade routes, which are heavily practical and hands-on (Pleasant, 2019; Francis-Devine and Murray, 2024). Technical routes were also the areas seeing the most gendered change. Ian described a slowly changing industry, but one where technical routes engaged more female apprentices and students:

> *"For females…. a lot …. is about pushing them down the technical and professional route …which they do well …... Yes, they are quite often moving into a more male-dominated environment, and they have to stand their ground. But as I said, the attitudes within the industry are absolutely changing and improving." Ian, Regional Skills Lead, Trade Body. (Construction)*

Julie, the Academic Surveying lead at a Post-92 university, reinforced this pattern:

> *" From the [degree] apprenticeship point of view, a good split, actually a lot of female students compared with our full-time. I mean, when I studied part-time…. I think there were four of us on the part-time route. Now, if you look at the apprenticeship and the part-time route together, there's probably a good 25% of them female." Julie, Academic Surveying Lead, Post 92 University. (Construction)*

These gendered patterns of the categorisations of 'dirty' trade echoed in manufacturing and were reflective of the traditional, masculine position of manually based apprenticeships (Pleasant, 2019).

5.4.4 Self-employment: 'knowing…and being very good at the game'

Participants described that within vocational progression, self-employment was an important local occupational route, but typically outside of formal qualifications after Level 3. The construction sector is the industry with the highest number of self-employed workers, with numbers peaking at 904,000 nationally in 2020, falling to 799,000 in 2022,[34] in comparison to a workforce of 2.1 million employees in 2021. Ian positioned self-employment as the 'other' progression route:

> *"The other progression route for them quite often is to do an apprenticeship and then go down the self-employed route and eventually start companies of their own. So, there's big opportunities there to go down that route […] to develop and build their own companies." Ian, Regional Skills Lead, Trade Body (Construction)*

Social mobility discourse is only slowly recognising upward mobility outside of academic framings of education and access to elite careers, but where the intersection with traditional industries with strong male earnings, social class, and worker identity is little researched (Giazitzoglu, 2018). Cohen et al(2019) analysis of self-employment highlights the limited attention paid to the sociological processes of self-employment, where:

> *'The lived experience of work, the spaces and times within which work is conducted….and may be refracted through particular histories or practices of class….' (Cohen et al., 2019, p.6).*

Self-employment in the trades was 'meritocratically centred' on hard work by James, but with a cultural fit described through Bourdieusian 'field' descriptors of 'knowing the game, and then, very good at the game' (Altreiter, 2021). James, a Senior College Leader, observed:

> *" It's people just generally working hard and knowing the game, and then very good at the game….they start looking at more around self-employment and being their own boss, being their own manager, taking on*

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34 https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/understandingchangesinselfemploymentintheuk/january2019to.00okmmarch2022#:~:text=The%20construction%20industry%20has%20the,in%20January%20to%20March%202022

a few staff ….that happens a lot in our industry." James, Senior Leader FE College (Construction)

This process of self-employed trades was centred on expansion through recruitment from family networks in local communities:

"I think we have a lot of apprentices and students that are taken on through family, friends… into the industry…then they start to take over. And I think it's a natural progression thing rather than it's going to be my job in another 10 years." James, Senior Leader FE College (Construction)

The cyclical and community basis of self-employed workers in the sector then bringing known young workers into their business, and training, typically through apprenticeships, with long-term handing over the business, creates unique informal progression and opportunity structures for young workers where family networks have high importance for securing work and training but also create future upward mobility prospects of becoming a business-owner themselves (Devine, 2004; Giazitzoglu, 2018). These are suggested to be a natural evolution of a career pathway rather than a planned, 'imagined future' within a sector, and where economic progression through entrepreneurship is different to the mobility achieved through academic education, and which Giazitzoglu describes as 'characteristically a male world' (Giazitzoglu, 2018, p.108).

5.4.5 Non-progression as 'choice'

Chapter 4 showed how the large majority of construction workers hold a Level 3 as their highest formal vocational qualification. Participants explained non-progression as a worker's lack of desire for more responsibility than their current job role, in self-imposed ceilings on ambition, rather than any form of situated inequality, or more limited higher-level job opportunities:

"And genuinely some people in the industry don't want to take on more responsibility… they're happy with the variety of work involved… to stand back and be able to tell people …." And I were on that building…". And then they do the weeks' work and then they finish for the weekend … They've no other worries, so to speak." James, Senior Leader FE College Construction

These 'ceilings' of ambition suggested by participants, reflected in the occupational pathways seen in LEO analysis in Chapter 4, were also in part explained by the

relatively high median wages achieved early in careers, and often a function of mobility before the age of 30 years, but which could then plateau, or in the case of older workers, become less physically able to perform job roles (BMG Research-CITB, 2023). At the College, this was seen as an agentic, not sector-situated worker's 'choice', and predominantly seen in craft pathways:

> *"So, I would say on the crafts side, that's what a lot of people think like. And again, not rubbing everybody with the same brush. There's some really ambitious people that think 'I can see a progression route, I start as a brickie and then I might be managing this site in another three or four years.'" James, Senior Leader FE College Construction*

Participants' framing of 'natural' progression reflected imaginaries of the ideal worker (Winders and Smith, 2019). These were masked by the significant social repositioning needed to return to education and training to achieve site supervision qualifications, with Max cautioning:

> *"But I do think it's then harder to drop back into education when you're doing a full [time], responsible job". Max, Large employer, Senior Lead Employment and Training (Construction)*

Progression to higher-skilled work in the sector constituted a very different context to the typical literature higher-skilled work accessed through traditional university study and Bachelor's degrees, and different imagined futures 'high-skilled worker' (Arnett, 2014; Lawler and Payne, 2018a). Sector actors situate skill, meaning links to qualifications are more slippery or ill-defined than vocational occupational framings in policy suggest, through the context of the job role, the institution and the sector, and wider labour market structures (Warhurst et al., 2017). Ishida et al. (2002 in Kalleberg, p. 287, 2018) identify "diverse forms of the interplay between structural and individual factors", but where little reference is made to the subjective, sector traditions and norms that mark out a worker as suitable for progression through 'experience'.

In summary, construction participants presented progression in the sector as twin-tracked craft/trade routes and technical vocational progression processes across the mid-high skills space, in two distinct 'fields', separated by their different temporal scripts of 'slow' and 'fast' transitions (Roberts, 2009; Nilsen, 2024). Slow craft and trades pathways, typically to Level 3 qualifications, were based on the acquisition of

skills through hands-on practice and mastery, leading to skilled worker status through time on the job, and practical expertise. Skilled workers taking this route were meritocratically positioned by participants as 'naturally' progressing through 'talent', through relatively narrow pathways to site leadership, which participants positioned as achievable by workers depending on their ambitions and application (Roberts, 2009; Altreiter, 2021b). In contrast, 'fast' technical pathways to higher-skilled work more closely mirrored academic routes in linearity, expectations of progression from entry-level 3 qualifications, and perceived professional status as 'clean' routes. These routes intersect with the significant informal progression that occurs in construction through the very large numbers of self-employed workers that occur in the sector, but where progression via these routes is underexplored, and typically falls outside 'formal' qualifications (Cohen et al., 2019). Finally, non-progression was recognised by participants but situated as a personal choice linked to a desire for limited responsibility, rather than any form of situated sector inequality in who progresses and how, reflecting the predominant meritocratic framing of progression within participant discussion (Sandel, 2021). These findings challenge the homogeneous policy presentation of construction TVET progression.

However, very different patterns of progression were seen in textile manufacturing.

5.5 Textile manufacturing: progression as 'possible', but not probable

In textile manufacturing, industry participants discussed a sector polarisation of low-skilled operative work, and high-skill graduate 'design'. The limited technical vocational progression routes from vocational entry-level to higher-skilled work reflected participant accounts of the sector value placed on knowledge production through graduate Level 6+ learning for higher-skilled jobs (Guile and Unwin, 2019a). There were very limited reports by participants of progression through the ranks, typically through the technical roles of dyers. This was contrasted with significant pride in the heritage and skills of the sector in my interviews, further reflecting Braverman's (1974) 'romanticisation' of craft seen in Section 5.3.4, but disconnected from workers as the 'expert' (Attewell, 1987).

5.5.1 Limited operative progression: The industry wants sewing machinists!'

Textiles manufacturing skills were positioned by Ben, Training Manager for the employer-led textiles training provider, as vocational and niche skills:

> *" Textile manufacturers: in terms of weaving, finishing, maybe spinning and carding, it tends to be the vocational route….there's always going to be a niche in terms of the skills that they need in terms of weaving, finishing, dyeing, etc." Ben, Training Manager, Textiles Training Provider*

Opportunities to progress for operatives were reported as few with employers, with Jenny Senior Leader in Skills for a Trade Body explaining that only the large companies offered achievable progression pathways for operatives. Most companies were Small and Medium Enterprises (SMEs) and micro:

> *"In the likes of Global-Fashion-Brand… if you've got a decent sewing machinist that wants to progress, she could go on to be a sample machinist, a garment technologist. She could work in the pattern room….so there's definitely progression routes there." Jenny, Senior Skills Lead, Textile Trade Body*

However, interviewees explained that sector labour shortages at the operative level led to few incentives for employers to train beyond the job role:

> *" But it's been a difficult one….when we try and write a progression route for a sewing machinist, we talk about sewing machinist, sample machinist, and then you can branch off to go on technology, product development, blah, blah, blah. However, there's not <u>much</u> opportunity to do it because the industry wants <u>sewing machinists!"</u> Jenny, Senior Skills Lead, Textile Trade Body*

Participants positioned manufacturing employees as workers in a role, not as workers with the potential to progress (Lloyd et al., 2008). The 'stifling of demand' by employers was presented by participants in the form of 'absent' or 'missing' opportunities within the typical entry-level jobs at the operative level, in progression pathways. This reflects Lloyd et al.'s (2008, p.298) observations of multiple employer behaviours efficiently utilising low-skilled workers and creating occupational ceilings on job roles. Gendered norms included stratification in manufacturing roles, where textiles manufacturing at 44.5% female was one of the most gender-equal workforces, but with the demarcation of lower-skilled jobs as predominantly female (Castañeda-Navarrete et al., 2024, p.14). Ben described the separation of factory floor roles:

> *"If you walk into a manufacturing facility, and you've got guys operating looms predominantly, if you've got people working in a laboratory, it tends to be more female-oriented. Sewing machines, generally female. And so, rightly or wrongly, they're just still quite structured like that. It's hard to explain that one…. I don't know if it's the nature of the job, the attractiveness of the job role….companies are trying to do their best to combat that and level off that divide if you like. But I think it's difficult." Ben, Training Manager, Textiles Training Provider*

There were longstanding descriptions of female-dominated manufacturing processes as 'girls'(Fuller et al., 2005) :

> *"You've got a girl who will sit at a sewing machine and… do trouser seams all day. So, she'll just be doing trouser seams all day, she'll have a performance to reach. She will have a quality standard to reach, but it's pretty simple. It's about her speed." Jenny, Senior Skills Lead, Textile Trade Body*

There was also limited incentive for operatives to innovate or show enhanced skill levels beyond set criteria, with a lack of formal recognition of this enhanced skill or experience:

> *" But then you've got girls who will whizz through, and they will say," OK, try this, do this. Do that, put this pocket on it." And they will be, you know, performers working at 130% if there's such a thing. Quality standards are spot on. They never get returns, but <u>they</u> don't get recognised as a progression in the progression side of things in this industry." Jenny, Senior Skills Lead, Textile Trade Body*

Efficient lower-skill utilizations were reflected in narrow, operative job framings by participants, which were reported to be a product of the niche nature of many textile manufacturing job roles (Lloyd et al., 2008). In addition, participants reported that operatives' skilled tasks are broken down in [Fordist] reductionist manufacturing processes, meaning that participants report jobs that require limited training, typically performed in-house rather than through formal educational qualifications (Lloyd et al., 2008). Michelle, a project leader for a regional skills project, described how 'skill' appeared misclassified in the sector:

> *"It's like a Cut Make Trim- a CMT line- people see people that sit on sewing machines as low-skilled; they are anything but." Michelle, Project Leader, Skills.*

This meant skilled, typically female operative-level roles being classified as lower skill, Major Gp 8, against typically male, Skilled Trades in construction being predominantly Major Gp 5 (Fuller et al., 2005; Jarman et al., 2012). Importantly, Ben explained that the sector lagged in realising the skills possibilities from advanced manufacturing and digital technology :

> *"It was written into Juergen Myers Made Smarter review[35]…. that spoke about the fashion and textile sector being the sector that could benefit the most from digitalisation in the shortest [time] without doing huge jumps, just by adopting simple digital technologies, it could be the sector out of all sectors that can make the biggest leap …." Ben, Training Manager Textiles Training Provider*

Participants shared that digital innovation in the sector was creating new work structures, with much-reduced numbers of operatives; in this example, one technician was needed to run the machinery:

> *" So, for instance, we've got the new spinning mill at [Moorland]. The problem with it is…. fabulous as though it looks… it doesn't need the operatives that the old spinning mills used to need….you'll have somebody, but it'll be a technical thing…. It'll be a technical bod who will get us there if the threads break". Jenny, Senior Skills Lead, Textile Trade Body*

Technological change was much discussed by participants, but with limited evidence that the industry was about to enter a period of rapid upskilling, or that such change would enhance many of the characteristics of 'skill' that defined the sector.

5.5.2 A narrow middle progression: 'possible' but not probable

Employers and educators positioned the sector approach to progression as an emerging picture of newly formed middle, Level 4+ technical vocational apprenticeship development, in a dominant operative and ageing skilled occupational profile, and of an industry requiring digitalisation. Middle routes did exist, but these were at relatively low numbers, in narrow pathways. Jon Senior Leader Textiles Centre suggested that progression was '*possible*' but not necessarily probable:

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[35] https://www.gov.uk/government/publications/made-smarter-review

> *" There's the academic ladder or the [vocational] qualifications ladder is possible[….}So people can do it. Some of them don't." Jon Senior Leader Textiles Training Centre, Director Textile Trade Body*

Similarly, to the technical routes in construction, some mid to high-skill job roles, such as dyers, were considered more academic, clean routes, and led to higher-skilled work and qualifications. Technician job roles for 'young workers, considered those under the age of 35 years, could be 50% funded and supported via Textiles Bodies[36], for example, The Weavers', Clothworkers and Drapers' Companies. These job roles historically had not had occupational Level 4 apprenticeships, with Level 4 Technical Dyer and Colourist only in draft forms but had not been through Trailblazer development, reflecting Raffe's (2015) dead-ends and traps of vocational progression (IfATE, 2025). Participants appeared to unconsciously stereotype technical roles by gender, with skill embodied through physical characteristics reflective of traditions of masculinity in apprenticeships (Altreiter, 2021):

> *"Young dyers are nearly always fit and dynamic and intelligent and very sought after because what they do tends to be the linchpin of the company operation." Jon Senior Leader Textiles Training Centre, Director Textile Trade Body*

Technical routes were often highly specialised job roles, for example, Loom Technicians or Tuners, and which reflected embodied skills of understanding the 'physical':

> *"So Loom Tuners[37].. they call it a Loom Tuner because it isn't about statistical process control with looms. It really is how things <u>sound</u>……So if a bearing is running more than 43 degrees, you'll know it's likely to break down in the next 12 hours, and you can repair it without you having suffered that breakdown. Still, much of our industry, it's about the noise things make and people hearing it and feeling it." Jon Senior Leader Textiles Centre, Director Textile Trade Body*

Such jobs were skilled worker levels and renumerated above average median wage levels. But participants reported that despite Higher Level 4 apprenticeship standards

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[36] https://ukft.org/skills-and-training/what-we-do/funding-for-training/textile-technician-fund/

[37] Loom tuner or loom technician: reported salary levels Northern Region Indeed Nov 2023 =£17.18/hr; trainee loom tuner=£11.44/hr https://uk.indeed.com/q-weaving-loom-jobs.html?vjk=4bd609fab033069c

being developed by employers, and the employer-led textiles centre offering them, there was limited take-up by employers, even for large employers in the region:

> *" Those companies…. don't do higher level qualifications…. I'd love to say to you that I know companies who will put somebody through Level 4 Dyers and Colourists…. I don't think they're limited; I just don't think it's quite happened yet because of the needs of the standards." Jenny, Senior Skills Lead, Textile Trade Body*

The very limited opportunities at higher-level 4+ were reflected in a limited pathway of formal qualifications at Level 3, where companies, which had been involved in employer-led qualification design through the Trailblazer groups, were only just implementing those qualifications:

> *"So, for instance, [Luxury womenswear company], who was involved in developing the standards. They did the Level 3 pattern cutter. They've got their head around it now, so they can see progression". Jenny, Senior Skills Lead, Textile Trade Body*

This was described as part of an employer evolutionary process around the utilisation of qualifications, with employer engagement in the qualification process being the first step of employers' better understanding of how to utilise qualifications. However, Maria, a young graduate weaving designer described how employers actively sought overqualified graduates for lower-skilled jobs, as a form of 'future talent spotting' for 'graduate 'job roles as they came up, but in a highly competitive graduate jobs market where fewer than one in five fashion and textiles graduates work in the industry and so young people were willing to take these jobs for experience:

> *"I knew that they had some graduate jobs …. I was so lucky to get a job at the mill … the job title was Production Assistant, and so it was cutting up scarves and sewing labels and packaging scarves and blankets…. It wasn't design or weaving…… but it's really great to be able to just be in a textile environment and actually earn a bit of money(laughs)…. I don't think you needed a degree for that at all. 'Cause there were some other women that worked there, that didn't have a degree in textiles…they were trying to sort of recruit people that had graduated. 'Cause obviously, they had an interest in weaving and textiles….that was a really supportive job." Maria, young adult, graduate Textile Technician and Designer*

Maria shared that without a university degree, these steps would not have been possible for her from an 'ordinary' background because it gave her access to hidden textile manufacturing networks (Edgerton and Roberts, 2014).

5.5.3 Polarisation, 'skill', and 'design': the graduate premium

In a sector where the focus of 'skill' has always been physical manufacturing processes and products, rather than 'design', this was reflected in higher-level progression through the omission of degree apprenticeships from employer-designed qualifications. This separation was seen by participants within education pathways, with graduate-level, university provision typically being 'design' rather than manufacturing-based, reflecting for participants a cultural framing of manufacturing 'skill' and the working classes. Jenny, Skills Lead Trade Body, described how talking with manufacturers and the universities:

> *"There's a snobbery….it was like skill was a dirty word….[universities] even kind of said, "Look, we don't want to know about skills. What we're about is that [design]". But employers then go "What?" It's almost like two sides of the room and they're both looking at each other, and there's no…." Jenny, Skills Lead, Textile Trade Body*

This education and training separation, demarcated by the higher education system, was argued by Jenny as rooted in two very different traditions of knowledge formation and production (Bathmaker, 2013; Esmond and Atkins, 2022; Avis, 2023). Jon aligned this separation with the expansion of university provision, particularly the desire of the Post-92 Universities to be 'aspirational' destinations:

> *"Some of the Mickey Mouse degrees that you see these days….the kind of courses you see at the university, polytechnic as was. They moved out all their textile machines and put in a lecture theatre so they could cram ten times as many young girls….doing some kind of fashion degree, whose ultimate objective would be a buyer for Harvey Nicks." Jon Senior Leader Textiles Centre, Director Textile Trade Body*

Participants shared that manufacturing skills, despite the central place of 'manufacturing' in regional growth strategies, were often sidelined, with a significant imbalance between design graduates being produced and the higher-level manufacturing skills the industry needed:

> *“ That's a kind of different outcome than we used to have when people were trained as textiles people.” Jon, Senior Leader, Training Centre and Director, Textile Trade Body.*

Jon’s desire to return to ‘textiles people’ was reflective of changing industry structures, and a perceived disconnection between ‘professional’ job roles, the design process which dominated university study, and manufacturing. Interestingly, there was no degree apprenticeship in development in textiles manufacturing:

> *“For instance, there's no manufacturing…. fashion and textiles manufacturing degree apprenticeships. There's one all about you know, merchandising and branding … All needs to be done, and it has a place. But if you've got an employer … saying “ I want to do a technical textiles apprenticeship degree, there's nothing there yet. And whether there ever will be, I don't know” Jenny, Senior Leader Skills, Textile Trade Body.*

This absence of manufacturing skills through higher-level degree apprenticeships reflected the dichotomies seen in Level 4,5 in Section 5.2 between employer-stated skills gaps and participation in qualifications. Studies suggest a lack of qualification engagement can indicate that different, alternative informal labour utilizations to meet industry-identified technical needs, through graduate underemployment, or informal training are occurring (Green et al., 2020; Costa et al., 2023). Importantly, this reinforces the disconnections reported between skills and qualifications (Elias et al., 2023).

In summary, despite vocational technical reform, textile manufacturing vocational progression structures were limited, with many unknowns of employer engagement. These were complicated by the polarisation between ‘skill’ and ‘design’, where graduates traditionally filled ‘professional ‘ job roles (Brown, 2020). “Efficient lower skill utilizations” meant participants reported narrow operative job framings, which were a product of the niche nature of many manufacturing job roles (Lloyd et al., 2008). Operative-level job roles required limited training, typically performed in-house rather than through formal educational qualifications. There were narrow middle progressions where progression blurring occurred between supervisory or Team Leader, typically operative level job roles at the low/mid-skill interface, in comparison to technical progressions, which took workers firmly into the mid-intermediate skilled worker space. In addition, there were limited incentives for workers to enhance job

performance, or for employers to vocationally progress workers, because of the labour and skill shortages that existed at operative /skilled worker levels. This meant that there were very limited progression opportunities for vocationally minded early adults, with entry-level roles requiring limited formal training despite entry-level qualifications being newly made part of TVET employer-designed pathways. This reflects historic vocational patterns of the English labour market, where the existence of a qualification does not mean employers will utilise it (Keep, 2020). Importantly, the position of professional job roles often via degree design pathways meant that graduate oversupply was reported to directly affect 'middle' job opportunities for non-graduates (Bathmaker, 2017).

5.6 Digital: High skill, 'elite' progression via the cultural position of 'the degree'

Finally, interviews with digital participants examined vocational progression through the lens of digital degree apprenticeships, where the large employer was directly substituting forward graduate recruitment for a degree apprenticeship pathway, providing an example of vocational permeability at a graduate level (Green and Pensiero, 2017). In participant accounts of vocational progression in digital, the functional positioning of the digital degree apprenticeship by participants discussed in Section 5.3 extended to the student experience. Maddy, University lead for apprenticeships, argued that the 'branding' of the degree was considered embedded in employer perceptions, in comparison to a weak understanding of a 'Level 6' qualification:

> *"So, I think some of it is historical from an employer's point of view. I think if somebody sees a BSc on a job application and next to a Level 6 apprenticeship, I think they understand the BSc. I think they don't necessarily understand what a Level 6 apprenticeship is…." Maddy, University Leader, Apprenticeships (Digital)*

This reflected employer confusion over the qualification system reported by participants at a local level in the Northern Region, reflecting criticisms of policy as overestimating employers' understanding of, and engagement with, the nuances of the qualification system, and the signalling of 'the degree' (Huddleston and Laczik, 2018;

Keep, 2020). Robert, Senior Skills Adviser, Thinktank to Parliament, suggested that policy under-recognises the signalling effects of a degree, and how, in the competitive graduate market, where oversupply is an increasing factor, employers pragmatically use the degree to manage the volume of applicants being received:

> *"There's a bit of a disconnect when we look at how employers hire, and their desire to use [qualifications] as a safety mechanism. I was talking to an employer; she still gets 3000 applications for 15 places. She's gotta have something to do the first shift ……and those employees are not going to want to sift through every single thing. " Robert Senior Policy Adviser, Thinktank to Parliament*

Participants echo the cultural position of the degree expounded by participants in Section 5.2. The language was of the degree apprenticeship 'brand', as commodified qualifications (Brown and Souto-Otero, 2020; Brown et al., 2020). Explanations of human capital framings of skill suggest that there is a deep connection between employers, graduates and the request for degree-level qualifications, in comparison to simpler signalling, sorting, and sociocultural explanations of the dominance of degree-level qualifications. This misalignment is described by Brown as the 'mirage of opportunity' (Brown et al., 2020, p.89). The importance of the 'degree' meant that the discourse of becoming a degree apprentice at the university was framed through the same 'degree' lens, where providing apprentices with a 'degree-type' experience was important, in the social shaping of apprentices into the normative undergraduate experiences of the professional workforce (Reay et al., 2010):

> *"Because it's unusual for a degree apprenticeship in that it's quite a traditional degree model, which is what we wanted because we wanted to retain the students' feeling like they have a university experience still, that was important to us." Molly, Senior HR Early Careers, Large Employer, (Digital)*

Importantly for the employer, participants suggested the degree apprenticeship closely reflected the norms of a traditional Bachelor's degree, positioning the digital degree apprenticeship progress as reflective of traditions of undergraduate experiences, and 'graduate' recruitment (Casey and Wakeling, 2022). Further, Maddy explained the BSc formed important signals for employers and apprentices (Di Stasio, 2017):

> *"A BSc is important to some employers….they do value the degree apprenticeship brand…in some professions, having a mandated award is extremely important to going forward within their careers. I'm not saying all of them are(laughs), but for the computer science…for those apprentices to be able to be successful in that job, for the employer going forward, and for the apprentice within their career, that BSc is really important…it is a technical qualification." Maddy University Apprenticeship Lead (Digital)*

Maddy described the degree apprenticeship as providing employability and academic 'fit' for employers from apprentices, and opportunity structures for apprentices by positioning them as highly qualified individuals in their current apprenticeship (Roberts, 2009; Edgerton and Roberts, 2014). Importantly, there is evidence these effects can ripple into future career sequences and professional progression prospects, where a degree represents a 'future' investment in employment returns through time invested in the present (Dalziel, 2017). However, the literature suggests early adults make pragmatic, rational choices about investment in education, with studies suggesting it is middle-class young people through their parental networks, and access to financial resources and educational capital who can best take risks on 'new' educational pathways, where less-advantaged young people have felt a traditional degree, despite the lack of a wage alongside, offers them the most chance of a professional career (Casey and Wakeling, 2022). Mandating degree-level study was reported by participants as intrinsically linked to forward professional recognition and progression pathways (Heath and Li, 2023). The career progression 'field' was bound by the university and employer's socio-cultural position of skill, here signalled through the standing of a 'degree', mirroring the graduate employment patterns seen in the digital and professional services sector (Brown, 2020). The digital focus of the apprenticeship meant that workers had the flexibility of wider digital sector careers.

