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Getting a foot in the door: local labour markets and the school-to-work transition

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ABSTRACT

Despite persistent sub-national variation in youth unemployment rates, the relationship between local labour market conditions and youth labour market outcomes is not well understood. This article explores the consequences of variation in the level and type of demand for labour for the amount of time it takes young people in the United Kingdom to find employment, following departure from full-time education. Survival analysis of British Household Panel Study (BHPS) data covering the period 1998–2008 shows that variation in the level (but not the type) of demand for labour is associated with considerable heterogeneity in job search time among less qualified young people, but not their better qualified peers. On average, it takes young people with lower secondary qualifications 1 month longer to find employment of any sort and 7 months longer to find secure, full-time employment if they are located in a place of low rather than high labour demand. These findings, which highlight the contextual nature of the risk associated with low educational attainment, point to the need for greater policy focus on bridging spatial mismatch between the location of low qualified young people and the location of secure employment opportunities.

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School-to-work transition; youth unemployment; insecurity; scarring; local labour markets; United Kingdom

Introduction

The passage of an individual from compulsory education to the world of work is a critical life course transition with long-lasting consequences (Schoon and Silbereisen 2009). Whereas smooth progression from education to employment promotes other dimensions of the transition to adulthood such as partnership and family formation (Blossfeld et al. 2005), turbulent transitions involving long stretches of unemployment and inactivity are associated with a host of negative outcomes in middle age. These include higher probability of unemployment, lower wages, worse mental and physical health outcomes and higher risk of premature death (Bell and Blanchflower 2011; Burgess et al. 2003; De Fraja, Lemos, and Rockey 2021; Gregg 2001; Helgesson et al. 2013; Lynch 1985; Schmillen and Umkehrer 2017; Strandh et al. 2014), and the size and severity of these effects tend to increase with longer spells of

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unemployment or inactivity (Arulampalam 2001). If 'well begun is half done', as the saying goes, then badly begun in the labour market can mean at least partially undone.

The multifaceted and enduring nature of these 'scarring effects' (Ellwood 1982) are such that there is a clear need to understand who is most at risk of bad beginnings in the labour market. Existing frameworks stress two components of risk: the micro-level characteristics of labour market entrants (particularly in terms of educational attainment) and the macro-level institutions and structures that govern labour market entry, which are generally assumed to be uniform at country-level (Raffe 2014). This 'national transition systems' (Smyth et al. 2001) or 'transition regimes' (Walther 2006) approach has yielded invaluable insight into the sources of large cross-national differences in youth labour market outcomes, but it also represents a simplification of a more complex reality. In practice, the institutions that govern labour market entry within any country are often heterogeneous (Hannan, Raffe, and Smyth 1996) and uneven processes of economic growth have given rise to substantial variation in the number and range of occupational opportunities in any given location (Martin 1997; Porter 2003). Here we ask: how do variable local opportunity structures affect individual prospects of getting a foot in the door of the labour market?

Two things are well established in this domain. First, youth unemployment rates vary substantially within countries (Bradley, Migali, and Navarro Paniagua 2020). In 2019 for example, Eurostat data[1] show that regional unemployment rates among 15–29 year olds varied from 2.7–7.8 percent in Germany, 5.6–43.3 percent in Italy, and 4.9–10.7 percent in the United Kingdom. Second, differing regional economic conditions produce distinctive regional patterns of youth labour market integration (Cefalo and Scandurra 2021; Freeman 1982; Green, Owen, and Wilson 2001; Perugini and Signorelli 2009). While this already suggests the dominant micro–macro framework may produce a misleading picture of the drivers of individual risk and resilience at this stage of life course, cross-sectional and unit-level data offer little insight into the dynamics of individual labour market entry processes, or who is most (and least) affected by spatial variation in the opportunity structure.

In this article, we use geocoded data from the 1991–2008 British Household Panel Survey (BHPS) to investigate the relationship between variable local opportunity structures and the amount of time it takes young British labour market entrants to secure employment, following departure from education. Survival analysis shows that variation in the level of demand for labour is associated with considerable heterogeneity in job search time among less qualified young people, but not their better qualified peers. Low educational attainment represents a comparatively low barrier to labour market entry for those in places of high demand, where young people obtain employment relatively quickly irrespective of the qualifications they hold. However, the same is not true in places of weak demand. While transition times among those with upper secondary and tertiary level qualifications remain unchanged, it takes young people with lower secondary qualifications 1 month longer to find employment of any sort and 7 months longer to find secure, full-time employment if they are located in a place of low rather than high labour demand.

By incorporating a spatial dimension and documenting substantial variation in the degree of risk associated with low educational attainment at the very beginning of the career, we make two important contributions. First, we show that the risk of elongated

labour market transitions is concentrated among low qualified young people who are also located in places of weak labour demand. Second, we show that the greater risk in places of weak demand is insecurity rather than unemployment. Less qualified young people are usually able to find employment in some form without excessive delay, irrespective of location. But those in places of weak demand are more likely to start on part-time or short-term contracts and face much greater difficulty upgrading from this to full-time, secure employment than similar peers in places of high demand. These findings, which highlight the contextual nature of the risk associated with low educational attainment, reinforce previous calls for researchers and policymakers to recognise that individual and institutional attributes are not the only determinants of youth labour market outcomes (MacDonald 2011). They also demonstrate the need for greater policy focus on bridging 'spatial mismatch' (Kain 1968) between the location of low qualified young people and the location of secure employment opportunities.

