Not Just Arms and Legs: employer perspectives on student workers

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The student workforce plays a substantial part in several low-paying industries

such as retail and hospitality, and this has grown over time. However, there has

been little recent research. The usual assumption is that students compete

successfully with the local labour force for low-skill, part-time jobs, but there is

little evidence for this.

Using results from twelve employer interviews located in two cities in the United

Kingdom (Bristol and Cardiff), we reconsider employers' perspectives on taking

on students. We find that, rather than seeing the labour market as an

undistinguished mass of 'arms and legs', employers are well aware of the pros

and cons of employing students, and use this information to build flexible

workforces which complement the local non-student labour supply. This fits into

Atkinson's (1984) model of the 'core' and 'periphery' workforces.

We do find evidence of indirect competition, through changes in the way jobs are

advertised and filled. We also note the growth in managers who have themselves

worked as students may be changing the 'frame of reference' of those managers,

further shifting the demand for student workers in the long term.

Keywords: students; student workers; casual employment; employer

perspectives

Subject classification codes: JEL: J40, L80, O18, R10

1. Introduction

The Higher Education (HE) sector in the United Kingdom (UK) continues to

witness an increase of those in full-time education working part-time, both in terms of

numbers and hours worked (Lucas and Ralston, 1997; Roberts and Li, 2017). Over the

period 1992-2022 the number of UK students aged 16-24 in full-time education and

working increased from 600 thousand to over a million; students now represent 32.6% of the 18-24 workforce (ONS, 2022). The number and proportion of students working in different locations, however, does vary considerably. For example, Munro et al. (2009) reported that on average, in the UK approximately one in three students work while studying (34%), but this varies from just over 1 in 10 in Cambridge (13%), to nearly one in two in Worthing (49%).

Given the growing numbers of students working in the UK, combined with the potential for local differences, this study reports on twelve interviews with employers from three low-wage sectors (Hospitality and Catering; Retail; and Contact Centres) located in two UK cities (Bristol and Cardiff). The two city-regions chosen both have significant student populations (in excess of 60 thousand), however, the proportion of students in the total workforce is estimated to be somewhat different (2.7 and 4.3 per cent respectively - Munro, et al., 2009).

This growth in the supply of flexible, temporary, part-time workers has the potential for significant impacts on the UK's economy, business structures and local labour markets, as well on the extent to which professional experience has outcomes for student employability.

One would expect student workers to hold appeal for employers: they are, by definition, better educated on average than the non-student workforce; they may be more willing to accept low-paid work as it is a temporary career stage; and they may be perceived as easier to manage (young, inexperienced, less willing to complain). As such, a growing student labour force which is directly competing with the local low skilled labour force, can potentially limit opportunities though displacement, lowering wages, undermining working conditions and reducing rates of internal mobility.

Student employment potentially plays an important role in local economies, both in terms of the supply of labour and demand for local goods and services. Students have very distinctive labour market characteristics in as much as they are highly concentrated in particular sectors and types of occupations (Munro et al., 2009). Moreover, as students tend to live and work in close proximity to their university (Rugg et al, 2000), there is likely to be significant impacts in certain spatial areas and particular 'young' industries. Green et al. (2016) reports that the effects of student working are locally distinctive and are generally linked to the size and concentration of the local student cohort.

Student working can also influence the composition and types of jobs available. For example, as the supply of workers looking for temporary low-skilled jobs increases, employers may, in the long-term, change working practices to accommodate this flexible low-cost workforce. This in turn affects productivity, and the opportunities for non-students to progress up the career ladder (McTier and McGregor, 2018). Green et al. (2016) and Hofman and Steijn (2003) have observed a displacement effect on local labour markets, as a result of students taking on low-skilled jobs that would also be suitable for their non-student counterparts and, effectively, blocking their chances of labour market entry. This raises the question as to whether these student workers complement or compete with local workers, a topic previous connected to debates around how high volumes of students in cities can have repercussions on the local economy, alongside city infrastructure and planning requirements (Munro, Turok and Livingstone, 2009).

There is a longstanding discussion around the economic necessity of students to work to fund their studies. Recent work by Baert et al. (2018) refutes previous studies, which suggest a negative impact on degree outcomes as a result of student working

(Behr and Theune, 2016, Curtis, 2007; Ford, Bosworth and Wilson, 1995; Humphrey, 2006; Neyt et al., 2019; Treventi, 2014). Furthermore, a growing number of studies focus on student employability outcomes as a result of working alongside university, with the acquisition of transferable skills having a measurable effect on graduate employment outcomes (Qenani et al., 2014; Rothwell et al., 2008).

