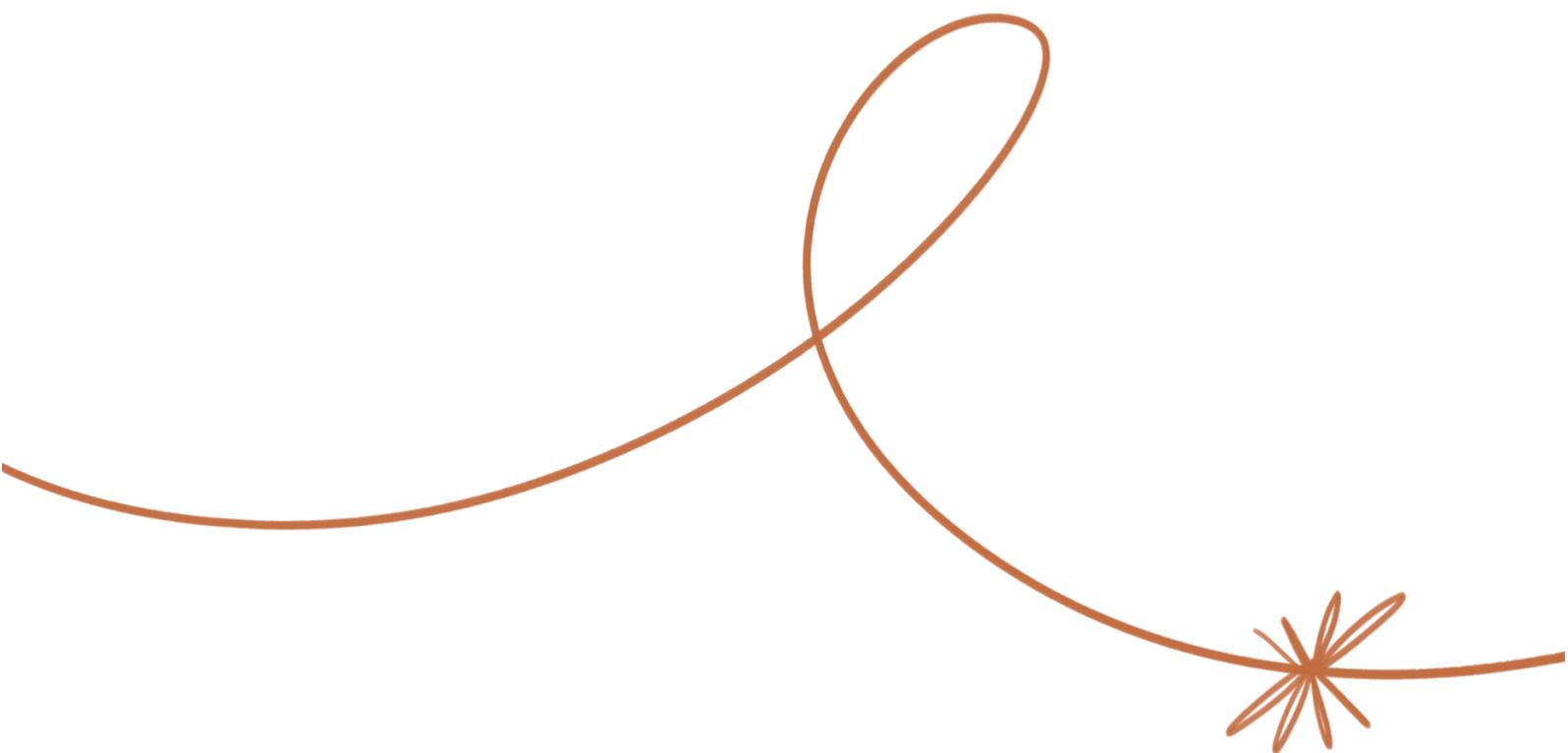


Hidden Poverty and Child Poverty

Beyond Imagination Life Survey
ImaginationLancaster

June 2022





Executive Summary

This report summarises the findings of the **Hidden Poverty and Child Poverty** case study, *which is composed of an older poverty focus proposed by Lancaster City Council and a child poverty focus proposed by Blackburn with Darwen Borough Council*. In the analysis of the data collected from over 1,600 people in Lancaster and Morecambe and 1,300 people in Blackburn with Darwen the following key findings were established:

Older Poverty focus:

- Hidden poverty for the over-65 group in less deprived areas does exist, but is less prevalent than in more deprived areas, and is potentially felt more strongly by under-65s.
- Whilst the fuel poverty of both age groups in the same area were comparable, the over-65s were less likely to report finding it difficult on their income, suggesting that self-reporting is a poor indicator of poverty for the older group.

