

Local Data Spaces

Helping Local Authorities tackle COVID-19



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- What is Local Data Spaces?
- Key insights of Local Authority needs
- Pilot outcomes



Problem

- Access to timely data imperative in a crisis
- Improved sharing of data (e.g., PHE's Bower BI platforms), but some reliance on available local sources
- Local Authorities often lack technical infrastructure to make most of external data sources
- How can we work with Local Authorities to maximise their use of these services to make better data informed decisions?
- Analytical capability support through academic partnerships



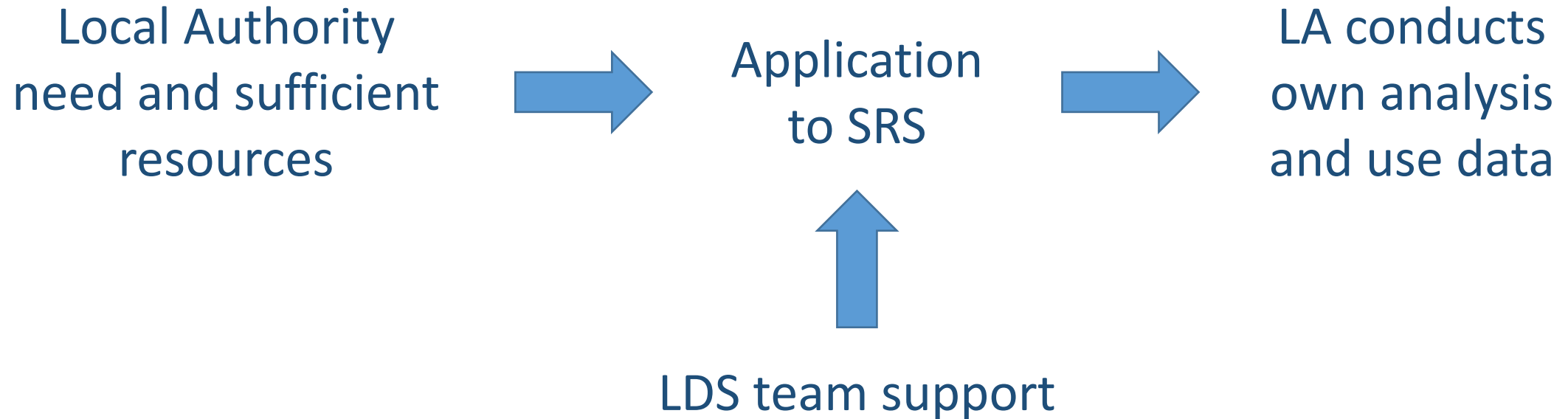
Introducing LDS

- Pilot Nov 2020 to April 2021
- Aim: To provide data and evidence support to Local Authorities in the response to COVID-19
- How can we best open up the data in the ONS Secure Research Service (SRS) to Local Authorities
- Three models of engagement:



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Model #1



E.g., Hackney and impact of COVID-19 on work



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Model #2



E.g., York and Tourism, Harborough and footfall, and Liverpool and 'Mass Testing'



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Model #3



E.g., Hull and occupational inequalities in COVID-19



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Local Authority insights

Local Data Spaces filled a need/demand

- All participating Local Authorities expressed demand
- Senior leadership ‘buy-in’ mattered most (e.g., allocation of local resources for engaging)
- Academic support, in general, an “*untapped resource*”
- “*We’ve had a huge increase in demand for data. Since COVID everyone wants to do evidence-based decisions making, It’s been exciting, very fast paced.*”



Local Authority insights

Co-producing research questions is hard...

- Local Authorities in “*fire-fighting*” mode
- Sustained engagement was key for co-production
- Cultural/language barriers including knowledge of how Local Authorities work
- Data needs to be in ‘analysis ready’ format (although high skills teams wanted raw data)



Local Authority insights

...but made easier with adequate support

- How to interpret reports and what they can be used for
- Data dictionaries or synthetic data useful for scoping
- Illustrative examples tell the “*art of possible*” – what actionable insights could be generated
- Open source code to ‘avoid’ data cleaning and save time



Local Authority insights

Administrative issues matter

- SRS and especially AOC application process were difficult and time consuming – initially “intimidating” without help
- SRS as “*a really good practical offering to overcome some of the barriers around data sharing*” offering a streamlined experience reducing administrative and financial barriers
- Bringing in data from outside SRS can be tricky



- Co-produced outputs with ~25 Local Authorities
- 10 short reports for all 314 Local Authorities in England (<https://data.cdrc.ac.uk/geodata-packs>)
- 6 bespoke reports, including submission of evidence to SAGE with ONS
- R code for cleaning key SRS data products



Geospatial Inequalities in COVID-19 Risk : Leeds (Yorkshire and The Humber)

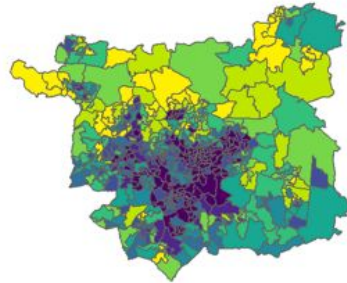
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Index of Multiple Deprivation (IMD)