Given the important of students to low-wage, part-time working, there is a surprising lack of literature on the topic. Most UK studies of student working are from 1990 – 2010; the most recent substantive analysis (Green et al, 2016), uses data from 2009-2010. Outside the UK, studies on student employment are also sparse and mainly from 2000-2009 (e.g. Hofman and Steijn, 2003: Tam Oi and Morrison, 2005; Van der Meer and Wielers, 2001; Winkler, 2009), with Maury (2020) being a recent exception. Ballo (2020) includes students in her regression analyses, but only as a control, while Mattijssen et al. (2020) explicitly exclude students from their study of low-wage, irregular working.

We perceive the growth of part-time student work as having parallels with the broader literature around 'flexible' or 'contingent work', especially with the well-known Atkinson's (1984) core-periphery model of the flexible firm. This model differentiates between a 'core' of fixed, highly skilled employees and an outer band of low skilled workers, split between a first and second 'peripheral group', where levels of numerical flexibility are high.

However, the model is not without its critics. The construction of the 'core' and 'peripheral' elements of Atkinson's (1984) model have been widely challenged (Walsh and Deery, 1997). Moreover, other authors, such as Kalleberg (2003), have questioned

the underpinning assumption of Atkinson's (1984) model, that the high levels of task flexibility located at the core is secured through the numerical flexibility at the periphery. As Kalleberg (2003) argues, part-time working may occur in both the core and the periphery and, certainly this seems true for student working, as non-student workers may compete with students for the same jobs.

In this paper, we seek to address the gap in the literature around student and low-wage work. We revisit Atkinson's (1984) seminal model to better understand how the labour market may be segmented between students and non-students, but we also consider the competition hypothesis. We present findings from interviews with employers from the Bristol and Cardiff city-regions, in three low-wage job sectors with high volumes of student and non-student workers. We focus on students in higher education and address the following research questions:

- To what extent do employers differentiate between local or student labour?
- Do students 'complement' or 'compete' with the local low wage labour force, and how does this influence the de-skilling and/or restructuring of low-paid jobs?
- What effect does this have on the student and local labour force experience?

The next section provides context to the study. Section 3 outlines data collection methods and Section 4 presents the empirical findings. Finally, Sections 5 and 6 provide a discussion of the findings and a conclusion to the paper respectively.

2. Changing context and perceptions

Shifting landscapes of Work and Education

In 2008, the UK was exposed to the deepest recession since the 1920s and 30s. Since then, we have seen a jobs-led recovery, while productivity growth remained flat. Currently, the UK is undergoing a period of uncertainty as it emerges from the global pandemic, whilst attempting to redefine its relationship with the EU as part of Brexit. Moreover, students have begun to return to university campuses, after months of remote learning, seeking part-time work in sectors which have been badly hit by Coronavirus restriction.

All of these different elements feed into the story underpinning students' increased engagement with the labour market. Growth in the extremes of relatively low skilled and high skilled services (Goos and Manning, 2007) have been accompanied by a shift in types of employment, moving from full-time permanent (manual) work to an increase in part-time (services) work. Part of this growth has been fuelled by changes to the (low-skilled) labour supply, of which students, alongside migrants, play a role (Green et al., 2016).

For more than three decades, organisations have been demanding increased numerical, functional and financial flexibility (Maguire and Maguire, 1997). Labour market deregulation has driven the move towards greater flexibility, and, hence, growth in student employment. Canny (2002) reported that the changing legislation on retail opening times has increased the need for nonstandard contracts that have suited students. More recently, the emergence of the 'gig economy' and increased use of zero hours contracts have further support the growth in student working. For example,

Green et al. (2016) report that an increase in part-time, low-skilled work since the recession has been partly fuelled by an influx of students.

Studies of student employment and labour market impacts

As noted by Hodgson and Spours (2001), the rise in student employment became a focus of the literature around youth, work and employment in the 1990s. Work by Ford et al., (1995) and Lucas and Ralston (1997) raised early questions about the impact of student work on adjustment and academic achievement, as well as noting the rise in student labour market participation following the introduction of the 1992 Higher Education Act.

