

Growth, resilience and recovery in local and city economies – reflections on data and analysis

Urban Big Data Centre – Adzuna
users meeting. 24th May 2022

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Context to the study

- Joint work including support of GIS technician at Portsmouth
- Covid has had significant implications for employment and labour markets – the spatial implications are less well-understood
- Identification of high-productivity or growth ‘micro-clusters’
- Which local economies were most resilient to the Covid employment shock?
 - Sensitivity to shock – size of impact
 - Recovery (speed and degree)
 - Reorientation (adaption) and renewal

(Simmie and Martin, 2010)

Research aims

Covid-19, local economic resilience and recovery

- Understand the vulnerability to, and impact of, the Covid-19 employment shock on local economies
- Assess the potential longer-term changes
- Theoretical development through testing the ideas of regional resilience in the context of an atypical employment shock.

How does job vacancy data help?

- Large and timely measure of shock and recovery in the employment market (and potentially adaptation)
- Core data fields for our study include – total vacancies, sector and lat-long (and wage) - using LAs to allow for other data integration
- To provide analysis framework – integrate with other sources of data

Reflections on using the data

Processing

- >20,000 csv files
- >200 million vacancies (including duplicates)
- Many lines of Stata code

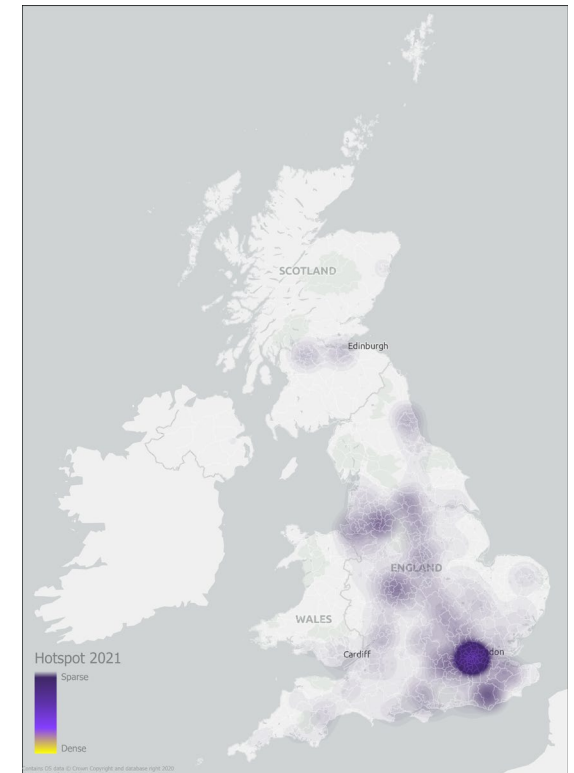
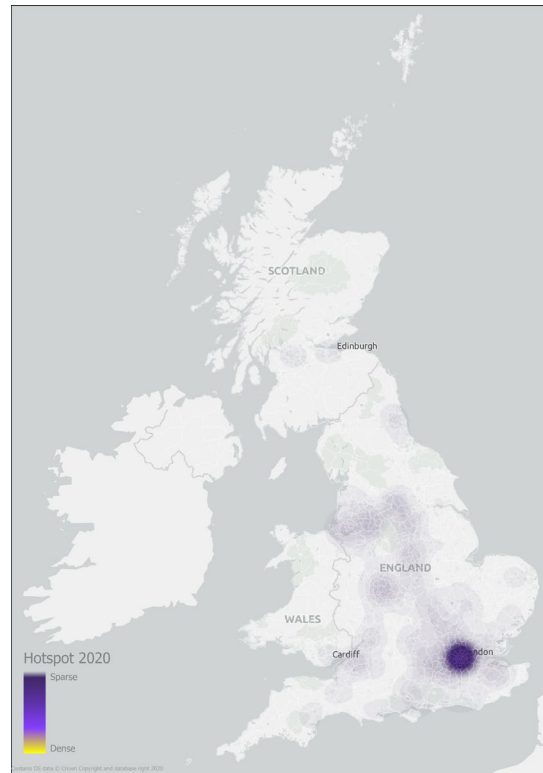
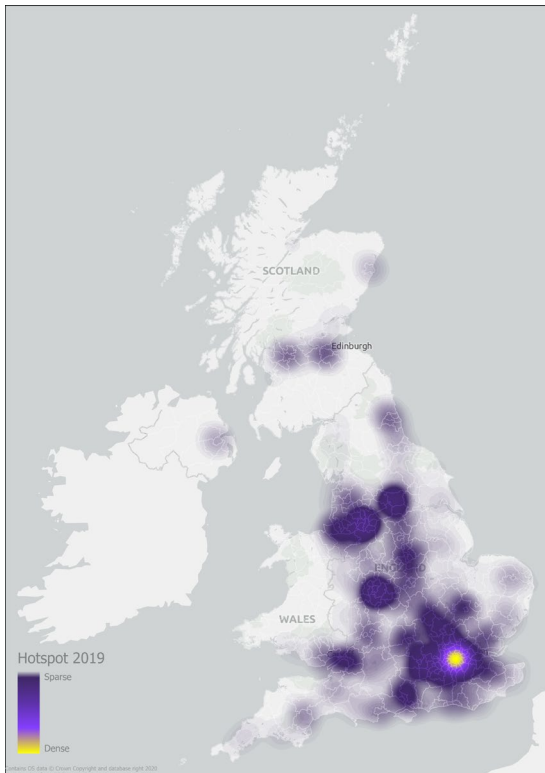
Validity and measurement

