



Institute for Applied Economics and Social Value

East Midlands Economic Data Repository

Short Report 21-02

Income, Skills and Deprivation in Leicester and Nottingham

Data for this report is available at

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Introduction

In this data brief we provide some background on economic deprivation in Leicester and Nottingham. The data in this report largely pre-dates the coronavirus pandemic and so identifies long-term economic challenges in the respective cities. The coronavirus pandemic will no doubt exasperate these challenges. In the brief we look at:

- Measures of deprivation,
- Employment and wages,
- Skills and type of employment.

Key findings

- Leicester and Nottingham are two of the most deprived areas in England with high levels of income deprivation and skills deprivation.
- In comparison to other cities, Leicester and Nottingham residents earn relatively low salaries and work in relatively low-skilled occupations.
- In comparison to other cities, Leicester residents have relatively low levels of qualification. Nottingham is closer to the national average.

Definitions

We focus on Leicester and Nottingham as defined by the unitary authority boundary. We also focus on people who are resident in the two cities, rather than people who work there.

Source of data.

We are using data from a range of sources but primarily the Annual Survey of Hours and Earnings (ASHE) and the Annual Population Survey (APS), accessed on Nomis. The Annual Survey of Hours and Earnings is based on a snapshot of the workforce in April of each year. Around 300,000 employees are identified from PAYE records and employers are asked to provide information about the employees earnings, hours etc. The Annual Population

Survey is a continuous household survey covering employment, housing, education etc that covers approximately 320,000 respondents per year. Given that both the ASHE and APS are surveys there is a natural margin of error in estimates. The surveys are, however, large enough to give reasonable confidence in the findings at the level of city and local authority areas like Leicester and Nottingham.

Deprivation Index

The English Indices of Deprivation 2019 (published by MHCLG) provide an overall picture of deprivation in areas of England as measured on income, employment, education, health, crime, barriers to housing and services, and living environment.¹ These are combined to give an overall index of multiple deprivation (IMD) which can then be used to rank different areas. A separate Data Brief will cover the Indices of Deprivation in more depth. Here, we briefly outline the scores for Leicester and Nottingham. For comparison we give the scores of Derby, Lincoln and Northampton. We focus on rank amongst the 317 local authorities in England.

Table 1 provides the rank on the overall IMD index, each of the separate 7 main indices, and the 2 income sub-indices (dealing with children and older people). You can see that Leicester (22nd most deprived local authority area) and Nottingham (10th) are two of the most deprived areas in England. You can also see that this overall deprivation is primarily driven by deprivation in income and education skills and training (although Nottingham also shows deprivation in health and disability). Given that cities and towns in the Midlands and North of England have the highest levels of deprivation, the contrast with Derby, Lincoln and Northampton is particularly telling. We can see that Leicester and Nottingham clearly have higher levels of deprivation than their East Midlands neighbours.

¹ <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

Table 1: Deprivation in Leicester, Nottingham, Derby, Lincoln and Northampton. Source: English Indices of Deprivation 2019 rank of rank scores.