There is consensus in the literature that student employment is mainly driven by financial pressures, with students working to pay for basic essentials (e.g. Curtis and Williams, 2002; Lucas and Lammont, 1998). Other evidence suggests that, although most students would stop working if they could afford to (CHERI, 2005), other students appreciate the value of work experience (Rothwell et al., 2008; Hall, 2010; Weiss et al., 2014).).

From the 1990s, studies noted the increase in demand for non-standard employment (Maguire and Maguire, 1997), and evidence that students provide the employers with a more flexible workforce, particularly in part-time service sector customer-facing employment. Curtis and Lucas (2001) note that students work well within industries where age profile is more important than educational background. Van Klaveren, et al. (2009) suggest that growing IT dependency has also led to greater opportunities for students as employers perceive them as more IT literate. Again, this is in line with literature, such as the Atkinson (1984) model, on contingent labour markets, where authors have tended to view part-time workers as alternative labour, in direct contrast to traditional employment patterns (Kalleberg, 2003).

Student employment literature presents a very mixed picture of the impact of student employment on academic performance. Recent work by Baert et al. (2018) refutes previous studies (such as Behr and Theune, 2016; Neyt et al., 2019; Treventi, 2014) which suggest a negative impact on degree outcomes as a result of student working. While research by Robotham (2012) suggested that students spend more time at work than studying, which could be argued to have some negative impact on academic achievement.

Yet, alongside the debates around student working and university performance is a growing number of studies which present student employment as a positive activity with a focus on student employability outcomes. Many authors have examined the acquisition of transferable skills and the effect on graduate employment outcomes (Qenani et al., 2014; Rothwell et al., 2008; Weiss et al., 2014). Hall (2010) noted that, alongside financial imperatives, students actively chose to work in order to enhance skill-sets.

Students may be perceived to represent short-term employment solutions for employers, as students are usually only around for the length of the programme and potentially just during term-time. Curtis and Lucas (2001) reported that the high volume of student turnover caused problems for employers. Within the limited life of student working, nevertheless, there is evidence of stability of employment at the individual level. For example, in a study of full-time hospitality students, Barron and Anastasiadou (2009) reported that students worked 14 months on average for one employer. This perceived short-termism, however, can lead to segmentation of the low pay labour market, as employers appear to invest in training full-time employers in preference to

part-timers (Arulampalam and Booth, 1998). In the drive towards agile delivery, this short-termism is generally considered to be of benefit to the employers in their pursuit of numerical flexibility (Curtis and Lucas, 2001).

Drawing again on Atkinson's (1984) model, students offer flexibility in three ways – numerical functional and financial. First, numerical flexibility can be achieved as firms are able to increase/decrease numbers of staff and hours in line with the business need. Curtis and Lucas (2001) described how students met the employer need of numerical flexibility in the hospitality and retail industry sector due to seasonal variations in demand. They commented on the students' willingness to meet this need by working at short notice, often acting as an 'on-tap workforce'.

Second, student bring functional flexibility, by being able to take on tasks above and beyond the job they were initially employed to do (Lucas, 1997). Canny (2002) reported that the availability of student labour has enabled the employers to maintain a high-quality workforce while pursuing flexible work practices.

Third, employing students provides employers with greater financial flexibility. Curtis and Lucas (2001) report that student employment is relatively cheap as it is located at the lower ends of the hierarchical structures. They suggests that employers may also benefit from further cost reductions through greater work intensification such as lack of breaks and not given holiday pay, even after working for 13 weeks continuously.

Employer perceptions of student workers

Students are likely to be better educated than the local non-student workforce. However, for low-skilled jobs, employers may place less emphasis on formal education and more on soft skills such as attitudes (Hasluck, 2011); but Lamont and Lucas (1999) and Curtis

and Lucas (2001) argue that students are viewed by employers as having these skills as well, being more conscientious, more dependable, easier to train and more articulate.

Canny (2002) reports that students may be preferred to less qualified young people who are regarded as showing 'lack of commitment' because they left education early.

Students are perceived to have low bargaining power in the workplace (Legge, 1998; Curtis and Lucas, 2001). There is some evidence that employers demand for students is linked to their desire to control the workforce (Curtis and Lucas, 2001). This can be seen through lower wage costs (Walsh, 1990) and a reduction in employee benefits (McMullen, 1995), when compared to full time, permanent employees. Lucas (1997) reported that employers use both frequency and quality of future work to exert control over the students.