Child Poverty focus:

- 1 in 5 (22%) households containing children are twice as likely to be finding it difficult on their income for child containing households vs. 1 in 10 (13%) for childless households.
- Approximately 14% of these households experience some level of fuel poverty, whilst this is roughly 23% for food poverty.
- There is a strong correlation between fuel and food poverty with how child containing households are finding their income.

Background

Lancaster University, Lancaster City Council and Blackburn with Darwen Council have come together to initiate the Beyond Imagination Life Survey. Commissioned by Lancaster University and undertaken by BMG Research the survey of just under 3,000 residents aims to gather a representative picture of views, attitudes and experiences, which will in turn inform strategy, activities and research opportunities for ImaginationLancaster, the local authorities and other local partners.

Lancaster City Council and Blackburn with Darwen Council priorities have formed a key part of the survey development throughout, resulting in a survey structure which combines the needs of different stakeholders, based on four themes:

- Health and Wellbeing
- Wealth and Opportunity
- Sustainability, Transport and Travel
- Connected Communities and Services



Bringing the data to life

Connected Places Catapult were commissioned to develop an interactive data dashboard solution to explore and visualise the Life Survey data, and to enable future interactive data analysis, research and visualisation. To this end, a series of case studies have been produced by Connected Places Catapult based on research themes developed with the project partners in Beyond Imagination workshops.

Introduction

This is the report for the Poverty case study for the Beyond Imagination Life Survey created by Connected Places Catapult in collaboration with ImaginationLancaster, Lancaster City Council and Blackburn with Darwen Borough Council. The results and findings presented here were extracted from the analysis and visualisations produced in the Poverty Dashboard. The case study was broken into two focus areas around older hidden poverty and child poverty.

Indicators of Hidden Poverty – Lancaster City Council (Older Poverty Focus)

The Lancaster District Food Poverty Alliance (LDFPA) action plan includes increasing provision for vulnerable groups such as making a food club available in every community. There is evidence of older people being affected by poverty, and that this is not always correlated with residing in one of the more deprived wards. Research for LDFPA by Dianna Smith at Southampton University highlighted possible “hidden” poverty in the over-65 age group within more affluent wards. The Life Survey provided an opportunity to further investigate the extent of hidden poverty by comparing under-/over-65 groups in less-/more deprived areas.

Child Poverty – Blackburn with Darwen Borough Council (Child Poverty Focus)

The number of families classed as living in poverty is too high and this can have long term effects on the children living in them. In one ward in Blackburn, nearly 30% of the resident population are claiming employment support allowance due to being unable to work due to illness. In comparison, the England average is 5%. Members of the Public Health Team are looking at child poverty in the Borough and aim to reduce the child poverty rate to the national average by 2030 through a coordinated effort and in partnership with the Child Poverty Action Group. To this end, the Life Survey can be used to explore the issue of child poverty.

Methodology

The data in the Life Survey was collected by BMG Research who took measures to increase the representativeness of the participants of the survey. The data collection for the survey consisted of online surveys and (offline) in-person interviews. The anonymised data were securely transferred to Connected Places Catapult, where the data was verified, cleansed and processed using a Jupyter Python Data Science environment, which included the joining to geospatial data provided by Ordnance Survey and Office for National Statistics. The data was loaded into a PostgreSQL database and connected to Apache Superset. Here the dashboard solution was developed, the data analysis was carried out, the dashboards built, and the visualisations created. The Exploratory Dashboard was used to discover relationships in the data, and only then were custom visualisations created for the case study dashboard.