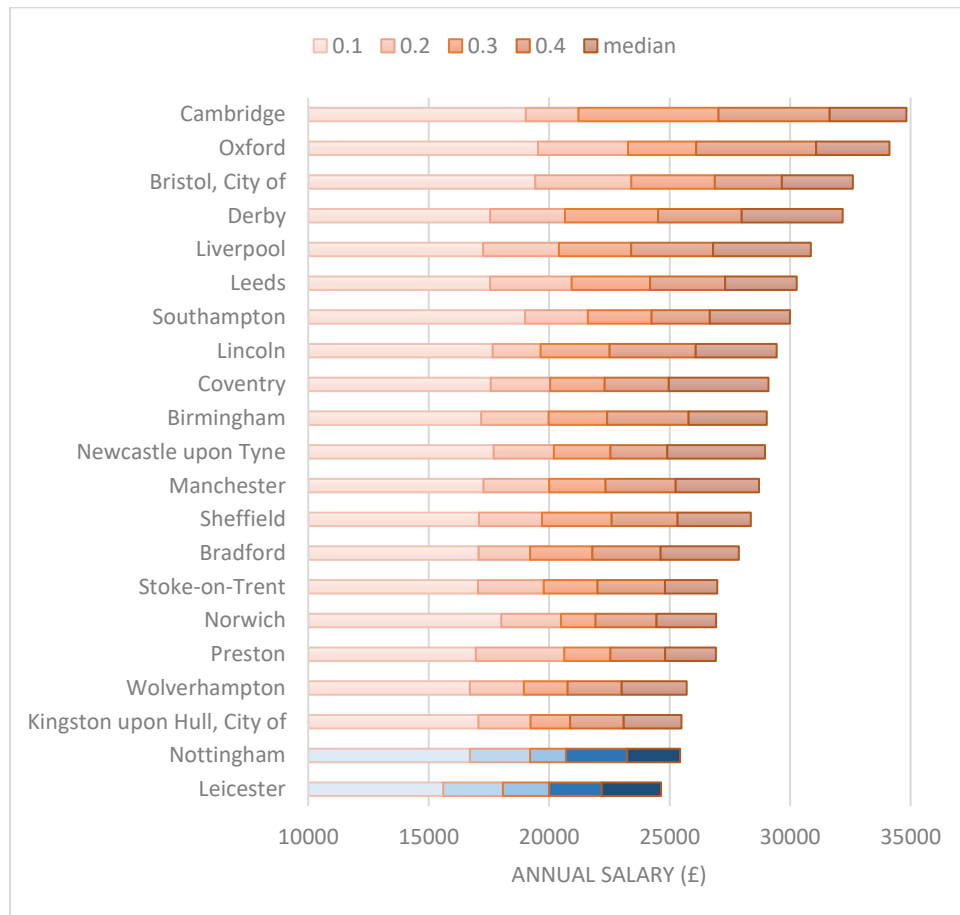
Index	Leicester	Nottingham	Derby	Lincoln	Northampton
IMD	22	10	90	68	105
Income	15	21	75	68	128
<i>Income affecting children</i>	24	2	71	38	127
<i>Income affecting older people</i>	13	22	93	59	121
Employment	64	51	78	77	150
Education, skills and training	15	14	69	57	80
Health and disability	49	14	60	43	77
Crime	41	43	144	100	44
Barriers to housing & services	254	86	175	112	72
Living environment	70	45	131	219	160

Income

Both Leicester and Nottingham are characterized by low wages. To illustrate, Figure 1 plots the distribution of annual pay for full-time workers resident in Leicester, Nottingham and some comparator cities. You can see that Leicester and Nottingham come bottom of the list with the lowest median pay and lowest (or near lowest) pay at the 10%, 20%, 30% and 40% points in the distribution.² The median pay is estimated at £24,644 in Leicester and £25,434 in Nottingham, compared to an average in England and Wales of £31,580. And the bottom 10% of the income distribution earn an estimated £15,603 or less in Leicester and £16,709 in Nottingham, compared to an average in England and Wales of £18,018. The comparison with Derby is again, telling. In Derby the median wage is estimated at £32,181 (above the average in England and Wales) and the bottom 10% earn £17,550 or less.