Curtis and Lucas (2001) noted that numerical flexibility, in terms of hours of work employed, often met the needs of both the employers and students, but they report when conflict arose, employers' needs took precedence. They reported that employers put pressure on students to work, even when should be in class.

There is evidence, however, that students are not passive agents and do challenge unfairness of arbitrary managerial behaviour (Lucas and Lammont, 1998; Lamont and Lucas 1999). However, the lack of union representation in the sectors for which students are predominantly employed, may limit their ability to influence their employers.

Although insightful, this literature on the employer perceptions is notable for its age, with most papers almost twenty years old. The time gap raises an additional factor: hiring managers now are increasingly likely to have worked themselves as students.

Social impacts of student employment

Students' social networks are more likely to involve higher socio-economic classes,

improving employability (Bolíbar et al, 2019). In economic models, the outcome of more students looking for work is unambiguously to increase competition and limit opportunities for non-students.

Canny (2002) present evidence of students crowding out non-student workers from some segments of the labour market, where previously they would have secured employment. Green et al (2016) suggested that the disadvantage felt by those with no or low qualifications can make them hostile to an incoming labour force.

Munro et al. (2009) discuss potential indirect displacement effects and find a marked difference between students and the local population's experience of the labour market, with students more able to find work if they want to. Green et al. (2016) suggest indirect displacement occurs as students are able to influence employers to shape jobs in line with their 'frames of reference'. These new flexible roles, influenced by short-term aims, are at the expense of the longer-term aspirations of local workers (Maury, 2020).

As well as current 'indirect' displacement, student employment can lead to 'career displacement'. There is evidence that employers use student part-time employment as a mechanism to screen for future managers (Curtis and Lucas, 2001; Bolibar et al, 2019). Hence, this type of employment can act as a stepping-stone for students, while confining others to low-wage, low-skilled jobs in the long-term (Bolibar et al, 2019): jobs for the unqualified become short-term, poorly paid and dead end, perpetuating a cycle of disadvantage and exclusion (Morris, 1995; Maury, 2020).

Nevertheless, the 'competition' hypothesis is not universally accepted.

Atkinson's (1984) model suggested that the local low-wage labour force would form a first periphery group (full-time but with limited career aspirations) and the students would be part of a second peripheral group (non-standard contracts including part-time

and unsociable hours working). Due to their different characteristics and motivations, students can 'complement' rather than displace the native workforce.

There is some evidence of students 'filling gaps' rather than competing directly. Canny (2002) suggests there has been growth in students working unsociable shift patterns, such as Sundays, evenings and nights. Shildrick et al. (2010) report that non-students seek local, and stable employment rather than precarious jobs with unsocial hours. Fine et al. (2016) identify hard-to-fill vacancies at the very bottom of the labour market; they argue that migrant workers (and, by analogy, student workers) offer a ready solution to this problem, precisely because their social status is not linked to their job (Maury, 2020). This complementarity allows locals to maintain better quality jobs.

There are also indirect complementarity effects. As noted above, students contribute demand to the local economy as well as a workforce, with the potential for local economic growth and the creation of new jobs for the local labour force, including the non-student population, as Card and Krueger (1994) found in their study of the employment effects of minimum wage increases in low-income areas.

Summary

In summary, there are a number of research gaps: the largely unchallenged assumption that student workers compete with other workers, a lack of direct evidence for either the competition or complementarity hypothesis and the age of much of the literature. The latter is particularly important given the considerable changes over the past decade to the economy, HE and experiences of managers.

3. Materials and methods

Bristol and Cardiff city-regions were chosen for the study as both include two cities, they both share a range of competitive business clusters, support a thriving HE sector with multiple universities, and have seen significant population growth over the past decade. There are, however, two important differences: Cardiff has one of the highest concentrations of students per head of working population, and GVA per hour worked in Cardiff is approximately 10% below that in the Bristol city-region (ONS, 2021).

A qualitative approach was chosen as the research questions identified in Section 1 require a knowledge of attitudes and beliefs. The qualitative research design used here aims to generate rich data (Silverman, 2013), by providing opportunities for employers to reflect upon and discuss their experiences of employing students.

Interviews were chosen ahead of focus groups in order to elicit individual responses and eliminate the potential for any herding effect (Whittard, 2015).

Twelve semi-structured interviews of up to 60 minutes were carried out with employers and recruitment agencies specialising in the low-wage sector; see Table 1.