Poverty variables in the Life Survey cover fuel poverty through the inability to heat rooms (question 23 – Q23), food insecurity (Q44) through the Food Insecurity Experience Scale (FIES), feelings towards household income (Q68). FIES was developed by the Food and Agriculture Organisation of the United Nations. It is a series of eight questions that focuses on self-reported food-related behaviours and experiences associated with increasing difficulties in accessing food due to resource constraints.

To investigate hidden poverty the respondents were split into under-65 and over-65 groups using Q2. The LDFPA research was used to define the more deprived area (wards: Bulk, Castle, Harbour, Heysham North, John O'Gaunt, Poulton, Skerton East, Westgate) and less deprived area (wards: Bolton & Slyne, Ellel, Halton-with-Aughton, Heysham South, Kellet, Lower Lune Valley, Overton, Scotforth West, University & Scotforth Rural).

The Life Survey only interviewed adults. To explore child poverty Q61 was used to identify households containing children.

Results & Discussion

Hidden poverty does exist in Lancaster but is less prevalent than in more deprived areas.

The map in Figure 1a shows that Bolton and Slyne contains the greatest number of over-65s surveyed in Lancaster. In the Poverty dashboard, it was found that Silverdale is the ward with the highest concentration of over-65s surveyed. The chart in Figure 1b shows that the share of the over-65 and under-65 groups reporting fuel poverty is comparable. Those in more deprived areas report some level of fuel poverty approximately 15% of the time, whilst in less deprived areas this is roughly 4-8%. This demonstrates that hidden poverty of older residents in less deprived areas does exist, but it is less pronounced than in more deprived areas. The data also suggests that hidden poverty in younger residents is more severe.

It is interesting to note that feeling towards income was more positive amongst the over-65 group, with a considerably higher share living comfortably or coping. This is at odds with the reported fuel poverty as is shown in Figure 3c. Here there is a clear correlation between the two indicators of poverty for all groups, but the income sentiment is skewed for over-65s. This indicates that reports of incomes are a poor indicator of poverty for the over-65 age group, and other more direct indicators should be used.

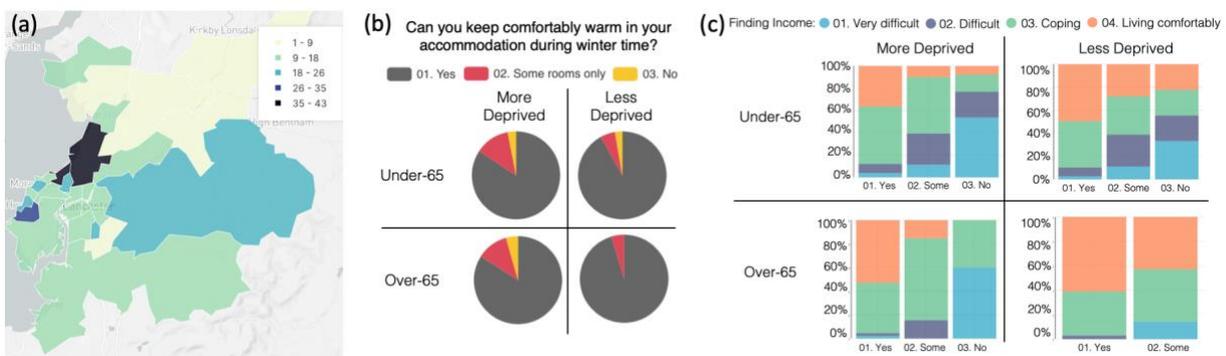


Figure 1: (a) The number of respondents in the over-65 age group for the wards in Lancaster. (b) The distribution of responses to the fuel poverty question for over-/under-65 groups in more/less deprived areas defined in the Methodology section. The numbers in the grey boxes show the total number of respondents in each group. (c) The distribution of feeling towards income share for the groups segmented by fuel poverty in the middle figure.

In Blackburn with Darwen, households containing children are twice as likely to be finding it difficult on their income, and this metric is correlated with food and fuel poverty. The charts in Figure 2a



show that households in Blackburn with Darwen that contain children are nearly twice as likely to be finding it difficult or very difficult on their income (23%) when compared households without children (13%). Further analysis in the Poverty Dashboard analysed fuel and food insecurity in child containing household. It was found that approximately 14% of these households experience some level of fuel poverty and 23% experience some level of food insecurity. Figure 2b shows that fuel poverty and feelings toward income are correlated, where for those that are not able to heat all rooms there is a large share that are also finding it difficult on their income. A similar correlation was found for food insecurity in the Poverty Dashboard.