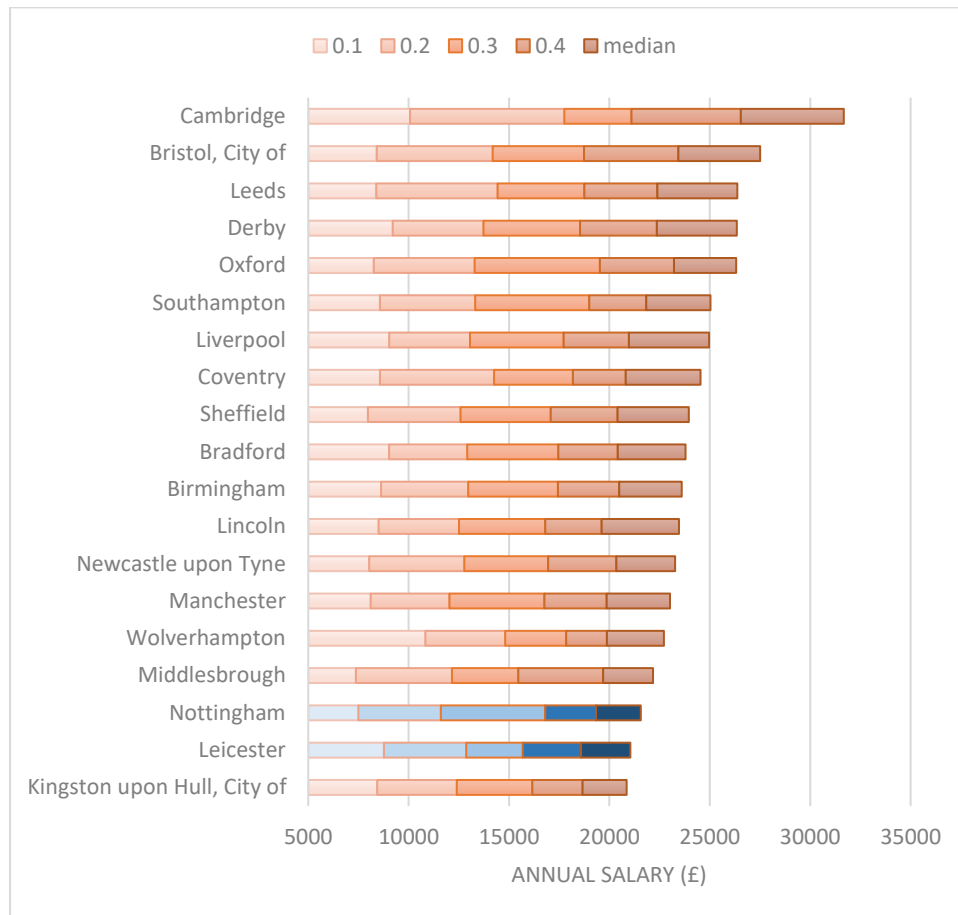
² In interpretation, the 10% point in the distribution means that 10% earn less and 90% of workers earn more than this amount. The median means 50% earn less and 50% earn more.

Figure 1: Estimated annual salary of full-time workers resident in Leicester and Nottingham and comparator cities in 2020. Source: Annual Survey of Hours and Earnings.



In Figure 2 we plot the estimated salary distribution for all workers resident in Leicester and Nottingham, thus, combining part-time and full-time workers. While some care is needed in mixing part-time with full-time work this aggregate measure gives a sense of the average earnings of a resident in employment. Figure 2 reinforces the notion that salaries are relatively low in Leicester and Nottingham. For instance, the median salary of £21,043 and £21,562 in Leicester and Nottingham, respectively, compare to that of £26,346 in Derby.