Table 1: Number of companies interviewed by sector and location

	Cardiff city-region	Bristol city-region
Hospitality and catering (HC)	4	2
Retail (Ret)	1	1
Contact centres (CC)	1	1
Recruitment agency (RA)	1	1

These sectors were chosen as they include low-wage occupations which offer flexible employment practices and are likely to have experience of employing both student and non-students. A mix of different sized businesses were targeted both across and within sectors. Care homes were included in the original design, but initial investigations clarified that students in these organisations are only employed in hospitality-type roles; this sector was, therefore, excluded from further analysis.

Given the exploratory nature of the study - which was focused on gaining an understanding of reasons, opinions and motivations, rather than generating generalisable findings - a convenience and opportunity sampling strategy was followed, with all participants providing informed consent. Initial respondents were contacted through:

- Physically visiting locations (retail and hospitality) to identify managers
- Personal contacts (all sectors)

The physical visits had mixed outcomes. The hospitality units and food retailers responded positively to a request for an interview. However, non-food retailers typically referred the researchers to head offices, who failed to respond to repeated email requests. Personal contacts responded positively, but they were not always able to participate.

A snowballing technique (Bell and Bryman, 2011) was used to identify further employers. This approach can be helpful in breaking down some of the natural barriers that prevent individuals from taking part in research that may be perceived as sensitive (Atkinson and Flint, 2001).

To facilitate the semi-structured interviews, a list of indicative questions was sent in advance. This enabled respondents to prepare and to understand the remit of the study in order to limit apprehension about engaging in conversations (Bell and Bryman, 2011).

Interviews were digitally recorded and transcribed with permission from the respondents. NVivo was utilised to code the data to add rigour to the analysis. Key themes identified were employment practices; spatial effects; labour force characteristics; and experience.

The focus of the study is to analyse the results across the sample. Due to the limited number of cases, there is no attempt to make cross sector comparisons, and results should be interpreted as indicative rather than definitive.

4. Results

Local or student labour?

There was mixed evidence as to the preference to employing students or local labour. Some employers did not differentiate between groups, focusing instead on skills and abilities regardless of educational background.

I don't just employ anybody with **two arms and two legs**. They have to show me some sort of common sense and sort of positive attitude. (HC6)

Some managers believed that local people had better interpersonal skills than the students.

Local people would be more prone to have [better] interpersonal skills than students. (HC4)

However, the majority of employers commented on the positive characteristics of students, citing self-confidence; faster learning; greater flexibility; better interpersonal skills; and having a stronger work ethic. One employer acknowledged that students' heightened commitment to the labour force was in some part driven by their 'need to work financially' (HC2). This knowledge potentially allows students to be exploited, both in terms of working condition and pay – as one employer notes.

Those who are at university... cost less. (HC2)

The benefits students bring in relation to functional and numerical flexibility was a recurring theme throughout the interviews. Employers particularly valued students' ability and willingness to work evenings, weekends and other unsociable hours; and to work around the non-student labour force whose general preferences were to work core hours. One employer commented that by coordinating student and non-student labour:

[We] got the heads in for the whole... opening times (HC5).

Employers also valued the computer skills that younger workers had. It was generally acknowledged that age, rather than student-status, drove this advantage. However, given the predominance of young workers in the student population, on the whole, this advantage was greater for students than the local low-wage population.

The employers cited the young people's ability to adapt more quickly and require less training. There was also evidence that employers gain an advantage from students by using their IT skills and knowledge to drive innovation within the workplace.

[Students] bring to us some of the new channels to contact centres such as social media, web chat and all the other non-telephone work that now comes into a contact centre (CC1).

However, as commitment to their studies was a prime focus for students, some employees considered them less committed to the role. Employers commented on students' lack of reliability, particularly for early morning shifts, and because they 'party too much' (HC1). Concerns were expressed about students' naivety, limited understanding of professional culture and lack of practical experience.

Sometimes the students, not that they need reining in, but it is teaching them the way of working (HC5).

An additional concern for employers was around students' attachment to the role, questioning whether students could be relied upon to fill roles in the long-term.

Several also commented on the lack of flexibility and availability around exam time and when students return home for the summer months.

To mitigate this, the study found evidence of employers implementing recruitment practices and employment processes to limit negative effects. The predictability of student life helps with such planning. For example, some retail chains allowed students to transfer to a store local to their parental home during the summer months. Other employers planned for the regular student turnover and employed different approaches to manage this, such as using students to find their successors.