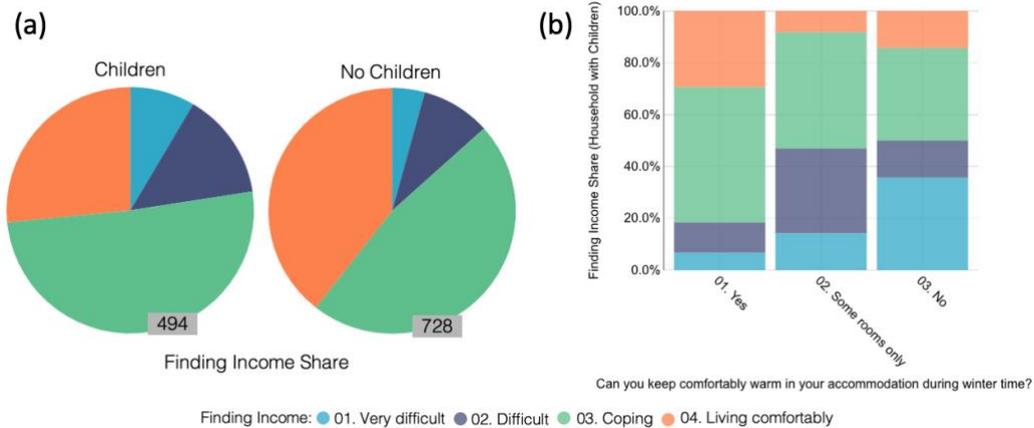


Figure 2: (a) The distribution of feeling towards income for household with children and with no children in Blackburn with Darwen. The numbers in the grey boxes show the total number of respondents in each group. (b) The distribution of feeling towards income share for the groups segmented by fuel poverty for households containing children in Blackburn with Darwen.

Outlook

This case study used the Life Survey to investigate the levels of (hidden) poverty in older residents in less deprived areas of Lancaster and child poverty in Blackburn with Darwen. In summary, hidden poverty in Lancaster exists but is experienced more strongly by under-65s and is less prevalent than in more deprived areas. Poverty in Blackburn with Darwen, is twice as likely for households that contain children and affects 1 in 5 households. This was measured by how households were finding their income, which was found to be correlated with fuel and food poverty. The key results have been presented here, but further exploration and analysis of the data is possible with the accompanying dashboard. In this case study, hidden poverty was analysed through a fuel poverty lens, in the future it would be valuable to look at the extent of food poverty. It would also be instructive to get a geospatial understanding of child poverty, but more residents would need to be surveyed to get more reliable statistics at the ward level, which is also the case for the hidden poverty focus.



Partners & Funding

ImaginationLancaster

Imagination is Lancaster University's cross-disciplinary design research lab. In 2019 ImaginationLancaster was awarded £13.2m for a multi-year project titled Beyond Imagination. Funded by UKRI Research England and led by Professor Leon Cruickshank, Director of Research at ImaginationLancaster, Beyond Imagination explores and demonstrates how cutting-edge design research can create a healthier, more prosperous and sustainable world.

<http://imagination.lancaster.ac.uk>

Data Science Institute

Lancaster University's Data Science Institute (DSI) supports interdisciplinary data intensive research across the University, with core themes of: foundations, health, environment, society. It has 155 academic members from 19 depts and works with business, government and third sector partners. Current member activities include work understanding the needs of looked after children, links between the quality of the urban environment and health as well as projects in cyber security.

<https://www.lancaster.ac.uk/dsi/>

Blackburn with Darwen Council

Blackburn with Darwen is a semi-rural unitary borough located in the south east of Lancashire. It has compact urban areas predominately located around the towns of Blackburn and Darwen, surrounded by countryside. These contrasting areas include some of most and least deprived in England. The current corporate plan has the aim of enabling borough residents to achieve a good quality of life in a vibrant and thriving place, with strong community values, in an inclusive society.