State of the field

As Schulenberg and Schoon (2012, 166) identify, the school-to-work transition is when individual 'educational and life plans formulated up through adolescence … meet the opportunities and constraints of post-adolescent life'. With a small number of exceptions (Dorsett and Lucchino 2014; Hillmert, Hartung, and Weßling 2017; Morris 2023; Riphahn 2002; Scandurra, Cefalo, and Kazepov 2021; Weßling, Hartung, and Hillmert 2015; Zwysen 2016) quantitatively-oriented sociological research has tended to situate individual transitions within institutions and structures that are assumed to be uniform at country-level (Allmendinger 1989; Barbieri, Cutuli, and Passaretta 2018; Blossfeld et al. 2008; Blossfeld et al. 2015; Breen 2005; Isengard 2003; Kerckhoff 2001; Müller and Gangl 2003; Raffe 2011; Schoon and Bynner 2019; Shavit and Muller 1998; Wolbers 2007). Here, we diverge from this 'methodologically nationalist' (Wimmer and Schiller 2003) tendency by situating individuals in labour market contexts that are recognised to vary considerably in terms of the number and type of employment opportunities available.

Such variation has already been shown to influence occupational aspirations (Evans 2016; Furlong and Biggart 1999; Kintrea, Clair, and Houston 2015) and the educational choices that individuals make. Research on educational choices has focussed on the impact of variable levels of aggregate labour demand, as proxied by the local unemployment rate. In line with human capital theory and the 'warehouse hypothesis' (Grubb and Lazerson 1982) whereby education can serve as a shelter for young people facing a lack of suitable employment opportunities, higher local unemployment rates tend to increase enrolment in full-time education beyond compulsory leaving age in countries with education systems that emphasise general rather than vocationally specific education and training (Betts and McFarland 1995; Clark 2011; Hillman and Orians 2013; Meschi, Swaffield, and Vignoles 2011; Petrongolo and San Segundo 2002; Raffe and Willms 1989; Rice 1999; Tumino and Taylor 2015). In countries with strong dual vocational training systems, evidence suggests that higher local unemployment rates tend to decrease the chances of undertaking an apprenticeship, linked to a corresponding reduction in the number of apprenticeship opportunities in weaker local labour markets (Hillmert, Hartung, and Weßling 2017; Kleinert and Jacob 2013; Lindemann and Gangl 2019;

Riphahn 2002; Rönnlund, Rosvall, and Johansson 2018; Weßling, Hartung, and Hillmert 2015).

While sheltering in education and opting for alternative forms of training are rational responses to a lack of local opportunities, educational careers cannot be prolonged indefinitely and local opportunity structures tend to be relatively persistent over time (Martin and Morrison 2003). Here, we build on analysis which highlights large and persistent sub-national variation in aggregate youth labour market outcomes to explore whether and how much local opportunity structures affect the amount of time it takes young people to secure employment, following departure from full-time education.

Local opportunity structures

Local opportunity structures differ in two respects that may have consequences for the speed of youth labour market transitions. First in the level of employer demand for labour. This variation, which reflects differences in the overall strength and economic performance of local economies, affects the number of job vacancies available and the degree of competition for these vacancies. Second in the type of employer demand for labour, variation which reflects differences in the sectoral mix of businesses that are present in any given place and the differing emphasis that these sectors place on prior labour force experience. This affects the availability of job vacancies that employers will typically fill with younger, less experienced workers.

Following the Beveridge curve, variation in the level of demand – the focus of existing research on educational aspirations discussed above – can be captured via the local unemployment rate. The Beveridge curve describes the inverse relationship between job vacancy and unemployment rates: where unemployment rates are high the vacancy rate tends to be low, and vice versa. Variation in the type of labour demand is harder to capture in a single metric. Ideally, measurements would be based on detailed analysis of the skills and experience requirements of available job vacancies. In the absence of such data, the likelihood of demand for youth labour can be proxied by measures of industrial composition, on the basis that young people are more likely to enter the labour market in sectors such as retail, hospitality and distribution – previously characterised as a particularly 'youth intensive' (Blanchflower and Freeman 2000) or 'youth friendly' (O'Reilly, Grotti, and Russell 2019) sector on the basis of low entry requirements – and comparatively less likely to work in education or public administration.

Expectations

In general terms, slower transitions into employment would be expected among young people located in weak labour markets and those that offer fewer opportunities for younger, less experienced workers. Our first hypothesis is therefore:

> H1: Young people experience more protracted periods of job search in a) low demand and b) less youth friendly labour markets

However much depends on where young people search for work. Local labour market conditions are not deterministic because those who encounter 'spatial mismatch' (Kain 1968) between their own location and that of viable employment opportunities can

potentially escape by searching for employment further afield and 'moving to opportunity' (Neumark 1998). Two sets of theories suggest the 'escape' strategy is likely to be most viable for young people with high levels of educational attainment, which in turn suggests local labour market effects are likely to be concentrated among the less qualified.