5.6.1 Recruitment of the 'high-skill apprentice'

Despite the move to UCAS advertising apprenticeships, apprenticeship recruitment sits directly with the employer because of the employment status of the apprentices as employees. In my interviews, this positioned the large corporate employer as the primary decision-maker as to who is recruited and how, where employers' decisions were typically those of the graduate labour market (Roberts, 2020). Maddy, the

university lead for apprenticeships, explained that this created tensions in who was perceived as a 'high-skill worker'(Winders and Smith, 2019):

> *" So…. we don't recruit. So, this is the thing… we don't have the final say on who we recruit. It's the employer who chooses who to send to us….Obviously, we don't want to set [apprentices] up to fail, so we need to make sure that they are capable. That doesn't mean to say that they don't have to have the necessary physical grades…. we have lower grades to be able to get students from widening participation backgrounds. It's the employer who decides on who is…. at the end of the day, they are their employees." Maddy, Apprenticeship Lead, University (Digital)*

Participant accounts suggested employer recruitment in degree apprenticeships is little recognised as an important site of potential reproduction of inequalities, and whether degree apprenticeships are not the horizons of 'choice' or 'action' suggested in policy because of the exclusion of groups of young workers as not perceived as 'capable' (Hodkinson et al., 2013). Social reproduction through work is argued in literature to be a function of the 'imaginaries' of the worker (Winders and Smith, 2019). In debates on degree apprenticeships, in literature, the focus has been on the reproductive effects of middle-class advantage in recognising and navigating new forms of qualification (Cullinane and Doherty, 2020). There has been more limited attention as to whether employability patterns of 'the high-skilled graduate' are reproducing via recruitment in 'imaginaries of the high-skilled worker' (Savage, 2015; Friedman and Laurison, 2019). Maddy positioned a joint recruitment approach between universities and the employer as being critical to accessing more disadvantaged cohorts, to remove barriers to higher education access, rather than it being a traditional employer recruitment process at Level 6+ (eg see Ishida and Spilerman, 2002; Tomlinson, 2020; Heath and Li, 2023). However, the degree apprenticeship programme, which formed part of 'ladders' of vocational opportunity, required AAA grade equivalence entry from A-Levels or BTECs into a 'vocational qualification' (Hubble and Bolton, 2019b). Molly, Senior HR Leader for the employer, shared tensions over the entry-level requirement:

> *"They <u>are</u> high on the tech degree, so it's three As. We do work with the outreach, the access route, so that students can get a two-grade drop if they come from disadvantaged backgrounds…. It is a bit of a battle of ours … We want to encourage more participation from students from disadvantaged backgrounds, but there's also, we don't want to set anyone*

> *up for a fall…. So, it's a bit of a balance." Molly, Senior HR Early Careers Large Employer (Digital)*

This qualification level signalling access to 'talent' is in line with the Russell Group university access criteria. Molly argued that the 'elite' grading was a function of the elite university, not the employer, for apprentices to be able to access the computing course. This set the degree apprenticeship firmly in the academic sphere of the university. The Office for Students[38] (2019) reports that over twice as many students achieve AAA grades who are not eligible for Free School Meals(typical education deprivation indices), at 11% of students in comparison to 4.9% of students who are FSM. These are vocational pathways designed in part to widen access from disadvantaged communities. This was the only digital vocational pathway being offered by the employer, where, although the organisation has strong numbers of school and college leaver recruitments, and uses, for example, Level 4 Consulting apprenticeships, for digital, intakes were degree apprenticeship only, mirroring graduate rather than stepped vocational provision.

Recruitment to the digital apprenticeship was typically 18-20 years. This was in contrast to the other apprenticeship provision the university offered, which allowed second chances in the vocational system for progression for workers aged 25 years plus. The dominance of younger apprentices was a structural issue for the employer, where Molly reported that workforce age diversity is important to the employer, but accessing those workers can be problematic:

> *"Second -jobbers or people who may have gone to university and then left are really hard to access, because where do you go…. where do you go to for students? We would……be delighted for applications." Molly, Senior HR Lead, Large Employer, (Digital).*

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[38] https://www.officeforstudents.org.uk/annual-review-2019/a-new-approach-to-fair-access-participation-and-success/#:~:text=Only%204.9%20per%20cent%20of,per%20cent%20for%20white%20children.

This lack of external visibility of potential workers beyond the age of 18-20 years speaks to the barriers to individuals 'seeing' pathways and then having the academic qualifications to be able to enter the pathways despite digital degree level apprenticeship qualification being aligned at the time of interviews to wider employer Corporate Social Responsibility (CSR) priorities of disadvantaged access and worker social mobility, alongside advantages for apprentices of a salaried three-year course with no student loan. That employers could not 'find' early adults beyond the age of 18-20 years will be seen in Chapter 6 to be reflective of the structural invisibility reported by participants of local careers provision for workers once they leave formal education, where vocational progression in early careers was reported as little considered or planned by wider participants. However, the structural disadvantage, here the use of AAA equivalent grade criteria for course entry, was likely to reinforce old dynamics of the educational sorting effects that occur at every educational transition point (Ball, 2010; Green, 2017; Reay, 2017; Machin et al., 2020).

In summary, in the digital degree apprenticeship, participants reported that the functional approach to vocational qualifications described in Section 5.4.3, was further reinforced through the cultural standing of the degree, whereby a BSc was an important signal to employers of the 'high-skilled vocational worker', and for early adults, holding a degree was needed for future professional advancement (Dalziel, 2017). However, participants shared that the university requirement of AAA grades, albeit contextually adjusted for some lower participation groups, provided a significant academic barrier to access to the degree apprenticeship, with all entrants coming via academic routes, and where the 'vocational ladder' was mirroring traditional degree routes, rather than providing new, and socioeconomically inclusive routes for non-traditional access to higher education (Cullinane and Doherty, 2020; Cavaglia et al., 2022). In literature, Savage (2015) details the digital sector as part of a new class of professional workers who experience social mobility in a 'young' sector. He suggests that these sectors have a more limited, established hierarchy and historic labour processes, which evidence suggests are stratifying professional pathways. Evidence suggests the sector supports occupational upward mobility, supported by the growth in high-skilled jobs in the sector and high wage returns. However, my interviews suggest

less advantaged young workers may be disadvantaged through recruitment 'fit' or grade structures, even in digital professional pathways suggested as more upwardly mobile than those of the established professions (Savage, 2015; Friedman, 2023).

5.7 Conclusion

Chapter 5 analyses examined the sector processes of *becoming a higher-skilled, vocational worker*, through participant qualitative accounts of higher-level vocational progression, where I answer the research sub-question:

> *(ii)How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?*

The significant reforms of vocational level 4,5,6 progressions seek to support early adult workers to achieve access to higher-skilled work. However, in my first chapter of qualitative enquiry, participant insights suggest that these processes are more fragile and less certain than vocational policy suggests. Pathways are represented as relatively homogeneous in policy, but through in-depth interviews, my participants offered detailed and distinct comparative sector accounts of supports and obstacles to vocational progression. My industry stakeholders provided detailed accounts which varied in their responses to the prospects of higher-level vocational progression.

First, the lower status and standing of vocational education and training were reported as embedded by professionals through 'academisation' of higher-skilled routes, seen in Chapter 4 analysis, and in the status of degree apprenticeships in comparison to higher level 4,5 qualifications (Esmond and Atkins, 2020). Moreover, given the centrality of employer-led skills and qualification processes to the current skills reforms, local skills actors provided consistent reports of employer confusion and mistrust of the vocational education system, contesting narratives that higher-level vocational reform will be chosen as a pathway to upskill early adults. My participants reported that this creates tensions in employer-led design but also risks false 'horizons of choice' for young workers who choose a vocational pathway.

Secondly, the standing of VET was distinct in the three sectors. Participants offered differing accounts of the standing of vocational skills in the sector, with differing cultural assumptions within the sector. In construction, participants' [self] accounts of a strong vocational identity were reinforced by individual interview accounts of apprenticeships, and of 'coming up through the ranks', as well as industry observations. In textiles manufacturing, participants reported a weak worker identity through low vocational job status, but where 'vocational skill' is intertwined with product, place and heritage. These vocational skills-based approaches communicated by participants are contrasted with the digital sectors' functional approach to vocational skills (in professional services) of the supply and 'fit' of degree apprenticeship graduates (Powell, 2020; Cavaglia et al., 2022). In the three studied sectors, the standing of VET was a key factor identified by participants of the sector, the value placed on vocational qualifications, and progression prospects (James Relly, 2022).

Finally, participants discussed that young adult workers experienced distinct vocational access to middle and high-skilled work by sector, in comparison to the objective and homogeneous linear 'qualification ladders' presented in vocational policy, and Careers Information, Advice and Guidance (CIAG) (Pryor and Bright, 2014; Knight et al., 2022; James Relly, 2022). In construction, vocational manual-technical divides produced different temporal trajectories within career sequences for young workers (Nilsen, 2024). Pathways are temporally stratified, in binaries of 'fast' and 'slow' progression in relatively deterministic pathways, reflective of the traditions of 'knowledge as value' in higher education (Bathmaker, 2013; Nilsen, 2024). Textile manufacturing demonstrated how progression in manually based, practical occupations through formal TVET is far less certain than in technical, theoretically based occupations (Keep and James, 2012; Raffe, 2014; Roberts, 2020; Brown and Souto-Otero, 2020). Finally, in digital, where degree apprenticeships were drawing directly from A-Level, AAA entry requirements, there was little connection between the vocational ideals of new 'ladders of opportunity' and prospects for social mobility in any numbers (Hubble and Bolton, 2019b; Esmond and Atkins, 2020).

Together, my chapter analyses suggest that 'horizons of action' for early adults are stratified within and between sectors, even in sectors where there is active

engagement in higher-level 4,5,6 vocational qualifications. Sandel (2021, p.191) argues that changing the status quo requires 'rethinking the ways we value different kinds of work'. A careers sequencing approach and comparative sector perspectives have the potential to make visible these pathways (Kalleberg and Mouw, 2018). However, my findings suggest that vocational reform is not a 'silver bullet' of improved access to higher-skilled work (Green and Pensiero, 2017; Kalleberg and Mouw, 2018). This has direct implications for early adults in their imagined futures, where '*hard work and application*' (author's own italics) may not be sufficient to achieve higher-level progression and long-term economic well-being, in sector-specific patterns of opportunity or inequality.

Chapter 6. Institutions as 'opportunity' or 'fields': supporting higher-level vocational progression for early adults

6.1 Introduction

Chapter 6, as my third analysis chapter, qualitatively explores the 'local' place-based sector and institutional responses to higher-level vocational qualifications, to broadly answer the research sub-question (iii):

(iii)Do place-based, sector and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?

In Chapter 5, qualitative analysis of the sector processes of '*becoming the higher skilled worker',* showed distinct sector positions, reflecting multifaceted social, cultural, and economic processes of how work and skills are perceived, valued, and demonstrated by leaders, workers, industries, and institutions (Buchanan et al., 2017; Atkins, 2017; Esmond and Atkins, 2020; Altreiter, 2021; Friedman, 2023). Chapter 6 qualitative analyses allow extension of the sector-level processes reported by participants in Chapter 5 to an institutional and local level. I draw on a three-sector comparison of vocational progression, and three different forms of employer-education partnerships, with active involvement in higher-level vocational pathways:

- In Construction, through the lens of the FE college and its employer partnerships, where 93% of its employers are SMEs.
- In Textile Manufacturing, in a cluster-based model with a limited history of vocational progression
- In Digital, in the processes of single large employers and providers in elite degree apprenticeship pathways to high-skilled work.

This allows participant interviews to be ' *located where the action is*', where insights into the processes of social action can become visible through participant accounts (Irwin, 2009; Sissons, 2021). I draw on in-depth, key informant, qualitative interview accounts of the prospects of higher-level vocational progressions from policymakers, educators, employers, trade bodies and young adult workers. My qualitative analyses

show the informal and little recognised processes by which institutions and organisations shape the prospects for vocational progression (Baron et al., 1986; Sissons, 2021). Sissons (2021, p.1555) notes that to date, such work at a local level that potentially 'allows for a consideration of the national institutional context alongside sectoral and local institutions… is striking by its absence.' I argue that a better understanding of the distinctiveness of local opportunity structures, or institutional 'fields', and their sector presentations would better represent a 'local skills system', and in the particular case of high-level vocational qualification, provide evidence of the prospects for improved access to higher-skilled work.

Bridging from supply-side qualification processes to employer-led skills processes, and locally situated institutional opportunity structures, first, in Section 6.2, analysis of early adult local transitions shows little has changed in vocational transitions in early adulthood, where participants report little attention is placed on 'middle' vocational progression in local transitions. The continuation of limited vocational progression in early adulthood in the 2020s means any local institutional processes which support higher-level vocational progressions become important in the prospects of affecting longstanding economic inequalities in employment (Knight et al., 2022). Secondly, in Section 6.3, the development of 'formal', employer-led skills processes in local transition regimes, and employer engagement in qualification design shows in my study patterns of privileging large employer engagement, where on the one hand, it is large employers who can engage, and shape skills processes to their agendas, and on the other hand, those same employers report frustration with the mechanisms of policy, and the practicalities being asked of them, and where the role of trade bodies is under-recognised in bridging these processes for SMEs (Raffe, 2014; Roberts, 2020). In contrast, in Section 6.4, I argue that for young workers, local educators and employers' institutional structures, and their support (or not) for early adult career 'middle' vocational progression are under-recognised in transition theories towards the local 'high-skilled vocational worker' (Winders and Smith, 2019). These are three snapshots from three contrasting sectors by their skills profiles as low, mid, and high road models of vocational skill, showing the need for the sector and locality-based analysis of early adult pathways and prospects (Laczik and Mayhew, 2015; Vogt et al., 2020).

Throughout, analyses frame the local processes of vocational progression in early adulthood towards a 'decent career' and the prospects of higher-skilled work.

6.2 Early adult vocational transitions: 'little different to how it ever was'.

In this first analysis section, I position the vocational transition system through the experiences and perceptions of local skills actors. In the literature, there are longstanding debates as to the continuities and changes in early adult vocational transitions (Woodman et al., 2020). On the one hand, youth transition debates typically frame early adult employment through pathway and trajectory metaphors, where careers are positioned as predictable, linear, and achievable (Bathmaker, 2017; Roberts, 2020; Irwin, 2020). On the other hand, for other groups of young workers, pathways are far less certain, where finding your 'career', especially in vocational pathways, can be an elongated process involving multiple switches of occupations, particularly for young workers who hold a Level 2 or 3 qualification (Wolf, 2011). My participants shared that there is limited local attention paid to vocational routes as a 'career', with attention placed on entry-level transitions and moving early adults from unemployment into work. The policy language and positioning of technical vocational routes as 'ladders of opportunity' towards high-skilled work were not reflected in local participants' day-to-day experiences of 'working on the ground'. This has significant effects on the progression prospects for the 50% of young workers who do not take a higher education pathway, with participants reporting little support for onward, vocational higher-skill transitions (Webb et al., 2017). Importantly, evidence suggests career route invisibility or barriers have a disproportionate impact on less advantaged young workers (Laczik and Mayhew, 2015; Huddleston and Laczik, 2020; Keep, 2020).

6.2.1 Few changes in early adult vocational transitions since the 2000s

In the Northern Region, the complexity of Post 16 Education and Skills provision rippled into the experiences and support available for young people, where participants described an education-to-work system that was little improved in the 21st century for vocationally qualified young people. Bob, the Education Director for a small Local Authority, argued that there is limited improvement over time in transition processes and outcomes for young people:

> *"People used to tell us about the twenty-year cycle….they'd say, "hang on, you'll see it coming back again." And there's a real question about whether schooling is any different than it ever was. All the investment, all they do, everything that's being put in. Are our children academically or vocationally any better off than our generation was? ……Any League table, any kind of distribution will tell you there have to be winners and losers… Well, that sets its own limitations." Bob, Education Director, Small Local Authority*

For young people who were 'choosing' a vocational route, including in 'middle' Level 3 routes, or who were in employment and wanted to progress, participants universally described uncertain transitions, with career pathways that could be invisible for young workers, despite the vocational reforms in train, and the statutory basis of careers education (Roberts, 2015; Snee and Devine, 2015b). Participants shared that there was limited local systemic attention paid to 'middle-skilled' routes. Steve, an Employer Skills Lead at the LEP, responsible for planning adult skills provision with employers, argued that despite the rhetoric of the government wanting to improve vocational access to higher-skilled work, and reports of the improved standing of apprenticeships, vocational routes remained stratified as second-class options (James Relly, 2022):

> *" It's still very similar to how it was ten years ago….apprenticeships still aren't seen as viable routes into industry….still seen as second best…. we talk about degree apprenticeships, and we bang on about this… but the perceptions … still need to be changed." Steve, Employer Skills Lead LEP*

This reflects Irwin (2020), who suggests significant continuities in young adults' forward-transition processes where the agentic career choices ascribed to young people in policy fail to recognise the significant constraints of the labour market. Similarly, the occupational limitations of vocational qualifications, particularly in occupational switching, or in lower-skilled routes with limited upskilling or reskilling opportunities, but which provide significant numbers of entry-level jobs for young people (Lloyd et al., 2008). Equally, in Bob's descriptions of 'winners and losers', where for some groups of young adults, evidence suggests transition processes have become more precarious and uncertain, and where less advantaged groups have more limited resources to draw on to navigate increasing insecurity and elongation of pathways (Snee and Devine, 2015). Steve continued:

> *"We've also got careers leaders and careers advisors who are <u>still</u> not up to date….they're still talking about stuff that was there three years ago*

> *[laughs]. You know. "If you're a girl, you go into hairdressing." It <u>does</u> happen." Steve, Employer Skills Lead LEP*

Participants reported little vocational ambition through career processes, whereas longstanding criticisms of career advice appeared little changed at a vocational level (Hodkinson and Sparkes, 1997; Hughes et al., 2016; Atkins, 2017; Robson et al., 2025). Emma, a Senior Skills and Employment leader for a Local Authority, argued:

> *"I still don't think we tell them enough about the world in which they are going to have to find their way….Don't know whether we take careers education seriously enough. And it's not a half-hour conversation twice; when you are choosing your subjects ……when you are thinking about leaving school and deciding whether to apply to university or not. It's got to be something more than that. " Emma, Senior Skills and Employment Lead, Local Authority, Northern City*

Emma's reflection on a lack of information, and of limited importance placed on careers, reflected patterns reported by Hodkinson et al in the late 1990s. These findings reflected the limited horizons of action, or choice, in the 2020s, as described by Steve, which reflected tensions of limited progress achieved in CIAG for groups of young people, despite the Local Authority and LEP having local responsibility for Careers Information, Advice and Guidance (CIAG) at a local level. Professional participants' narratives also reflected 'aspiration,' and the framing of meritocratic access to improved prospects through ambition, if only it could be inculcated and 'eyes opened' (Hughes et al., 2016; Atkins, 2017; Long et al., 2020):

> *"The only thing that is standing in their way is their own kind of lack of aspiration. And that's not their fault. It's because they have not had their eyes opened to what is available to them and a sense that they can achieve that." Emma Senior Employment and Skills Lead, LA Northern City*

Stakeholders positioned young people, properly supported, as being able to meaningfully shape their employment and education pathways. However, there was a focus on the supply-side processes of CIAG and the individual in patterns of meritocratic access if only the field could be made more visible (Sandel, 2021). In interviews, there was a limited acknowledgement of the need for more quality jobs or the lack of progression prospects in common vocational routes, in continuations of the individualisation of early adult pathways and 'choice' (Laczik and Mayhew, 2015). Sandel discusses the social risks of a society where, for young vocational workers, the

social contract breaks between education, training, and good work opportunities, particularly when young people had invested in qualifications they thought would lead to good work and progression in line with their ambitions, which Holford et al. (2023) argue constitutes part of the democratic contract of citizenship. Once these connections are broken, early adults are at risk of low-wage traps and social and political exclusion (Sandel, 2021).

On the other hand, participants reported that young people could hold aspirations of work that did not reflect the entry-level nature of jobs and the need to build experience and skills from often mundane entry-level roles. Sam, a local Employment Lead for a Local Authority, explained:

> *"Managing the expectation of the young people…. because they have to realise that when you do start a job you know…. of course you'll be sweeping up…. be making the tea…. some of them will." I'm not going to do that job"…. they're bombarded with all the things that they see on social media….I've got this, I've got that…. of keeping up with the Joneses…. obviously fabricated…. but they don't realise that. And then they say, well, I'm not going to work for £7.00 an hour….. I'll say, "£7 an hour is actually really good". Sam, Employment Lead, Local Authority 16-25 years*

Sam reported that young people had unrealistic expectations of the labour market, where entry-level jobs could be mundane, where 'aspirations' could be limited, or unrealistic, particularly for disadvantaged young adults, reflecting international studies (Mann et al., 2020). Participants argued that schools and colleges did not engage fully with young people and future pathways, with limited joining of pathways between providers and local employment support. Increases in education participation and qualification levels made signalling processes to employers more difficult, with employers often relying on their own experiences. A 'college education', which used to signal a young person with potential, had now been devalued:

> *"Employers may hark back to when they were younger and not everyone went to college …… the same about university……" Well, they went to college, so they must have something about them." But now, because virtually everyone does go onto college now, so it's hard to differentiate." Sam, Local Employment Lead, Local Authority 16-25 years*

Young people who could make their way independently were described as 'high-flyers' who had access to networks beyond their college education:

> *"You'll always get the high-flyers….they're the ones who wouldn't necessarily need to come to us….because they'll either have the contacts themselves and through friends, family or whatever, or they've got the confidence to go out and get it. Or they have a part-time job, and they can, just….use the confidence that they have". Sam, Local Employment Lead, Local Authority 16-25 years*

This reflected Devine's analyses of agentic decision through social position, typically for more advantaged young people. Parents rather than schools were described by participants as the trusted source of career information, with young adults who needed to upskill or retrain facing significant fragmentation and uncertainty in local provision, in lower-skill vocational routes (Hughes, 2017; Avis and Atkins, 2017b). Mia, who worked as a Careers Adviser across two 11-16-year secondary schools that fed into the FE College, shared:

> *"They just speak to their parents, and they always quote you know, "My dad's uncle works in this trade, and he said that "There's a lot of jobs in this trade." Sometimes you feel you don't really have much influence ….I feel like that's one of their most important decision-making." Mia, Careers Adviser, Estate Secondary School 11-16 years*

This continuity of reliance on trusted networks centred on family and friends rather than the education system is evidenced to disadvantage further those young people who are less advantaged and vocationally orientated, but who aspire to higher-skilled work (Devine, 2004; Snee and Devine, 2015b). Turning to family and friends was presented as a rational choice by participants, given the difficulties of Careers, Information, Advice and Guidance (CIAG), but for less advantaged communities, processes familiar to family and friends were also those of working-class occupations and careers, which studies show can limit forward choices where family and peer networks can [negatively] trap young people into their community (MacDonald et al., 2005). These networks are typically described sociologically on class lines. Devine's (2004) descriptions of middle-class parenting and support for careers via family networks reflected participant accounts of similar community networks of job connections, but oriented to 'working class' careers through parents sharing their employment connections and trusted networks, in contrast to limited experience of higher education or professional job roles (Hodkinson et al., 2013).

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6.2.2 Limited focus on progression in local early adult transitions

Participants discussed a fragmented and complex local skills system, with a lack of visibility reported in skills and training opportunities for young workers, exacerbated by the pandemic, but in continuities of pre-pandemic trends (DfE, 2021; Costa et al., 2023). There was very limited discussion of vocational routes as progression within a career. At a Local Authority and Regional level, local policymakers discussed how focus (and metrics) were often targeted at the most excluded, not in reskilling and upskilling young workers. Once out of the school system, accessing in-work vocational progression opportunities is typically sector and employer-dependent. England has some of the lowest employer investment in education-in-work, with young people with lower-level qualifications disproportionately excluded from in-work training in comparison to older workers (Luchinskaya and Dickinson, 2019; Holford et al., 2023). Steve, Employer Skills Lead at the LEP, continued:

> *"So … the planning of training: aren't we the worst sort of a country for doing training of staff? There are programs out there for the long-term unemployed, and you know, that's fine. ….But we've got people <u>in work now</u> without the skills that we need, for the new jobs that are coming through tomorrow, so that's what we've got to respond to." Steve Employer Skills Lead LEP*

Steve reported limited attention paid by employers or the Local Authorities in Northern Region to upskill and reskill the existing workforce. This is important in questions of vocational progression because empirical studies tend to focus on employer tendencies to invest in already Level 4+ qualified workers (Luchinskaya and Dickinson, 2019). However, Steve argued that this was a collective local skills system issue, of which employers were just one factor. Given the propensity of young people to move jobs within and between sectors, and the importance of occupational specificity to median wages seen in Chapter 4, there were significant risks to young adults once in employment from wage and qualifications traps. Once outside of an education institution or a supportive employer, young workers had limited day-to-day support to progress or change career direction (Roberts and MacDonald, 2013; Raffe, 2015; Green, 2019).