<https://blackburn.gov.uk>

Lancaster City Council

The Lancaster district includes diverse and attractive city, coast and countryside locales. Lancaster City Council's vision is for the district to thrive as a vibrant regional centre in the north west of England. In December 2021 the council set out its four priorities for 2030, along with strategies for how these can be achieved: A Sustainable District, An Inclusive and Prosperous Local Economy, Healthy and Happy Communities and A Co-operative, Kind and Responsible Council.

<https://www.lancaster.gov.uk>

Connected Places Catapult

Connected Places Catapult is the UK's Innovation Accelerator for cities, transport and places. We provide impartial 'innovation as a service' for mobility and built environment businesses, infrastructure providers and public institutions to catalyse step-change improvements in the way people live, work and travel. We help develop, implement and commercialise the latest technology and innovation for existing markets, as well as create demand and grow new markets in the UK and globally.

<https://cp.catapult.org.uk>

BMG Research

Established since 1988, we have more than 30 years' experience of working with our clients to build and deepen our understanding of changing and ever more complex markets, people and society. We work with our clients to fully understand the challenges faced by their organisations, identify priorities for action, and evaluate the impact of change.

<https://www.bmgresearch.co.uk/>

Research England

We are responsible for funding and engaging with English higher education providers to create and sustain the conditions for a healthy and dynamic research and knowledge exchange system in the higher education sector.

<https://www.ukri.org/councils/research-england/>



Appendix

Data sets used

Data Set	Source
Life Survey	Imagination Lancaster
Ordnance Survey / Office for National Statistics Census and Administrative boundaries and postcode lookups	Open Geography Portal
Map of Household Risk of Over-65s in Lancaster - Lancaster District Food Poverty Alliance – Dianne Smith (Southampton University)	Lancaster City Council

Life Survey questions used

Number	Description
2	Age
23	Fuel Poverty (room heating)
67	Feeling Towards Household Income

Number	Description
61	Children (under 18) in Household
44	Food Insecurity Experience Scale

Further details

Respondents that did not respond to a question (answered don't know, prefer not to say, etc) were not included in the analysis.

Data Access Statement

Beyond Imagination Life Survey Dataset

Due to ethical issues, data underpinning this publication cannot be made openly available. Access to the Beyond Imagination Life Survey dataset is restricted to Lancaster University researchers and officers within Lancaster City Council and Blackburn with Darwen Council. Further information about the data and conditions for access are available from Lancaster University's Institutional Repository at: <https://doi.org/10.17635/lancaster/researchdata/540>

Beyond Imagination Life Survey: Topline Reports and Case Studies

Topline Reports of the Life Survey findings and six case studies created in collaboration with Connected Places Catapult are openly available from Lancaster University's Institutional Repository at: <https://doi.org/10.17635/lancaster/researchdata/542>

Beyond Imagination Life Survey: Data Dashboard

Due to participant consent obtained for the Life Survey access to the data dashboard is restricted to Lancaster University researchers, officers in Lancaster City Council and Blackburn with Darwen Council. Lancaster University host and manage the data dashboard with access granted on a role-based basis. A password protected log on to the Life Survey data dashboard can be requested by emailing: imagination@lancaster.ac.uk

Acknowledgements

ImaginationLancaster would like to thank: Research England, Jez Bebbington at Lancaster City Council and Elise Carol at Blackburn with Darwen Council. Sharon Gowland and Jack Harper at BMG Research. Elliot Christou, William Daubney, Louise Files and Darren Pangbourne at Connected Places Catapult. Professor Jo Knight at Lancaster University's Data Science Institute. Officers of Lancaster City Council, Blackburn with Darwen Council and researchers in ImaginationLancaster who contributed to the design of the Life Survey Questionnaire and Catapult Case studies.

imagination.lancaster.ac.uk

ImaginationLancaster

LICA Building

Lancaster University

Lancaster

Lancashire

United Kingdom

LA1 4YW

Email: imagination@lancaster.ac.uk

Twitter: @ImaginationLanc

ISBN: 978-1-86220-382-2