First, economic theories of migration which combine the human capital model (Sjaastad 1962) with models of spatial job search (Herzog, Hofler, and Schlottmann 1985) conceive of migration of as an action that maximises welfare but also involves costs, both monetary and psychological. The probability of migration (and therefore of spatially extensive job search) is linked to individual assessment of anticipated costs and benefits: since more qualified young people should command higher wages than their less qualified peers (Becker 1962; Spence 1973), their future income streams are more likely to support the costs of expansive job search (Amior 2015).

Second, sociological theories which stress the importance of social networks in the job search process also indirectly predict differential access to commuting and migration by highest level of educational attainment. Following Granovetter (1973; 1995) and the 'strength of weak ties' hypothesis, job search outcomes reflect the number and strength of an individual's more distant social connections, connections who yield useful information about employment opportunities. Owing to the residence-based admissions criteria of primary and secondary schools, the majority of pupils attend a school located close to the parental home and live, study and socialise within a limited geographic area. But the longer the educational career lasts, the greater the likelihood that young people move away from the family home to study and develop spatially expansive networks of 'weak ties'. These connections may lower the psychological costs of further migration as well as providing useful information about employment opportunities in alternative locations.

The anticipated skills gradient in job search generates different predictions about the impact of spatial variation in labour demand on youth transition times. For less qualified young people who are likely to search for employment locally, labour queue theory (Thurow 1975) predicts longer transition times for individuals located in weaker and less 'youth friendly' local labour markets. Labour queue theory views job search as a process whereby people compete for available vacancies and employers place applicants in a 'labour queue' according to expected training costs based on observable characteristics. Less qualified young people will tend to be placed at the back of the queue owing to their high expected training costs: under conditions of high unemployment or low youth friendliness, the labour queue is long and job search is likely to be protracted. Conversely, local opportunity structures are likely to be less consequential for more qualified labour market entrants searching for employment across wider geographical areas. Those unable or unwilling to search widely can also apply for jobs for which they are overqualified, a phenomenon referred to as 'bumping down' in the labour market (Gordon 2002). Our second hypothesis is therefore:

> H2: The effects of variation in local labour market conditions are concentrated among less qualified labour market entrants

We test these hypotheses in the United Kingdom, a country with a comparatively moderate level of variance in sub-national youth unemployment rates in the European context

and weak institutional linkages between the education system and the labour market (Kerckhoff 1995). Studying the relationship in such a setting can offer insight into how these dynamics may play out in other countries with equally unstructured school-to-work transition systems.

Data and method

Data

Individual-level data are drawn from British Household Panel Survey (Maré 2006; University of Essex 2014a; 2014b), a panel survey that followed approximately 10,000 individuals aged 16 and above within a representative sample of British households between 1991 and 2008.[2] The BHPS collected detailed information on respondents' employment status and occupation, as well as the residential location of households, defined here as the 406 UK unitary authorities, non-metropolitan counties and metropolitan boroughs (Principal Authorities hereafter).[3] We match individual-level data to local labour market data from UK Nomis, a data repository that provides a limited number of official labour market statistics, including for Principal Authorities.

Dependent variable

The dependent variable comprises the amount of time (in months) that it takes young (aged 16–25) BHPS respondents to secure employment, following departure from full-time education.[4] We model transitions into two types of employment: (1) a first job, defined as any job (part-time, full-time or self-employment) that lasts for at least 1 month; and (2) a first significant job, defined as a full-time job that lasts for at least 6 months in line with the wider school-to-work transitions literature. Whereas the first captures the initial period of unemployment or inactivity, the second captures the time that elapses before respondents gain a more stable footing in the labour market and have traditionally been considered to have completed the school-to-work transition (Iannelli and Smyth 2008; Kogan, Noelke, and Gebel 2011; Raffe 2003; Struffolino and Borgna 2021).

Independent variables

In line with existing research (Macmillan 2014; Raffe and Willms 1989), we model variation in the level of labour demand as the unemployment rate in in the year that respondents become at risk of employment.[5] So that it mirrors the level indicator i.e. higher values equate to notionally more challenging local labour markets, we model variation in the type of employer demand for labour as the proportion of people employed in sectors other than the retail, hospitality and distribution sector. Since employed British youth are disproportionately concentrated in the retail, distribution and hospitality sector and concomitantly under-represented in other sectors[6], this measure proxies the apparent 'youth unfriendliness' of local labour markets. The underlying logic is that places with high concentrations of industries that do not typically employ young people are less likely to yield large numbers of job vacancies suitable for young job seekers.

We incorporate a number of individual-level independent variables to account for known determinants of youth labour market outcomes such as educational attainment and the possible selection of families with particular characteristics into Principal Authority areas. These are highest ISCED-97 qualification (in three categories: lower secondary or below; upper secondary; tertiary), parental education (dominance criterion) in the same three categories; sex; whether born in the UK or elsewhere, self-reported health status; prior employment experience and known mobility during the educational process, a variable designed to control for observable heterogeneity in the location of respondents' social networks. We also include a country dummy to reflect the devolved nature of education governance in the United Kingdom[7] and a year dummy to control for wider time-related trends in the business cycle and welfare policy.