> *"There are opportunities…But young people can't necessarily see them; they are not that visible to them, and it's about connecting people to them…." Emma Skills and Employment Lead, Northern City LA*

Many different skills programmes were happening, including through devolved adult skills funding, but confusion about qualifications and skills pathways was reported by employers and young people; this confusion extended to my interview participants, who, as professionals, were referring early adults into training provision. Sam, a local Youth Employment Lead, noted:

> *"It's certainly complex……and the fragmentation because there are lots of different training providers around out there, all kind of fishing for the same people….a lot of them will sell themselves to you: "Oh, we can do X, Y and Z, whereas other training providers won't" and they all say very much the same thing…. It's quite hard to determine which is actually the best one, which is the most suitable for the people that we work with." Sam, Youth Employment Lead, 16-25 years, Local Authority*

> *"Routes….I don't understand all of them." Steve Employer Skills Lead LEP.*

Evidence suggests young workers pragmatically negotiate the labour market employment structures that are visible and available to them, making career decisions within 'horizons of action or choices' (Hodkinson, 2008). However, Sam reported that employer mistrust of the qualification system is replicated for young workers and beliefs in education and training leading to 'good' jobs. Sam described a lack of policy honesty about the challenges of the job market, where career pathways can turn out as 'false horizons,' with some providers contributing to this:

> *"Things like …. will get you a guaranteed interview, or…. a potential work experience, placement…. but then there's this sort of the grey area or the small print will say, well, it was only it was only a guaranteed interview…..there's maybe only one or two positions for these ten to twelve people who have been interviewed." Sam, Youth Employment Lead, 16-25 years, Local Authority*

Vocationally qualified young workers are typically bound by their local area for job opportunities and education possibilities (Green and White, 2008). If those local opportunities do not exist, or where attending training has not led to securing a job, Sam argues that young adults disconnect :

> *"So, the unlucky ones. What happens to them? They've just been put through a training course and had a job interview…. not being offered*

> *anything, so they may feel what was the point in it." Sam, Youth Employment Lead, 16-25 years, Local Authority*

Critiques of education as a meritocratic process tend to focus on graduates and lost futures through intense competition for graduate positions, and the fracturing of social contracts of investment in education leading to improved job prospects for increasing numbers of degree-holding workers (Brown et al., 2020; Sandel, 2021). However, these patterns were reported by participants in vocational routes, where young people often had few vocational 'choices' of training or work in their local area. In the cosmopolitan Northern City with its large undergraduate population and multiple universities, Mia, a Careers Lead, felt that for young vocationally minded, young workers, there were limited vocational education and training options, for what are 'big' career decisions for young people:

> *"Mechanics is only at Northern City College….So sometimes it is a 'big' [career] choice, but then it's like, well, you only have one option". Mia, Careers Lead, Secondary School*

Despite discourse suggesting it is geographically isolated young people who experience 'cold spots' of vocational provision, participants reported limited local vocational offers even at a city level, challenging some of the narratives of increased opportunities in metropolitan areas (Green and White, 2008; Social Mobility Commission, 2020).

In summary, at a local area level, outside of employers and education institutes, there were two important patterns reported in early vocational progressions, which show the importance of local institutional processes. First, despite the policy rhetoric of improved vocational pathways and access to higher quality and progression to higher levels of vocational qualifications, on the ground, participants reported limited local attention paid to early vocational careers beyond entry to an occupation, and where senior local skills leaders described limited preparation for young workers for the realities of the labour market. This includes the misalignment between discussions of possible careers in school and colleges and the work quality experienced by young adults in entry-level vocational occupations. Secondly, despite the significant reforms in career information and guidance in the last decade, the experiences reported by participants were of limited visibility of career pathways, where young people relied on friends and family for career guidance. This shows little change since the work of

Hodkinson et al. (2013) in the late 1990s - 2000s, where for vocationally qualified young workers, education to work transitions tended to be 'one chance', where once young workers leave compulsory education and training, there is limited career support, and upskilling and reskilling opportunities. For 'middle' young workers, there was little discussion of their prospects as a distinct group. Instead, in policy and practice, 'youth' were viewed through a graduate or non-graduate, homogeneous lens, and job discussions tended to entry-level, lower-skill job roles. Local focus was on supporting young people 'Not in Employment, Education and Training' (NEET). If young people were in work, whatever its level, it meant they were not a 'problem' reflecting longstanding 'missing middle' discourse (Roberts, 2012; Roberts, 2015). These two patterns meant that relying on family and friends for local job opportunities, including access to 'decent work' in Skilled Trades, reflected a rational and pragmatic decision for young workers from less advantaged backgrounds, where higher education was not seen as part of the increasingly normative transition processes for young people (Snee and Devine, 2015b; Nilsen, 2024).

In the remaining chapter analysis, to better understand the prospects offered through local institutions and their engagement with higher-level vocational processes, first, Section 6.3 examines participant experiences of 'formal' employer-engagement processes, where the multi-levelled nature of Local Authorities' work with employers, and the role of employers in vocational qualification development, tends to isomorphic processes common across sectors (Robson et al., 2025). Secondly, informal local employer-education partnerships were used as a lens in Section 6.4, where the three study sectors provided distinct conditions for progression in higher-level vocational qualifications.

6.3 'Formal' employer-led skills processes and vocational pathways

Policy suggests the move to a formal, 'employer-led' local skills, education and training system is a panacea to rebalance England's supply-based qualifications system, which will address overqualification, under-utilisation and mismatches of the formal education and training system, and better support young workers to access 'good' jobs, including progression possibilities (DfE, 2021; DfE, 2023a). In parallel, 'local' employers

are now integrated into vocational qualification design through the Trailblazer groups (IfATE, 2024). In this section, I draw from local participant accounts that suggest formal locality approaches to employer engagement, or through the [national] vocational qualification system, can only be partial representations of [local] employer demand for skills. Participant accounts reflect wider studies where participation is predominantly of large employers, who, by their size or staffing structures, have quite different capacities to SMEs to engage in local and national skills and qualification processes (Huddleston and Laczik, 2018). However, participants discussed parallel large employer skills processes reflective of 'skills eco-systems' which affect the prospects for early adult access to higher-skilled work, in a slow-moving vocational qualification system which struggles to respond to changing employer demand for skills (Raffe, 2015; Dalziel, 2017; Simms, 2017b; Roberts, 2019). My findings suggest that without great attention to the nuances of employer-led processes, achieving the critical mass of employer engagement required to support employer-led vocational processes is unlikely to be realised (Keep, 2020).

6.3.1 Local, multi-levelled skills processes

In the Northern Region, participants characterised the local skills system through multi-level national, local, and individual sector education and training processes, where there was relatively limited attention placed on early adults, in comparison to 'workers'. Employer engagement appeared to simultaneously seek to position employers for maximum advantage, within the system in constantly shifting boundary processes and limited trust in qualification regimes (Roberts, 2019). Participants routinely reported contact with, and cooperation with, a range of stakeholders: at a national level, common stakeholders were IfATE, Ofsted, Ofqual, OfS, Industry Trade Bodies, Professional Associations, and government departments such as the DfE and DWP. At a local level, there were intersecting and overlapping networks of employers, educators, local policymakers, Local Enterprise Partnerships, Local Authorities, and Mayoral Combined Authorities. Robert, a Senior Skills Adviser, Thinktank, to Parliament, described the difficulties of actor visibility of skills needs at a regional and local level, with actors needing to 'span the local and national':

> *"I think it's really patchy, so there are a few actors in the system who I think do 'span' the 'local' and 'national.' So, typically, people like Skills Leads in Mayoral Combined Authorities that I have a lot of respect for because they do manage to both be operating on the local level and have that kind of ability to scan policy, and I think the same probably goes for the most switched-on college principals." Robert, Senior Skills Adviser, Thinktank, to Parliament*

Local actors' systems awareness and siloed perceptions of the processes within a local skills system have been previously critically highlighted by Payne(2018). Robert's observations of local skills actors who could operate across the national and local policy boundaries in Northern Region were discussed by participants as those Leaders in larger and more resourced authorities, for example, Mayoral Combined Authorities, or in large metropolitan cities. However, Robert contended that these were a minority; for most skills actors, their 'boundaries' were relatively limited:

> *"Beyond that, I don't think at all. Well, most people have just got their heads down trying to do their bit of the system and don't have any chance to look up.[….] it's very hard given how much change there has been, and there is, for any of the local actors to… look up from their desks and see kind of how the [skills] system is changing." Robert, Senior Skills Adviser, Thinktank, to Parliament*

The difficulty of single actors' overview and their ability at a local level to visualise and influence education-to-work and education-in-work transitions across multiple industries and employers, coupled with Further Education as one of the sectors with the highest rates of churn, reflected the constant change and mistrust reported by employers in Chapter 5. Changes were not solely the pandemic disruption, which by the time of the interviews had stabilised. Instead, the vocational qualification and skills system was in constant and significant churn. However, Bob, a Senior Education Leader for a Northern Region Local Authority, described this churning as masking a professionally 'static' education and post-16 skills system where patterns reproduce across time through the same personnel :

> *"Because the system has a finite number of experts, a finite number of professionals in a finite pot of money …. you're not making widgets….You can't increase production. So… it's a closed system almost….some people are circulating round and round, so it becomes like Premiership football management, the same managers … who are just moving around. And*

> *some have done very well out of it." Bob, Education Director, Small Local Authority*

In literature, Norris and Adam (2017a, p.5) note that in the significant vocational change that has occurred in the past thirty years, there has been poor institutional memory and patterns of the [re]creation of quangos and skills bodies, which look and act in remarkably similar ways to the systems that replace them. Petticrew et al.(2004, p.814) in their study of senior health civil servants and policy change noted that 'evidence' is only one factor in political decision-making, and that senior civil servants were used to making decisions based on their experience of public systems, because 'action was often needed whether strong evidence was there or not'. These processes reinforce the status quo, and where the ability to navigate the policy landscape forms a key professional characteristic, not necessarily the ability to 'fix' a [skills] system. Emma appeared to typify this agility with the skills policy landscape as a Senior Employment and Skills Lead for a large Local Authority in an economically diverse and prosperous Northern City with four universities and two large FE Colleges. Emma described how horizon scanning and skills provision planning were key aspects of her job, requiring knowledge of national and local skills policymaking and vocational funding processes:

> *" Employment and skills support and provision is very fragmented, and it happens at a number of different levels. So, a lot of it is commissioned at a national level by DWP, by the DfE. A lot of it is delivered on a kind of subregional level, Northern Region LEP or Northern Region, through colleges and through large contractors. And then there's the kind of local networks and the local support." Emma, Senior Employment and Skills Lead, LA*

Emma described the complexity of local skills, where local education-to-work transition systems involve the processes, rationales, influence, and decision-making of multiple actors across education and employment, and which reflect multi-level intersections of national and local policy (Raffe, 2014; Maguire et al., 2015). Commissioning bridged national, regional, and local approaches, creating education and training structures of significant complexity (Irwin, 2009a). Payne (2018b) notes that large metropolitan authorities with their wide networks and capacity lead these processes. Local Authority actors such as Emma were responsible for Post 16 skills provision for working-age adult populations of over half a million workers, where part of their role was boundary

spanning between actors, attempting to shape national and sub-regional approaches into local offers through local connections and relationships:

> *"So, I'm involved in some national groups, I'm involved in subregional groups, and I'm involved in local groups. So, at the moment in the City Employment and Task group, I've got DWP: Jobs Centre Plus, City College, Building College, City University Russell Group, Specialist University, Post 92 University, the Chamber of Commerce, and I've got employers across Construction and Engineering, Professional and Business Services, Creative and Cultural…. I know I've got all the sectors covered except for Digital- and I'm working on that one." Emma, Senior Employment and Skills Lead, LA*

Robert noted in Chapter 5 insights of skills leaders who could span the boundaries of the local and national, which Emma, in a large metropolitan authority, appeared to reflect:

> *"All the right things are in the right place in [Northern City] as a city in terms of the key strategies and the mindset of employers, …those civic-minded institutions like the universities and the colleges that all support that same sense of social mobility that underwrites the inclusive growth approach……. So, it's not as hard as it sounds to convene all those people." Emma, Senior Employment and Skills Lead, LA*

In contrast, Bob, the Education Director at a small Local Authority in the Northern Region, less than half the size of Northern City, explained that in his Local Authority, Post-16 provision was limited, with no universities and just two Further Education colleges with large numbers of predominantly lower skill job opportunities of warehousing and retail, echoing the more limited employment opportunities of many English post-industrial communities:

> *"[Young people] They aspire to go somewhere else….a bigger city or whatever……. There is still a legacy that exists along the motorways from coal mining, … that went through from Victorian times and then was brought to an abrupt halt in the eighties…. [Local Authority] doesn't have the rurality of Mid-England. It doesn't have the pretensions of some of the smaller towns or cities that you would find working further south. And it probably finds itself in a bit of a cleft stick …being in Northern Region…." Bob, Education Director, Small Local Authority*

Bob positioned his Local Authority skills area, and the opportunities it provided for its young people through its industrial geography and [lost] heritage of mining communities, despite the forty-plus years that had elapsed since the shutdown of the

collieries (Green and White, 2008; Social Mobility Commission, 2020). Hodgson and Spours (2016, p.4) have suggested a social and ecological framing of local actor skills `systems, whereby "relationships between education, work, forms of governance and civic life" might be understood in a form of relational complexity theory and applied to skills ecosystem thinking. However, models of collaborative interdependence form the heart of ecosystem approaches. Instead, actors appeared to position their organisations for maximum advantage, including Local Authorities that make up the Northern Region.

6.3.2 Large employer effects in formal skills processes

Participants' accounts of employer-led skills planning detailed how local skills actors balanced skills boundaries, and the limited trust in qualification regimes described in Chapter 5 (Roberts, 2019). In Northern Region, employer networks were extensive, as were local skills leaders' direct contact with a range of actors beyond employers and educators in what appeared to reflect local and national skills ecosystems (Hodgson and Spours, 2016). Emma, a Local Authority Lead for Skills, had 'key players' groups, which privileged large employers through their participation:

> *"I've got key employers that themselves are recognised in that sector as key players and have quite wide networks. And they know that they are sitting there because of that. So, they can bring their insights, their knowledge about how their sector is faring, what their needs are. " Emma, Senior Employment and Skills Lead, LA*

There were quite different employer capacities to engage in the Northern Region's local skills systems:

> *"Most of the employers that come to the table are large employers, and that's because, by their very nature, they are large enough for two to three key employees to engage in forums like that because they want to be seen to be giving back to the city. But also, because they get something out of that relationship." Emma, Senior Employment and Skills Lead, LA*

Influence through civic engagement is little scrutinised; here, policy was being shaped by only a few actors in the space, large employers, and large education providers, who could have quite different occupational structures to SMEs. Engagement with these skills processes was typically predicated on large employer structures of Human

Resources and 'Partnership Managers', capacities which were unavailable to many SMEs (Keep, 2020):

> *"So, Jane Smith from [large corporate], she's not sitting on that group from the good of her health because she just loves giving to my group, she's sitting there because it puts [large corporate] at the forefront of a number of initiatives, and they can say" we've partnered with the City Council", or "we've partnered with the University". And that works for her with her clients. So, it's that 'I'll scratch your back if you scratch mine'." Emma, Senior Employment and Skills Lead, LA*

Participants shared patterns of employers positioning themselves for maximum advantage. In the Northern Region, there were only 175 large employers, or 0.6% of employers, employing approximately 39% of the workforce[39] (2022). But their skills needs, workforce structures and growth forecasts were central to skills discussions, against the dominant structures of SMEs (Huddleston and Laczik, 2018). In local skills processes, it appeared that the legitimacy of skills decision-making was being conferred through 'employer-led' systems in local areas. Employers who could contribute towards 'civic duty' were also allowed influence and signalling in local skills processes. Here, actors navigate and negotiate to their agendas, with, on the one hand, Corporate Social Responsibility being a central theme, but corporate skills needs being reflected in human resource needs on the other (Simms, 2017).

In my study, the same large employers were often involved in multiple regions in 'local' skills planning and national qualification design. In Technical Vocational Education and Training (TVET) qualification design, each technical vocational qualification requires a Trailblazer group of ten to twenty employers, with participants reporting tensions in an employer-led system. Max was a Senior Leader responsible for the employment and training of 4,000 construction employees in the North of England, including the Northern Region, who was also the Chair of a Trailblazer apprenticeship group:

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[39] https://www.gov.uk/government/statistics/business-population-estimates-2022/business-population-estimates-for-the-uk-and-regions-2022-statistical-release-html#:~:text=At%20the%20start%20of%202022:%20total%20employment,accompany%20this%20publication%2C%20and%20in%20Figure%202.

> *"I've been to Institute for Apprenticeship panels; we've got [the apprenticeship] knocked back three times. If it weren't for the College working on it with me, I'd have walked away…. I ain't got time for this…. Government….getting things signed off, is so problematic and challenging…. I do the Trailblazer as a bolt-on to my job…. a lot of employers will switch off because it's not worth the hassle….You just kind of think me day jobs' more important." Max, Senior Leader, Employment and Training, Large Corporate (Construction)*

Max reported cumbersome 'employer-led ' processes, where, for a large employer, engagement in formal 'employer-led' skills forums formed only a very small part of the employer's overall skills approaches. Large employers could be involved in multiple regional skills groups, because their workforces and contracts did not reflect authority geographies, meaning the 'local' for them was more fluid, and often approached by workforce contract. Importantly, Max shared that his partnership with the FE College was key in supporting the navigation of qualification processes, where central government processes moved slowly, and employers did not always provide additional time for senior leaders to engage in skills development:

> *"They want employers to lead... but they want things to be written in an academic fashion….you need the college involved…. an employer is an employer….we're not going to be bothered about the academic terminology. We'll say: "We want a bricklayer to lay this brick in this fashion. Blah blah…." And so [IfATE] say, "But it's not like that…. We want knowledge, skills, and behaviours." Max, Senior Leader, Employment and Training, Large Corporate, (Construction)*

The irrelevance of the [higher-level] vocational qualification to some employers, particularly SMEs, was highlighted in Section 5.2. However, even supportive employers found qualification processes confusing. Max continued:

> *"I had this last week: "You've put too many per cent of your standard together that's swayed towards females." Ehich our standard was 60:40 Female to Male[40]. You're like…. "Is that a good thing?" ……You think that we're never going to move forward …. you spend years trying to get there,*

[40] https://www.instituteforapprenticeships.org/developing-new-apprenticeships/resources/language-to-use-in-apprenticeship-standards/

> *and most people have lost interest." Max, Senior Leader, Employment and Training, Large Corporate(Construction)*

Max described how the cumbersome and elongated TVET qualification processes had negative implications for local employers being able to reskill and upskill for new skills qualification areas, for example, green energy, where employers could be waiting for over two years for access to qualifications. This meant for higher-level qualifications, lead times of over four years for higher-skill, qualified workers once training time was considered. Furthermore, Max shared that in seeking to build new processes of employer engagement, some 'common sense' skills processes had been lost:

> *"When it comes to apprenticeships and qualifications, a bricklayer for one company is highly likely they're gonna be a bricklayer for the other" Max, Senior Leader Employment and Training, Large Corporate Employer (Construction)*

Participants in textiles manufacturing discussed how in their industry with a majority of SMEs, trade bodies had to bridge between employers' skills needs and IfATE, with Jenny, Senior Skills Lead for a textiles manufacturing trade body describing that much of this was outside of the 'formal' Trailblazer groups, where there seemed to be limited policy recognition of the constraints on small and medium employers:

> *"We sat with our employers. We've developed fourteen [apprenticeship standards] now, so we've got quite good at it. But…it's an expensive undertaking. And getting employers to commit is quite difficult because they have to commit their <u>time</u> and their <u>effort</u> …. companies trying to survive and firefighting, which most companies are, asking them to spend a day with us developing an apprenticeship standard…. "Jenny, Senior Leader Skills at Trade Body, Textiles Manufacturing*

The lack of recognition of employer capacity was a repeating theme. My analyses only discuss locally-led skills processes, but in local areas, employers were also being asked to support Career Information Advice and Guidance processes for schools (Mann, 2015). Participants reported little consideration of the critical mass of employers required to maintain education and training reforms (Keep, 2020):

> *"[Employers]They'll just say, " You do it. You know what you're doing…." But <u>we</u> can't do that because we have to show the Institute [IfATE], of employers…. that the demand is there, and employers want it. If they didn't…the institute would look at it as "if you haven't got a group of employers that are feeding into this, and it's got to be a bigger group 'cause*

> *there's a wider consultation as well….[then] there's no demand for it".*
> *Jenny, Senior Leader, Skills at Trade Body, Textiles Manufacturing*

Jenny, a Senior Skills Lead, highlighted the tensions in what constituted 'employer demand' in marketised qualification systems, particularly in smaller or more niche sectors, where Trade Bodies felt they were balancing up encouraging employers to engage, but where employers were often described as 'firefighting'. This is a sector with very limited higher-level training. From participant accounts, conceptualisations of local employer-led skills systems representing co-held priorities of social justice through collaborative interdependence appear idealised at a locality level (Finegold, 1999; Hodgson et al., 2016; Hubble and Bolton, 2019b).

On the one hand, in literature, Roberts (2020) argues that transition systems and the context in which employers make decisions about skills and qualifications are inherently dynamic and reflective of individual employer agendas, where vocational policy often confounds government intentions, directly affecting the opportunities available to young people (Evans, 2007; Holford et al., 2023). However, Gambin et al (2019) contest that these boundaries and links are more fixed and immobile, where studies show that the creation of qualifications is not a sufficient demand-side driver for employer utilisation (Keep, 2020). My study findings suggest that in seeking to move to an employer-led skills system, formal processes only engage a very small minority of employers, rather than the critical mass required for reforms to embed, but where there is limited policy attention placed on employer decision-making processes (Gambin and Hogarth, 2021). However, the last part of my analysis will show that despite the limits of formal employer engagement at a local level, there are multiple, informal local skills processes occurring, centred on education providers, which work to support improved access to higher-level vocational progression for early adults. My final analysis argues that these processes are located 'where the action is' in early adult vocational prospects, where examination of how local institutions work together in locality processes through educators, employers, trade and professional bodies, might better support opportunities for good, higher-level skilled work and a 'decent career' for early adults.

6.4 Informal ‘employer and educator’-led skills processes: institutional opportunity structures, or ‘field’

This section examines local employer-education partnerships as a lens to better understand local skills processes. There is remarkably little attention paid to local institutional opportunity structures, or progression ‘fields’, but empirical studies show how employers look to education providers to help them navigate and negotiate the vocational education and training landscape (James Relly and Laczik, 2022). Explanations of individual advantage through educational institutions tend to focus on those conferred by private schooling or through elite universities, where social and cultural capital formation processes enhance the prospects for students. In these institutional environments, evidence suggests working-class students underperform in comparison to their peers, whereas middle-class students 'sense of ‘fit’ is further enhanced by the social and cultural resources they can draw on, including in parental employment networks, typically explained through Bourdieu’s concepts of habitus and field (Devine, 2004; Reay et al., 2010; Edgerton and Roberts, 2014). Although these processes have been operationalised to apply to the experiences of apprentices through worker identity and culture, in the main, working-class career routes are typically described through deficit models of a community unfamiliar with professional work routes, and a lack of financial capital to compete with more advantaged young people (Devine, 2004; Shildrick and MacDonald, 2007; Green and White, 2008). There is emerging attention on whether similar social and cultural processes occur in vocational routes, where higher-level vocational pathways provide a comparative perspective. Evidence to date has focused on enduring patterns of class advantage in degree apprenticeships (Casey and Wakeling, 2022).

In this final analysis section, I argue that employer-educator processes reflect the processes seen in middle-class parents, and in large employers, of maximising networks for advantage in supporting at a local level, access to vocational pathways to ‘*becoming a local, higher-skilled worker’.* These processes highlight the importance of industry structures and institutional conditions for the prospects for higher vocational progressions. First, in construction, where participant accounts centred on a Further

Education college and construction Level 4,5,6 provision, supporting 93% SMEs alongside corporate employer partners in communities with a limited history of higher education at Level 4+. Secondly, in textile manufacturing, where the employer-led provider partnered with over one hundred employers, predominantly SMEs in the Northern Region, participants described how the provider reflected the clustering of textile specialisations in UK manufacturing. This study provided an example of local skills processes through a small provider of only 100-150 apprenticeship starts per year, and where the sector had only developed higher-level vocational qualifications to Level 4, with no degree apprenticeship route. Finally, in digital, participants discussed the degree apprenticeship processes between a single large corporate employer and a large university in Northern City, where the employer had a bespoke vocational degree apprenticeship offer.

These processes are important in questions of the prospects for social mobility through higher-level vocational progression because of the communities these sectors are drawing from. In construction and textiles, communities entering vocational qualification pathways are typically those of less advantaged early adults, with construction data showing particularly strong trends of widening participation through Level 4 and 5 qualifications. Textiles manufacturing numbers were too low for HESA analysis, but employers are typically located in less advantaged communities. The digital offer showed the disconnections between a stated desire for a route to support social mobility and university and employer processes, but where apprenticeships at the university drew from less advantaged communities than their traditional undergraduate degree cohorts (see Appendix A9).

6.4.1 Construction and mid-skilled routes: the normalising of progression in horizons of possibility

Construction participants' detailed accounts of local College institutional processes were intertwined with the wider, multi-levelled and informal vocational transition regimes of national and local actors. Participants did not claim these processes supported all students, or that there were no difficulties with some employers and support for young workers. However, participants consistently shared that ‘the College’

and its relationships provided important opportunity structures for early adults not available from employers alone. Important processes were first, the relationship with local employers, together with wider networks, and the qualification opportunity structures or vocational progression 'field' that the College was able to offer to young adults, typically from communities with a limited history of higher-level qualifications.

