



Sheffield Economic Evidence Base

A Draft Report for the Economic Development and Skills Committee (June 2022)



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1) INTRODUCTION AND CONTEXT

There is ambition to raise Sheffield's profile nationally and internationally, capitalising on the city's assets to attract new business and investment to the city. The city has experienced high business survival rates and steady job growth in recent years. A highly qualified population and innovation strengths in technology, health and wellbeing, and advanced manufacturing also provide a foundation for future economic growth. However, the challenge of inequality remains with the city and in some neighbourhoods the situation has deteriorated as a result of the impacts of Covid-19. Disparities include poor health and economic outcomes for some groups compared to others. This study was commissioned to help understand (a) the city's short-term and long-term strengths and weaknesses post Covid-19, and (b) the performance and prospects of Sheffield's business base and labour market. This will inform how the City Partnership delivers truly transformational, inclusive economic growth through a new City Strategy.

It is within the above context that this report and evidence base was commissioned. It transcends a traditional economic study taking a more holistic view of Sheffield's economy and communities, reflecting new ways of thinking about inclusive and sustainable development. The study provides a rounded evidence base to support the development of the next city strategy being developed by the Sheffield City Partnership. This represents a marked shift from previous approaches which have tended to adopt a narrower economic lens. This study also looks at health and wellbeing, inclusion and the transition to a greener economy and how long-term improvements in these areas and within particular geographies might improve the prosperity and fortunes of the city.

This evidence base presents an overview of the emerging findings from extensive quantitative analysis which has been supported by qualitative data. Several jointly agreed research questions guided our approach and the data indicators explored have been agreed and collated through engagement with a project Working Group and Steering Group made up of representatives from organisations from across the public, private and voluntary sector in the city.

This study will ensure that the economic impacts of the pandemic are taken account of in future economic strategies and the way Sheffield approaches policy and strategy more broadly over the coming years. The baseline analyses the evidence to help understand the past, present and future of the city and gain a proper understanding of Sheffield's unique characteristics. It is a work in progress and this report summarises the emerging headlines from the analysis of many data sets to date. There is some more work to be done to deepen the analysis and look at the characteristics and prospects for small geographies and key groups.

CONTEXT

GLOBAL AND NATIONAL ECONOMIC SITUATION

The UK and global economies have recently faced a series of unprecedented shocks – from the need for businesses to adjust to the UK exiting the European Union and the impact of Covid related restrictions, to challenges associated with the constrained supply of labour across many sectors, the global implications of the war in Ukraine, and the scale of the worsening cost of living crisis.

Many of the consequences of these shocks are interrelated and, while they are playing out at a national and global level, there are clearly already observable impacts on Sheffield's residents and businesses. This has also occurred after a challenging decade following the global financial crash of 2008, which resulted in an extended period of constrained economic and wage growth. It is important to recognise that we entered the recent period of turbulence from a weaker starting point than has been the case in previous economic cycles and this will impact on how the recovery plays out. As an example, across the UK, average real wages increased by only 26% (or 2% per year) in the ten years following the 2008 crash, compared to 70% (or 5% per year) in the ten preceding years¹.

Looking ahead, the IMF forecast that global growth will slow from an estimated 6.1% in 2021 to 3.6% in 2022 and 2023; below the levels previously estimated in January. Beyond 2023, global growth is forecast to decline to about 3.3% over the medium term. It notes inflation is expected to remain higher and for longer than previous forecast, driven by war-induced commodity price increases and broadening price pressures. The war in Ukraine it adds has exacerbated two difficult policy trade-offs: between tackling inflation and safeguarding the recovery; and between supporting the vulnerable and rebuilding fiscal buffers. The IMF maintains that beyond the immediate challenges of the war and the pandemic, policymakers should not lose sight of longer-term goals including novel ways of working, productivity enhancements and positive structural change wherever possible, embracing the digital transformation and retooling and reskilling workers to meet its challenges. It concludes with a prescient point of relevance for Sheffield that the green energy transition will entail 'labour market reallocation across occupations and sectors.

Growth in the UK is now expected to be 3.7% in 2022, slowing to 1.2% in 2023 – a one percentage point reduction on the January forecast, as inflation is expected to erode real disposable incomes. This is expected to represent a long-term loss of income for workers and the UK economy, impacting on personal and government spending decisions. With the Office for Budget Responsibility (OBR) forecasting that average wages will not catch up with inflation until 2026/27 the squeeze on disposable incomes and living standards is expected to continue for several years. It is also important to note that this is an average, with many people including those on lower incomes expecting to experience even slower wage growth over this period. The forecasts also assumes that inflation will quickly reduce to its target level of 2%, however if increases in the cost of living continue at a higher rate for longer than expected then the implications for living standards will be greater.