Following listwise deletion and the exclusion of women who become mothers before entering the labour force, the sample comprises 2,113 16–25 year old BHPS respondents observed leaving full-time education between 1998 – the first year for which Principal Authority data are reliably available – and 2008. Descriptive statistics are displayed in Table A1 in the Appendix.

Method

We use survival analysis to test whether and how much variable local labour market conditions affect the duration of job search. Such techniques are essential when the focus is the duration of time until a particular event because they can account for right-censoring, whereby respondents are not observed entering the labour market (Blossfeld, Golsch, and Rohwer 2007). Here, censoring may stem from one of two sources: respondents may never enter the labour market or they may find employment only after dropping out of the BHPS or after the survey ended in 2008.

Transitions into employment are modelled via a loglogistic parametric accelerated failure time (AFT) model.[8] AFT models regress the logarithm of survival time on the covariates (Wei 1992) and specify that the effect of covariates is multiplicative on time (Kalbfleisch and Prentice 1980). As such, a baseline hazard function is assumed to exist and the role of covariates is to accelerate (or decelerate) the time to failure. AFT models follow the parameterisation:

$$ln(t_j) = x_j\beta_x + \epsilon_j$$

Analysis proceeds in two steps. We first estimate models with all controls in order to explore whether and how much locally opportunity structures affect the duration of unemployment and insecurity, following departure from full-time education. We then test the conditional effects hypothesis by introducing an interaction term between highest qualification and local labour market indicators that produce robust effects in step one.

In tables we report exponentiated coefficients, which are interpretable as time ratios for a one unit change in the corresponding covariate (Allison 2014; Cleves, Gould, and Marchenko 2016): coefficients greater than 1 indicate that the covariate accelerates survival time i.e. longer time to employment, while those below 1 indicates that the covariate decelerates survival time. In figures, we plot predicted time to employment in months

Table 1. Loglogistic accelerated failure time models of transitions into employment.

	SIMPLE MODELS		INTERACTION MODELS	
	I. FIRST JOB	II. FIRST SIGNIFICANT JOB	III. FIRST JOB	IV. FIRST SIGNIFICANT JOB
Type: % employment in youth unfriendly industries	1.013	1.002	1.011	0.999
	(0.998 - 1.028)	(0.976 - 1.028)	(0.996 - 1.026)	(0.974 - 1.026)
Level: Unemployment rate	1.037***	1.065***	1.077***	1.135***
	(1.017 - 1.058)	(1.031 - 1.101)	(1.046 - 1.108)	(1.083 - 1.190)
Qualifications (ref: Lower Secondary)				
Upper secondary	0.803***	0.689***	1.064	1.164
	(0.724 - 0.890)	(0.574 - 0.828)	(0.825 - 1.372)	(0.740 - 1.831)
Tertiary	0.873*	0.582***	1.339*	1.270
	(0.774 - 0.985)	(0.472 - 0.717)	(1.014 - 1.769)	(0.791 - 2.039)
Qualifications * Unemployment rate				
Medium			0.949*	0.909*
			(0.909 - 0.991)	(0.843 - 0.980)
High			0.926***	0.869***
			(0.885 - 0.969)	(0.806 - 0.937)
Sex: male	1.020	0.771***	1.015	0.758***
(ref: female)	(0.939 - 1.109)	(0.667 - 0.891)	(0.934 - 1.103)	(0.656 - 0.876)
Citizenship status: citizen	0.906	0.729	0.904	0.713
(ref: not citizen)	(0.657 - 1.249)	(0.416 - 1.278)	(0.655 - 1.249)	(0.408 - 1.247)
Parental education (ref: Lower Secondary)				
Upper secondary	0.872**	0.834*	0.872**	0.835*
	(0.787 - 0.966)	(0.696 - 0.999)	(0.787 - 0.966)	(0.698 - 1.000)
Tertiary	0.917	0.925	0.917	0.932
	(0.825 - 1.019)	(0.770 - 1.112)	(0.825 - 1.019)	(0.776 - 1.119)
Health status: good	0.784***	0.802*	0.782***	0.804*
(ref: poor)	(0.703 - 0.876)	(0.667 - 0.964)	(0.701 - 0.872)	(0.670 - 0.966)
Prior labour market experience: yes	0.685***	0.729***	0.685***	0.723***
(ref: no)	(0.625 - 0.751)	(0.623 - 0.853)	(0.625 - 0.751)	(0.618 - 0.845)
Moved during education: yes	1.059	0.794	1.088	0.834
(ref: no)	(0.908 - 1.236)	(0.610 - 1.032)	(0.933 - 1.269)	(0.641 - 1.084)
Country dummy	YES	YES	YES	YES
Year dummy	YES	YES	YES	YES
Constant	0.805	11.868	0.750	13.330
Number of Subjects	**2,113**	**2,113**	**2,113**	**2,113**
Number of Failures	**1,885**	**1,563**	**1,885**	**1,563**

Notes: Exponentiated confidence intervals in parenthesis, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

against level and type deciles, where higher deciles denote (notionally) more challenging local labour market circumstances.