- Some data fields complete, others partial
- Implications of dropping missings/incomplete data – e.g. no place identifier
- Precision of geographical descriptors – the Glasgow/East Dunbartonshire problem?
- Some changes in sector assignment?

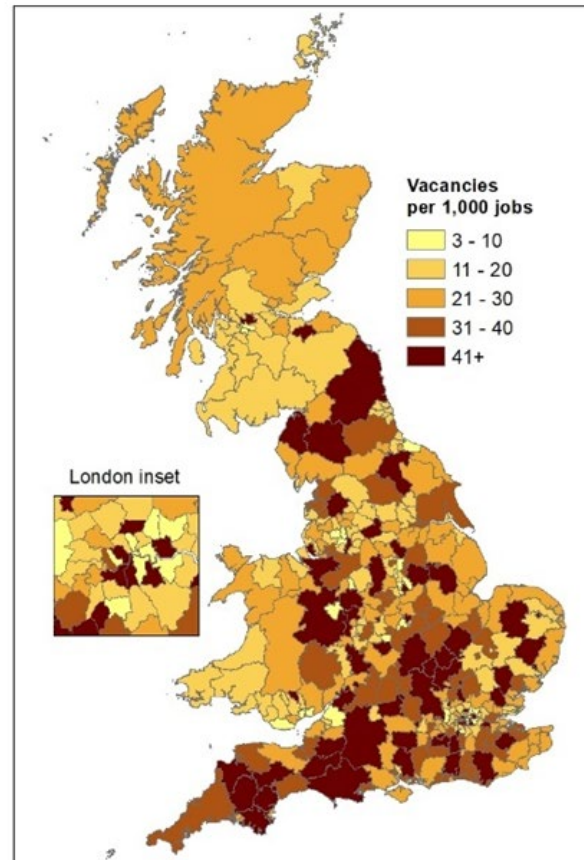
Progress

- Dataset build and data checking ✓
- Initiative descriptive analysis ✓
- Develop interim outputs (responding to changing circumstances) ✓
- Development of resilience measures ✓
- Spatial cluster analysis to identify 'hotspots' of high-productivity 'micro-clusters' ✓
- Integration of other data and resilience analysis

Mapping the data - agglomeration



Mapping the data – vacancy rates





Interim outputs

MIDLANDS ENGINE OBSERVATORY ACADEMIC INSIGHTS Job vacancies and the Covid recovery



Theme:

Job vacancy patterns in the Covid recovery

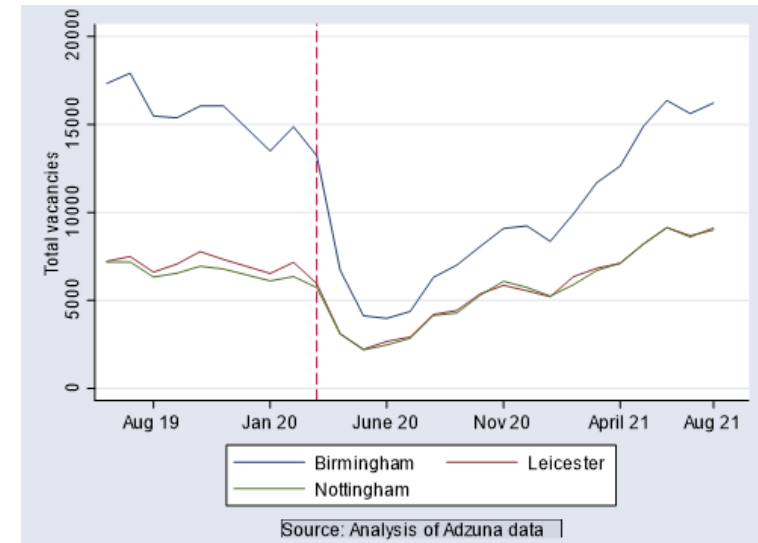
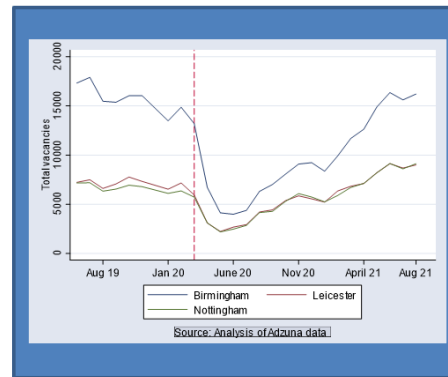
Area of Focus:

The jobs recovery from Covid has been robust – online job vacancy data can provide new insights into this growth.

Key Findings:

Job vacancy rates in the UK declined significantly during Covid, generating concerns about rising unemployment. However, vacancies have recovered robustly, with national ONS survey data estimating a record 1.3 million vacancies in early 2022.

Online job vacancy data allows for an analysis of change during the pandemic and recovery. Figure 1 presents the pandemic experience in three





Shortage of workers threatens UK recovery – here's why and what to do about it

Published: May 18, 2022 3.55pm BST

Rural areas are being hit much worse than most other places. geogphotos

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For the first time since records began, there are more job vacancies in the UK than unemployed people, according to the latest monthly labour market figures. This has been driven mainly by a near-fourfold surge in job vacancies to around 1.3 million since the summer of 2020, when economic activity was allowed to resume at the end of the first COVID lockdown.

Record vacancies might seem like a good thing in terms of maintaining low unemployment. But employers across all sectors of the economy are struggling to fill vacancies, which limits economic recovery. So what explains all these vacancies,

Authors



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Professor of Economic Geography, University of Portsmouth