Economic growth will also be limited by labour shortages with job vacancies increasing sharply despite employment being below pre-pandemic levels. A number of explanations are provided with potential implications for Sheffield including: (i) a mismatch between the types of available job seekers and the skills of job seekers, (ii) health related concerns leading to the withdrawal of older workers from the workforce, (ii) changing job preferences among workers resulting in historically high quit rates, and (iv)

¹ ONS Gross Domestic Product Time Series (Wages and Salaries)

school and childcare disruptions leading parents of young people, particularly women, leaving the labour force. $^{\rm 2}$

Combined with wider trends including accelerating changes to consumer spending patterns, shifting patterns of global trade (with barriers to trade to some nations reducing while increasing to others), continuing technological advancements, and the shift to green and carbon neutral economies, alongside the UK Government's commitment to levelling up, the coming years will bring considerable further change and provide myriad opportunities and challenges for Sheffield's businesses and residents.

Looking ahead, Sheffield must set the challenge of how it can best position itself to seize opportunities to improve the economic and social wellbeing of its residents, while supporting the resilience of those most at risk of global headwinds.

INFORMING THE CITY STRATEGY

The vision of the *Our Sheffield: One Year Plan* is for Sheffield to be a flourishing, sustainable and inclusive city economy which creates opportunity, good jobs, and better jobs for more of citizens. Sheffield will be a city where everyone is able to lead happier and healthier lives and where more residents have access to the city's assets.

This study involves the production of an evidence base to inform the City Partnership's next city strategy which will build on Sheffield's strengths of leading economic assets, global companies, a transforming city centre and proximity to the Peak District National Park. A key part of the city strategy will be to ensure future growth is inclusive and sustainable. This means everyone will benefit from future growth, and that this growth will be a catalyst for reducing inequalities and disparities between different communities in the city.

The next city strategy sits in the context of national and regional policy agendas which share inclusive growth ambitions. The UK Government's Levelling Up Fund missions provide a framework for places around the country to understand inequalities and design interventions to address these. However, in Sheffield the ambition goes beyond the aims of the Levelling Up Fund and the City Strategy will demonstrate this. Regionally, the South Yorkshire Mayoral Combined Authority's Strategic Economic Plan, Renewal Action Plan and Renewal Fund set out the need for sustainable inclusive growth across South Yorkshire. The Sheffield City Strategy will tap into opportunities presented by the Renewal Fund and other funds such as the UK Shared Prosperity Fund as part of a package of means for delivering the wider vision for Sheffield.

Covid-19 has presented Sheffield with a series of new challenges and opportunities, accelerating preexisting economic and social trends such as digital working, remote learning, and the decline in high street retailing. The pandemic has also had an implication for inequality in the city, stalling efforts to close gaps and widening them y in places. This furthers the need to place inclusive growth at the forefront of the City Partnership's work, building on action already taken with funding from Sheffield City Council's Economic Recovery Fund.

This study includes a comprehensive analysis of Sheffield's economy with a focus on inclusivity and health and wellbeing. The summary findings and narrative presented within this report highlight the areas that the City Partnership must focus upon as it develops its new city strategy.

² World Economic Outlook, April 2022 (IMF)

ABOUT THE STUDY AND THIS REPORT

This interim report has been prepared for the Economic Development and Skills Committee taking place on 21st June 2022. It presents an overview of the economic narrative for Sheffield and the headline data and findings of the evidence base report. The final outputs of this study will be a narrative report and evidence base. The evidence will contain additional data and analysis, to further assess and investigate many of the headlines shown, as well as an executive summary.

The policy implications stated throughout this report are the view of the report authors based on the evidence and are not necessarily endorsed or adopted by Sheffield Council.

RESEARCH AREAS

The evidence base tells the story of Sheffield through three interrelated chapters which reflect the key issues revealed by the data. These are 1) Productivity challenge and opportunities, 2) Unequal City and 3) Just Transition.

We explore what data tells us about the health and wellbeing of Sheffield's people and the impacts on economic opportunities. Similarly, data on education, qualifications and incomes illuminates about Sheffield's population and workforce of today and the future. These present a more rounded picture of the city's economy, supporting core economic outcomes.