Results & discussion

Level and type of labour demand

The results of Models I and II in Table 1 offer support for Hypothesis 1a: a one percentage point increase in the local unemployment rate is associated with robust 3.7% and 6.5% increases in the amount of time it takes to secure 1) first job and 2) first significant job. However, the type of demand appears to be of little consequence: a one percentage

point increase in the proportion of employment in notionally less 'youth friendly' sectors is associated with negligible (1.3% and 0.2%) and non-robust increases in expected transition times, a finding that holds when models are re-run separately for each indicator of local labour market demand (Table A2, Appendix). Variation in the level of demand thus seems to be rather more consequential for labour market entrants than variation in the type of demand.

The differential effect of variation in the level of demand can be seen in Figure 1, which plots the relationship between the level of demand and predicted median time to employment. All else being equal, Figure 1 suggests the predicted median time to (1) first job increases by approximately half a month if respondents are located in low rather than high demand labour markets, while predicted time to 2) first significant job increases by approximately 3 months. That Figure 2 confirms type of labour demand has little to no influence on transition times suggests industrial composition is less important than expected: when certain types of jobs are in short supply, young people (and employers) seem to be able to adapt in a way that is not possible when jobs in general are in short supply.

Heterogeneity by educational attainment

The introduction of an interaction term in Models III and IV in Table 1 yields support for Hypothesis 2: the effects of variation in the level of demand are heavily concentrated among low qualified labour market entrants. This can be seen in Figure 3: whereas labour market entry tends to be swift irrespective of qualifications in places of strong labour demand, the same is not true in places of weak demand. While transition times among those with upper secondary and tertiary level qualifications remain unchanged,

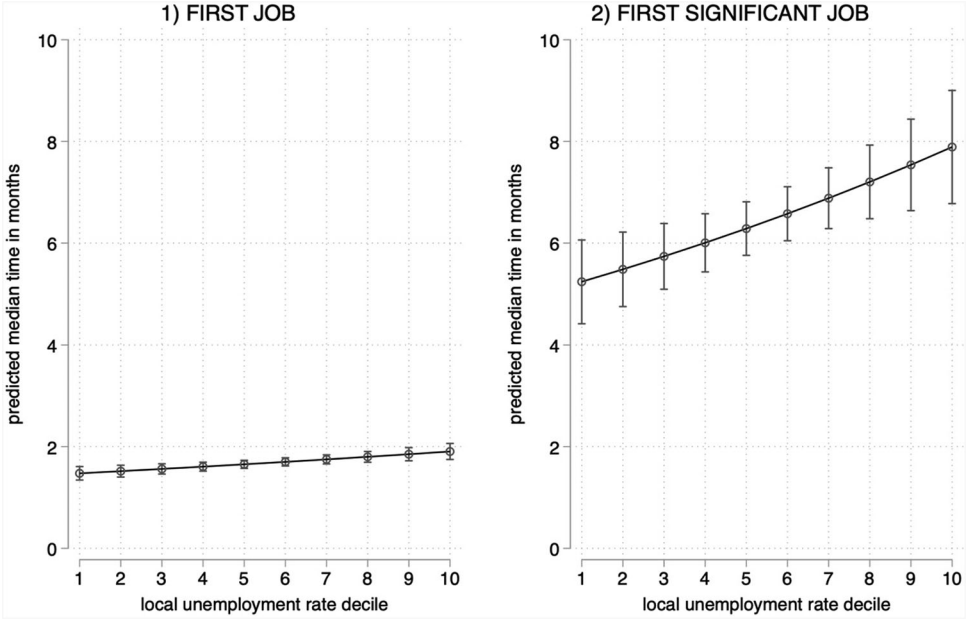

Figure 1. Predicted median time to (1) first job and (2) first significant job in months, by local unemployment rate decile.

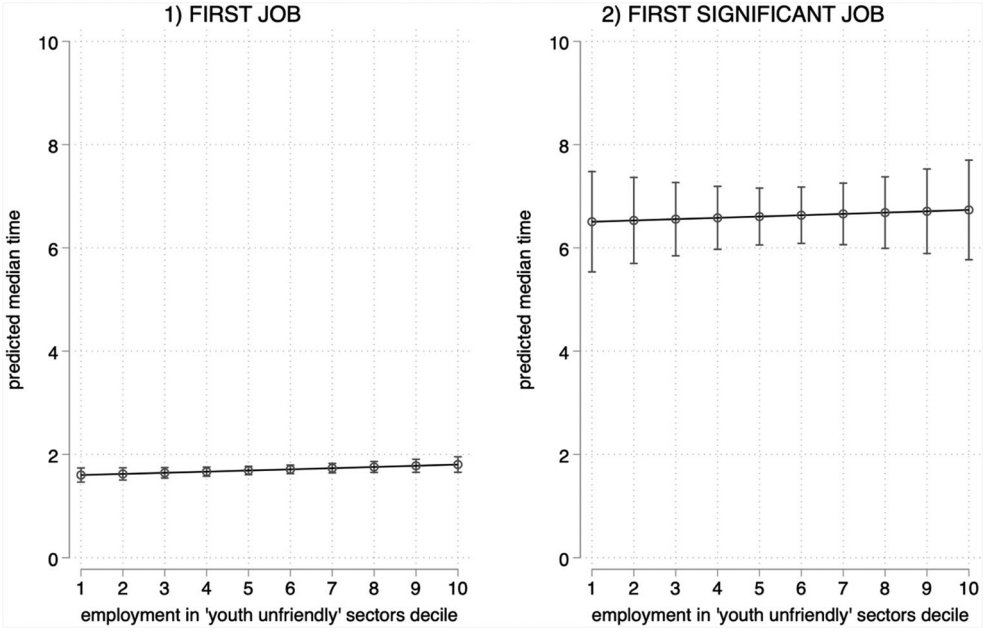

Figure 2. Predicted median time to (1) first job and (2) first significant job in months, by sectoral 'youth unfriendliness' decile.