The large FE College worked with approximately six hundred construction employers, of which 93% were SMEs, and where large employers placed national contracts of over one hundred apprentices. The College, and construction sector disproportionately draw their students and apprentices from lower SES groups in traditionally working-class entry-level job roles, where the 'local' college was connected to national skills and qualification networks through its employer links:

> *"We have a national reputation and a regional reputation…. we have employers that send people from as far down as Cornwall and as far up as just short of Scotland….we have probably just short of 2500 ourselves apprentices, all linked with employers……. We have a lot of repeat business through employers." James, Senior Leader, FE College (Construction)*

Similar multi-levelled skills processes to those described by local skills actors were reported by the FE College participants. These were Senior Leaders, who worked with a range of external stakeholders through national education and employer trade bodies, and their employer networks and teaching staff connections at a local level. Participants discussed a range of sector stakeholders beyond the standard education stakeholders of the vocational qualification system, typically Ofsted, OfS, Awarding Bodies, OfS and Ofqual, who could all be described as 'supply-side' actors (Raffe, 2014; Roberts, 2020). Employer, trade and professional bodies provided access to demand-side construction skills patterns beyond the city location:

> *"We're on various national groups; the Federation of Master Builders, Construction Built Advisory Group nationally, Technical Advisory Consortium, and it goes on…. National Federation of Builders……." James, Senior Leader, FE College (Construction)*

> *"We're probably working with about eleven professional bodies……. Chartered Institute of Building, Royal Institute of Chartered Surveyors, Chartered Institute of Civil Engineering Surveyors, Building Services Engineers." Ken, Senior Leader, FE College(Construction).*

These relationships extended the 'field' of the College beyond traditional supply-side partners into demand-side networks of professional and regulatory bodies and reflected Chapter 5 assertions of FE leaders who were able to scan the policy landscape (Edgerton and Roberts, 2014; Bathmaker, 2015). Professional body accreditations were important for professional recognition, linked to higher vocational levels, for example, in the Institute of Engineering, Professional memberships of EngTech, IENG, and CENG [41]. David, a Level 4,5 Lead, reported that Level 4 qualifications were valued as 'destination' qualifications in their own right, aligned with job roles:

> *"The HNC, which is equivalent to, like, the first year of the degree, the Level 4 is a really well-recognised benchmark qualification in the industry…. EngTech tends to be Level 4" David, Level 4,5 Lead FE College (Construction)*

However, in common with patterns reported in textiles manufacturing, Level 5 was more blurred because of degree apprenticeships and the professionalisation of job roles, where a 'degree', or Master's, was important for professional membership:

> *"If you go in for HND Level 5, you probably need to be going for Level 6. If you want to go for IENG, you need a degree. If you want to go for CENG nowadays, you probably need your Master's. So, they are types of benchmarks….as well, it allows companies to do things in stepping stones…they're not committing to such a long period." David, Level 4,5 Lead FE College (Construction)*

There were multiple 'touch points' in these 'informal' education partnerships at a locality level through national and local skills processes, where partnerships focused on extending influence and training opportunities for students and apprentices. Ken, Senior Leader for Level 4,5 Construction, described how through Level 4,5 provision, the College could 'boundary span' beyond norms of 'traditional Further Education'. For example, a partnership had been formed between the College and an influential professional institute, where historically professional 'Institutes' focused only on graduate or Master's level members:

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[41] https://www.theiet.org/career/professional-registration/engineering-technician

> *"Normally, and certainly in the early days of me being here, [the Institute] was quite reluctant to link with us as an organization, because they thought to get become a member of the Institute, had to be Masters' degree level….now…. we're the only non-University who is an academic partner with the Institute" Ken, Senior Leader College(Construction).*

However, partnerships were not just to support enhanced reputation, but had direct implications for student pathways, conferring Institute membership at Level 4 and above, and acting as the step to further professional membership:

> *"We've got hundreds of students who've gone through and got their Engineering Technician status and then also gone on to membership." Ken, Senior Leader College (Construction).*

These processes enhanced the status of Level 4 qualifications through entry to a professional association, with associated networks, and also increased the visibility of longer-term professional pathways for students and apprentices. Furthermore, the teaching staff's direct experience of the workplace at a senior level supported early adult progression in the FE College, where on the Level 4,5 pathways, staff had typically held professional job roles and brought those networks and professional associations into the College:

> *"All from industry, all of them, so we don't have any that have gone through like a teaching qualification like you might get at a school, where they've left school, gone to university to become a teacher…. Here, the experience, the work experience, is really important. So, we get, they're all ex-architects, ex-surveyors, they're all from ex-project managers, some from some quite big companies as well, so we've got quite lucky… " David, Leader Level 4,5 Provision Construction College*

In addition, local employers were often ex-students of the College, which Ken described as producing strong relational links of support for current students and apprentices:

> *"I probably taught two thousand people at least, and I come across a lot of them who are now managers….with employers….those sort of people… they never forget….how you work with them and where they've come in their sort of career alongside that." Ken, Senior Leader College(Construction).*

These networks were described by participants as producing two different processes. First, as employers linked to the College, relationships reflected Devine's (2004) professional obligations through parental networks reported in middle-class practice in

securing advantage for their children, but here the relationship was between the employer and the College through its staff. Esmond and Atkins (2022) note an emerging technical elite through degree apprenticeships. However, in a traditionally 'vocational' industry of construction, participants discussed that Level 4,5 qualifications were bridging into professional, high-skilled work not just through occupations, but the alignment with professional bodies and their professional fields of practice (Edgerton and Roberts, 2014; Friedman, 2023).

6.4.2 The 'normalising' of progression

Upward career mobility through higher-level 4-5-6 qualifications was positioned by construction participants as processes of visibility of routes for communities with little history of professional job roles, and as stepped ladders which allow stopping points and part accreditation, in slow and fast transitions to higher-skilled work (Roberts, 2015). Important processes in creating a progression 'field' identified by participants were first, *entry into the field* through the creation of jobs for 16-18-year-olds, secondly, *normalising higher level progression in 'horizons of possibility'*, rather than Hodkinson's (1998) bounded 'horizons of choice'. The College offered vocational provision from Level 1 through to Level 6+, with degree-level work-based routes through university partnership, providing a 'line of sight' to future jobs and careers (Hodkinson, 2013). James situated the college as providing a unique 'horizon of possibility' or pathway visibility for young workers and employers through the breadth of qualifications offered from Level 1 or entry-level through to Level 7, where early adults could access craft, trade and technical higher level provisions, including at Level 6+, typically via work-based routes:

> *"They can start, if they wanted, on a Level 1 or entry-level program, and go right through to Level 7. Now with the [FE]Colleges, they rarely, and some of the other providers, only go up to Level 2 or Level 3 maximum." James Senior Leader FE College (Construction)*

Typically, early occupational specificity and entry to the labour market aged 16-18 years meant that 'progression' to higher-skilled work for the College started from entry, reflecting patterns seen by D'Arcy and Finch (2016) in non-graduate routes to high-skilled work.

Emma, Senior Skills and Employment Lead for a large Local Authority, explained the normative policy thinking about qualifications, which assumed that higher qualifications conferred agency on young adults to travel further:

> *"A young person….you will travel further for a Level 3 qualification than you do a Level 2. So typically, you do a Level 2 in your own community…. Level 3, you might travel into Northern City Centre to go to an FE college. If you are going to do a Level 6, you will travel to the other side of the country. So, your propensity, and your ability in terms of affordability to travel, changes as your age increases, your earnings increase." Emma, Senior Skills and Employment Lead, Local Authority*

However, studies of less advantaged communities have shown the limitations placed by geography on young adult educational choices through the pull of local social networks, geographic immobility in study locations, and the limitations of geographic horizons on the education and training available to young workers who want to remain in their community, or for whom there is little 'choice' (Green and White, 2008). Ken, a Senior Leader in Level 4,5 provision at the College, described the importance of first occupations at aged 16-18 years to higher-skilled pathways,

> *"The jobs that are being crucial in creation are the ones for the 16 to 18-year-olds….When you come out at 16….Certainly, if you're from certain deprived postcode areas and areas where it's not normal to go through to HE, to get a professional technical job is not easy." Ken, Senior Leader FE College (Construction)*

Participants argued that the College provided important visibility of career pathways for early adults, because of the elongated vocational processes which contributed to the incremental building of a career in construction pathways. Literature shows that early adult career choices can be limited by employment knowledge, where working-class males have the lowest participation in higher education pathways, reflecting the 'not normal', with parallels to Hodkinson's (1999) horizons of choice patterns. Construction participants detailed how limited community traditions of higher education or professional work contribute to the invisibility of pathways:

> *"The option is going to college, or get a job…. I came through that route myself." Ken, Senior Leader FE College (Construction)*

Importantly, construction senior leaders were also connected to early adult career journeys through their own typically working-class backgrounds and similar career

journeys. Construction participants had all, bar one, worked and progressed in industry, 'coming up through the ranks' before transferring to teaching (see Section 5.4). Employers' and staff's experiences of career progression from working-class communities meant that the lived experiences of young people resonated with their family trajectories and backgrounds (Friedman and Savage, 2018). Coming up through the ranks and developing a strong vocational identity typically started at a college, and through an apprenticeship for senior leaders (Altreiter, 2021b):

> *" But what probably drives me the most … opportunities for the 16-year-olds, 'cause I know how important it was for me. We couldn't afford for me to go to sixth form …. We all got jobs….there's a lot of people still in that situation" Ken, Senior Leader College(Construction).*

In contrast to the cultural divisions between academic and vocational pathways described in the academic schooling system, participants argued they understood the community young adults were part of, as these formed 'their' career stories and what it was like to be '*us*' (Edgerton and Roberts, 2014).

The limits of local offers at some FE colleges create significant opportunity constraints for early career development. Participants detailed how not all progressions were within the College, where, depending on employer locations, even in SMEs, the College provision could be part of a geographic pathway across qualification levels. Andy, Director of an SME planning consultancy, explained they had worked with the College to develop pathways:

> *" We've now got a transport planning, Level two or three at the College, which is nationally recognised, which goes on to a higher[vocational] level at Midlands University for degree level….Civil engineering…. we've gone all the way from the very early stages, 16-17-year-olds at the College, and we've even had people on the degree apprenticeships….at Northern City University…. That said, it's not easy, not easy at all." Andy, Director of SME Planning Consultancy.*

This challenged the typical framing of vocational provision as a 'local offer, for 'local' employment, and points to the complexity and tensions of balancing supply-side and demand-side processes in a local area (Guile and Unwin, 2019b; Sissons, 2021). This was an employer and geographic framing to Hodkinson's 'horizons of choice,' being dependent on the college institution to act as not only the lens to these possibilities

but also to help employers find pathways, which may be outside the geographic area and the institution's local partner universities.

In comparison, large employers also worked with multiple providers, who were, by their size, more autonomous in planning their training provisions, forming internal labour markets and institutional opportunity structures (Baron et al., 1986). Progression processes were described as 'easier' in large employers than SMEs, where Max, Senior Leader in Employment and Training for a large employer, discussed the capacity within a large employer to be able to offer the range of pathways, in a comparable way to the College qualification Level 1-6 offer:

> *"So, we go right from Level 2 to Level 7 standard….we've got a number….that have done well in the job so they're managing QA [Quality Assurance] and quantity surveyors…. or like a senior designer, and they're going on to the Masters, the Senior Leaders Degree or Masters Apprenticeship Level 7. ….we've got like a kind of careers map of where people can progress…. So, we don't just see as academically, being the way our people progress. It's got to link with the job role." Max, Senior Leader, Employment and Training, Large Employer (Construction)*

The employer was interested in occupational progressions, not formal qualification ladders. Although occupations are now aligned through technical vocational reforms, career sequences are under-recognised in academic literature (Kalleberg and Mouw, 2018). Max argued that the systems available to him in a large corporate employer bore little resemblance to those of SMEs, which were described by local skills actors as constantly firefighting:

> *"When you look at SMEs who make up the majority of the industry, they're not going to probably have that knowledge, or support to do that …… you've probably got a better chance of progression in a larger firm, whose got the luxury of the levy for more programmes, fully funded…. having people in the business who support that." Max, Senior Leader, Employment and Training, Large Construction Employer.*

In SMEs, Max's perception was that even if employers were supportive, young adults would be dependent on their agency to access education and training, but literature suggests it is disproportionately large employers who are funding education and training (Luchinskaya and Dickinson, 2019).

The College saw its work with employers and young people as normalising progression to Level 4+. Level 3 qualifications, often a qualification 'ceiling' in the construction sector (see Section 4.3), became an important progression pivot for the College into Level 4,5, with Ken, Senior Leader, arguing that over half of students and apprentices made that step via the College:

> *"So we're talking probably 50 or 60% [of students on Level 3] who want to make that transfer. Cause not only does it help them in terms of getting their qualifications, gets them higher at work….responsibilities and salary goes up quite significantly……" Ken, Senior Leader College (Construction).*

Importantly, the normative representation of vocational characterisations of working-class culture and desire for 'manual' work is often academically represented as a detachment from education, but where this stereotyping did not reflect participants who had vocationally progressed to higher-skilled work, or of the College pathways Senior Leaders from the FE College argued its Level 1-7 offer meant that young people were part of a community where vocational participation at higher levels was normalised through the College. This positioning of 'vocational' was described by Joe, a young quantity surveying apprentice, as leading to tensions in a school system that has limited recognition of non-graduate high-skilled transitions, and where, for students without a tradition of higher education, their vocational ambition wasn't recognised:

> *"None of my parents went to university. I didn't really want to go to university, have obviously student debt, etc….My parents agreed … For me personally, just getting straight out and onto the job, getting that experience straight away…. The school I went to… university was the way you're gonna get a high-level job, whereas I didn't really see it as that way." Joe, Young Quantity Surveying Apprentice Level 4*

Chloe, a young adult Assistant Site Manager, described the College's approach:

> *"The last… four to five months of that Level 3 course. They do always discuss with you that you can move on to the next level…. "Here's how you would go ahead and do it …if you need to discuss anything with us…. If it's not right for you, maybe there's a different avenue to go on, or there's a bit more of a specialist subject that you want to be in…" Chloe, Young Adult Site Manager, Construction.*

However, temporal trajectories of a typical career meant in Skilled Trades; time served was needed to secure experience, with Craft/Skilled Trades workers coming back to the College in the extended trajectories described in Chapter 5.

6.4.3 'Stepping on and off' the vocational ladder

Participants discussed how the ability to 'step on and off' qualifications was important in the normalising of vocational progression. Stepped vocational progression through Level 3,4,5 was argued by David, the Level 4,5 Construction Lead at the College, as allowing 'stepping off ' points, particularly for communities where there are limited traditions of higher education, and where study may be happening at age 25 years plus alongside a full-time job:

> *"It generally takes about five years in the construction industry to do a degree apprenticeship, and five years is a long time to not actually achieve your goal….particularly in a young person's life. They might start a family. They might move. Level 4 apprenticeships….and then going onto Level 6 apprenticeships, it allows a step-off point, for both the student and the employer." David, Level 4,5 Lead FE College (Construction)*

In the College, David described this 'stepping 'as a two-way process for the employer and the apprentice:

> *"So, the employer can decide "Actually, that's as far as we're taking you. We're not gonna take you any further," and they may have a valid reason for that. And for the student, it allows them to achieve a recognised level at Level 4 and maybe take a break and then come back to doing it. Whereas when you commit to a five-year Degree apprenticeship, doing Levels 4, 5 and 6. It's a long time, five years, so I like the bite-size chunk approach…. a bit more flexibility and I think it keeps students motivated 'cause they can see the end goal is much closer." David, Level 4,5 Lead FE College (Construction)*

David shared that in his experience, the return of older, over 25 years workers to education to complete a Level 4,5 was a function of the vocational ceilings seen in Chapters 4 and 5. Early adults needed to return to education to progress further, where workers were aware of the pathways through their Level 2 or Level 3 experience, which typically took them to different construction sites, where career progressions were visible to the workforce :

> *"There's a general theme of people… who may be working in trades, plumbing, brickwork, and then wanting to become Supervisors, Designers, Managers…they'll come back to college and do an HNC, HND type of qualifications… if they've not done management stuff from leaving school….they tend to be mid-20s to mid-30s." David, Level 4,5 Lead FE College (Construction)*

This contrasted with the experiences described by local skills actors in Section 6.2 of the limited visibility of forward careers. Construction sites and the intrinsic job mobility of craft and trade roles were suggested by participants as providing visibility to workers of the range of higher-level skilled jobs on offer, and the qualification steps to site management. The vocational standing of Level 4,5 routes was reflected in the salary levels achieved in the sector from Level 4,5 qualifications, seen in the longitudinal analysis in Chapter 4:

> *"If you look at our progression and destination statistics from our HE, something like 96% of the students are still in a job when they finish the program. And some of the salaries! The average salary…. coming out of our Level 5...we had something like two hundred students, and 150 confirmed, and the average salary is £26,700". Ken Senior Leader FE College(Construction)*

College outcomes from Level 5 pathways mirrored the progression data seen in the LEO pathways, where Level 4, 5 median salaries were equivalent to or above graduate Level 6 returns at a similar career stage, reflecting patterns seen by Espinoza and Speckesser (2019) in higher-level 4, 5 vocational pathways. These processes challenged the vocational framing of 'second-class,' lower-skilled routes. Participants did not pretend that the vocational systems at the College were perfect, that there were no poor employers, or that every student would proceed to higher-level qualifications. However, participation in Level 4+ qualifications was above national levels for the postcodes with the lowest HE participation (see Appendix A10).

In summary, through the college and its wider partners, my findings and analyses suggest important opportunity processes are occurring for early adult workers in less advantaged communities through vocational processes typically regarded as mundane and second-class entry-level vocational qualifications rather than pathways to higher-skilled work (Avis and Atkins, 2017; Esmond and Atkins, 2022). Participant accounts of higher-level vocational progression in the College and its partners suggested access to

higher-level vocational progression was a combination of institutional progression opportunity structures, or 'fields' in multi-levelled processes of national and local vocational actors, including trade and professional bodies, together with 'normalising' higher-level vocational progression, including through stepped progression. The College's range of vocational qualifications, Levels 1-6, acts as a 'horizon of possibility' for young workers with little community tradition of accessing Higher Education. This is through the visibility it provides for higher vocational level pathways from entry-level qualifications, the vocational identity and experiences of employer partners and many staff members, including at higher level 4+, the mediation of the education and training system with employers, and the construction skills system that is centred on the College through its wider partnerships, including with employers. The College processes particularly support the 93% of employers who are SMEs. These processes are reported as complemented by large employer structures, where the range of jobs is on offer (Chapter 5), but also the mobile nature of the workforce, which means there is visibility through different site work locations of higher-level progression processes, by people like 'us'. In literature, concepts of institutional opportunity structures in education and employment transitions are typically explored through the cultural standing inculcated in elite universities or employers, where young people from a working-class or vocational background are disadvantaged through a lack of social and cultural fit. There is limited attention paid to more equal institutions. Construction, with its history of apprenticeships and decent median earnings, provides an important socio-cultural example where higher-level qualification participation and 'fit' is through a working-class background and where vocational access to higher-skilled work is expected and embodied by senior leaders from less advantaged backgrounds (Reay et al., 2010; Friedman and Savage, 2018; Baker, 2020).

6.4.4 Textile manufacturing and limited vocational progression: clusters as progression structures

The textile manufacturing sector presents many dichotomies and provides an important insight into the challenges around describing local areas as Low-Skill Equilibria (Sissons, 2021). Products were high quality, including woven and non-woven

technical manufacturing in the region, which did not fit into narratives of low-value products as part of the function of low-skill equilibria. Chapter 5 showed how operative jobs were perceived as low quality, and where a tight labour market meant large numbers of competing 'low wage' sectors and early adults making rational choices as to which low-wage work to accept (Goldthorpe and Breen, 1997; Lloyd et al., 2008). Participants described that entry-level vocational occupations are typically those of lower socioeconomic groups, drawn from the local communities around manufacturing sites. In terms of progression, large numbers of higher-skill vocational jobs did not exist, reflecting the qualifications ceilings seen in other sectors, particularly construction (see Section 4.4). Higher level qualifications at Level 4 had only just been introduced as part of the vocational reforms. Moreover, the large numbers of graduates described in Chapter 5 further depressed higher vocational opportunities through the underemployment of graduates in zigzagging careers (McDonald, 2011; Mann and Huddleston, 2017). Where digital manufacturing innovation had occurred, it had reduced the number of operative positions significantly (Harris et al., 2021). The training centre was employer-led, not-for-profit, which had been set up to support access to training, including apprenticeships, for the majority of SMEs. Vocational progression described in Chapter 5 was further complicated by the cluster structures of textile manufacturing. This created opportunities for some workers, but constraints for others, and showed the importance of understanding employer structures in questions of the prospects for vocational progression.

6.4.5 Clustering as opportunity structures: progression through job mobility

The geographic clustering of textile manufacturers by manufacturing speciality is an established pattern in the UK (Harris et al., 2021). Clustering was in part a response to the large number of SMEs, including micro businesses of 0-9 employees in the sector. Employers were typically geographically clustered in the historic mill towns and cities of the Northern Region. Jon, a Senior Skills Leader, shared:

> *"Three hundred and sixty-five textile manufacturing companies of different types…… this part of the world, round here, is famous for the production of top-end wool and worsted cloth, which is basically cloth for men's suiting….The whole supply chain tends to be round here……. the physical proximity between the different parts of the supply chain is important."*

Senior Skills Leader, Employer-Led Training Provider and Textile Trade Body Director

Norouzi and Richmond (2016) argue that in textiles manufacturing, regional 'cluster resilience can be interpreted as an adaptive capability…. and still function with its identity as a cluster within a particular field' (Norouzi and Richmond, 2016, p.177). This, in part, reflects Finegold's (1999) arguments of skills processes forming collaborative and synergic skills ecosystems where clustering reflected elements of knowledge exchange and interdependence. At a higher skill level, Northern Region higher skill occupations had strong industry links to the international fashion trade centred on London. These Northern-London axes were described as a push-pull relationship between skilled workers, primarily graduates, produced in the Northern Region, and the commercial headquarters of global fashion brands, with the London effect on early career mobility for higher-skilled jobs (Xu, 2023b). Michelle, Project Leader, Skills Project:

> *"There is a very strong push-pull relationship between Northern City and London- well, Northern Region and London. So, a lot of the people [graduates] that are trained in the Northern Region area go down to London for first jobs or for work experience…. But equally, a lot of the luxury, global brands that have got London headquarters, actually recognise the significance of the Northern Region textiles sector, and many of the Northern Region textiles mills send a lot of their produce down to London." Michelle, Project Leader, Textile Skills Project.*

However, these established processes linked to dominant graduate (academic) pathways showed the barriers for young workers coming up through a vocational route, even if access to higher-level qualifications was secured. Job mobility was seen as an intrinsic graduate, or higher skills requirement, against evidence which shows the barriers to disadvantaged access through a lack of financial resources to support such moves (Hecht et al., 2020).

> *"Companies like Global Luxury Brand have their vertical supply chain in this region. So, they weave all the fabric that is made into their garments….then exported all over the world….there's about one thousand people just in that business alone, across business services and the manufacturing elements." Chris, University Skills Lead, Textile Manufacturing.*

This meant their supply chains were proximate, but where employer size meant few companies used the breadth of manufacturing skills:

> *"Companies work in a tight supply chain that was difficult for individual companies to give people a fairly round appreciation of the textile industry when they only worked in one part of the supply chain… It's grown from seven member companies to just over one hundred." Jon, Senior Leader, Employer-Led Training Provider and Textile Trade Body*

This network of smaller employers, with some larger SMEs, formed the employer-led training provider. Participants described the sector as having a limited appetite for formal vocational training in operative-level job roles (Lloyd et al., 2008). The clustering of employers created opportunity structures for movement between employers and created worker agency beyond what was expected from their job status. Operatives were typically drawn from the immediate community.

> *" The companies that we work with, certainly in Provincial Town, you could throw a blanket over some of them. So, you know, literally, a weaving company could be three doors down from another weaving company. So, jumping, not so much a problem in terms of the community thing…., a lot of people working in the sector haven't ever had to drive to work." Ben, Training Lead, Employer-Led Provider*

Green and White (2008, p.214) detail the duality of 'place' in young workers' decision-making about education, training, and employment, described as "first, place influences 'subjective' geographies of opportunity, and second, 'objective' geographies of opportunity vary by location." Here, objective opportunities were the education, employment, and training geographically available to young workers through the labour market structures, transport networks and education institutions available within reasonable[42] and affordable commuting distance. Subjective opportunities were those formed through family and community norms and networks, of whether to take education and employment opportunities, and the social networks that secured work, or kept young workers within particular forms of work (e.g. see Macdonald et

[42] Surveys consistently report up to 1 hour commute acceptable for work; 30 mins preferred e.g. Green and White(2005) ; up to 90 mins each way

al.(2005)). There were risks of progression opportunities from needing to commute longer distances to achieve higher-skilled work, where the risk is weighed up in processes of rational economic choice of wages and security (Goldthorpe and Breen, 1997). The proximity of the supply chains led to concentrations of factories within small geographic areas, meaning workers could move easily between employers. Ben explained the patterns of poaching were over small wage levels (Green et al., 2020):

> *" From all the sectors…. the textile sector…… is worse than others in terms of poaching other staff….Skills are hard to come by in the textile sector, quite niche…….There's been a lot of time, and money, and effort put into training people up to a specific level or a specific standard. If an employer contacts somebody else's weaving technician and offers them twenty pence, fifty pence more per hour to move across, they move across." Ben, Textile Training Lead, Employer-Led provider*

These processes were possible because of the clustering of employers in the region, with employee movement reported as a widespread practice, but also reflective of employers' mistrust of investing in education and training, expressed in Section 5.2. Employees were easily able to leave and pick up work in a similar geographic area in shortage occupations:

> *"I've heard there's been times in our board meetings, for instance, where one of our directors won't sit next to another director or has said something to another director about them poaching their staff. …."Oh, such and such down the road has just pinched my best two weavers or are offering a little bit more money….a slightly better package." I've not come across that before in other sectors, whether that's been IT, or accountancy, or construction. And I think it's just because of the niche nature of people's roles." Ben, Textile Training Lead, Employer-Led provider*

This reflected employer perceptions that training was a wasted investment through workers leaving, particularly in SMEs, which created powerful rationales for employers not to self-fund training unless it was regulatory or needed for the business (Thompson, 2003; Keep, 2020; Gambin and Hogarth, 2021)**.** Low pay for these skilled roles, albeit at the National Living Wage/National Minimum Wage,[43] meant that

[43] https://www.gov.uk/government/publications/the-national-minimum-wage-in-2021

relatively lesser amounts of pay differential were important (Green, 2021a). Ben suggested that once the operative level can be left behind, some worker agency exists, and progression and wages are more positive, but with ceilings on operative progression (Lloyd et al., 2008).