She is a student. She knows that when the time comes for her to leave, her sister wants a job (HC6).

However, some employers had no issue with the student timeline. They noted that when taking on a student in the early years of their study, they could be reasonably certain of keeping that student throughout the entire degree course. As one employer put it, 'three years is not short-term'. This highly developed sense of student loyalty to one employer can, in some part, be explained by the high transaction costs involved in searching for jobs: students see this work as temporary, and so would not spend time looking for other jobs as long as the role was satisfactory.

Finally, participation reflects the specific local area characteristics: low pay limits jobs to residents in the local area (travel costs and time matter). Local infrastructure, labour market conditions and specific institutional factors all influence

the level of student engagement with the labour market; not all student groups face the same financial and social constraints.

Complements versus Competitors and its effect on low-paid jobs

While an employer reported that they did not employ anyone with just 'two arms and two legs', another challenged this assumption and noted that the deskilling of jobs had, in theory, made members of the labour force interchangeable:

[Jobs] are deliberately deskilled so they can have that sort of non-skilled labour come in and do it with what we would term, as **arms and legs** really. (RA2)

However, from the employers' interviews, there was very limited evidence of direct competition between student workers and the local low-skilled labour force brought about through deskilling of jobs. Employers reported that:

If it wasn't for students... there would be a lot of job vacancies. [Student labour] It's good for the economy. (Ret2)

This suggests that students are not in direct competition, but, at least in the expansionary stage of the economic cycle, offer a complementary workforce that allows businesses to be more productive and offer greater employment opportunities to the local labour force.

There was more evidence of competition through other factors, particularly the recruitment process. Some employers discussed how they directly targeted students for recruitment at 'freshers fairs', whilst others accessed student networks, through word of mouth. One employer even offered financial inducements:

We rely on the student's word of mouth... we do 'recommend a friend' and you get a £50 voucher. (RA1)

Others used more indirect methods of discrimination in relation to recruitment at the interview stage. There was some evidence that companies preferentially tested for skills and attributes that are more prevalent in the student population.

Problem solving...perhaps students are more open to those types of [interview] questions where there will be certain local people where that isn't something they have encountered... there is a gap at interview stage. (HC5)

Green et al. (2016) reported that there was further evidence of indirect competition between students and the local low-wage labour force, with employers restructuring their workforce and developing jobs that fit with students 'frames of reference'. This research supports this finding: employers reported being happy to work around student teaching and exam schedules, whilst keeping jobs open over the summer months for leaving students and employing students who return home for the summer.

We are very flexible... we will bend over backwards to accommodate them. Work around people's schedules and specific requirements. (HC2)

Our evidence suggests however, that rather than directly displacing the low-wage local labour force, this change is complementary in nature and has allowed businesses to grow and potentially create more employment opportunities, in line with Atkinson's (1984) model of the flexible firm:

Bringing in new people [students] every year ... helps the business. You get fresh ideas, different ways of working. It forces us to look at things, to train again. If we had a very static workforce that didn't change I think we would actually lose out (HC2)

This quote suggests that a thriving student population may benefit all parts of the labour force: greater labour market flexibility at the periphery improves business performance and thus supports the creation of long-term, stable employment at the core.

There was also some evidence of managers, who were formerly students, taking a longer-term perspective around career development.

We want them with us to have a career with us... we want to develop them and... [work] with us in the future (HC5)

This novel finding highlights how students' experience goes on to shape experience of later cohorts of students when the former take on managerial positions. It suggests that the managers' changing frame of reference is influencing the selection procedure and potentially can lead to the embedding of student-centric structured approaches to job design.

Employers saw the value of a mixed labour market in terms of skills, attributes and age, and commented on the different needs of the two populations within the local labour force; non-students sought more secure employment, whereas students were more inclined, and able, to take on more flexible employment opportunities, such as zero hours contracts and working unsociable hours. Overall, employers saw students and the low-skilled local labour force as complements, rather than competitors, to each other:

[Students] fill those little gaps. Those little chinks in the armour, those little pieces of the jigsaw that need filling in. (HC6)

Our evidence, admittedly collected after a prolonged period of economic growth, is somewhat different from that reported by Green et al. (2016). Rather than shaping jobs to displace the local labour force, managers are using their knowledge of the student experience to design jobs to complement the local labour force in order to become more productive. The concern for the local low-wage labour force must be that they will face increased competition in an economic downturn. Employers noted that

the sustained period of growth has meant they 'struggle to recruit', implying there is little scope for competition.