the predicted median time to (1) first job increases from 1.5–2.5 months and (2) first significant job from 5 to 12 months if respondents with lower secondary qualifications are located in low rather than high demand labour markets.

These are large differences in real terms, and the contrast between the two estimates is both interesting and informative. The implication is that less qualified young people are usually able to find employment in some form without excessive delay, irrespective of local labour market conditions. But those in places of low demand are more likely to start on part-time or short-term contracts and face much greater difficulty upgrading from this to full-time, secure employment. The greater risk in places of weak demand is thus of insecurity, rather than unemployment.

Sensitivity analysis

This analysis is subject to a number of limitations, not least that results could be driven by deliberate early exit from the education system by young people in places of high labour demand (Bozick 2009). To test the selective departure hypothesis (a form of reverse causality), we estimate the effect of the local unemployment rate on the probability of leaving education with low qualifications via a linear probability model. Figure A1 in the Appendix shows the local unemployment rate has no meaningful effect on the probability of leaving education with lower secondary qualifications, which reduces concerns about selective departure.

Second, level and type of demand for labour may be correlated. To address a possible multicollinearity issue arising from the fact that the certain industries may deliberately locate in places with low / high land value, places that are also likely to have high /

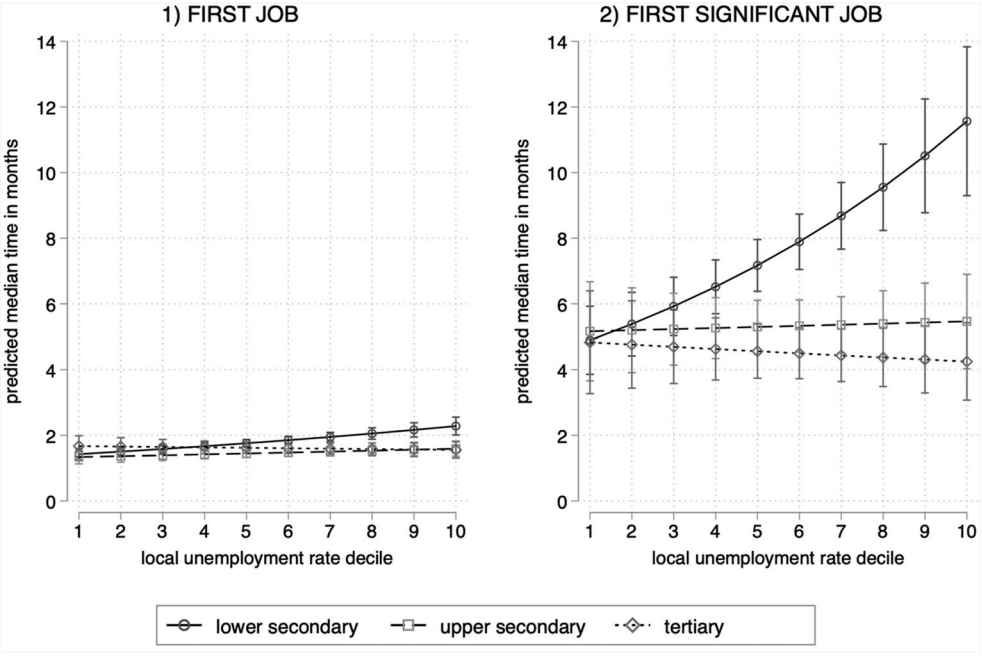

Figure 3. Predicted median time to (1) first job and (2) first significant job in months, by highest qualification and local unemployment rate decile.

low unemployment, we re-run analysis separately for level and type of demand. As described above and shown in Table A2 in the Appendix, results are unchanged.

Lastly, we check the robustness of the non-effect of variation in the type of labour demand by re-running analysis using the proportion of employment in the service sector. That Table A3 in the Appendix shows coefficients remain stable suggests broad sectoral composition matters less for youth transitions than the overall health of the local economy.

The overall implication thus remains as before: variation in the level (but not type) of labour demand is associated with considerable variation in the amount of time it takes low qualified young people to find employment. However, the same variation does not meaningfully affect the labour market prospects of better qualified young people.

Discussion

Do these heterogenous effects by qualification level follow on from expected differences in the spatial extent of job search? Further analysis of spatial mobility among labour market entrants (Figure 4) suggests they do, at least in part. As expected, rates of spatial mobility between leaving education and starting employment are notably higher among the better qualified: respondents with tertiary qualifications are approximately 15 times more likely to move Principal Authority than peers with lower secondary qualifications. Yet it is also clear that mobility levels are comparatively low irrespective of qualifications: the majority of respondents with upper secondary and tertiary qualifications observed entering employment live in the same place they were living when they

left full-time education.[9] This points to something of a displacement or crowding out dynamic in weaker local labour markets.