Throughout, the study pays attention to the drivers and implications of inequality, and how Covid-19 may have widened or narrowed disparities. As well as the impact of Covid-19 on businesses and people's work and travel patterns, the evidence base uses the concept of a just transition to frame the links between the City's economy and communities and the need to reduce carbon emissions and improve air quality.

GEOGRAPHICAL FOCUS

This evidence base focuses on the Sheffield City Council area, with comparisons made against national and English Core City benchmarks. The Core Cities, including Sheffield, are Manchester, Newcastle Upon Tyne, Birmingham, Nottingham, Bristol, Leeds, and Liverpool.

Where data is available it has been analysed at Medium or Lower Super Output Area (M/LSOA) level. LSOAs are small areas designed to be of a similar population size. Up-to-date data is limited for LSOAs, and more will become available when the 2021 census data is released. MSOAs are slightly bigger, made up of groups of contiguous Lower Layer Super Output Areas.

ACKNOWLEDGEMENTS

We are grateful to the following organisations who played an important role on the project Working Group and Steering Groups:

- Sheffield City Council, including Public Health
- Sheffield Chamber of Commerce
- South Yorkshire Mayoral Combined Authority
- Voluntary Action Sheffield
- Sheffield Technology Parks

- City Taxis
 - o Colloco
 - o Proaktive
 - Sheffield Hallam University
 - o The University of Sheffield

NAVIGATING THIS REPORT

This report contains the following sections:

- The next chapter presents an overview of Sheffield and Local Area Committee profiles.
- Chapter three discusses the challenge of low productivity within Sheffield compared to the other Core Cities and examines the reasons for this.
- Chapter four identifies the existing disparities within Sheffield and explores the reasons behind them.
- Chapter five summaries the nature of carbon emissions and air quality within Sheffield and the economic opportunity in the low carbon goods and services sector.
- Chapter six recaps key messages from this report and raises issues for the City Strategy to consider and summarises some potential policy opportunities.

2) SHEFFIELD OVERVIEW

Sheffield is synonymous globally for its "Steel City" moniker. It is England's greenest city. Its name derives from the River Sheaf which runs through the city, Sheffield is the 4th biggest English city and the only major UK city with a National Park within its boundary. It has a rich cultural heritage including the world-famous Crucible Theatre. As well as its reputation for special steels and advanced manufacturing Sheffield is also known as The Outdoor City and a city of seven hills.

OVERVIEW OF SHEFFIELD'S ECONOMY AND POPULATION

"Throughout its history, Sheffield and its people have been recognised as inventive, hardworking, and entrepreneurial. It is a city that prides itself on getting on with things, quietly but effectively, irrespective of the challenges faced." <u>https://www.madeinsheffield.org/about-us/about-sheffield/</u>

These strengths mean the city has been able to attract and retain new investors, graduates, entrepreneurs, and multinationals. It has some well-known anchor assets including two world class research Universities and the Sheffield Teaching Hospitals (STH). The STH NHS Foundation Trust is formed of the: Northern General Hospital, Royal Hallamshire Hospital, Charles Clifford Dental Hospital, Weston Park Cancer Hospital, and Jessop Wing Maternity Hospital. It is internationally renowned for its services in cancer treatment, spinal injuries, neurology, cardiology pulmonary hypertension, and stereotactic radiosurgery.

The Advanced Manufacturing Innovation District (AMID) is a "world-leading, research-led advanced manufacturing cluster along the Rotherham-Sheffield Corridor". Its partners include SHU, UoS and both Rotherham and Sheffield councils. It is home to the UoS Advanced Manufacturing Campus (which includes Factory 2050), Sheffield Royce Translational Centre, Integrated Civil Infrastructure Research Centre, Laboratory for Verification and Validation, Boeing Sheffield, and the Olympic Legacy Park.

Sheffield has an international reputation for medical device manufacturing and production including large firms such as B. Braun and Swann Morton. There is a cluster of orthopaedic and orthotic firms too. The city has a strong and growing wellbeing and applied research business community including long-established firms such as Westfield Health.

Sheffield Hallam University is one of the UK's largest and most diverse universities: a community of more than 30,000 students, 4,000 staff and more than 280,000 alumni around the globe. The University of Sheffield has a similar number of students and is among the top 50 most international universities in the world, according to the 2022 Times Higher Education World University Rankings. Sheffield College has six campuses and has 13,500 students enrolled (including 2,501 apprentices) as of 2021. These three institutions have collectively over 73,000 students.

Sheffield is also known for its strengths in the digital, technology and creative industries, with ground breaking companies like Twinkl, Zoo Digital and Sumo. Its capabilities in digital and tech now include mobility, education, and manufacturing technology.