Labour force experience

Evidence of the treatment of student workers and the local low-skilled workforce presented another mixed picture, with many employers commenting that both students and non-students were subject to equal treatment. This is because the employers were more interested in skill set and ability of the individual rather than their status. One employer chose to pay wages above the 'going rate' in an attempt to increase productivity of both their student and non-student populations.

Everyone gets paid the above 25 rate...we want you to work really well... regardless of how old you are (HC5)

For others, however, the choice to employ a student or non-student was based on two-way flexibility. If the employer required stable contact hours, their preference would be to go for local labour.

We don't really go for students in the 16 hour or full-time remit (HC4)

For the more numerically flexible labour contracts, students were preferred.

Employers perceived that students are more suited to these type of contracts as they potentially had less need for stable income and would welcome the flexibility to work more or less hours, depending on the requirements of their studies.

It's easier with a student [to offer zero hours] than someone who needs to pay bills. (HC3)

Employers seemed aware of the increased financial pressures faced by students and there was some evidence that this knowledge is used to exploit them. For example,

there was some indication of students being coerced into taking zero hours contracts and working more hours than their preference. Employers were conscious of the contractual and financial benefits to their company of pursuing these flexible contracts.

As casual workers there is no pension, holiday pay etc. (HC2)

In terms of training, again the evidence was somewhat mixed. Some employers offered equal training opportunities to both students and local low-skilled labour force. In general, however, employers felt that students were focused on their degree, would only be with the company for a limited time and were not looking for opportunities to progress. Therefore, employers tended to favour investing in training for the local non-student labour force.

If they are only here for a short amount of time then... it's not a good investment for us. (CC2)

5. Discussion

Student labour is mainly complementary

From the employers' perspective, there was evidence that the local low-wage labour force is in competition with the student part-time labour force; but this is mainly indirect, such as embedding it in the interview stage where abilities tested can favour the student population.

More subtly, there was evidence that jobs might be changing to reflect skills and recruitment (e.g. IT) with the shifts benefiting students more. In addition, as the workforce increasingly includes managers who worked as students, we suggest that this is also likely to change perception and practices in the future. This could be a concern for the local labour force who may fear being edged out of the labour market following a contraction of the economy.

However, overall, a key finding of the research is that, rather than being in competition for low-paid work, the local student and non-student labour forces complement each other. Employers are able to combine the skills and attributes of students with that of the local labour force to drive improvements in productivity and create additional jobs for both groups. This research also suggests that there are wider benefits for local labour markets. These are directly created by the inclusion of student workers who supply both labour and the demand for labour, particularly as students are likely to be customers for many of the sectors (hospitality, retail) to which they supply labour. As Card and Krueger (1994) and subsequent works have found, income and spending tends not to migrate from the low-income areas typically inhabited by students.

We recognise that this analysis was undertaken after a prolonged period of economic growth with tight labour markets, and, therefore, the finding may not hold under alternative market conditions. Furthermore, our data was collected prior to the Coronavirus pandemic; therefore, it remains to be seen whether the sectors where student labour tends to be concentrated will recover. Current shrinkages in retail and hospitality employment could have negative impacts for either local or student workforces. Moreover, as some UK universities have taken a hybrid approach to returning to on-campus learning, some UK cities may see their student populations continuing to be diminished.

Moving towards a student-centric structured approaches to career development?

In terms of characteristics, treatment and career opportunities offered to the local labour force and student working population, the evidence again was generally mixed. Some employers perceived no difference in the treatment and opportunities offered. Others focused on the non-students' need for secure employment and the resulting level of

commitment and longevity that brings. As such, some employers offered this group more function-specific training and career development opportunities.

However, employers generally thought students came with greater skills and more flexibility. There was some evidence that employers targeted high-performing students to take on graduate/management positions, with some evidence of formal structural mechanisms in place.

We have offered more [students] over in our head office, they have been offered graduate schemes (RA1)

Given the changing employer 'frame of reference' observed, we expect to see a deepening of the links between student part-time employment and formal career structures. These (one-time student) managers, have a better insight into the long-term aspirations of undergraduates, and therefore have an unprecedented opportunity to embed student-centric structured approaches to career development within a low pay, part-time, working framework.