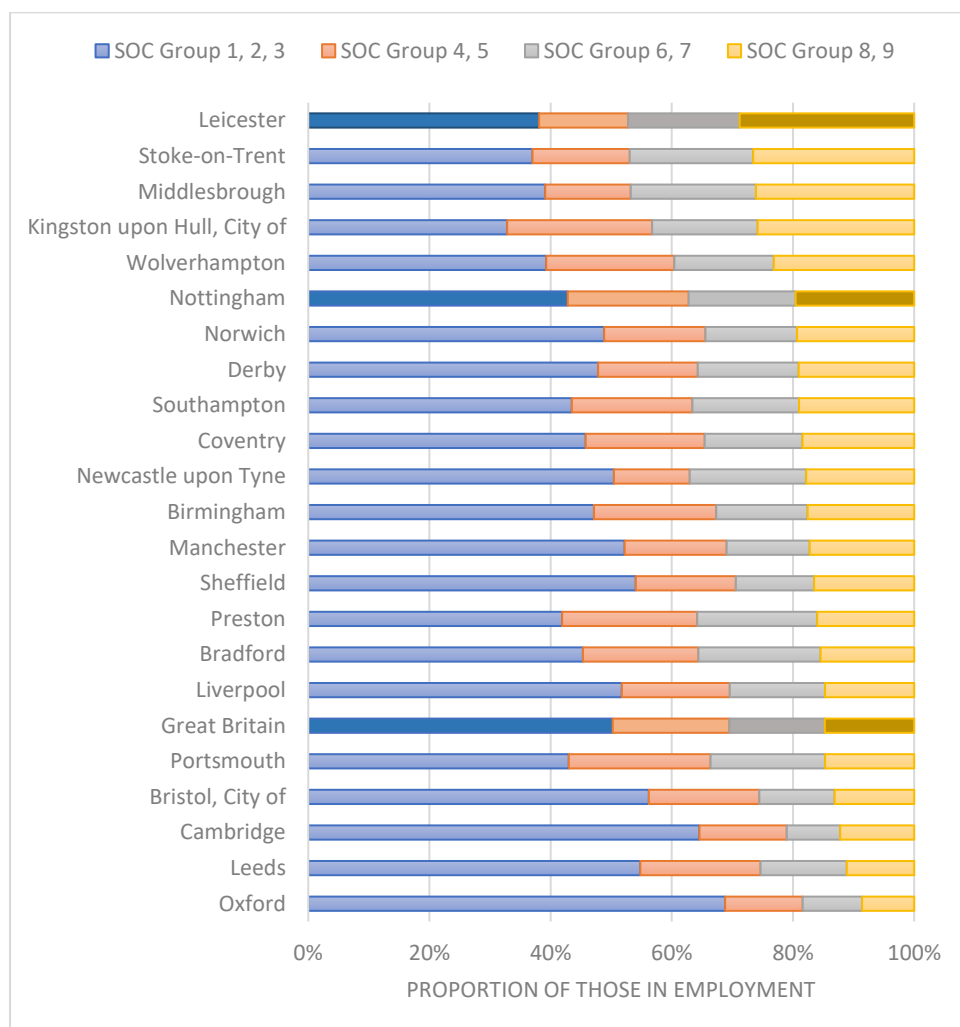
Figure 2: Estimated annual salary of all workers resident in Leicester and Nottingham and comparator cities in 2020. Source: Annual Survey of Hours and Earnings.



Type of employment and Skills

Low wages in Leicester and Nottingham can be partly explained by the low-skilled nature of work in the City. In Figure 3 we summarize employment by occupation distinguishing SOC Groups 1-3 (managers, professional and associate professional occupations), SOC Groups 4-5 (administrative and skilled trades), SOC Groups 6-7 (Caring, leisure, service, sales and customer service) and SOC Group 8-9 (Process plant and machine operatives and elementary occupations). Generally speaking skill levels and wages are higher in SOC Groups 1-3 than 4-5 and so on. You can see that Leicester has the highest proportion of workers (amongst the comparator cities) in the 'low skilled' SOC groups 8-9 and 6-9. Nottingham is not far behind.

Figure 3: Employment by occupation in 2020. Source: Annual Population survey.