This 'homing instinct' in youth job search has previously been documented in locality-based research (Culliney 2014; Forsberg 2019; Green, Shuttleworth, and Lavery 2005; Green and White 2008; McDowell 2000; McDowell 2002). The novel contribution here is to show that the combination of variable local opportunity structures and low spatial mobility produced a more finely grained pattern of risk over the period studied than is generally recognised. Low educational attainment represented a small or non-existent barrier to swift labour market entry for those in places of high demand. However, the risk of protracted transitions increased as local demand decreased: it was these low qualified individuals who were most likely to encounter difficulties, particularly in finding secure, full-time employment.

That the same did not hold for those with higher qualifications is also noteworthy in the context of the large literature on educational returns (Psacharopoulos 1981; 1994). Figure 3 shows that the qualification-based gap in labour market entry times was much larger in places of weak demand. This suggests that variable labour demand affected the size of the returns associated with additional educational investment, at least in terms of job search time.

Three additional questions arise. First, did obtaining a full-time position that lasted for at least six months really signify a firm foothold in the labour market? Though the notion of the first significant job is widespread in school-to-work transitions research (Aguilar et al. 2018), six months of full-time employment is best regarded as a necessary but insufficient condition for establishing oneself in the labour market and being able to

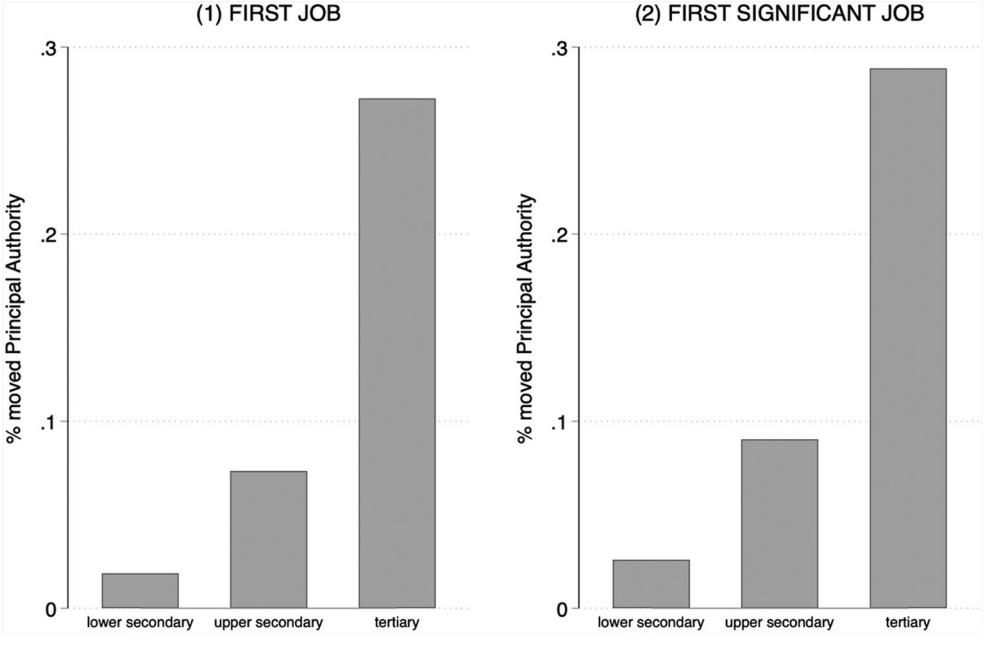

Figure 4. Probability of migration away from Principal Authority of residence at point of departure from full-time education (labour market entrants only).

contemplate and complete other transitions such as moving out of the family home (Brozsely and Nixon 2022; Jones 2002; MacDonald 2011; Roberts 2011). Furthermore, while exiting unemployment and insecurity is important, not all first jobs and first significant job are created equal (Threadgold 2017). The question of whether and how much local opportunity structures affect initial job quality as well as job search time remains open. Though we find no association between local labour market conditions and job search time among better qualified young people, it is possible that local opportunity structures affected the quality of employment obtained. This question, and the question of how initial job quality shapes other life course transitions and subsequent career progression (or the absence thereof) represent important areas for future research.

Second, to what extent might findings be generalisable beyond the specific time period studied? The period since 2008 has been characterised by two major labour market disruptions in the form of the Great Recession and the COVID-19 pandemic, disruptions may have altered the meaning of work and reduced job search intensity for some young people in disadvantaged contexts (Daskalaki and Simosi 2018; Stavrou and Achniotis 2021). The period has also been marked by three broader trends: increasing educational attainment (OECD 2022), growing labour market precarity (Antonucci, Hamilton, and Roberts 2014; Choonaraeuro et al. 2022), and ongoing local labour market disparities (Overman and Xu 2022). Rising higher education participation means it is becoming less common for labour market entrants to possess only lower secondary qualifications, but this group nonetheless remains large in the United Kingdom. Taken together, it seems plausible that the variation in the level of demand for labour is now associated with even greater variation in job search time among less qualified young people, particularly when it comes to the amount of time it takes to obtain stable, full-time employment. However, further research is needed to substantiate this claim and document the magnitude of any such increases.