This finding also has important repercussions for the literature around the impact of student working on employability outcomes and may be of interest to various bodies, including universities and the HE sector in general. A deeper understanding of the kind of work students do and, indeed may be deliberately recruited to undertake, could aid, for example, university careers functions in mapping up students' skills development.

Revisiting Atkinson's (1984) model

As it has already been discussed, this research suggests that there are wider benefits for local labour markets which are directly created by the inclusion of student workers.

Returning to Atkinson's (1984) model of the flexible firm, our research suggests support for a complimentary model, with students generally populating the second

peripheral group, alongside local low-skilled workers who generally occupy the first peripheral group. However, neither the core or periphery groups are homogenous, and different skill sets and different worker characteristics suit different employment arrangements. This multi-layered model, where the line between core and periphery is not employer-determined but is a joint construction of employers and employees, appears a much more useful description of the firm than then a model of skills-based competition for defined 'good' and 'bad' jobs.

Furthermore, whereas the model places highly skilled employees at the core, who thus experience higher levels of job security and opportunities for training and promotion, we demonstrate that students are not excluded from these opportunities. Training, for example, depends largely on whether the employer thinks the employee (student or otherwise) is with them for long enough to give a positive return on the investment. Moreover, changing frames of reference, due to ex-students becoming employers, can create the opportunities for students in the periphery to become graduates in the core. As discussed, students possess skills attractive to employers, they may receive training and, in some cases, employment opportunities after graduation may exist. In this view, for those students who stay with the firm, the difference between core and periphery is primarily one of timing.

6. Conclusion

This paper draws on Atkinson's (1984) model of the flexible firm to contribute fresh insights to the understanding of student engagement within the low-skilled labour market.

The commodification of labour into 'arms and legs' was noted in terms of the jobs; but this does not mean that employers saw the employees as interchangeable; on the contrary, employers were well aware that different types of employees brought

different skills (and liabilities) to the business. As such, student labour is seen as being mainly complementary to the local non-student labour force. This finding is in contrast to much of the (limited) previous economic literature, but in line with more sociological models. Employers are adept at identifying and exploiting the characteristics of student workers to 'fill the gaps' in their business models. But this is not a one-way process: businesses also adapt their practices to reflect students' particular and predictable lifecycles (exams, holidays etc.).

There are indirect complementarities from increasing the size of the market: students to live and work in the same area (the low pay of most of these jobs presents significant travel), and so provide demand for services as well as supply of labour. There are also some indirect sources of competition; there is evidence that recruitment practices might benefit students, and that the age profile of students gives them an advantage in terms of IT skills, for example. If, as seems to be the case, students are not crowding-out non-students, but are contributing to both consumption and production, this has implications for local area development. It suggests that a thriving student population may benefit all parts of the labour force.

Whilst the core/periphery model of Atkinson is helpful in characterising these type of labour market, our findings suggest we should change our understanding of the 'core'/'periphery' to one of multiple types of labour, inhabiting zones at least partially through preference.

Finally, we identify a novel second generation effect: ex-students who had to work their way through university are now managers and are better able to harness and focus students' skills to drive innovation and improve productivity. In the longer term, this may be expected to further change the way that part-time jobs are designed, with student centric approaches embedded within formal career structures.

There are two caveats to this paper. First, data collection occurred during a tight labour markets and pre-pandemic. It may be that findings about the complementary/competitive nature of student working may not survive a significant downturn, such as the Covid-19 pandemic.

Second, the opportunity sampling approach used meant that our results may be biased by the choice of unrepresentative interviewees. However, as interviews generally identified a similar pattern of responses, we are confident that findings about students as producers/consumers, and on the second-generation effect, reflect fundamental characteristics of the low-wage economy.

Following on from this research, there are a number of areas worthy of future study. We encourage further work to test our assertion that, as the number of former working-students to enter managerial roles increases, there will be a further embedding of student-centric structured approaches to career development. Second, the impact of Covid-19 on these relationships is extremely difficult to predict, with both demand and supply effects, and the unknown impact of furlough arrangements on different contracting arrangements. A formal analysis of the impact of Covid would help to understand whether the key relationship between students and non-students is truly complementary, or simply a feature of tight labour markets.

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Table 1: Number of companies interviewed by sector and location

	Cardiff city-region	Bristol city-region
Hospitality and catering (HC)	4	2
Retail (Ret)	1	1
Contact centres (CC)	1	1
Recruitment agency (RA)	1	1