Employment and the Public Realm

Beyond Imagination Life Survey
ImaginationLancaster

June 2022

Executive Summary

This report summarises the finding of the **Employment & Public Realm** case study, *which is composed of an employment focus proposed by Blackburn with Darwen Borough Council and a Public Realm focus proposed by Lancaster City Council.* In the analysis of the data collected from over 1,300 people in Blackburn with Darwen and 1,600 people in Lancaster and Morecambe the following key findings were established:

Employment focus:
- Over 80% of the respondents in Blackburn with Darwen were in paid work, a homemaker or retired.
- The 10% that are out of work (and not in education/training) experience lower mental and physical health, tend to have reached lower education levels and would prioritise job prospects and affordable housing.
- The number of respondents that started working from home full-time after the pandemic increased threefold and report higher mental health than those that do not work from home.

Public Realm focus:
- Those that are satisfied with council decision making and actively participate in community activities are more likely to present higher mental health scores.
- The dominant reasons for lower engagement with community activities are lack of time, health and cost reasons. The top local priorities were crime levels and health services.
- Those with low wellbeing placed higher weight in affordable housing, wage levels and the local cost of living, whilst those in the high wellbeing group favoured parks and open spaces.

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 Employment & Public Realm case study for the Beyond Imagination Life Survey created by Connected Places Catapult in collaboration with ImaginationLancaster, Blackburn with Darwen Borough Council and Lancaster City Council. The results and findings presented here were extracted from the analysis and visualisations produced in the Employment & Public Realm Dashboard. The case study was broken into two focus areas around employment and the public realm offers.

Developing a Post-Covid Offer to Support the Employability and Health and Wellbeing Needs of Individuals and Local Communities – Blackburn with Darwen Borough Council (Employment Focus)

Many people across the Borough have lost jobs, either through redundancy or health-related issues as a direct impact of the Covid-19 pandemic, and this can have a serious impact on physical and mental health. There is a perceived need to retrain and upskill the workforce, whilst also making sure that residents are resilient to the everyday challenges of post-pandemic life. To this end, the Life Survey can be used to explore aspects of post-pandemic employment and work with a focus on mental and physical health issues.

Public Realm, Wellbeing, Planning – Lancaster City Council (Public Realm Focus)

The Covid-19 pandemic has transformed the way people live, work, move, and interact with and in our places, accelerating existing trends such as the move to home working. This offers Councils and partners in the public, private, and voluntary and community sectors an opportunity to work differently with and empower communities, improving engagement and local action to deliver positive impact, and use public spaces to improve. The Life Survey allows for a better understanding of local engagement, participation and priorities.

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.

Question 70 (Q70) was used to identify employment status. The number of days working from home pre-pandemic, currently, and in the future was extracted from Q74. The highest education level of respondents was documented in Q69. The links to physical and mental health used Q31 and Q35. The latter is The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) ©University of Warwick, 2006, all rights reserved. WEMWBS was developed by the Universities of Warwick, Edinburgh and Leeds in conjunction with NHS Health Scotland. The combined WEMWBS numerical score can be categorised as low (<44), medium (45-59) and high (60-70). Low scores have been correlated with possible and probable depression. Q13 was used to

gauge satisfaction levels on the influence with council decision making. An understanding of local engagement was gained from Q18, and reasons for not engaging were extracted from Q19. Q12 explored local priorities and what residents felt needed to be improved in the local offer.

Results & Discussion

Those out of work (and not in training/education) present lower mental and physical health than those in work, whilst those working from home show higher mental health than those that do not. Over 80% of the 1,244 respondents are in paid work, a homemaker or retired. 10% are out of work due to redundancy, ill health or disability. The remaining respondents are in some form of education or training. The number of respondents that also completed health questions drops to 954. Figure 1a shows that those out of work are more likely to present lower mental health. Further analysis in the dashboard found that out of work groups reported a higher share poorer general health and tended to have lower education levels than those in work. These lower education levels were correlated with lower mental health. When surveyed about local priorities both those in and out of work prioritised clean streets, crime levels and road repairs. Neither group felt that education needed improvement, but those out of work also favoured job prospects and affordable housing.