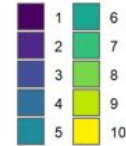
The map below shows IMD and Positivity Rates of COVID-19, for the First and Second Wave. The maps are presented on the same scale, with the same breaks, so can be directly compared. Index of Multiple Deprivation 1 means the LSOA is within the 10% most deprived in England. For the bivariate maps the deprivation has been swapped, so that a higher decile means a higher deprivation. To interpret these maps:

- Look at the Decile by LSOA map to provide context on deprivation (IMD 1 is most deprived).
- Look out for areas in the First Wave that are pink (high decile (IMD 1) and low positivity) that change to dark blue (high decile and high positivity).
- Look out for areas in the First Wave that are white (low decile (IMD 10) and low positivity) that change to turquoise (low decile and high positivity).

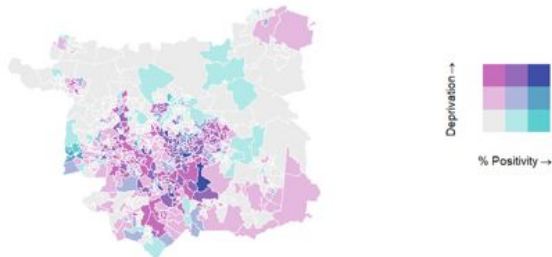
Index of Deprivation Decile



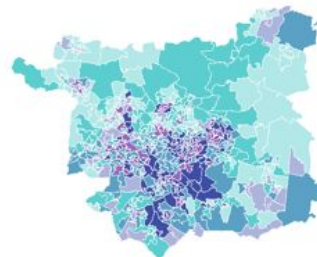
Index of Multiple Deprivation Decile



COVID-19 Positivity Rate and IMD in First Wave



COVID-19 Positivity Rate and IMD in Second Wave



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Outputs

Occupational Inequalities in COVID-19: Leeds

Local Data Spaces ADR UK Team

- Introduction
- Data and Sources
- Summary
- Employment Density Profiles and Ranking
- Workforce Distribution
- Workforce Growth Rates
- Individual Sector Profiles
- Contact Tracing
- Partners

Introduction

The following report was prepared to preserve the descriptive statistics from 2020 to 31st January 2021. This work was endorsed by the Local Data Spaces ADR UK Research Team which may not be reproduced without their permission.

Data and Sources

Local profiling is based primarily on two datasets available through the Office for National Statistics (ONS) Secure Research Service (SRS) catalogue:

Human Mobility Report for Leeds (Yorkshire and The Humber)

Local Data Spaces ADR UK Team

- Introduction
- Data and Sources
- Mobility Profiles
- The Local Authority of Leeds
- Assessment of Mobility
- Research Team
- Contact Tracing
- Partners

Introduction

This report highlights benchmarks patterns of distribution and density for local business sectors and workforces in the Local Authority of Leeds (LAD: E08000035). Making use of the most recent comprehensive national surveys and registries with a sector-based focus, this profile breaks down the concentration and relative comparison of different industry sectors as compared to regional (Yorkshire and The Humber - E12000003) and national averages.

Data and Sources

This report is based primarily on two datasets available through the Office for National Statistics (ONS) Secure Research Service (SRS) catalogue:

Sector-Based Densities and Distributions: Leeds (Yorkshire and The Humber)

Local Data Spaces ADR UK Research Team

April 14, 2021

- Introduction
- Data and Sources
- Broad Picture of Business Activity
- Sector-Based Businesses and Workforce Distribution
- Five-Year Total Growth Rates
- Business Breakdown by Sectors
- Employment Density Profiles and Ranking
- Research Team
- Contact Tracing
- Partners

Introduction

This report highlights benchmarks patterns of distribution and density for local business sectors and workforces in the Local Authority of Leeds (LAD: E08000035). Making use of the most recent comprehensive national surveys and registries with a sector-based focus, this profile breaks down the concentration and relative comparison of different industry sectors as compared to regional (Yorkshire and The Humber - E12000003) and national averages.

This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

All counts from secured datasets less than 10 have been suppressed for security and data aggregated to the appropriate spatial or temporal dimension to ensure non-disclosivity.

Data and Sources

Local profiling is based primarily on two datasets available through the Office for National Statistics (ONS) Secure Research Service (SRS) catalogue:

- The Business Structure Dataset (BSD): doi.org/10.5255/UKDA-SN-6697-10
- Business Registry and Employment Survey (BRES): [10.5255/UKDA-SN-7463-9](https://doi.org/10.5255/UKDA-SN-7463-9)

- Access to timely data during a crisis is imperative
- Centrally held data sharing infrastructure can offer a secure and sustainable (skills, time, finance) necessity in Local Authority operations
- Academic partnerships can help to fill critical analytical gaps in Local Authorities



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