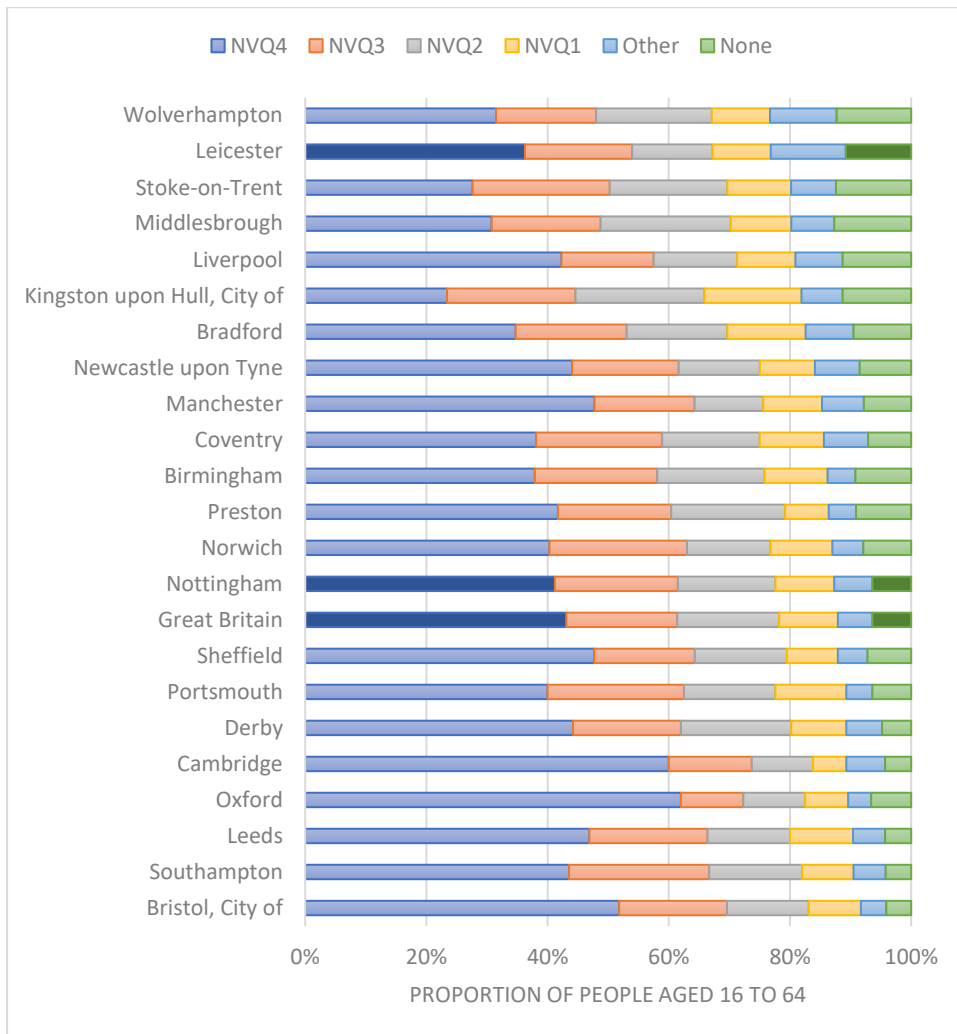
Qualification levels in the respective cities provide an interesting contrast. In Figure 4 we detail the proportion of people at different levels of education from NVQ1 to NVQ4 and above. Measures of qualification are difficult to measure and interpret;³ but, approximately NVQ1 is GCSEs, NVQ2 is GCSEs with A*-C grades, NVQ3 is A-levels and NVQ4 is an undergraduate degree. You can see in Figure 4 that Leicester has a high proportion of residents who do not have NVQ1 or above or do not have NVQ2 or above. Nottingham is

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<https://www.ons.gov.uk/census/censustransformationprogramme/questiondevelopment/qualificationsquestiondevelopmentforcensus2021>

more inline with the national average. To be specific, only 76.9% of residents in Leicester have NVQ1 or above compared to 87.3% in Nottingham and 88.1% in England and Wales.

Figure 4: Qualification level of people aged 16-64 in 2020. Source: Annual Population survey.