6.4.6 Clusters as opportunity structures: stepped progression and training provider 'bravery'

The training provider participants saw one of their roles as challenging employers, and creating vocational progression pathways, via technical apprenticeships across the cluster, to address a lack of progression and perceptions of poor job quality, which led to poor employee retention (Keep and James, 2012; Green, 2021a; Yates, 2022). The training centre has implemented an 'approved employer standard' for progression opportunities that its employers need to meet to access training through the centre:

> *"We said to employers, unless you plan for progression…and we're talking about things that are going to happen after the apprenticeship…and there's health and safety in place and quality in place. And every apprentice has a mentor and a supervisor. Unless you've put those things in place, we won't work with you. Simple as that." Ben, Textiles Training Lead, Employer-Led Training Provider*

Completions in manufacturing were below average apprenticeship levels of 54.6%, at 47.2%[44], with all industry surveys showing apprentices typically withdraw or do not complete apprenticeships because of poor support from employers and training providers (Francis-Devine and Murray, 2024, p.11). The training provider was honest about the challenges in the sector. Importantly, they saw themselves as champion of progression opportunities, which, on the one hand, as an employer-led provider, created legitimacy in their ambitions for skills in the sector:

> *"The Board of Directors said, "So what you mean to say is that if one of our companies that's been working with the Centre for thirty-odd years, doesn't meet this standard, you're not going to work with them on*

[44] https://researchbriefings.files.parliament.uk/documents/CDP-2024-0174/CDP-2024-0174.pdf

> *apprenticeships?" And we just said, "Yeah, that's exactly what we're saying, exactly." Ben, Textile Training Lead, Employer-Led Training Provider*

On the other hand, this created tensions with employers through their position as an employer-led provider, and where wider evidence suggests the quality of apprenticeships is variable (Francis-Devine and Murray, 2024):

> *" [If] you're taking three apprentices on hoping that one will stay, or you're just taking young apprentices on because it's a cheap salary, or there's not a progression opportunity, or there's not a career path, then we're not interested…... Even if that progression or routeway is not with you, it might be passing them on to somebody within your supply chain or giving them a step on the ladder." Ben, Training Lead, Employer-Led Training Provider*

Ben noted there were risks for the provider to insist on progression forming an intrinsic part of apprenticeship provision, and showed the weak regulation that bounds concepts of progression in local vocational education and training provision:

> *"I think at the time, that was quite….brave." Ben, Textile Training Lead, Employer-Led Training Provider*

Ben explained long-standing patterns of non-progression and of some employer behaviours, including the use of apprenticeships as a form of cheap labour, with up to two-thirds of apprentices in this example not expected to stay, reflecting national completion rates (Francis-Devine and Murray, 2024). Ben described the risks for the provider as setting themselves up as a 'regulator', where, although the centre is employer-led, employers choose which provider to work with, and the centre needs a throughput of qualifications to be commercially viable. Extensive networks with employers and a UK trade association meant that such processes were strategically reached standpoints, supported by the employer-led board, which reduced risks for providers and increased early adult protections for progression (Roberts, 2009; Roberts, 2020). These processes were emerging but recognised in the providers' Ofsted inspection. This analysis highlights the importance of understanding industry and employment structures in the prospects for higher-level vocational qualifications, where, in policy, progressions are represented as linear and achievable 'ladders', but where employer size and niche manufacturing skills mean that occupational sequences may not be available in a single employer. However, tensions exist if personnel move to a new employer after employer investment in training, which could be financial or time

(Green et al., 2020; DfE, 2024a). These processes contributed to the poor standing of vocational qualifications and limited employer investment in training, but were little recognised or practically addressed through policy, meaning local efforts to improve progression prospects were contingent on individual provider 'bravery'.

In summary, as in the construction college, the textile training provider was central to the training and qualifications available to employers, but importantly, in textiles manufacturing, its structure as employer-led reflected the clustering structures of the region, and the geography of jobs provided bounded opportunities for workers (Evans, 2007a). This was important because to access the limited higher-skilled technical roles available, job moves were required between companies, because employer size and specialisms reduced internal progression possibilities (Baron et al., 1986). To support this, the training provider had set apprenticeship quality agreements which included progression, but where marketisation meant that such stances required 'bravery' on the part of the provider.

6.5 Digital: 'Local' progression as national talent pipelines and individual employer skills ecosystems

In the digital local study, Chapter 5 examined how a large corporate employer was working with a large metropolitan university to produce bespoke, 'graduate' vocational employment opportunities through digital degree apprenticeships, where the vocational 'choice' was a functional approach to skills (Esmond and Atkins, 2020). This was a response to in-demand, high-skilled digital graduates, with identified undergraduate shortages in the Northern Region, where the employer reported competition to secure talent, not just in the Northern Region but nationally (Brown et al., 2008; Brown et al., 2020; DfE, 2023a). The degree apprenticeship provision also formed part of the employers' support for social mobility. There were two distinct patterns seen in this 'local' partnership. First, large employer effects meant that the employer could plan provision separately from wider local skills concerns, whereby forming its own 'local skills ecosystem', in this case, in planning a digital 'talent' pipeline. Secondly, there were tensions in the 'employer-led system' of recruitment from less advantaged postcodes, and of the university degree system, whereby new

forms of opportunity structure were emerging in who is recruited into degree apprenticeships and how (Cullinane and Doherty, 2020; Laczik et al., 2024).

6.5.1 Digital: Large employers as an independent 'local' skills system

Savage (2015) argues that digital workers form part of a new global technical elite, asserting that degree apprenticeships are themselves a form of 'technical elite' pathway, at risk from new forms of the reproduction of inequalities that are seen in traditional higher education (Esmond and Atkins, 2020, p.11). The pandemic has accelerated the need to embed increasingly sophisticated technology skills within the service processes of every sector(Steer Economic Development, 2021). This, coupled with the rapid change in working practices through remote working during the pandemic, was leading to digital skills shortages (DfE, 2023). The employer was large enough to be able to approach partner universities and coordinate provision across multiple universities, creating its own skills ecosystem(Finegold, 1999). Molly, Senior HR Lead for early careers, explained:

> *"We wanted it to be based regionally….we want to build our tech hubs outside of London.…we identified which partners we would want to work with from the University perspective and then started having the conversations." Molly, Senior HR Lead for Early Careers*

Marketised qualification systems meant the large civic university provided digital apprenticeship services to an employer able to fill 'a course'. Importantly for local skills approaches, the digital degree apprenticeship offer was individual and bespoke to the employer and separate from considerations of labour needs of the local skills system (Payne, 2018; Sissons, 2021). Maddy, University Lead for Apprenticeships, reported:

> *" So, we have to have a critical mass to be able to deliver any of our programs… and that's for all apprenticeship programs, 'cause we can't deliver at a loss…. they are more expensive to deliver than our traditional programs because of the extra employer [time], extra admin … and their workplace activities. So, if companies came in with critical mass, then absolutely we would go in … if you have an open cohort. You can't just be delivering to four students." Maddy, Apprenticeship Lead, University*

This meant university digital provision excluded most SMEs or large employers who only had limited demand for digital degree apprentices, despite the focus on digital

skills within Northern Region skills planning. Meeting wider local employer demand for digital was positioned as for other providers:

> *" The post-92 university delivers [digital degree apprenticeships] and they deliver it as an open cohort so they can have like two or one apprentices from one employer … and a number of private providers who then partner for the [degree] award……there's plenty of training providers on the market for that now" Maddy, Apprenticeship Lead, University*

Provision was 'private', tailored to one employer, rather than 'public', local or regional apprenticeship provision. The large corporate employer and the university created a form of independent high-skills ecosystem, where the skills system was not the locality, but via the employer.

6.5.2 Tensions and new opportunity structures in 'employer-led' degree apprenticeships

Molly, the Senior HR Lead for a large professional services employer, discussed the digital degree apprenticeship as part of its 'talent pipeline'. The size of the employer, with a workforce of over 20,000 and a geographic base in major cities across the UK, created 'employer-specific' skills systems rather than Finegold's (1999) somewhat romanticised and 'meritocratic' framing of a collaborative and interdependent model of high skills. Molly shared:

> *"Whereas tech consulting is now…. a huge part of our business and therefore we needed to attract people and grow our own talent, as a way of getting people into the business." Molly, Senior HR Lead, large employer*

The study provided insights into the 'permeability' of higher-level vocational progressions in job roles, which culturally have been positioned as those of 'graduate recruitment' (Brown, 2020; Casey and Wakeling, 2022). Molly's observations of 'grow our own talent' reflected the agentic position of large employers and their ability to negotiate the skills system to their agenda (Roberts, 2020). International studies suggest that permeability is seen in more advantaged apprentices (Nikolai and Ebner, 2011).

> *" We were talking with the tech practice about how we could have a more sustainable pipeline of tech talent coming into the business because you know we weren't able to get …the tech talent in the volumes and the*

> *sustainability that we wanted." Molly, Senior HR Lead, Early Careers, Large Employer (Digital)*

The creation of new progression processes through digital degree apprenticeships both utilised funding streams in the form of the levy, but also created, for the employer, novel talent pipelines for digital recruitment shaped by the employer to meet their specific sector professional 'field' (Webb et al., 2017; Esmond and Atkins, 2020). For both employers and educators, Molly and Maddy placed widening participation as a central tenet of their development of degree apprenticeships (Simms, 2017b):

> *"That seemed like a win, win in terms of….well, let's create something that's a degree apprenticeship whereby we can actually offer students fully funded education as a way of driving better access to University for students from disadvantaged backgrounds." Molly, Senior HR Lead, Early Careers, Large Employer (Digital)*

Entry to the apprenticeship was via employer recruitment supported by the university and schools' widening participation strategies:

> *"For the tech degree….it is predominantly recent school leavers. And we work really closely with schools and colleges to promote the tech degree, and we work with the university's outreach to promote it as well." Molly, Senior HR Lead, Early Careers, Large Employer (Digital)*

Such processes can overtly or inadvertently privilege more advantaged participants, through their educational background, their family resources, and social fit into the professional world in the seamless reproduction of class practices and advantage (Reay et al., 2010; Savage, 2015; Friedman, 2023).

In literature, the increasing public perception of the 'elite' nature of degree apprenticeships as reflecting classed practices of cultural fit and knowledge of 'the rules of the [progression] game' is reflected in all UK data by the Sutton Trust in a 2020 study which shows in under 19-year-olds, degree apprentices are five times more likely to come from the most advantaged neighbourhoods (Edgerton and Roberts, 2014; Cullinane and Doherty, 2020, p.5). However, participation data at Level 6 is also conflated by generic counting of 'degree apprenticeships in some data sets encompassing Level 6 and 7, wherein the same study, 46% of 'degree apprenticeships were at Level 7, Senior Leadership for older workers, which are subject to defunding

from 2025[45]. Since the introduction of degree apprenticeships, participation from the most deprived postcodes has decreased from 9% in 2015-17 to 6% in 2018-19 (Cullinane and Doherty, 2020, p.5).

In my study, the large professional services employer is consistently ranked highly in industry metrics for graduate social mobility and has recently set 'class-based' workforce targets by socioeconomic status, and argued that its degree apprenticeship approach was reflective of long-standing initiatives of supporting vocational progression:

> *" There's partners who joined as school leavers, so there have always been opportunities for school leavers. Graduates have always been our bigger intake…. but school-leavers have definitely been prevalent throughout". Molly, Senior Leader, HR Early Careers, Large Employer (Digital)*

Importantly, participants reported that partnership programs, including the degree apprenticeship processes, were valued by the employer beyond those delivered through traditional 'graduate' recruitment:

> *"The programs that we're doing in partnerships with education…. like the tech degree that we do and [other]programs, they're becoming almost bigger than our graduate intakes….this is a better way for us to work." Molly, Senior Leader, HR Early Careers, Large Employer (Digital)*

These processes were discussed by participants as challenging historic graduate recruitment in 'better' ways of working. Participants aligned 'talent pipelines' with notions of 'fit' and retention with the employer as well as the supply of skills through social and cultural networks (Warhurst et al., 2017; Altreiter, 2021):

> *"Hopefully to, you know, build that retention and also you know…… we weren't necessarily getting the people joining us straight from university, or naturally sort of thinking of us and aligning us to a tech house." Molly, Senior Leader, HR Early Careers, Large Employer (Digital)*

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[45] https://www.gov.uk/government/news/prime-minister-overhauls-apprenticeships-to-support-opportunity

Participant descriptions of apprenticeship progressions through talent pipelines placed progression as a more certain or expected route to higher-skilled work for young workers (Kalleberg and Mouw, 2018). Movement through the employment field and early career progression within the digital field have dual processes of creating visible pathways, alongside inculcating sociocultural expectations in early adulthood of progression in the acquired habitus of the professional worker. These factors are suggested to enhance early carer mobility (Lawler and Payne, 2018a):

> *"We're getting access to students earlier. We can sort of train them in [our] ways…….we create greater loyalty because they kind of know us from a younger age. So, I think the retention tends to be better. The performance tends to be stronger." Molly, Senior Leader of HR, Early Careers, Large Employer (Digital)*

This positioned the degree apprenticeship in traditions of apprenticeships, creating habitus and employment 'fit,' but within a 'graduate' employability framework (Lehmann and Taylor, 2015; Dougherty and Lombardi, 2016):

> *"They've kind of ironed things out… or there's a bit less of the grass is greener attitude because I think we've supported them through their education, so … they have 'give and take' between us both." Molly, Senior Leader, HR Early Careers, Large Employer (Digital)*

Importantly, the employer expected that they and the apprentice were negotiating the relationship, in similar ways to that described for young apprentices in construction, where successful completion was not necessarily easy, and where the realities of employment, detailed by Emma, the Local Authority Skills and Employment Lead in section 2.2, were part of the process of 'becoming' the professional worker, but in corporate professional work structures that have been criticised for hyper-competitiveness and 'cultural fit and belonging' in professional graduate pathways (Ingram and Allen, 2018, p.10).

In summary, the vocational progression processes of digital degree apprenticeships, described by Esmond and Atkins (2020) as elite forms of vocational education to work transition, provide a lens to better understand the processes of high skills equilibria, and employer behaviours within them(Knight et al., 2022). Large employers can instrumentally utilise qualifications to their best effect in a locality for the employer;

broad processes are the ability to navigate and negotiate government funding opportunities, creating talent pipelines, the inculcation of company ethos and practice, and the utilisation of qualifications to support wider company aims, for example, social inclusion agendas (Friedman, 2023). Employers and educators create a 'progression pathway,' through situated university and employer processes which create opportunities and constraints for young workers (Cavaglia, McNally, et al., 2022). Importantly, these processes reflect high-skills equilibria through the demand for high-skill digital workers, whereby progression was expected. Important processes appeared to be the positionality conferred by the degree apprenticeship, as a mandated BSc, and the signalling not only to the existing employer, but in future career progressions for the young worker, the employer's commitment to social mobility for its workforce, and efforts to ameliorate geographic constraint in accessing the apprenticeship, and future professional employment. These processes were all designed to maximise the talent pipeline, which included widening socioeconomic access to its business.

6.5.3 Summary: Understanding the distinct local institutional effects in construction, textiles manufacturing and digital

My qualitative interview accounts showed that local institutions were creating distinct opportunity structures, or progression 'fields' at a local level, where educators work informally with employers, trade bodies and wider stakeholders to make and shape the vocational qualification system and better align qualifications with local skills needs, and employer 'fit' for young workers. Many processes identified aligned with Bourdieu's (1997) concepts of 'field, where institutions tried to produce the conditions by which young workers could navigate through occupational structures, including formal vocational qualifications, to progress in the local labour market by making progression visible and possible, in locally based progression structures in local processes of becoming a higher-skilled worker (Bourdieu (1997) in Edgerton and Roberts, 2014; Altreiter, 2021). Examining employer-educator partnerships in the three sectors suggested distinct progression 'fields' formed through these relationships. Local actors did not claim these processes were complete or without fault, but indicated the diverse ways that actors, 'in the field', are independently supporting young workers and

their progression. Imperfect and subject to employer demand for higher-level vocational qualifications, nevertheless, these processes provide insights as to how existing conceptualisations of local skills approaches through skills equilibria might be extended, particularly in skills processes 'in the middle' (Roberts, 2015; Roberts, 2020; Irwin, 2020; Sissons, 2021).

In Construction, the large FE college worked in its own local skills ecosystem, working across a wide range of stakeholders, and disproportionate SMEs, to enhance and make visible higher-level vocational qualifications by provision from Level 1 to Level 6+, 'normalising' progression for communities with a limited history of access to higher education at Level 4+. In Textile Manufacturing, the employer-led provider was setting progression from entry-level apprenticeships as an intrinsic training requirement for employers, which, due to the cluster structures of employers and the niche nature of skills, could mean employers collaborating to create vocational pathways. The local skills ecosystem included employers, trade bodies, and the provider. Finally, in Digital, a large corporate employer showed how employer size meant that the employer and university were operating separately from the 'local' skills system, as a form of employer ecosystem, whereby, although 'locally' based, their talent pipeline was a national process, and bespoke to the employer.

In all three sectors, Bourdieusian processes of education and employment navigation through inculcating young workers with cultural fit in the sector, and the expectation of progression formed important processes, more reflective of middle-class, parental navigation strategies in more advantaged pathways (Devine, 2004; Altreiter, 2021; Friedman, 2023). Processes were partial, with significant barriers remaining for some workers.

6.6 Conclusion

In this final Chapter 6 analysis, in-depth qualitative participant accounts and analysis allowed research sub-question (iii) to be examined:

(iii)Do place-based, sector and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?

My locale study approach focused on local transition processes, and three distinct sector employer-education partnerships highlighted the following patterns. Through my findings and analyses, I argue that in theories of the prospects for young adult progression to higher Level 4,5 and 6 vocational qualifications, the role of local institutions, educators and employers is treated homogeneously in policy, but provides quite different progression processes for early adult workers. Important processes need to be understood through the lens of employer-education partnerships and how these structures reflect institutional effects.

First, at a local skills level, early adult vocational transitions were discussed as little changed in the last decade, despite increasing policy focus on vocational routes, and improved Careers, Information, Advice and Guidance (CIAG) (Roberts, 2020). The importance of local institutional effects on the prospects for early adults lies in the lack of visibility and complexity in local vocational processes, with local stakeholders reporting limited visibility or consideration of early adults and vocational progression, with little focus on middle progressions and access to higher-skilled work for young workers already in employment. Next, in formal employer engagement in local skills processes and national qualification processes, local stakeholders discussed how the predominance of large employers in these processes meant that 'employer-led' increasingly meant 'large employer-led. The multiple agendas by which employers engage in local skills were acknowledged, but participation conferred legitimacy in local decision-making. In contrast, in national qualification reform, employers reported that they struggled to reflect the reality of local skills demand, overcomplicating long-standing entry-level skills processes, and struggling to respond to changing skills needs, leaving employers with few routes for reskilling or upskilling in new skills areas, for example, green energy. Importantly, large employers were working across regional boundaries, where their extensive skilled worker requirements allowed them to operate independently, across multiple providers and networks of local provision, raising questions as to what the 'local' represents.

Despite the current policy focus on formal 'employer-led' skills processes, my research suggests education providers continue to form distinct and different informal progression structures or 'fields' for early adults, particularly SMEs. These were imperfect, but where participants attempted to provide early adults' progression possibilities through institutional, higher-level qualification structures within early adults' communities (Roberts, 2019). For Construction, the College, by its size and multiple networks, provided visible vocational progression structures for its majority SME employers from age 16-18 years entry, from Level 1 through to Level 6+, providing career visibility of the professional qualification and job sequences in the construction 'field', which were located in the working class community that the College served. College staff, who by their own traditions of 'coming up through the ranks' embodied the normative career pathways, and the backgrounds of students and apprentices (Edgerton and Roberts, 2014). This created '*horizons of possibility'* for early adults, important for communities with little history of access to higher education, or of professional job roles (Hodkinson et al., 2013). In Textiles Manufacturing, employer clustering through regional textiles ecosystems was utilised by the employer-led training provider to provide apprenticeship progression prospects through formal employer agreements that provision had to include progression prospects either within an apprentice's own employer or between cluster employers. These processes attempted to ameliorate the niche nature of many vocational textiles job roles, the limited higher-level job opportunities in the predominant SMEs, in a sector with known patterns of worker poaching, by extending an early adult worker's occupational 'field' from the employer to the cluster (Altreiter, 2021). These processes were only possible through the employer-led nature of the provider, but in a marketised vocational system, were considered by participants as 'brave', demonstrating the tensions between rational economic choices for the employer, and for early adult workers in questions of who progresses and how (Goldthorpe and Breen, 1997; Dalziel, 2017). Finally, in Digital, two large institutions showed the independence of large institutional skills processes, with large employers able to create bespoke 'talent pipelines' for digital degree apprenticeships, disconnected from wider local skills processes. Participants suggested these inculcated social and cultural fit beyond that available to

the large employer through traditional graduate recruitment, loyalty and retention through 'give and take' through relationship building on both sides (Tomlinson, 2008; Tomlinson, 2012). However, although part of social mobility initiatives, participation remained bound by traditional university and employer recruitment processes, and where both parties suggested the others' traditions and norms could disadvantage less advantaged early adults (Edgerton and Roberts, 2014; Reay, 2022). In all three local sectors, participants recognised that institutional efforts alone could not address the complexities of local skills processes.

In summary for Chapter 6, I argue that a better understanding of institutional, higher-level vocational processes is critical to ensuring that 'a decent career' might include forward vocational occupational progression prospects (Kalleberg and Mouw, 2018; Roberts, 2018). Using an institutional lens reframes the typical 'youth transition' focus on the reproduction of inequalities, through the 'bounded horizons' of young people (Evans, 2007b; Irwin, 2020). A higher skilled progression focus allows the normative focus on locality through geographic limitations to 'flip' to a 'decent career' narrative to ask how sectors, employers and education institutions might provide opportunity structures and cultural fit for early adult workers, identifying where vocational progression might be supported, or where familiar patterns of disadvantage reproduce, including traditional male gendered patterns of higher-level progression in the three sectors. Importantly, in contrast to deficit Bourdieusian debates of working class 'fit' in Higher Education pathways and professional occupation, for example in my local study, C

onstruction, and its traditions of 'coming up through the ranks', by considering the cultural position of progression through field processes reframes this narrative of '*people like us*' supporting progression to higher skilled work (see Section 6.2). This is particularly important in access to higher level qualifications, and the low participation of working-class males in traditional higher education routes, where relative successes in working-class Level 4,5 and 6 access at a local level, reported in construction and digital, although tentative, is disrupting long-standing national patterns of more limited higher education access in working-class communities (Wakeford, 2021; Social Mobility Commission, 2024).

Chapter 7. Conclusion: A decent career: becoming a higher-skilled, vocational worker

7.1 Introduction

My thesis set out to examine how mid to higher-level vocational progression opportunities influence and shape employment opportunities in early adult vocational careers. My research study asks:

Across diverse industries, how do mid-to-high-level vocational progression opportunities influence early adult employment pathways and related inequalities?

To answer the research question, I draw on a mixed methods study of higher level vocational processes in a three-sector comparative study in a local skills area, Northern Region, where my study uses a new secondary quantitative analysis and in-depth qualitative interviews of key informants: policymakers, employers, educators and young adults, with fieldwork taking place during Covid-19. My thesis addresses gaps in the youth transition literature, which has limited engagement with the structures of the labour market, and where transition processes are viewed primarily through the pivot between education and employment, rather than the processes of early adult careers (Arnett, 2014; Kalleberg and Mouw, 2018; Irwin, 2020).

Sociological theorisations currently under-recognise the importance of the sector traditions and norms in who progresses and how, and limited attention is paid to the role of the institution in vocational, higher-level progression processes (Reay et al., 2010; Kalleberg and Mouw, 2018; Friedman, 2023). Vocational qualification progressions are presented as relatively homogenous and achievable for early adult workers in the Technical Vocational Education and Training (TVET) pathways, despite limited higher-level vocational participation, competition for middle-skilled jobs, and limited higher education participation from some working-class communities (Reay, 2017; Knight et al., 2022). My study foregrounds the need for improved locality and sector understanding of the demand for skills and qualifications, where there has been limited development of local skills conceptualisations since Finegold and Soskice (1988). There is increasing policy interest in the propensity of local areas to deliver

'good work', and improved economic outcomes, together with increasing devolution of Post 19 Adult Skills (DfE, 2024b). Local skills processes 'in the middle' have been relatively ignored as attentions focus on labour market polarisation and high and low skill equilibria (Autor et al., 2006; Anderson, 2009; Sissons, 2021). Importantly, from my findings and analyses, in an age of elongation time in education, and often zigzagging early career sequences, I argue that career progression in early adulthood, through the sector, entered, and the local educational and employer processes available to early adults, form a key site of the [re]production of labour market inequality (Arnett, 2014; Kalleberg and Mouw, 2018; Irwin, 2020).

My locale, mixed methods study in the local skills area, Northern Region, draws on a three-sector comparative study of higher-level vocational processes in construction, textile manufacturing and digital. I show the importance of mixed methods approaches, and in uncertain [pandemic] times, the need for iterative research approaches in examining and investigating complex education and labour market transitions. My use of new secondary analysis of Longitudinal Economic Outcomes (LEO) data, and of longitudinal skills projections, allowed me to triangulate my qualitative accounts and to situate my local qualitative enquiry in the contemporary Technical Vocational Education and Training (TVET) landscape despite the pandemic (Mason, 2006; Creswell and Plano Clark, 2023). Key informant sampling approaches allowed access to Senior Leaders who understood continuities and change in TVET in the pandemic context. Senior policymakers provided accounts of the multi-levelled skills and qualification regimes which exist in a 'local' skills system, allowing insights into the wider discourse of the processes of skills renegotiation by actors working towards their different agendas (Roberts, 2020). Drawing from local, employer and education partnerships*, 'where the action is',* where education providers were active in higher-level vocational provision, provided access to participants, including senior leaders, and their insights into the distinct vocational progression processes at a locality, sector and institutional level (Irwin, 2009, p.1135).