Third, to what extent might findings be generalisable to countries with much stronger institutional linkages between the education system and the labour market than the United Kingdom? In principle, it seems possible that the greater importance of certification in systems with strong institutional linkages such as Austria, Germany and Switzerland renders local labour market variation of less consequence to the employment prospects of young people who do not hold the expected certificates, since barriers to employment entry are likely to be high everywhere. Yet the fact that youth unemployment rates vary substantially within these countries suggests the pattern of conditional risk we identify is unlikely to be an exclusively British phenomenon. Further investigation into how individual, contextual and institutional factors interact is undoubtedly required.

Conclusion

Despite large and persistent sub-national variation in youth unemployment rates across Europe, the relationship between local labour market conditions and individual vulnerability to long spells of unemployment and insecurity is not well understood. We address this gap by investigating the relationship between variable local opportunity structures and job search time in the United Kingdom. We find that variation in the level (but not the type) of local labour demand is associated with considerable

variation in job search time among less qualified young people, but not their better qualified peers.

The incorporation of a spatial dimension to the study of youth labour market transitions yields two useful insights. First, and consistent with recent research on Bulgarian school-to-work transitions (Imdorf et al. 2022), there is an important contextual component to the risk of elongated labour market transitions: risk is not evenly distributed among young people with low qualifications but concentrated among those who are also located in places of weak labour demand. Second, the greater risk in places of weak demand is insecurity rather than unemployment. While it is usually possible to find work in some form without excessive delay, the barriers to obtaining full-time, secure employment are considerable.

In combination, these insights reinforce calls for policy and research to move beyond 'interpret[ing] youth unemployment as a problem with young people' (MacDonald 2011, 432). Individual labour market outcomes do not only reflect individual attributes, but also structural opportunities and constraints (McQuaid and Lindsay 2005; Roberts 2009). They also point to the need for greater focus on bridging spatial mismatch between the location of low qualified young people and the location of secure, full-time employment opportunities. Policy cannot compel those facing a lack of local opportunities to move, but it can and should seek to reduce the financial and psychological barriers to expansive job search and migration, for example by brokering connections between employers and young people in disadvantaged places (Haight 2012; Jones, Mann, and Morris 2016) and offering transport subsidies (Franklin 2018; Goodman et al. 2014) and mobility or relocation vouchers (Moretti 2012). Perhaps this way, we can reduce the incidence of the long periods of unemployment and insecurity that are known to be so damaging to young people, both at the time and for decades after.

Notes

1. Unemployment rates by sex, age, educational attainment level and NUTS 2 regions (LFST_R_LFU3RT), available from https://ec.europa.eu/eurostat/databrowser/product/view/LFST_R_LFU3RT
2. The BHPS sample was incorporated into the larger Understanding Society panel from 2010 onwards. Owing to substantial differences in the way employment history data are collected, it is not possible to analyse youth labour market transition times beyond the end of the BHPS in 2008.
3. Preliminary analysis shows the majority of respondents observed entering the labour market do so whilst living in the same Principal Authority, which highlights the importance of these units for the lives of individuals.
4. To allow for planned educational breaks (e.g. to undertake a work placement or internship during an undergraduate degree) while minimising brief returns to education that do not lead to additional qualifications, we define leaving full-time education as either leaving and not returning within the BHPS observation period, or leaving and not returning within 18 months for a period of study that lasts for at least three months. Respondents who return for a prolonged period of study within 18 months are therefore classified as remaining in education, even if they are employed during this time.
5. Local unemployment rate data are available from 1998 but there are many missing values, particularly for earlier years. Missing data are imputed based on the Job Seeker's Allowance (JSA) Claimant Rate. JSA was a means-tested welfare benefit available to eligible unemployed people in the period under study: the JSA Claimant Rate was generally 2–3 times lower than the official UK unemployment rate but very closely correlated with it.

6. UK Labour Force Survey data (see https://bit.ly/3ygxhPm) show that employed British youth are disproportionately concentrated in retail, distribution and hospitality: in 2010, 40.7% of all employed 16–24 year olds worked in these industries, compared to 15.4% of employed 25–64 year olds. These industries are not evenly distributed across the UK.
7. Education policy was administered separately in the four 'home nations' of England, Wales, Scotland and Northern Ireland before education became a devolved competency in 1999, and education and training systems have since diverged further.
8. AFT models have a number of possible distributions: the loglogistic distribution is the best fitting model according to the Bayesian information criterion (BIC). The loglogistic distribution function has a non-monotonic hazard function, which makes it suitable for the analysis of events like transitions to employment, where rates of transition initially increase but subsequently decrease (Bennett 1983).
9. Owing to the greater likelihood of sample attrition following residential mobility, the figures quoted likely underestimate the true level of outward migration and should be treated as indicative of the differences by qualification level, rather than as accurate estimates of migration rates.

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Data availability statement

Data subject to third party restrictions.

The individual-level UKHS data that support the findings of this study are available from the UK Data Archive (SN 5151; SN 6027-2). Restrictions apply to the availability of these data, which were used under license for this study. Principal Authority data sources are sourced from UK Nomis.

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