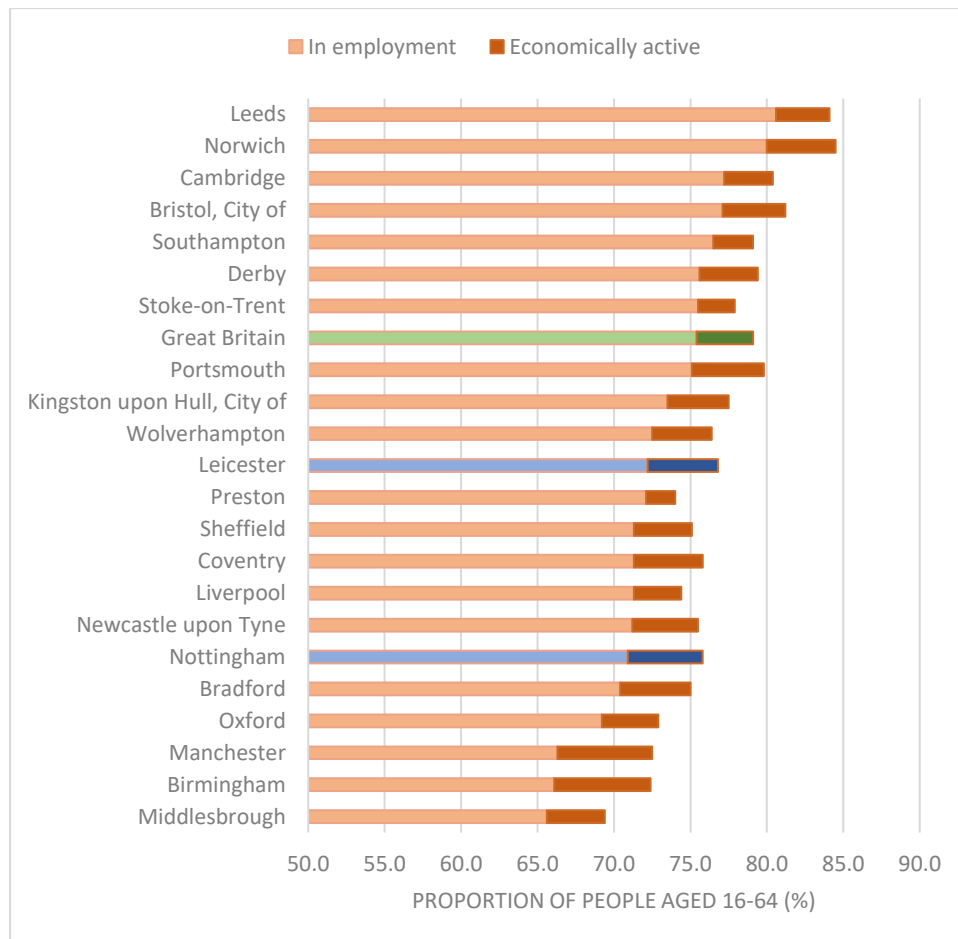
Employment

Employment rates in Leicester and Nottingham are below the national average, although the differences are notably less stark than in terms of wages or skills. Figure 5 details the estimated rate of employment and economic active in 2020. An employment rate of 72.2% in Leicester and 70.9% in Nottingham compares to the national average of 75.4%.