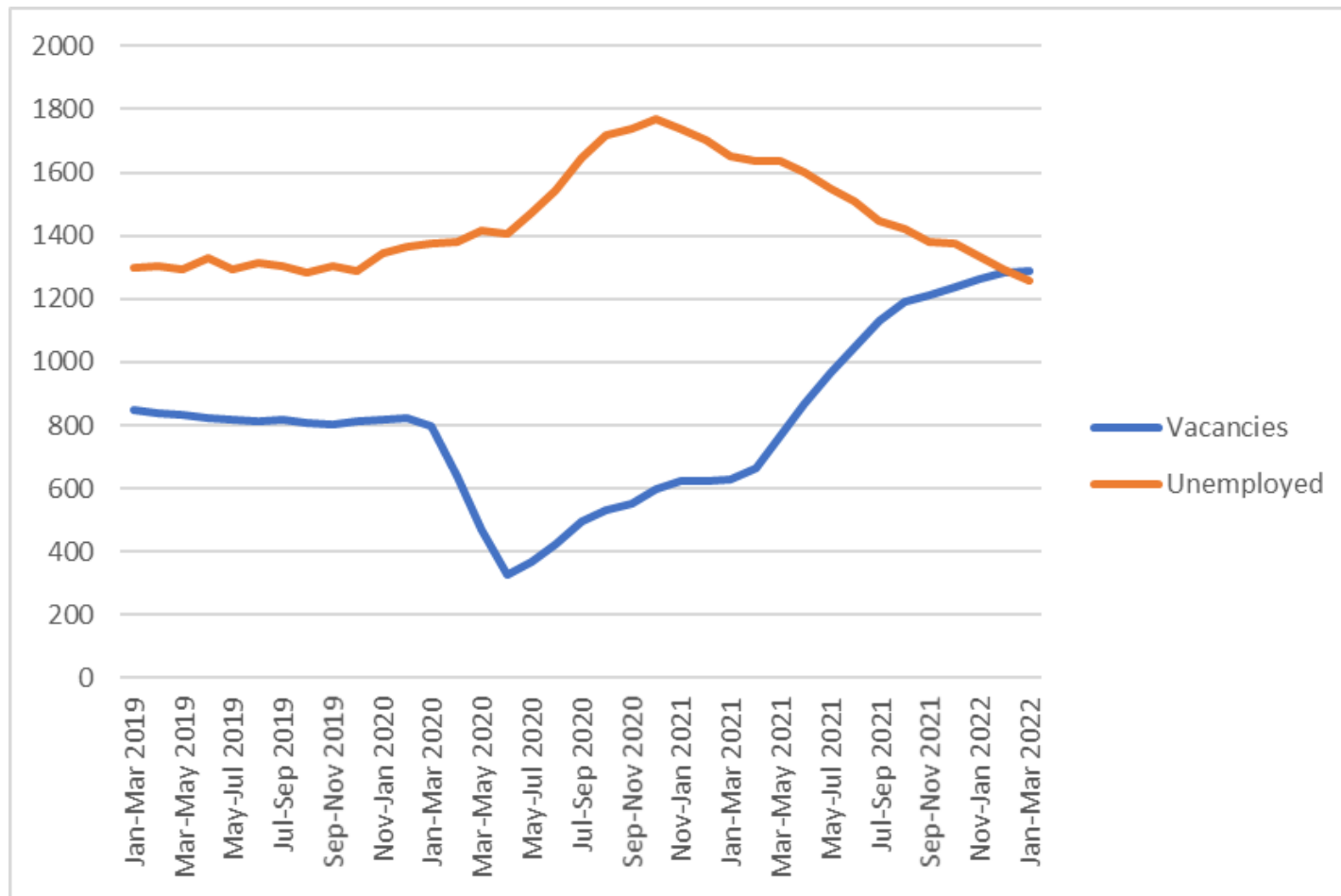
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