In this concluding chapter, in Section 7.2, I provide an overview of my main findings and my theoretical contribution, centred on early adult higher-level vocational progression prospects, where the distinct sector positioning of skill, and the situated

and institutional effects of vocational progressions are defining patterns from my research, with direct implications on who progresses and how. I discuss my theoretical contribution from my findings, first in developing concepts of local middle-skilled equilibria, to better represent local vocational prospects and competition for access to higher-skilled work for early adults. Secondly, in developing career sequence frameworks as an explanatory framework for intragenerational mobility in early adulthood (Kalleberg and Mouw, 2018). Finally, I reposition the discourse of 'decent work' to questions of a 'decent career', to show that to better reflect employment opportunities, traps, and the reproduction of inequalities in early adulthood, the youth transition debate needs to extend from predominantly *education-to-work* processes to include '*education-in-work*' in the early adult career (Arnett, 2014; Holford et al., 2023). In Section 7.3, I discuss the implications for policy and practice of my research study, which I apply to the recent policy directions of 'employer-led' skills, 'locality' approaches, and vocational reform (DfE, 2024b). The chapter concludes in Section 7.4 with the limitations of my study, ideas for future research to extend locality and sector-level knowledge, and institutional responses to early adult access to higher-level vocational pathways.

7.2 Overview of findings and theoretical contribution

My thesis findings and theoretical contributions centre on the processes of early adult vocational progression in the mid-high skills space through the intersection of three factors: *locality, sector and institution,* through which early adult workers pragmatically negotiate career opportunities and constraints (Evans, 2007; Hodkinson, 2008; Snee and Devine, 2015). From my mixed methods research, my findings, analyses and theoretical contributions build across my three analytic chapters.

7.2.1 Mid-skilled jobs in the labour market and sector progression for mid and higher vocational skills.

In Chapter 4, through my new secondary quantitative data analysis of local skills patterns, and longitudinal economic outcomes data for local 25-30-year-olds, I show important local middle skills patterns and sector mid and high qualification progression patterns for early adults to broadly answer the sub-research question (i):

(i) Is there evidence of intensifying mid-skilled job reductions in the labour market, and how does progression for mid and higher-level vocational skills vary across sectors?

At the local skills level, using new secondary quantitative analysis I examine the middle-skilled employment patterns in Northern Region, showing the distinct 'lower middle skills' and 'upper middle skills' framing presented through the use of Standard Occupational Classifications Skills Levels, where my analysis of patterns 2015-2035 (projected) builds on Andersons (2009) observations in the late 2000s that the 'middle' is shown to be a more complex and robust grouping of occupations than contemporary high and low skill and wage polarisation narratives suggest (Xu, 2023a). Importantly, my new analyses for supply-side processes, mapping the highest qualification held by Major Group, show the local patterns of overqualification, underqualification, and qualification mismatches reported in the wider English economy, whereby a qualification does not confer entry to an occupational group (Xu, 2023). Important local patterns are the proportions of Level 6+ held in higher-skilled, Major Groups 1-3 work, particularly in the mid-high skills space, where wider studies suggest holding a degree, and access to higher-skilled occupations reflects reports of the increasing credentialism of higher-level job roles and increasing proportions of Major Group 4-8 occupations where employees hold a degree (Social Mobility Commission, 2024). My findings and analysis suggest the need to develop concepts of mid-skills equilibria, to better represent local skills processes, the permeability of the higher qualification landscape, particularly in the oversupply of graduates, and the prospects for [vocational] progression (Sissons, 2021).

At a local sector level, using a new secondary three-sector comparative analysis, distinct patterns of highest qualifications held by sector by the age of 25-30 years old broadly reflect sectors as distinct skills systems: textiles manufacturing as predominantly a low-mid, construction as a predominantly middle, and digital as a predominantly high-skilled work and qualification system. These categorisations are important because of evidence that labour market segmentation processes directly affect the prospects for progression and training for workers in different skills processes (Laczik and Mayhew, 2015). Vocational qualifications held by age 25-30 years showed

important patterns for the prospects for early adult progression. First, non-progression beyond Level 3 was the most common vocational early career sequence, showing the polarisation in higher education opportunities by age 25-30 years that occurs from age 16-18 vocational 'choice'. Higher level 4,5 progression pathways were limited, presenting very narrow doors of forward opportunity for early adults, even in sectors such as construction with traditions of strong vocational participation. There was very limited onward progression from Level 4,5 to Level 6, suggesting even where Level 4 and 5 steps occurred, these were ceilings by career stage, aged 25-30 years. Importantly, median earnings by qualification level, typically represented as homogeneous by sector, showed very different sector value placed of Level 3,4,5,6 qualifications, where in construction, and to an extent manufacturing, some Level 4,5 pathways by age 25-30 years provided earnings beyond those of graduates, reflecting wider studies of the importance of occupational specificity (Espinoza and Speckesser, 2019).

Chapter 4 secondary quantitative analyses are novel and important because of the paucity of local area studies of mid-high skilled employment patterns by occupation, and limited examination of career progression in early adulthood, by sector and by qualification pathway. These patterns illustrate the importance of middle-skills processes and the sector, in explanatory frameworks of the reproduction of low and high-skills ecosystems or equilibria, where 'low-mid skill progression' forms an important opportunity structure (Finegold, 1999; Lloyd et al., 2008; Roberts, 2009). My findings mean it becomes possible to map early career patterns in a sector and sub-sector through its occupations, skill levels and qualifications. These can highlight patterns of occupational specificity, under- and over-qualification patterns and possible ceilings on qualifications within a sector (Elias et al., 2023).

Chapter 4 provides my first theoretical contribution, of **improved conceptualisations of middle-skilled processes,** at a locality level, there is extensive theorisation of local skills systems as forms of skills equilibria or skills ecosystems, but where scholars are honest in the development needed in explanations, particularly that high and low skills equilibria will coexist and will vary across localities and sectors (Buchanan, Anderson, et al., 2017b; Sissons, 2021). From my study, I argue that at a local level, new forms of

skills equilibria frameworks which reflect middle-skilled occupations, and progression possibilities, 'in the middle', are required. Chapter 4 shows that the 'middle-skilled' worker space is typically excluded from skills equilibrium debates, with discourse reflecting labour market polarisation of a dominant high and low skills space. Levels of employment in the middle to high-skilled workspace are under-recognised in wage-based polarisation models (Green, 2021b; Elias et al., 2023). Skills frameworks are needed which better reflect the sector patterns of middle-skill workers and the possibilities of occupational progression towards high-skilled work. This includes occupational structures 'in the middle' which can boundary span into the professional skills space, and support stepped vocational progression to high-skilled work (Anderson, 2009; Webb et al., 2017). This occupational and qualification mid-skilled space creates risks for vocationally qualified workers through the oversupply of graduates, their tendency through zigzagging careers to enter the workplace in overqualified job roles, and the propensity of some employers and sectors to informally reskill existing workers to perform 'middle technical job roles (Green et al., 2020; Costa et al., 2023). My study shows these processes are distinct by sector. However, local skills level data can highlight important patterns but cannot indicate the progressive relationships between occupations and qualifications, and the processes of occupational steps required to move up a career sequence.

In Chapters 5 and 6, findings and analyses build on the quantitative data patterns elicited in Chapter 4. Theoretical contributions are combined at the end of the section. Through in-depth qualitative enquiry, and key informant interviews with policymakers, employers, educators and young adult workers, I 'get under the quantitative data' to better understand the locality-level skills processes, and sector progression patterns of higher-level vocational progression in my three study sectors (Mason, 2006).

7.2.2 Occupational progression to mid and high-skilled work: sectors, stakeholders and qualification pathways

Chapter 5 findings and analysis challenge the objective and possible progressions presented of 'becoming a higher-skilled, vocational worker', broadly answering the research sub-question (ii):

(ii) How do industry stakeholders and qualification pathways shape occupational progression to mid and high-skilled work? Are there sector-specific cultural influences on early adult progression prospects?

At a national and local skills level, participant accounts show the tensions in higher levels 4,5 and 6 vocational progressions, where Level 4,5 qualifications in policy and by employers are discussed as poorly culturally understood, and where employer behaviours are shaped by mistrust in the overall vocational qualification system, through its constant churn and complexity. In comparison, the branding of the 'degree' apprenticeships provides an aspirational and recognised qualification, which speaks to the 'academic' framing of access to higher-skilled work (Edgerton and Roberts, 2014).

At a sector level, participants' discussions were framed by secondary analysis of the IfATE (2025) career sequences, where interview accounts suggest vocational progressions are subjectively and culturally bound by sector norms of 'who progresses and how' beyond the formal occupational sequence denoted in qualification pathways (Esmond and Atkins, 2020; Knight et al., 2022). First, there was a very different positionality suggested by participants from the skills associated with vocational education and training (VET), or 'the standing of VET' (James Relly, 2022). In Construction, where the literature shows a strong tradition of apprenticeships at lower levels, participants presented strong intersections between vocational skills and access to higher-skilled work, but importantly, an embodied vocational identity which, even in Senior Leaders, remained a key aspect of their 'professional' identity (Espinoza and Speckesser, 2019; Roberts, 2019; Altreiter, 2021). In contrast, Textile Manufacturing participants shared a weak vocational identity where the large number of operative job roles had limited formal vocational qualifications, but where 'skill' was highly situated in the heritage and geographic place of Northern Region in textiles manufacturing. In contrast, the high-skilled worker was perceived to be a graduate, typically from a design tradition. Finally, Digital provided a distinct contrast through the high value placed on the degree apprenticeship but through a functional, economic use of the apprenticeship levy lens rather than through high vocational standing of occupational skill, or a 'need' for that skill to be 'vocational'.

Secondly, the 'qualification system' appears to be valuing and creating sector-specific vocational progression pathways that reflect academic/theoretical technical knowledge formations as signals of worker worth in comparison to traditions of knowledge through manual/physical exposition of skill (Webb et al., 2017; James Relly, 2022). Very different progression opportunities can exist between sectors, and within sub-sectors, where in all three sectors, to a greater or lesser extent, technician routes mirrored 'fast', 'academic' pathways, and craft, 'slow' routes (Roberts, 2015). In the three sectors, industry pathways create narrow progressions of 'middle' opportunity to higher skilled work in traditional craft/trade or manual/physical skills acquisition and utilisations, in comparison to technical pathways that appear to mirror academic pathways of increased opportunities at Level 4+, but particularly in the opportunities created by Level 6+ degree apprenticeships, reflecting theories of the emergence of vocational-technical elites (Esmond and Atkins, 2020).

My qualitative analyses in Chapter 5 are novel and important because framing discussions in objective career sequences agreed upon by employers allows the subjective ways in which participants situate and explain sector processes to be revealed. In my study, important sector processes identified are the distinct cultural and economic perceptions of vocational standing, and of who progresses and how by different vocational occupations. I argue that in a sector, cultural imaginaries of the ideal, highly skilled worker shape notions of 'natural' progressions and 'talent' (Edgerton and Roberts, 2014; Warhurst et al., 2017; Sandel, 2021). Importantly, career sequencing allowed questions of the occupational pathways of a 'decent career' with progression prospects to be explored between and within sectors (Kalleberg and Mouw, 2018).

7.2.3 Place-based, sector and institutional processes in mid and higher-level vocational progressions for early adult workers

In Chapter 6, in my second qualitative enquiry chapter, participants' accounts built on the progression processes detailed in Chapter 5, drawing from local skills and sector institutional processes to broadly answer the sub-research question (iii):

(iii)Do place-based, sector, and institutional factors impede or enable improved mid to higher-level vocational progression opportunities for early adults, including less advantaged workers?

At a locality level, early adult vocational transitions were reported by participants as fragmented and complex, with limited career visibility or local attention placed on vocational progression. Early adults relied on family and friends for career advice because of the paucity of support, beyond getting 'a job', in processes described as continuations from pre-pandemic patterns, where accounts seemed little changed since Hodkinson's work of the late 1990s. These accounts are important because contemporary 'missing middle' progressions reflected not just very limited vocational progression, but missing hope, aspiration and agency for early adults who held vocational qualifications to up-skill. Furthermore, formal, employer-led processes in local skills planning and national vocational qualification design were positioned by participants as an arena primarily for large employers, where participation conferred legitimacy of large employer skills needs as the dominant discourse. There was recognition of the multiple agendas under which employers engaged in these processes, but little discussion of how large employer demand for skills might affect local perceptions of local demand. Large employers appear to act as independent skills ecosystems, where the 'local institution' employs and operates beyond the geographic locality, challenging the concept of a 'locality' skills approach (Sissons, 2021).

At a local sector level, participant accounts detailed distinct employer-education partnerships, where each education provider disproportionately drew from less advantaged communities. My findings and analysis are novel because they are situated 'where the action is' in the local sectoral processes of progression and framed by nationally agreed occupational structures discussed in Chapter 5. My analyses suggest sectors form localised skills and qualifications 'ecosystems' through institutions, where actors act within the boundaries of their organisation to mobilise opportunity structures in a local area (Raffe, 2008; Roberts, 2020). These processes provide social and cultural 'fit' for early adults but also present an occupational and vocational qualification 'field (Reay et al., 2010; Edgerton and Roberts, 2014; Bathmaker, 2015). Three different processes were discussed. First, Construction accounts identified how

the FE College's visibility of vocational progressions from Level 1 to Level 6 provided 'horizons of possibility' for early adults in communities with limited participation in Higher Education through traditional Bachelor's degrees. Moreover, wider College, demand side networks of professional and trade bodies, together with participants' personal histories of coming up through the [vocational] ranks, created forms of progression 'fields' centred on the college, whereby social and cultural expectations of higher-level occupations were normalised and supported (Edgerton and Roberts, 2014). Secondly, in Textile Manufacturing, cluster employer structures were being used to support higher-level progression, where employers individually had limited progression routes through niche skills demands or employer size. Setting progression expectations involved challenging employer behaviours through the employer-led provider, a process described as 'brave', but evidenced through wider stakeholders, for example, Ofsted[46]. Finally, in Digital, in a large employer and university, (national) talent pipelines, participant accounts identified traditional apprenticeship processes of social and cultural fit for early adult workers (Altreiter, 2021). Importantly, these distinct sector processes are informal and little recognised in policy or practice. Participants also recognised that these processes were partial and could not address the significant vocational complexity and barriers of higher-level qualification funding that exist at a local level.

From Chapters 5 and 6, as a second theoretical contribution, my thesis contributes to the development of **career sequencing approaches**, focusing on the intragenerational processes in early adult careers following entry to employment, and through education and training opportunities whilst in early career pathways. Understanding the processes of 'becoming a higher-skilled, vocational worker' is highly situated by sector, and of how higher-skilled work is perceived and planned for. Progression is a process of understanding, navigating and negotiating progression pathways, including in some sectors, particularly construction, the development of vocational worker identity and of

[46] https://www.gov.uk/find-ofsted-inspection-report

'coming up through the ranks', where there appear many parallels between the vocational processes reported, and Bourdieu's conceptualisations of 'field', where multiple actors, including the sector, wider sector bodies, and the role of the institution are important in creating the 'field' and inculcating sector culture including the occupational 'rules of the game' (Edgerton and Roberts, 2014). Opportunity structures, or 'progression fields' need to be located in the context of employment: the sector, the occupation, the employer and the 'place' in mediating a fragmented qualifications and skills system and supporting early adults to achieve higher-skilled work. Employer size was an important opportunity structure in progression possibilities, but one which challenged notions of 'the local' (Keep, 2020). Local practices, interpersonal knowledge, and employer and educator institutional size, or reach, affect the opportunities available to early adults and can support those young people who might otherwise be left behind. Described in my research study as employer-education partnerships, these are the multiple stakeholder processes described by Raffe (2018), Finegold (1999), and Roberts (2020) where actors work within a local skills system to their agenda and within their boundaries, where educators remain key navigators of the complexity of the vocational qualification system for employers, particularly SMEs (Huddleston and Laczik, 2018; Robson et al., 2025). Importantly, these processes challenge the characterisations of social and cultural education and employment navigation processes as those of the more advantaged and middle class in some sectors with positive traditions of 'coming up through the ranks' (Edgerton and Roberts, 2014; Savage, 2015).

Finally, across Chapters 4,5 and 6, in a third theoretical contribution, I argue that concepts of decent work need to be repositioned to those of a **'decent career',** where the prospects for occupational progression, including vocational access to higher-skilled work should be central to debates on the reproduction of inequalities in early adulthood, as 'horizons of possibility' rather than of the more deterministic and limiting conceptualisations of 'choice' as bounded individual opportunity and agency (Hodkinson et al., 2013). In early adult career progressions of young workers who take higher-level vocational qualifications, processes can be represented in Figure 7.1 as:

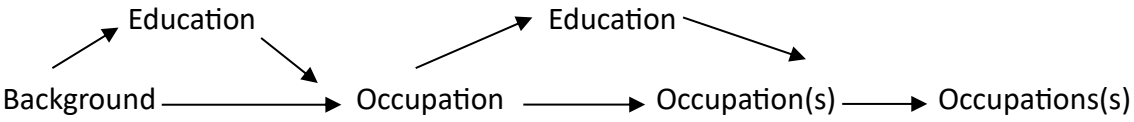

Figure 7.1: Early adult vocational career sequences as education-to-work and education-in-work processes, towards a 'decent' career.

Source: Based on(Heath and Li, p.151)

This would pivot the traditional framing of '*education to work'* in youth transitions as being the defining site of inequality to include the processes of '*education-in-work'*, and centred on occupational destinations, rather than qualification pathways, reflecting early adult life course employment transitions. Career decision-making would reorientate from Hodkinson's '*horizons of choice'*, which are bounded structures dependent on a young person's background, locality, education, and employment opportunities into more prosaic, but agentic '*horizons of possibility'* based on occupational progression in local institutional skills processes, where the likely career sequences, vocational qualifications and temporal perspectives, would provide young workers with better knowledge for early career decisions, and understanding of how occupational pathways and access to future education and training might support or constrain their future progression prospects and earnings (Hodkinson, 2008; Snee and Devine, 2015). Conceptualising early adult career progression and the prospects for higher-skilled work as a 'decent career', with contingent visibility of career prospects and longer-term outcomes for occupations by sectors, may also make more visible the value of some vocational qualifications and their prospects (Hodkinson et al., 2013; Raffe, 2015).

In the following section, I highlight the implications of my study for policy and practice.

7.3 Implications for policy and practice

The findings from my study provide an important contribution to policy for improving vocational routes to decent work, and early and longer-term careers, particularly in a policy landscape where successive vocational reforms across the last thirty years have had limited or confounding effects (Norris and Adam, 2017). I suggest four main areas of policy and practice. First, in the right to a 'decent career', through improved policy

and practical understanding of career sequences and the prospects for progression within and between sectors. Secondly, improved adult access to Career Information, Advice and Guidance, where occupational progression, upskilling and reskilling are central concerns. Then, improved understanding of employer-led skills processes, including at a local, institutional level, with a better understanding of how employers use vocational qualifications in an age of overqualification, particularly SMEs with incentives to plan for vocational progression. Finally, to align academic qualifications (where appropriate) with occupational levels, and improve vocational longitudinal economic outcomes data, so that the qualifications system becomes a 'whole'. However, change also requires more political honesty about the large numbers of lower-skilled jobs in the UK economy and the relatively poor chances of escaping them (Lloyd et al., 2008; Costa et al., 2023).

One of the main contributions of my research to policy is that the well-established concepts of the right to decent, fair or good work should be extended to include a right to a 'decent career'. The current focus of decent work in England on lower-skilled, lower-paid work means that debates of 'decent' work are typically in addressing deficit models of the lowest quality work (Green, 2021a). Progression forms only a small aspect of the English decent/fair/good work agenda. I argue for the extension of decent work processes to encompass the right to a 'decent career' (Masdonati et al., 2022). The recent government focus on raising minimum wage levels[47] to over two-thirds of median earnings is, in part, addressing the creation of more 'decent' jobs, but not to onward progression prospects. For the 'other 50%' of young workers, Level 3 and below is their highest qualification held by age 30 years, with evidence of sector ceilings on earnings above 30 years old (Bathmaker, 2017, p.3; Espinoza and Speckesser, 2019). This is significant in early adults' future economic prospects, where higher-level qualifications are needed to access jobs in the middle to high-skilled space (Bathmaker, 2017).

[47] https://www.gov.uk/national-minimum-wage-rates

Building on the right to a decent career, my study shows the importance of understanding career sequences and how different vocational qualifications and occupational pathways might lead to higher-skilled work (Kalleberg and Mouw, 2018). There are long-standing criticisms of England's CIAG system as the 'postcode lottery' of provision and access to quality career advice. Vocational career advice is consistently reported to constrain young people's choices and ambition, through the stereotyping of young workers who want to take a vocational route, limiting and redirecting their aspirations, and reinforced by schools and sixth form college professionals in a valorisation of academic pathways (Hughes et al., 2016; Hughes, 2017; Rogers et al., 2020). I argue that the local Careers, Information, Advice and Guidance (CIAG) provision has a social justice responsibility to focus on the prospects of higher-skilled work in early adult vocational pathways and the prospects for progression aged 16-34 years. This is particularly important because of the occupational specificity needed for some higher-earning vocational careers (Roberts, 2019). As the large majority of young people enter the labour market aged 18 years, vocational guidance should also recognise the significant personal development that can occur for young workers aged 16-18 years in their aspirations for careers, and ensure that age 16 years vocational choices provide expansive future job options.

Careers Information, Advice and Guidance should be locally and easily available to all workers, at any career stage, to normalise reskilling and upskilling. Early adults who hold vocational qualifications are disproportionately drawn from less advantaged communities, where they are less likely to attend university through traditional three-year degrees and the student loan system (Evans, 2007a; Snee and Devine, 2015b). Further, early careers can include frequent career changes, often significant, for young workers who hold a Level 2 or 3 vocational qualification. CIAG and Post 18 skills and qualification policy should reflect the reality and risks of elongated pathways to eventual careers, including zigzagging careers where young workers are at risk of dropping into lower-skilled work. These are risks faced by non-graduates and graduates in the normalisation of precarity in early careers, but where vocationally qualified young workers are at the greatest risk, including in middle-skilled displacement. There should be national and local objectives, for example via the DWP and PAYE, of

identifying workers at risk of long-term lower economic outcomes, with proactive local strategies including brokering with employers on behalf of young adults for access to education and training, and funding possibilities, which will lead to higher skill job prospects. Strategies should reflect that to reach the less advantaged, local community-based initiatives may be more successful than centralised approaches (Green and White, 2008). The Lifelong Learning Loan, should it come to fruition, should ensure that individual decision-making is supported through appropriate CIAG, given the complexity of the qualification system and the risks in the current education and training regime, where improved qualifications may not lead to enhanced job prospects depending on the occupational pathway (Raffe, 2015).

The English education and training system remains a supply-side qualification provision despite embedding employers centrally in 'employer-led' skills and qualification processes. However, there is limited evidence of the efficacy of these approaches (Keep, 2020). Evidence from recent employer-led skills initiatives, for example, the employer decision-making in the apprenticeship levy, shows the confounding effects of policy interventions, where employer's economic 'rational choices' of use of levy funding and behavioural responses towards upskilling existing, higher skilled employees may work against stated policy directions of improving routes for young workers (Richmond, 2020; Gambin and Hogarth, 2021a). Employer-led skills and qualification processes should build from the evidence base of employers' responses to education and training, which suggest complex rationales for engagement (or not) in skills and qualification processes, and formal and informal education and training (Social Mobility Commission, 2019; DfE, 2024b). More policy recognition is needed of the driving effects of skill and qualification funding on employer decision-making, and the distrust built from constant vocational qualification churn and change. I argue that policy needs to more critically examine long-standing reported skills gaps, together with an improved understanding of the contribution of industry culture and norms in employer utilisation of education and training. This includes the standing of vocational education and training and its position to access professional job roles (Bathmaker, 2017; James Relly, 2022). This would include 'difficult questions' of whether different sectors and sub-sectors need increasingly qualified young workers, including those in

the middle-high skilled occupational space. Although there is increasing discussion of the 'value' of qualifications to employers, particularly with the oversupply of graduates and the concerns over individual costs of higher education, normative framings of education and training continue to be credential-based. There is limited attention paid to how employers use qualifications, the differences across different sectors, employer structures and sizes, with qualifications and sectors presented as relatively homogeneous (Laczik and Mayhew, 2015).

Finally, the alignment of occupations with vocational qualifications being completed through IfATE (2025) should be extended to academic qualifications to better represent possible higher skill pathways from qualifications and identify where under- and overqualification is occurring (Sloane and Mavromaras, 2020). Studies suggest that where skills gaps exist, for example, in heavily reported technical level qualification gaps, employers are reskilling through informal in-work training, or over-skilling jobs through the ready supply of graduates (Costa et al., 2023). There is currently limited vocational longitudinal data which allows examination of these processes at a sector and qualification level. This is a surprising omission given the significant cost of the education system. Longitudinal Economic Outcomes, which are extensive for graduate-level studies, should be extended to routinely provide outcomes for all qualification levels, in all sectors, meaning non-graduate 'horizons of choice' reflect those of graduates (DfE, 2024d). This does not negate the significant social effects of learning, that young people may choose pathways that they find socially, rather than economically advantageous, or that some low-wage jobs are essential to the social operation of the English economy (Clark, 2014). But job quality concerns directly speak to my first recommendation of the need for 'decent work' debates to move to those of a 'decent career'.

7.4 Limitations of my study and future research

In the following section, I discuss the limitations of my study and future research directions. Limitations of my research study are reflected in my interpretation of my findings. The main limitations of my study were, first, the pandemic effects on access to sectors and participants (Lupton, 2020b). Secondly, my findings are indicative of 'the

sector', and not a definitive characterisation, but based on a pragmatic interpretation of the most likely explanation for phenomena (Pesch and van Uffelen, 2024).