Of those that work, the majority of those surveyed do not work from, with roughly 80% pre-pandemic dropping to 60% currently. Figure 1b shows that those working from home 5 days per week (which most do) present higher mental health scores than those that do not work from home. There is uncertainty around the future of work for 10%, and this group are more likely to have lower mental health.
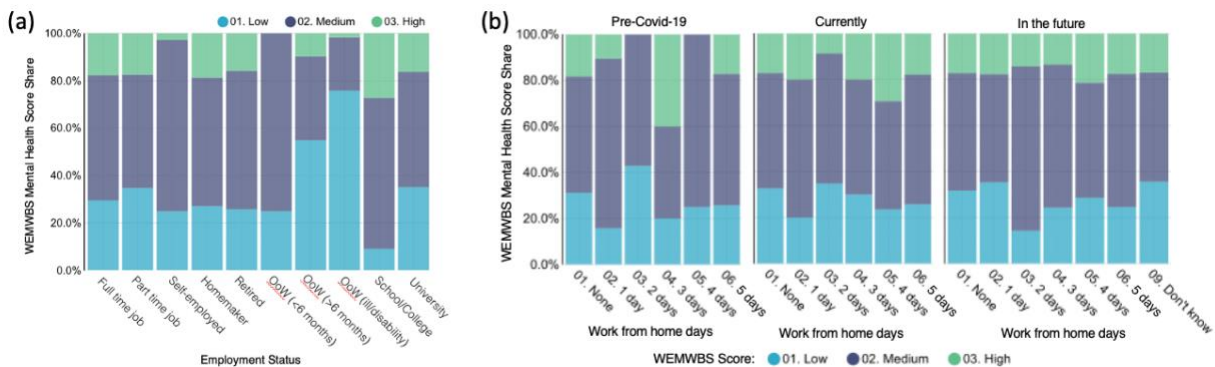

Figure 1: (a) The distribution of WEMWBS mental wellbeing score share for the employment status groups, including Out of Work (OoW) for Blackburn with Darwen. (b) The distribution of WEMWBS mental wellbeing score share by work from home status pre-pandemic, currently and in the future.

Satisfaction with council decision making and active participation were correlated with higher mental health. Time, health and cost are barriers to engagement.

Figure 2a shows that those that feel (very) dissatisfied with their influence of council decision making are more likely to present lower WEMWBS mental health and wellbeing scores. From the dashboard it was found that most respondents were unlikely to engage in local activities including friend groups, litter picks, and sports volunteering. However, Figure 2b shows that those that already do engage are more likely to have higher wellbeing. It was found that the key barriers to engagement were lack of time, health and cost (for sport in particular). The dashboard also investigated local priorities. The most common were crime levels and health services. Those with low wellbeing showed a higher share of interest in affordable housing, wage levels and the local cost of living, whilst those in the high wellbeing group favoured parks and open spaces.
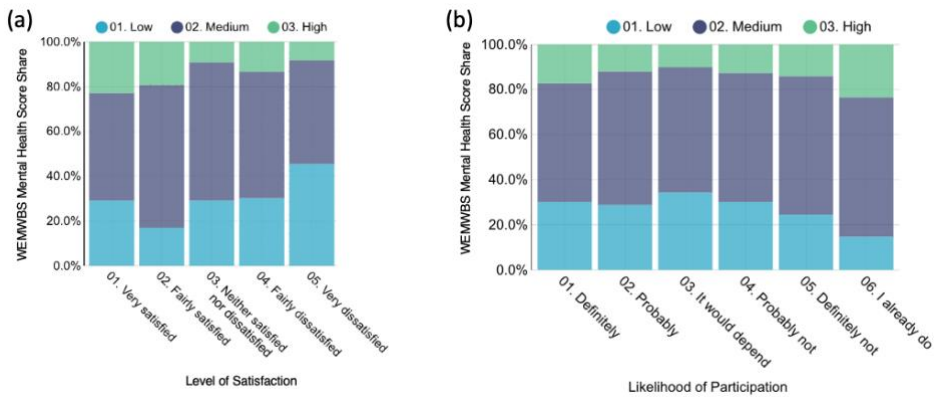
Figure 2: (a) The distribution of WEMWBS mental wellbeing score share for the satisfaction with, and influence on, council decision making in Lancaster. (b) The distribution of WEMWBS mental wellbeing score share for the likelihood of engaging in a friends group.

Outlook

This case study used the Life Survey to investigate employment in Blackburn with Darwen and the public realm in Lancaster. In summary, 10% of respondents were out of work, and this group were more likely to have lower mental and physical health and lower education levels. Of the 40% that are in work, working from home improved mental health. In addition, satisfaction with council decision making and active participation were correlated with higher mental health. The key results have been presented here, but further exploration and analysis of the data is possible with the accompanying dashboard. In future work, it would be valuable to explore geospatial trends, such as those out of work, or the spatial correlation between local priorities and proximity to green open spaces. This would require larger sample size to be collected and additional datasets. It would also be useful to understand more about work from home trends in different industry sectors using Q73.

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 lookups	Open Geography Portal

Life Survey questions used

No.	Description
35	WEMWBS mental health score
70	Employment Status
69	Education Levels

No.	Description
18	Local Engagement
31	General Health
19	Engagement Barriers

No.	Description
13	Council Decision Making
12	Local Priorities
74	Work From Home

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. To calculate the WEMWBS score, the responses to each of the 14 survey questions are converted into a 5-point scale that reflect the frequency of occurrence, starting with 1 (None of the time) through to 5 (All of the time). The scores from each question are summed, resulting in an overall WEMWBS score in the range 14-70. These scores can be categorised as low (<44), medium (45-59) and high (60-70).

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

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