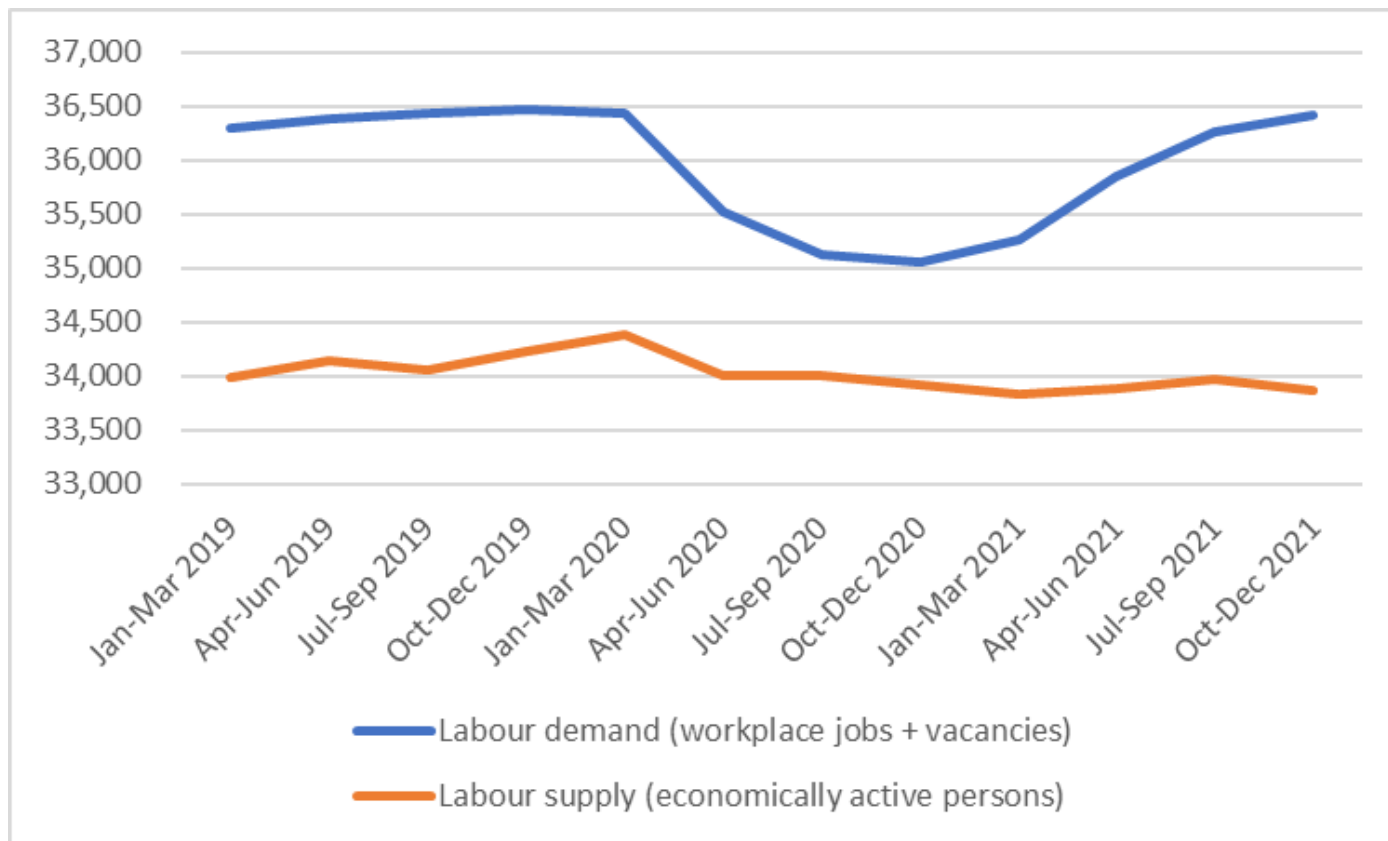
Disclosure statement