First, the pandemic limited the industry sectors available to my study, with over one-third of workers in the Northern Region furloughed at the peak of the pandemic (Francis-Devine and Ferguson, 2021). Industries were chosen through local intelligence of vocational progressions, engagement with education and training, and capacity to engage. This was through Local Authority contacts, my networks, and university networks during the first national lockdown. The diversity of industries and employers was heightened by the effects of the pandemic on day-to-day education and employment processes, and the difficulties of remote access to participants (Keen et al., 2022). Gatekeepers played an important role in each sector in identifying where there was active engagement in vocational education and training processes despite the pandemic, and where local stakeholders might be willing to engage (Emmel, 2014). Well-documented pandemic pressures on young people meant that young workers were reluctant to engage, and those who did were more advantaged than provider demographic data suggests (Green et al., 2022). Instead, my interviews focused on participant perceptions of the barriers and opportunities available to early adult workers and how these were supported or ameliorated. Young people's interviews triangulated these insights and provided additional perspectives on early careers and their decision-making. All highlighted the complexity and elongation of vocational pathways.

Secondly, findings can only be indicative, and not representative of a 'sector'. Industries are complex and varied labour market structures that a PhD study can only begin to explore. A central argument of my study is that sectors are heterogeneous in their skills needs, where employer size and sector employment structures can directly affect the opportunities and prospects available to early adults (Robson et al., 2025). Sectors represent diverse employers and occupational structures, meaning my findings are not presented as representative of all employers or educators in 'the sector', but are processes identified by participants as important in their locality, in their institution, and in sector experience (Roberts, 2020). Each local study reflects Robert's (2020) assertions of working within constantly shifting skills and education boundaries, where

actors position themselves to their agenda and advantage. Secondary quantitative analysis of local skills and employment systems and qualification patterns by sector for early adults aged 25-30 years became a key part of building my analytic framework across supply and demand side processes (Creswell and Plano Clark, 2023).

7.4.1 Future research

My research study extends youth transition studies to take a locale, career sequencing, sector approach to early adult progression prospects through higher-level vocational qualifications. My future research would build on this demand-side approach, where the central concern would be questions of how the early adult life course could lead to a 'decent career' for young people who take a vocational route. Mixed methods approaches would allow quantitative approaches to underpin and support qualitative interviews of stakeholders, including early adult workers. Future research directions include expanding local skills ecosystem approaches to multiple sectors and expanding sector and sub-sector career sequences through the middle to high-skilled work, particularly the boundary position of middle-high-skilled occupations in Skills Level 3 and progression into Skills Level 4 (SOC 2020), and the vocational and academic standing of qualifications in this space. Finally, to better understand how local pathways to high-skilled jobs might be supported, future research on institutional effects in education and training providers, large employers and SMEs by sector and sub-sector could provide novel insights into new forms of interventions.

Taking a locality approach allows the shifting patterns of high, middle and low-skilled work to be explored in a regional context, where the natural progression would be to extend these analytic approaches to sector and sub-sector-level data to begin to build skills and qualification profiles, and middle to high career sequences by sector. However, regional employment data remains fragmented at a local, sector level (Wilson, 2023). There are two important categories of industry to better understand. First, the industries that take over 50% of young workers are retail and hospitality, health and social work, education, and professional services, where my parallel study has identified key progression and skills profile patterns (Tatham, 2024). The level of employment within these sectors means that any change in progression prospects has

a significant effect on job quality, given the sector sizes. Secondly, to explore the employment and skills requirements of the sectors and sub-sectors which constitute the government's seven main growth areas in the Industrial Strategy: advanced manufacturing and clean energy industries; creative industries; defence; digital and technologies; financial services; life sciences; professional and business services, based on local area priorities.[48]

This would allow a more dynamic understanding of the effects of economic growth or contraction on jobs in a local skills ecosystem, and a better understanding of qualification utilisation, including under- and over-qualification, allowing more targeted vocational and academic provision. However, such approaches may also raise 'difficult questions' as data would also show the extent of under- and overqualification by subjects, sector and locality, reflecting studies which show employers do not necessarily know the qualifications their employees hold, or plan to use them, or utilise new qualifications (Lloyd et al., 2008; Keep, 2020).

Finally, although there is extensive research on the effects of elite institutions on early adult careers through attendance at higher tariff universities and private schools supporting access to more elite professions (see eg (Reay et al., 2010; Friedman and Laurison, 2019; Casey and Wakeling, 2022; Friedman, 2023), there is little examination of local institutional effects on 'ordinary' young workers and their occupational progression (Friedman and Savage, 2018; Kalleberg and Mouw, 2018). Education interventions to enhance opportunities for young workers typically focus on enhancing the 'individual' through ameliorating a lack of financial resources and social/cultural networks in deficit approaches to 'level the field' (Edgerton and Roberts, 2014). These approaches have some success, but repeated studies show the disconnections that often occur between desired outcomes and continued achievement gaps, with working-class ceilings entrenched in participation in Higher Education and access to

[48] https://www.gov.uk/government/consultations/invest-2035-the-uks-modern-industrial-strategy/invest-2035-the-uks-modern-industrial-strategy

higher-skilled work (Roberts, 2015; Snee and Devine, 2015b). Higher-level vocational pathways and access to education-in-work training provide a distinct institutional lens through which to explore employer and educator effects on early adults (Knight et al., 2022). Findings would contribute to debates on social mobility, particularly intragenerational career mobility in the early adult life course (Kalleberg and Mouw, 2018).

In conclusion to my thesis, the importance and value of my research study lies in improving the prospects of achieving a 'decent career' in early adulthood for the 'missing middle' of young people who take a vocational pathway. Access to a 'decent career' is not solely an economic priority, but forms part of the social contract of a democratised right to education and training, which allows early adults to not merely 'survive', but to 'thrive'. Early adult workers who exit compulsory education and training aged 18 years holding Level 2 or 3 qualifications are relatively ignored in research and policy, disproportionately drawn from lower socioeconomic backgrounds, and typically bound by their locality, the vocational education offered, and the employers located there. Importantly, evidence suggests there is little difference in academic ability between those early adults who progress to higher Level 4+ qualifications from Level 3 and those who do not, suggesting untapped potential for higher skills acquisition in this group. Instead, background, access to financial resources, social networks, family and community form multiple and complex opportunity constraints on upward career mobility. I argue that only by refocusing attention on the missing 'middle' of occupational pathways, the processes of 'becoming a higher-skilled, vocational worker', and how 'ordinary' early adults might achieve a 'decent career ', will these patterns be addressed at a systemic level. My study, in a small way, contributes to this debate.

END

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Appendices

A1: Key education and skills dates during Covid-19: England

Covid-19: Key dates for employment and skills for England and the English regions):	
Phase 1 of the Covid-19 pandemic March 2020-August 2020 **Fieldwork redesign First National lockdown**	31 Jan 2020 Brexit transition period began
	13.2.20 Initial ethical approval for a two-sector, case study of employer interventions in retail and textiles manufacturing
	16.3.20 University of Leeds halts face-to-face fieldwork
	March 23rd 2020 Lockdown 1 announced: 'stay at home' no face-to-face education in FE/universities; non-essential retail and hospitality closed. Furlough was announced to cover 80% of employee wages.
	June 1st 2020 Phased reopening of schools/Further Education. Universities remain online
	15th June 2020 reopening of non-essential shops
	4th July social distancing restrictions eased
	Switching off of apprenticeship frameworks and transfer to standards from Aug 1st 2020
	4.8.20 Pandemic fieldwork study approved
Phase 2 Covid-19 pandemic September 2020-December 2020 Second national lockdown	1st September 2020 Schools and colleges return to face-to-face teaching; universities remain online
	24th September 2020 local Tier 3 restrictions in Northern Region; schools and colleges remain open
	5th November – 2nd December 2nd national lockdown. Schools and colleges remain open with hybrid delivery
	2nd December: Local Tier 3 restrictions in place in the Northern Region
	31st December 2020 Brexit occurs
Phase 3 January 2021-March 2021 Third national lockdown	6th January 2021 Third national lockdown – face-to-face education closed in schools and colleges; universities remain online
	21.1.21 Launch of Skills White Paper: Skills for Jobs
	8th March 2021 Phased return to face-to-face for schools and colleges in England
Phase 4: towards social reopening and the post-pandemic period	19.7.21 final removal of restrictions
	July 2021 Furlough began to be reduced until withdrawal Oct 2021 (add ref)
	Mopping up interviews September 2021- October 2021

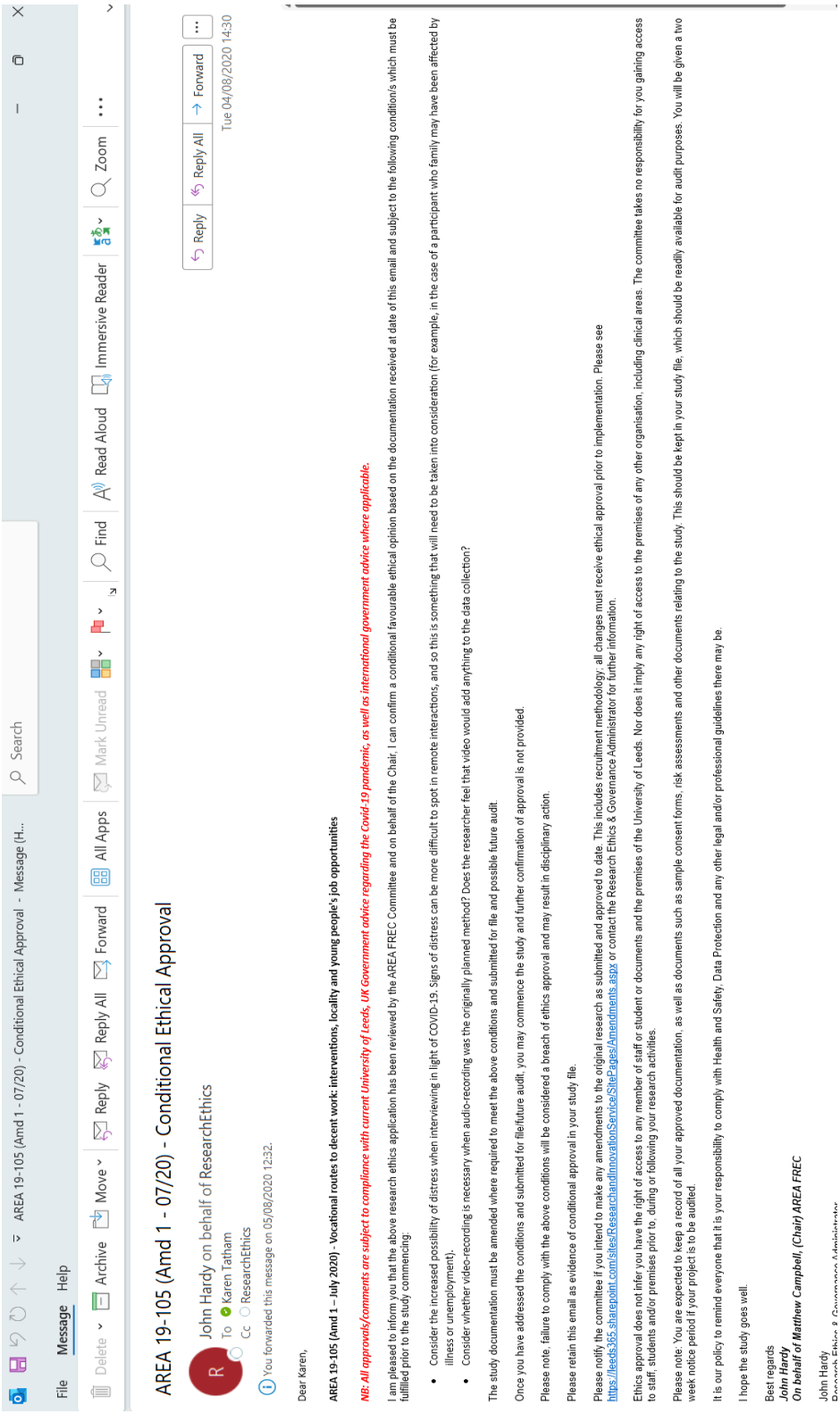
Based on Institute for Government (2021) https://www.instituteforgovernment.org.uk/data-visualisation/timeline-coronavirus-lockdowns

A2: Ethics time-line AREA 19-105 Vocational routes to decent work

Date submitted	Ethical application	Outcome	Date received
16.1.20	V1.1	Review points needed	13.2.20
26.2.20	V1.2	Approved with comments	9.3.20
16.3.20 Fieldwork suspension Covid			
20.7.20	V 1.3 Amendment 1 Remote methods, new partners, tweaked focus	Conditional approval	4.8.20
21.8.20	V1.4 submitted for file	Consent forms amended to audio	
23.11.20	V1.5 Amendment 2 To reduce the risk of not being able to access participants, and to reflect the operational realities of my partners in Covid 19, I am requesting permission to amend my fieldwork:	(Amd 2 Dec 2020) Approved 16.12.20 Consent forms amended to video	16.12.20

1. To change my research question from employer engagement in education. This reflects the reality of much-reduced employer engagement in education during the pandemic.
2. To use the Foundation route at the university as a case, rather than digital vocational education routes and employers, because of existing supervisor partnerships with the Lifelong Learning Centre, which will support access.
3. To reduce the number of interviews from young people to 3-6 per case, from 12 interviews; employers from 5 to 3 per case, and total interviews from 55 to 30-40 because of Covid constraints.
4. Zoom/Teams interviews are generating automatic videos in recording; this has been noted on consent forms after discussion with my supervisors. Recordings are automatically generated by the Teams and Zoom interview platforms. Videos are deleted once downloaded/transcript is extracted from Stream.
5. To extend my fieldwork date to cover the period 21.9.20 to 30.9.21, but I am aiming to complete fieldwork by 30.6.21. Participant information and consent forms have been amended to the latest participant withdrawal of 30.6.21

A3: Ethical approval: Covid amendment



AREA 19-105 (Amd 1 - 07/20) - Conditional Ethical Approval - Message (H...

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AREA 19-105 (Amd 1 - 07/20) - Conditional Ethical Approval

Reply Reply All Forward

John Hardy on behalf of ResearchEthics

To Karen Tatham

Cc ResearchEthics

Tue 04/08/2020 14:30

You forwarded this message on 05/08/2020 12:32.

Dear Karen,

AREA 19-105 (Amd 1 – July 2020) - Vocational routes to decent work: interventions, locality and young people's job opportunities

NB: All approvals/comments are subject to compliance with current University of Leeds, UK Government advice regarding the Covid-19 pandemic, as well as international government advice where applicable.

I am pleased to inform you that the above research ethics application has been reviewed by the AREA FREC Committee and on behalf of the Chair, I can confirm a conditional favourable ethical opinion based on the documentation received at date of this email and subject to the following condition/s which must be fulfilled prior to the study commencing:

- Consider the increased possibility of distress when interviewing in light of COVID-19. Signs of distress can be more difficult to spot in remote interactions, and so this is something that will need to be taken into consideration (for example, in the case of a participant who family may have been affected by illness or unemployment).
- Consider whether video-recording is necessary when audio-recording was the originally planned method? Does the researcher feel that video would add anything to the data collection?

The study documentation must be amended where required to meet the above conditions and submitted for file and possible future audit.

Once you have addressed the conditions and submitted for file/future audit, you may commence the study and further confirmation of approval is not provided.

Please note, failure to comply with the above conditions will be considered a breach of ethics approval and may result in disciplinary action.

Please retain this email as evidence of conditional approval in your study file.

Please notify the committee if you intend to make any amendments to the original research as submitted and approved to date. This includes recruitment methodology; all changes must receive ethical approval prior to implementation. Please see https://leeds365.sharepoint.com/sites/ResearchandInnovationService/SitePages/Amendments.aspx or contact the Research Ethics & Governance Administrator for further information.

Ethics approval does not infer you have the right of access to any member of staff or student or documents and the premises of the University of Leeds. Nor does it imply any right of access to the premises of any other organisation, including clinical areas. The committee takes no responsibility for you gaining access to staff, students and/or premises prior to, during or following your research activities.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, risk assessments and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

I hope the study goes well.

Best regards

John Hardy

On behalf of Matthew Campbell, (Chair) AREA FREC

John Hardy

Research Ethics & Governance Administrator

A3: Ethical Approval Covid amendment-confirmation of actions

File Message Help

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Re: AREA 19-105 (Amd 1 - 07/20) - Conditional Ethical Approval

Karen Tatham
To ResearchEthics
Cc Sarah Irwin; Joanne Greenhalgh

Reply Reply All Forward

Fri 21/08/2020 16:51

If there are problems with how this message is displayed, click here to view it in a web browser.

AREA 19-105 Amd 1 07-20 conditional approval amended for file 21.8.20.doc
.doc File

Hi John/Research Ethics

Hope you are well. Thank you for my conditional approval. I have discussed the points below with my supervisors and amended my ethics form. Attached is my amended ethics form (AREA 19-105 Amd 1 07/20) with the changes highlighted for your file :

- Consider the increased possibility of distress when interviewing in light of COVID-19. Signs of distress can be more difficult to spot in remote interactions, and so this is something that will need to be taken into consideration (for example, in the case of a participant who family may have been affected by illness or unemployment).

this has been added to my ethics form

- Consider whether video-recording is necessary when audio-recording was the originally planned method? Does the researcher feel that video would add anything to the data collection?

video recording has been removed from my ethics form

Many thanks
Regards
Karen

Karen Tatham

PhD Researcher
School of Sociology and Social Policy
University of Leeds

A4: Sample recruitment email for professionals

To be sent from my university student account once the gatekeeper has made a separate introduction.

Title: Interview request for PhD project

Dear XXX,

My name is Karen Tatham, and I am a PhD student at the University of Leeds. I am completing a research project exploring how young people access higher-skilled job opportunities from vocational training, and I would like to interview you because of your expertise in how young people access employment and training, and how employers and training providers work together.

The interview will take approximately 1 hour remotely, by Teams, Zoom or telephone at a mutually convenient time. If you consent, the interview will be recorded to support my writing up of the interview.

It is important that you choose to take part in my research, and do not feel obliged to because of your job role. You can withdraw your consent at any time. I have attached a participant information form and consent sheet for my interviews.

Thank you for considering this request and for helping me with my research project. If you would like to take part, please could you suggest some dates and times that would work for you?

Many thanks
Regards
Karen

Karen Tatham, PhD Researcher
School of Sociology and Social Policy
University of Leeds

Attach:

Participant information sheet and privacy notice for professionals

Consent form professionals

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A5: Sample Participant Information Sheet and Privacy Notice

School of Sociology and Social Policy

Participant Information Sheet and Research Participant Privacy Notice

Title of my research project: Vocational Routes to Decent Work; Interventions, Locality and Young People's Job Opportunities (pandemic title)

Invitation: My name is Karen Tatham, and I am a PhD researcher at the University of Leeds. You are being invited to take part in a research project as part of my PhD.

- Before you decide, it is important for you to understand why the research is being done and what it will involve.
- Please take time to read the following information carefully and discuss it with others if you wish.
- Please feel free to ask if there is anything that is not clear or if you would like more information.
- Take time to decide whether or not you wish to take part.

What is the project's purpose? I am exploring how young people get job opportunities from vocational pathways. I am interested in how employers, educators and policymakers work together, what processes are occurring, and how these affect young people's job opportunities.

Why have I been chosen? You have been chosen because of your involvement in employment and training, and your experience, insights, and views about what affects young people's ability to secure a job and progress in this employment sector.

Do I have to take part? No. You can choose whether you take part, and you should only take part if you want to. If you decide to take part, please keep a copy of this electronic information sheet. You will be asked to sign a consent form, which should either be signed electronically or a photograph of your signature on the form should be returned via email to the researcher. You can change your mind about taking part at any time. You do not have to give a reason.

What do I have to do? I would like to interview you to find out more about your experiences and views about young people on vocational courses, and how they secure and progress in jobs. The interview will last for up to 1 hour and will take place at a mutually convenient time. You can choose whether you answer any question. If you consent, the interview will be recorded to support my writing up of the interview. You can choose whether the interview will be by video or phone call.

A5: continued Sample Participant Information Sheet and Privacy Notice

What are the possible benefits of taking part? Whilst there are no immediate benefits, my work will add to the knowledge of how young people access employment opportunities from training routes. Results will be shared with participants.

What are the possible disadvantages and risks of taking part? There are no direct risks to taking part in my research. You and your employer will not be directly identified. I will anonymise responses and comments, but please be aware that with a limited number of organisations in the project, there is a chance that others who are involved may be able to identify comments with individuals.

Storage of personal information and research data

All information and responses gathered during this research will be stored in accordance with the University of Leeds data management and research policies. All data will be kept in a secure location and will only be available to the researcher and the researcher's supervisors. Interviews will be recorded and transcribed at a later date. All participants will be provided with a pseudonym, and this will be used where direct quotations appear. Results will be written up as part of my PhD, which will then be submitted to the University of Leeds. I will share and publish the findings of this research on completion. If you would like a copy of your interview transcript, please email me at edu1kjt@leeds.ac.uk.

To administer the project, your name, job type, employer, and work contact email details will be collected. At no point will this personal information be shared or reproduced in my written findings, and all information will be destroyed on completion of the research.

If you decide to withdraw from my research: You can decide you don't want to take part in this research at any time up until 14.12.21. You don't need to give a reason, and there won't be any negative consequences. Data already provided will not be included in the study.

Limitations of confidentiality and anonymity:

Anonymity: Participants' names will not be used, and any identifying markers (e.g. names of institutions) will be removed Due to the small number of institutions in my study, and their unique profiles, it may be possible for people who know these institutions well to identify comments to individual participants.

Confidentiality: All responses will be confidential, but confidentiality could not be maintained if the participant disclosed any information which might indicate that they or others were at risk of harm. Any concern would be first discussed with my supervisor and follow appropriate employer or education protocols.

What will happen to the results of the research project? As well as producing my PhD thesis I hope to publish based on the research. You will not be identified in any report or publication.

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A5 continued: Sample Participant Information Sheet and Privacy Notice.

Who is organising/ funding the research? I am a University of Leeds PhD student and independent of any of the organisations involved in the research fieldwork.

Contact for further information: Researcher: Karen Tatham Email edu1kjt@leeds.ac.uk

Supervisors: Professor Sarah Irwin s.irwin@leeds.ac.uk Professor Joanne Greenhalgh j.greenhalgh@leeds.ac.uk

RESEARCH PARTICIPANT PRIVACY NOTICE

Title of my research project:

Vocational routes to decent work; interventions, locality and young people's job opportunities (pandemic title)

Purpose of this Notice

This Notice explains how and why the University uses personal data for research; what individual rights are afforded under the Data Protection Act 2018 (DPA) and who to contact with any queries or concerns.

All research projects are different. This information is intended to supplement the specific information you will have been provided with when asked to participate in one of our research projects. The project-specific information will provide details on how and why we will process your personal data, who will have access to it, any automated decision-making that affects you and for how long we will retain your personal data.

Why do we process personal data?

As a publicly funded organisation, we undertake scientific research which is in the public interest. The DPA requires us to have a legal basis for this processing; we rely upon "the performance of a task carried out in the public interest" as our lawful basis for processing personal data, and on "archiving in the public interest, scientific or historical research purposes, or statistical purposes" as our additional lawful basis for processing special category personal data (that which reveals racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic or biometric data, and data concerning health, sex life or sexual orientation).

How do we follow data protection principles?

- We have lawful bases for processing personal and special category data.
- Data are used fairly and transparently; we will make it clear to individuals what their data will be used for, how it will be handled and what their rights are.
- We only collect and use personal data for our research, for research in the public interest, or to support the work of our organisation.
- We only collect the minimum amount of personal data which we need for our purposes.

- We take steps to ensure that the personal data we hold is accurate.
- We keep your personal data in an identifiable format for the minimum time required.
- We take steps to ensure that your data is held securely.
- We keep a record of our processing activities.

What do we do with personal data?

Research data can be a very valuable resource for improving public services and our understanding of the societies we live in. One way we can get the most benefit from this work is to make the data available, usually when the research has finished, to other researchers. Sometimes these researchers will be based outside the European Union. We will only ever share research data with organisations that can guarantee to store it securely. We will never sell your personal data, and any data shared cannot be used to contact individuals. The project-specific information will include more detail about how your data will be used.

Your rights as a data subject

Because we use personal data to support scientific research in the public interest, individuals participating in research do not have the same rights regarding their personal data as they would in other situations. This means that the following rights are limited for individuals who participate, or have participated in, a research project:

- The right to access the data we hold about you.
- The right to rectify the data we hold about you.
- The right to have the data we hold about you erased.
- The right to restrict how we process your data.
- The right to data portability.
- The right to object to us processing the data we hold about you.

Data security We have put in place security measures to prevent your personal data from being accidentally lost, used or accessed in an unauthorised way and will notify you and any applicable regulator of a suspected breach where we are legally required to do so.

Retention periods We will only retain your identifiable personal information for as long as necessary to fulfil the purposes we collected it for; we may then retain your data in anonymised or pseudonymised format.

To determine the appropriate retention period for personal data we consider the amount, nature, and sensitivity of the personal data, the potential risk of harm from unauthorised use or disclosure, the purposes for which we process your personal data and whether we can achieve those purposes through other means, and the applicable legal requirements.