Unemployment and under-employment does not appear, therefore, to be a key driver

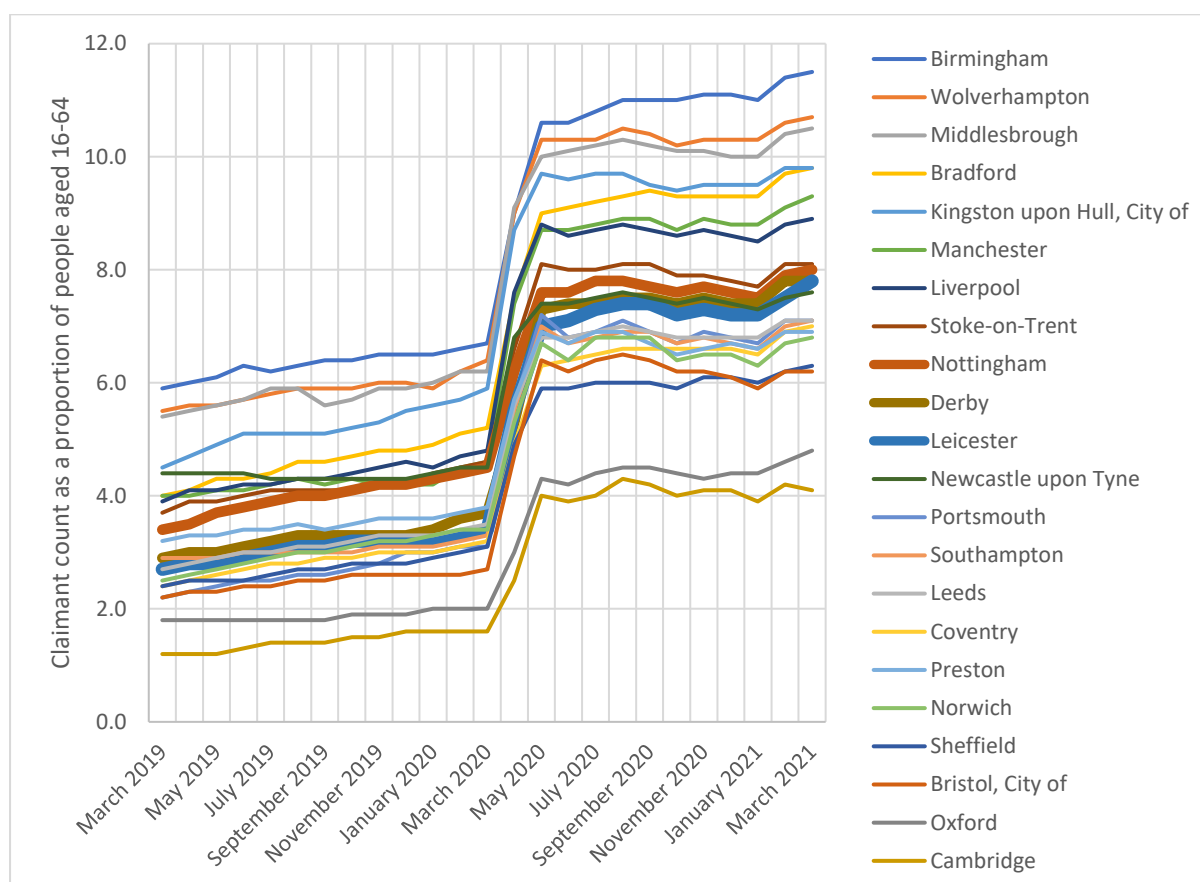
behind deprivation in the two cities. This is consistent with the Index of Multiple Deprivation rankings, as shown in Table 1.

Figure 5: Proportion of people aged 16-64 who are in employment and economically active in 2020. Source: Annual Population Survey.



This Brief is not aimed at unpicking the consequences of the coronavirus pandemic. In Figure 7, however, we detail the claimant count from 2019 to 2021 to give some sense of the effect the pandemic is having and how this will increase the economic challenges in Leicester and Nottingham. You can see that in Derby, Leicester and Nottingham the claimant count has risen from around 3% before the pandemic to 8% during the pandemic. This clearly hints at lower levels of employment because of the pandemic. Somewhat worryingly, the claimant count in Leicester has increased particularly dramatically relative to its initial baseline.

Figure 6: Claimant count as a proportion of people aged 16-64. Source: Claimant count



Summary

Leicester and Nottingham are two of the most deprived cities in England. This deprivation is driven by low incomes and low skill levels. A natural question to ask is which of these two factors is, if any, the primary contributor – do low skills lead to low incomes or do low skills follow from a low income environment. Knowing that can help inform on the desirability of two broad solutions – up-skilling the workforce versus bringing to the city higher paid jobs. These are questions we will explore in future work.