The authors do not work for, consult, own shares in or receive funding from any company or organisation that would benefit

Record vacancies, exceeding unemployment for the first time



Rise in vacancies driven by drop in labour supply – although also ‘churn’

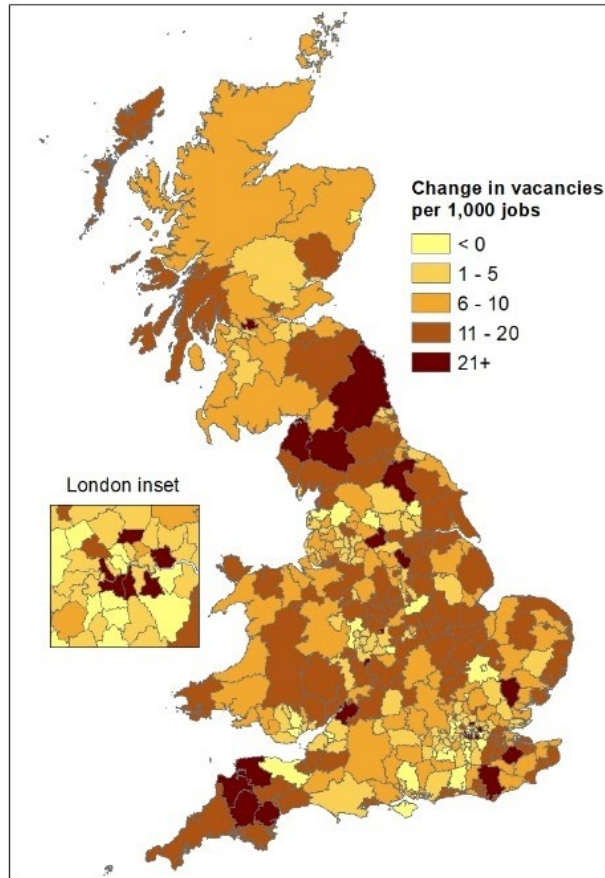


Components of change in labour supply since the pandemic

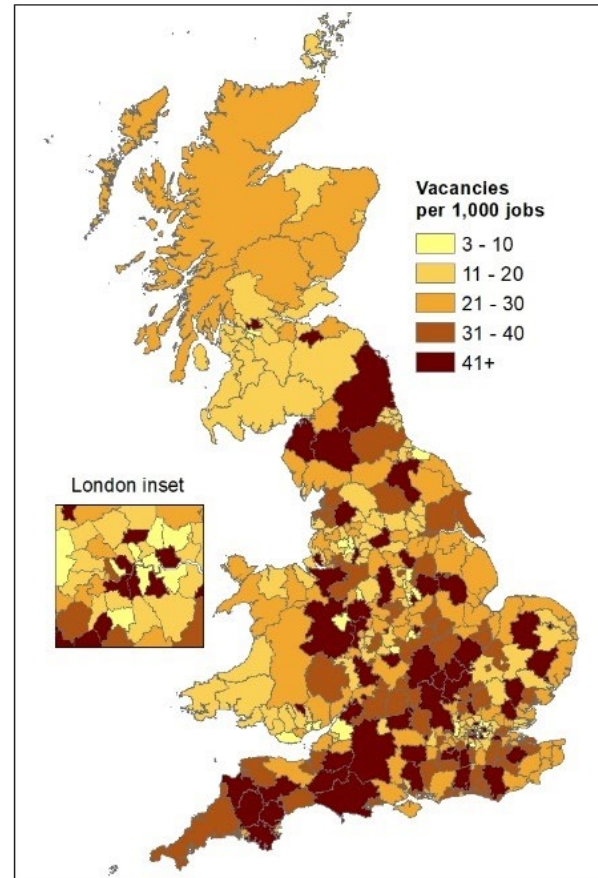
Component	Change (approx.)
Economically active persons aged 65+	-125,000
Early retirement (working age)	-125,000
Long-term sickness (working age)	-100,000
EU workers	-100,000
Other reasons for inactivity (working age)	-50,000
TOTAL CHANGE IN LABOUR SUPPLY	-500,000

Source: Own calculations of Annual Population Survey/Labour Force Survey

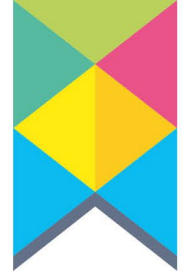
*Change in vacancies on pre-pandemic levels
(Feb'20 to July'21)*



Post-pandemic vacancy rate (July'21)



Source: Authors' calculations based on Adzuna Vacancy Data, ONS Business Register & Employer Survey and ONS local authority boundaries licensed under the Open Government Licence v.3.0. Contains OS data © Crown copyright and data right 2021.



Summary

- Integrating insights from vacancies with wider national patterns – current recruitment crisis is not due to booming economy but reduction in economic activity rate
- Adzuna data crucial for evidencing the local dimension of labour market change – rural areas and some London boroughs have the most acute labour shortages

Final thoughts

- Fantastic to have vacancy micro data (esp. lat-long for our geographical analysis)
- Since the application job vacancies have become an increasingly important economic and policy issue
- Data processing, cleaning and checking challenging. Some patterns of change trigger questions about aspects of consistency over time.
- Next steps:
 - Modelling local labour demand and supply responses over the pandemic
 - Identifying the role of micro-clusters in local economic resilience and recovery