Additional notices and guidance/policies The University has also published separate policies and guidance which may be applicable to you in addition to other privacy notices:
Current staff privacy notice:
https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2018/10/staff_privacy_notice.pdf
Current student privacy notice
https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2018/10/student_privacy_notice.pdf
The Research and Innovation Service website has other relevant policies and guidance http://ris.leeds.ac.uk/info/73/policies_guidelines_and_other_information/145/good_research_practice.
Communication In the first instance please contact the researcher who your initial contact was with. You may also contact the Data Protection Officer for further information (see contact details below). Please see the Information Commissioner's website for further information on the law. You have a right to complain to the Information Commissioner's Office (ICO) https://ico.org.uk/ about the way in which we process your personal data. Please see the ICO's website.
Concerns and contact details If you have any concerns with regard to the way your personal data is being processed or have a query with regard to this Notice, please contact our Data Protection Officer (Alice Temple: A.C.Temple@leeds.ac.uk). Our general postal address is the University of Leeds, Leeds LS2 9JT, UK. Our postal address for data protection issues is the University of Leeds Secretariat, Room 11.72 EC Stoner Building, Leeds, LS2 9JT. Our telephone number is +44 (0)113 2431751. Our data controller registration number provided by the Information Commissioner's Office is Z553814X. This notice was last updated on 20 February 2019.
END

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A6: Sample participant consent form

Participant consent form: Professionals - Teams interview School of Sociology and Social Policy

Consent form for the research project: Vocational Routes to Decent Work: Interventions, Locality and Young People's Job Opportunities	Sign, or initial if you agree with the statement
I confirm that I have read and understood the information sheet dated 1.9.21 explaining the above research project and I have had the opportunity to ask questions about the project.	
I understand that I can choose whether I take part in an interview. If I don't want to answer any interview questions, I can refuse.	
I can decide I don't want to take part at any time up until 14.12.21. I don't need to give a reason, and there won't be any negative consequences. Data already provided will not be included in the study. Contact details for Researcher: Karen Tatham email: edu1kjt@leeds.ac.uk	
I agree to take part in the above research project and will inform Karen Tatham should my contact details change during the project and, if necessary, afterwards.	
I agree with the interview being audio and video recorded. I understand this recording will only be listened to by Karen Tatham, or a university-approved third-party transcription service. Teams generate a video file.	
My name will not be used, and any identifying markers (e.g. names of institutions) will be removed, but due to the small number of institutions in my study I understand may be possible for people who know these institutions well to identify comments to individual participants. I understand that if I disclosed any information which might indicate that I or others are at risk of harm, you would not be able to maintain confidentiality.	

Name of participant	
Participant's signature	
Date	
Name of the lead researcher	Karen Tatham
Signature	
Date*	

*To be signed and dated in the presence of the participant, or on receipt of signed email consent. Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the participant information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents which must be kept in a secure location.

A7: Sample interview question frame

College Professionals: VET Construction in early fieldwork Oct 2020.

Working paper to be revised as interviews are completed in an iterative process. NB questions are indicative, with prompts for each question. One response may cover multiple questions. Hence questions are a guide rather than a script and will be adapted to the key informant's presentation/knowledge/what builds a rapport. Interviews will last for 1 hour max. Participant responses will inform subsequent interview questions. Questions will also be adjusted following ongoing documentary and secondary data review due to Covid-19 context.

Thank you for agreeing to be interviewed – check 1 hour approx.? My questions will focus on the College, construction vocational skills development and progression in the construction industry. Could you confirm I am still okay to audio record this session; Reminder if you don't want to answer a question or you don't know about this area just say, you don't have to. Ask me to repeat.

1. **CONTEXT SECTOR and INTRO Could you describe the construction industry from the College's perspective?** Are there distinct cultural aspects of the industry? Do employers have a strong identity? At all skill levels? Embedded in communities or more dispersed?
2. **CONTEXT and INTRO Could you describe the College and how it links into wider industry structures? What is your own career trajectory?**
3. **CONTEXT COVID What has the impact of Covid been on the College for skills/training?** What sort of job creation/redundancy is happening; Predominantly low-high skill? What's the impact of this? Has Covid accelerated any employment trends, or changed what is required? Has Covid impacted equally across all businesses – any patterns in winners and losers – why? What's your prediction for the next 12 months? Why? Impact of Brexit? How are older/younger workers affected? Professionals/skilled/factory floor? Why is this?
4. **PLACE**: **How important is the locality for this college?** -does this vary by eg local authority area or city? Could you describe the communities that **A7**

Interview frame cont employers are in -are they typical in any way? Any you don't draw from? What employment is available in X for young people? Is this different/the same as older workers- why? How does this compare to other employment opportunities available to young people in this geographic area? Do opportunities vary across LA geographic locations

5. **SUPPLY- DEMAND SKILLS To what extent can construction skills supply be planned for in the city?** Any cohesion -tensions- competition? How do young people make their decisions about working in the construction industry? What sort of industries compete for employees with construction? How does the college decide which qualifications to offer? Are approaches to support young people access jobs connected/joined up? Across employers/educators? Is there a common understanding/language between stakeholders? Are these relationships/partnerships visible? How does competition/collaboration between employers influence such access to work
6. **CULTURE What is the training ethos of the industry?** What makes a skilled job? How does skill equate to pay in this sector? Could you describe the training culture?
7. **EMPLOYERS RATIONALE Why do employers get involved with the College?** What are your priorities for employers? What about employers' priorities? What's the position during covid – predictions for the next 12-18 months? Are employers engaging/disengaging? Doing things differently/reducing their engagement? How do you balance up across employers? Do particular voices dominate? Do employers feel any responsibility to level up job opportunities for young people etc. Do particular types of employers get involved with the city council/education/LEP? Who is missing? What difficulties does this cause?
8. **DEMAND FOR SKILLS**: **Can you talk to me about skilled jobs in the industry?** Skilled v unskilled, graduate v vocational/technical? Does the sector invest in training? Above Level 3? for all employees? Is the training transferrable to other industries? Are there any differences in young people's opportunities by employer type? SME and corporate; traditional and high tech; geographic location? Do young people move between employers?

9. **A7 Interview frame cont DEMAND FOR SKILLS: Do young people have the skills employers need?** Different groups? How willing are employers to invest in apprenticeships for under 24s at level 3? Level 4/5? To what extent do progression pathways exist for YP who don't take a university route? Does anyone centralise this? Monitor this/promote progression?
10. **BARRIERS TO ACCESS: What are the biggest barriers to non-graduates getting on a higher-skilled job route?** What's your perception of aspirations in young people? Realistic? Stereotypes by socioeconomic background? Unachievable? Limited? Supported by education and communities? What part do the English and Maths levels play in access to higher-skilled work? What about gendered choices? BAME choices? Education and training quality? What capacity does the council have given the budget difficulties? What constitutes employability in young people? Any changes during covid? By sector/type of employer? Can young people enter in as an apprentice and progress to all levels in an employer? Are there limits? Are there any differences in young people's opportunities by employer type? SME and corporate; traditional and high tech; geographic location? Do young people move between employers – is there acceptance of extended pathways to higher-skilled work for non-graduates (and graduates)? What long-term job options does this vocational route give to YP? What limitations? Are the jobs available from this vocational route 'good' jobs? What does a 'good job mean? Can young people expect a good job? Why/why not? Do you keep/retain young people…in this vocational route/sector? Why/Why not?
11. **PARTNERSHIPS You are working with a range of partners at the College.** Who are your important partners -? LAs/LEPs/employers/Trade /Professional bodies? Reason for these employers/the geographic area it covers? Who leads/sets the direction? What sort of networks are there? How does competition v collaboration work? What makes the difference?
12. **EMPLOYER RELATIONSHIPS How does an employer change or influence the vocational training a young person gets?** Does it influence the YP beyond a qualification? How? Does the YP understand what future job possibilities are?

A7 Interview frame cont Why/why not? How do education/employers/local skills leaders work together? What difference does this approach make? How do you know? What processes are occurring – can you help me map them? From YP, educators/employers/the project/policymakers? Do you have to adapt your approaches to different employers? Partners? How? Are these effective? How do you know?

13. **INTERVENTIONS: Why do you get involved in different initiatives eg Reboot?** What evidence base do you use for your employment interventions? How do you measure or ascertain what works? How do you balance up any job against skilled work? What is the employer's capacity to engage in Covid? Corporate /SMEs? Are there sectors it is easy/difficult to engage whether it is Covid or not? What are employers' perceptions of what is a skilled job- and what should be paid for it? How do education, employers and the city council work together? To what extent is this representative of education sectors? Training providers? Employers? Who is missing? Is this important?
14. **RECRUITMENT: How does recruitment happen?** Linked to decisions made about what skills are taught, work experience or training are planned? Anything beyond a job? Social networks? Is there evidence that the College makes a difference in the skills available to employers? The quality of jobs available to YP? Do you track/measure this? Could data be shared? How does recruitment work in this sector/for these qualifications Is there any form of a pipeline from education to employment? What are your experiences with recruitment? Is it equitable for all groups of young people? Different by type of employers-SME? What if a YP shows skill beyond their qualifications? What leverage do you have around the quality of jobs on offer to young people? For disadvantaged? Do employers care about disadvantaged YP? What makes the difference in engaging employers in future skilled jobs? Personal connections – trade association priorities?
15. **PROGRESSION: What would be a typical progression for a young person once employed?** Is this the same for all groups? For young and older workers? What long-term job options does this vocational route give to YP? What limitations?

A7 Interview frame cont Are the jobs available from this vocational route 'good' jobs? What does a 'good job mean? Can young people expect a good job? Why/why not? Do you keep/retain young people…in this vocational route/sector? Why/Why not? Could you describe the aspirations of your students@ differ by group/qualification level?

16. **TRAVEL How far will YP travel to work?** Differences by gender, age, background, and qualifications? Is the distance from work important? Why? Does background make a difference to the sort of jobs people apply for? Or progress in?

17. GENDER: what are the barriers and how do you address them?

18. **DISADVANTAGE: Do disadvantaged young people face any specific barriers?** Are there any factors which help or hinder employment for YP in this area? Is this for any particular groups?.....[prompts schools/quality of education, communities/immigration/infrastructure/deprivation] Are young people ready for work? Skills levels? Aspirations? Is this different for different groups? In this sector are there any groups of under-represented young people? Over-represented? Why?

ROUNDING UP*:* What do the next 12-18 months hold for the College? Is there anything you would like to add, or that you feel we should have covered in the interview?

Thank you so much for your time

A8: Vocational Qualifications by Providers.

Table A9-1: Construction College Vocational Provision

FE College offer: Construction				
Level 1 NA	Level 2 Apprenticeships	Level 3 Apprenticeships	Level 4 Apprenticeships	Level 5 Apprenticeships
	Bricklayer Building Services Engineering Installer Carpentry and Joinery Furniture Manufacturer Groundworker Interior Systems Installer Painter and Decorator Plasterer Property Maintenance Operative Roofer Wall and Floor Tiler Wood Product Manufacturing Operative	Advanced Carpentry and Joinery Building Services Engineering Craftsperson Building Services Engineering and Maintenance Engineer Building Services Engineering Technician Civil Engineering Technician Construction Support Technician Digital Engineering Technician Gas Engineering Operative Installation Electrician and Maintenance Electrician Plumbing and Domestic Heating Technician Refrigeration, Air Conditioning and Heat Pump Engineering Technician Surveying Technician Transport Planning Technician	Building Services Engineering Senior Technician Civil Engineering Senior Technician Construction Design and Build Technician Construction Quantity Surveying Technician Construction Site Supervisor	Level 6 Degree Apprenticeships Civil Engineering Site Management (Degree) Construction Quantity Surveyor(degree) With the Partner City University offer
Vocational Qualifications Level 1	Vocational Qualifications Level 2	Vocational Qualifications Level 3	Vocational Qualifications Level 4	Vocational Qualifications Level 5
Bricklaying Course 16-18 years Carpentry and Joinery Course 16-18 yrs. Plastering Course 16-18 yrs. Painting and Decorating Levels 1 and 2 (Skill Start)	Bricklaying Course 16-18 years Carpentry and Joinery Course 16-18 yrs. Plastering Course 16-18 yrs. Plumbing Course 16-18 Painting and Decorating (16-18)	T-Levels Design, Surveying and Planning for Construction 2D CAD Level 3 3D CAD Level 3 Bricklaying Course 16-18 years Bridging Course to HE Building Services Engineering BTEC Level 3 16-18 yrs.	Bridging Course to Gain Access to HE HNC in Building Services Part Time HNC in Civil Engineering Full Time HNC in Civil Engineering part-time	HND in Building Services Engineering (HVAC) Top Up Part Time HND in Building Services Engineering (Electrical) Top-Up Part-Time HND in Civil Engineering Top-up Part-Time

Painting and Decorating (16-18) Plastering Level 1 and 2 (Skill Start) Plumbing and Electrical BSE Course Plumbing Course 16-18 Plumbing Level 1 Plumbing Level 1 Certificate Wall and Floor Tiling Course 16-18 Welding Skills Level 1 Carpentry and Joinery Level 1 and 2 (Skill Start) Electrical Level 1 Multi-Skills Construction Course -	Roofing Occupations NVQ Site Carpentry NVQ Trowel Occupations NVQ Wall and Floor Tiling OSAT NVQ Wood Occupations NVQ 2D CAD Level 2 Applied Waterproof Membranes NVQ Carpentry and Joinery Level 1 and 2 (Skill Start) Decorative Finishing NVQ Electrical Course Level 2 BTEC Level 2 Football Academy Heating and Ventilation Building Services Engineering Installer Level 2 NVQ Level 2 Diploma in Electrical Installations (Building and Structures) Painting and Decorating Levels 1 and 2 (Skill Start) Plastering Level 1 and 2 (Skill Start) Plastering OSAT Level 2 Plumbing and Heating Level 2 NVQ Diploma Wall and Floor Tiling Course 16-18 Wall and floor Tiling OSAT Welding Skills Level 2	Building Services Engineering Level 3 National Diploma Carpentry and Joinery 16-18 yrs. Civil Engineering BTEC Level 3 16-18 years Civil Engineering Level 3 BTEC Construction and the Built Environment Level 3 BTEC Construction and the Built Environment Level 3 BTEC 16-18 yrs. Gas Engineering Level 3 Dip Heating and Ventilation Building Services Engineering Craftsperson Level 3 Initial Verification/Certification of Electrical Installations, and the Periodic Inspection, Testing, and Certification of Electrical Installations Inspection and Testing of Electrical Equipment PAT Level 3 NVQ Diploma in Construction Contracting Operative Level 3 NVQ in Bricklaying Level 3 NVQ in Carpentry and Joinery Level 3 NVQ in Painting and Decorating Level 3 NVQ in Plastering Plastering Course 16-18 yrs. Plastering OSAT Level 3 Plumbing Course 16-18 Plumbing Studies Roofing Occupations NVQ Site Carpentry NVQ Trowel Occupations NVQ Wall and Floor Tiling OSAT NVQ Welding Skills Level 3	HNC in Construction Management Full Time HNC in Construction Management Part Time HNC in Quantity Surveying Part-Time Internal Quality Assurance Award	HND in Construction Architectural Technology Top-Up Part-Time HND in Construction Management Full-Time HND in Construction Management Top-Up part-time HND in Quantity Surveying Top-Up Part-Time

		Wood Occupations NVQ		

Source: Provider Website and https://findapprenticeshiptraining.apprenticeships.education.gov.uk/courses/25

A8 continued: Vocational qualifications offered by the provider

Table A9-2 Textiles Centre Vocational Provision

Textiles Centre			
Level 2 Apprenticeships	Level 3 Apprenticeships	Level 4 Apprenticeships	Level 5
Customer service practitioner Material cutter Sewing machinist Textiles manufacturing operative	Business Administrator (<3) Fashion and textiles pattern cutter Fashion studio assistant Garment maker Knitted product manufacturing technician Laboratory technician. Team Leader or Supervisor	Fashion and textiles product technologist (level 4)* Textile technical specialist (level 4)* *No progressions to Level 6 in new occupational maps	
Leadership and Management Level 2-5			
Fork Truck Training Health and Safety First Aid			

Source: Provider Website https://findapprenticeshiptraining.apprenticeships.education.gov.uk/courses/25

Table A9-3 Digital: University Vocational Provision

Apprenticeship Level 5	Apprenticeship Level 6	Apprenticeship Level 7
Nursing Associate (NMC 2018)	Chartered Manager (degree) Digital and Technology Solutions Professional (integrated degree)	Advanced Clinical Practitioner (integrated degree) Geotechnical Engineer Senior Leader

Source: Provider Website https://findapprenticeshiptraining.apprenticeships.education.gov.uk/courses/25

A9: Demographic comparison by institution (Higher Level Vocational Qualification offer)

Table A10-1: Access and Participation by deprivation (postcode)

Access and Participation-Level of study	FE Construction College	Post 92 university (links to construction pathway)	Russell Group University (links to digital pathway)	Textiles centre* (Ofsted)	All registered English providers of HE
Apprenticeships (Higher Level 4+)	76%	5%	2%	100% but very low numbers	4%
Undergraduate full-time	6%	92%	97%	0%	82%
Undergraduate part-time	17%	4%	1%	0%	14%
Undergraduate first degree	0%	93%	82%	0%	79%
Undergraduate other	23%	2%	1%	0%	12%
TUNDRA Quintile 1 (least likely to attend HE)	26.1%	15.4%	8.6% apprenticeships only=12.5%	*	12%
TUNDRA Quintile 2	13%	17.8%	12.0% Apprenticeships only =12.5%	*	15.4%
TUNDRA Quintile 3	26.1%	23.0%	17.2%	*	18.8%
TUNDRA Quintile 4	13%	20.7%	23.0%	*	23.4%
TUNDRA Quintile 5 (most likely to attend HE)	21.7%	23.1%	39.2%	*	30.4%

Source: https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/data-dashboard/

Table A10-2 : Access and Participation-Deprivation(IMD 2019) 4 year aggregate

Access and Participation-Deprivation(IMD 2019) 4 year aggregate	FE Construction College	City Post 92 University. Total apprenticeship pathway	City Russell Group University (digital pathway)	Textiles centre*	All registered English providers of HE
Quintile 1(most deprived)	25.8%	24.8%	13.4%	11% **	21.8%
Quintile 2	11.3%	15.9%	13.2%	17% **	21.0%
Quintile 3	19.3%	16.9%	17.0%	21% **	18.7%
Quintile 4	29.0%	20.7%	23.8%	22 % **	18.3%

Quintile[49] 5 (least deprived)	14.5%	21.6%	32.7%	27% **	20.2%

Source: https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/about-the-data-dashboard/get-the-data/ ** Textiles too low for OfS; this demographic profile from DfE(2024) all Manufacturing Higher level apprenticeship achievements https://explore-education-statistics.service.gov.uk/find-statistics/apprenticeships

Table A10-3: Access and Participation- age

Access and Participation- Age profile 4-year aggregate	FE Construction College	City Post 92 University (construction sector example)	City Russell Group University (digital sector example)	Textiles centre**	All registered English providers of HE
Mature(over 21 years)	62.9% (apprenticeships 33%; VET =85%)	13%	6.1% All apprentices = 43.7*		27.7%
Young(under 21 years)	37.1% (OfS apprenticeship starts 66%)	87%	93.9% All apprentices = 56.3% But digital is 100% under 21	*	72.3%

Source: https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/about-the-data-dashboard/get-the-data/

A10: Interview schedule -pseudonymised

Interview number	Sector	Interview date	Pseudonym	Job type	Employer
01/AREA-19-105	Textile manufacture	22.9.20	Michelle	Project leader (Skills)	University
Northern Region into Tier 3 25.9.20: FE Colleges face to face; universities online					
02/AREA-19-105	Local Skills	12.10.20	Emma	Senior Lead Skills Employment LA	LA
03/AREA-19-105	Construction	19.10.20	James	Senior Leader	FE College Construction
04/AREA-19-105	Textile man	29.10.20	Jon	Senior Leader	Textile training provider/Trade Body
National lockdown 5.11.20-2.12.20 -then Northern Region into Tier 3					
05/AREA-19-105	Construction	11.11.20	Sally	Senior Leader	FE College Construction
06/AREA 19-105	Construction	27.11.20	David	L4/5 Lead	FE College Construction
07/AREA 19-105	Textile man	7.12.20	Ben	Training Lead	Textile training provider
First Covid-19 vaccine given on 8th December 2020					
16th Dec Amendment 2 to ethics/research design approved					
London/South Tier 4 19.12.20; new variant Covid -Xmas reduced contact					
National Lockdown 3 4.1.21: All education online					
08/AREA 19-105	Construction	4.2.21	Ian	Senior Skills Lead	Construction Trade Body
09/AREA 19-105	Local skills	5.2.21	Bob	Senior Local Post 16 Education	LA
10/AREA 19-105	Digital	22.2.21	Maddy	Apprenticeship Lead	University
11/AREA 19-105	Local Skills	25.2.21	Claire	Senior Lead devolution	LA
12/AREA 19-105	Textile man	4.3.21	Chris	Senior Academic Lead Skills	University
13/AREA 19-105	Local Skills	18.3.21	Mia	Careers advisor	Secondary schools
14/AREA 19-105	Local Skills	31.3.21	Samantha	Project manager	Policy Thinktank
Non-essential retail opens 12.4.21, schools/colleges back after Easter 12.4.21-recruitment started 19.4.21					
15/AREA 19-105	Local Skills	22.4.21	Penny	Senior Lead Employment and Skills	CA/LEP
16/AREA 19-105	Local Skills	22.4.21	Stacey	Head Skills Policy	CA/LEP
17/AREA 19-105	Textile Man	28.4.21	Maria	Young designer and technician	Textiles manufacturing employer
18/AREA 19-105	Construction	6.5.21	Ken	Senior Leader L4,5-	FE College Construction

19/AREA 19-105	Construction	7.5.21	Mark	Skills advisor	Construction Trade Body
20/AREA 19-105	Construction	12.5.21+ 3.6.21	Max	Senior lead employment and skills	Employer Large
21/AREA 19-105	Digital	13.5.21	Molly	Senior HR early careers	Employer Large
17.5.21 Reopening – rule of 6 indoors and hospitality indoors					
22/AREA 19-105	Construction	1.6.21	Julie	Academic Lead for construction degree apprenticeships	Post 92 University
23/AREA 19-105	Construction	9.6.21	Chloe	L4/5 Site Manager	Young adult
24/AREA 19-105	Construction	7.6.21	Joe	L4/5 Quantity Surveyor	Young adult
25/AREA 19-105	Construction	18.6.21	Andy	Senior Leader	Employer SME
26/AREA 19-105	Textiles manufacturing	22.6.21	Jenny	Senior Leader Skills	Textiles man trade body
27/AREA 19-105	Local Policymaker	29.6.21	Steve	Lead Employer skills	CA/LEP
28/AREA 19-105	Local policymaker / Practitioner	28.9.21	Tom	Lead Employment 16-25 yrs	LA
29/AREA 19-105	National policy	18.10.21	Robert	Senior policy adviser	Policy Thinktank, for parliament
END					

A11: Standard Occupational Classifications (2020), Skills Levels and Typical Education and Training

Skill Level	Sub-major groups of: SOC2020	Major group typical education and training
Level 4: "Professional" occupations and high-level managerial positions in corporate enterprises, or national or local government. Occupations at this level normally require a degree or equivalent period of relevant work experience.	11 Corporate managers and directors 21 Science, research, engineering and technology professionals 22 Health professionals 23 Teaching and other educational professionals 24 Business, media and public service professionals	**Managers, directors and senior officials** A **significant amount of knowledge and experience** of the production processes and service requirements associated with the efficient functioning of organisations and businesses. 2 Professional occupationsA degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training.
Level 3: Normally requires a body of knowledge associated with a period of post-compulsory education but not normally to a degree level. Several technical occupations fall into this category, as do a variety of trades occupations and proprietors of small businesses. In the latter case, educational qualifications at a sub-degree level or a lengthy period of vocational training may not be a prerequisite for competent performance of tasks, but a significant period of work experience is typical.	12 Other managers and proprietors 31 Science, engineering and technology associate professionals 32 Health and social care associate professionals 33 Protective service occupations 34 Culture, media and sports occupations 35 Business and public service associate professionals 51 Skilled agricultural and related trades 52 Skilled metal, electrical and electronic trades 53 Skilled construction and building trades 54 Textiles, printing and other skilled trades	**Managers, directors and senior officials** A **significant amount of knowledge and experience** of the production processes and service requirements associated with the efficient functioning of organisations and businesses. 3 Associate professional occupations: An associated high-level vocational qualification, often involving a substantial period of full-time training or further study. Some additional task-related training is usually provided through a formal period of induction. 5 Skilled trades occupations A substantial period of training, often provided using a work-based training programme.
Level 2: Large group of occupations, all of which require the knowledge provided via a good general education as for occupations at the first skill level, but which typically have a longer period of work-related training or work experience. Occupations	41 Administrative occupations 42 Secretarial and related occupations 61 Caring personal service occupations 62 Leisure, travel and related personal service occupations	4 Administrative and secretarial occupations A good standard of general education. Certain occupations will require further additional vocational training to a well-defined standard (e.g. office skills).

classified at this level include machine operation, driving, caring occupations, retailing, and clerical and secretarial occupations	63 Community and civil enforcement occupations[1] 71 Sales occupations 72 Customer service occupations 81 Process, plant and machine operatives 82 Transport and mobile machine drivers and operatives	**6 Caring, leisure and other service occupations** A good standard of general education. Certain occupations will require further additional vocational training, often provided using a work-based training programme. 7. **Sales and customer service occupations** A general education and a programme of work-based training related to sales procedures. Some occupations require additional specific technical knowledge **8. Process, plant and machine operatives** the knowledge and experience necessary to operate vehicles and other mobile and stationary machinery, to operate and monitor industrial plant and equipment, to assemble products from component parts according to strict rules and procedures and subject assembled parts to routine tests; will have a related period of formal training.
Level 1: the competence associated with a general education, usually acquired by the time a person completes his/her compulsory education and signalled via a satisfactory set of school-leaving examination grades. Competent performance of jobs classified at this level will also involve knowledge of appropriate health and safety regulations and may require short periods of work-related training. Examples of occupations defined at this skill level within the SOC 2020 include postal workers, hotel porters, cleaners and catering assistants.	91 Elementary trades and related occupations 92 Elementary administration and service occupations	**9 Elementary occupations:** Occupations classified at this level will usually require a minimum general level of education (i.e. that which is acquired by the end of the period of compulsory education). Some occupations at this level will also have short periods of work-related training in areas such as health and safety, food hygiene, and customer service requirements.

Source: collated from SOC(2020)

END