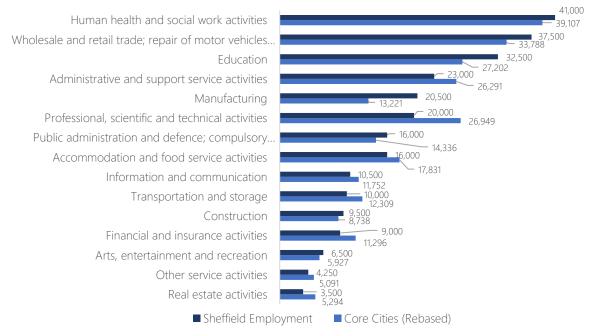
CITY PROFILE

In 2020 there were 262,500 jobs in Sheffield across all sectors, making it the fifth largest of the eight English Core Cities. The public sector is a major employer within Sheffield, with Health, Education, and Public Administration accounting for 89,500 jobs or over one in three jobs across the city. This is consistent with the rate of employment in the other smaller Core Cities (with these sectors accounting for 39% of employment in Newcastle) but is significantly higher than the rates in some of the larger Core Cities including Manchester (27%) and Leeds (25%). When considering the number of jobs per resident, the evidence suggest that this reflects a lower representation of the private sector, rather than above average levels of public sector employment.

Turning to the private sector, the largest employers in Sheffield are in Wholesale and Retail trades and in Administrative Support Services – which together employ 60,500 people or 23% of all jobs in the city – which is broadly in line with England (24%) and the other Core Cities (ranging from 21% to 25%) with the exception of Newcastle where only 17% of jobs are in these sectors.

Sheffield is associated with its manufacturing and industrial heritage; however manufacturing overall only employs 20,500, accounting for 8% of all jobs in the city. This is above other Core Cities, which range from 3% in Newcastle to 6% in Birmingham and Leeds but is in line with the rate across England.

Among the professional services related sectors (Information and Communications, Finance and Insurance, Real Estate, and Professional Services) the share of jobs accounted for by these sectors is lower than all other Core Cities, accounting for one in six jobs (or 16% compared to 25% in Manchester and 27% in Leeds).



Sheffield Total Employment in Relation to the Core Cities (2020)

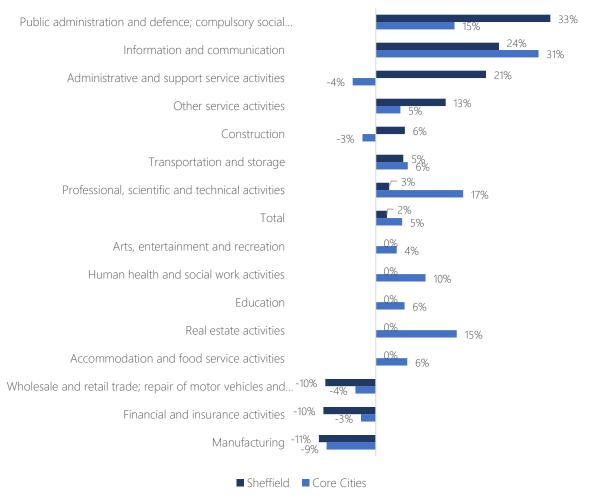
Figure 1: Sectoral breakdown of employment. Source: BRES 2022

Turning to employment growth, between 2015 and 2020, employment in Sheffield grew by 5,500 jobs or 2% - less than half the rate of growth of the Core Cities overall (5%) and below the rate of growth achieved across England (3%).

The fastest growing sector in Sheffield over this period was Public Admin and Defence, which grew by a third over this period, more than double the rate across the Core Cities overall.

There was strong growth within the Information and Communications sector (24%) however this was below the level that occurred across all Core Cities (31%). The strong growth of Admin and Support Services, compared to a small decline elsewhere, and the performance of Professional and Scientific Services and Real Estate Activities and Finance and Insurance also suggest that private sector employment has been focused on lower productivity and lower skilled sectors.

The decline of manufacturing and wholesale and retail, alongside growth of sector such as Information and Communications, also point to wider structural changes in the economy and the need to support those less able to transition into new and growing employment sectors.



Employment Growth (% Change 2015-20)

Figure 2: Employment growth by sector. Source: BRES 2022

Table 1 sets out all 3-digit sectors in Sheffield which have a Location Quotient above 1.5 (i.e. employment accounts for 50% or more in Sheffield than it does nationally) and more than 250 employees.

While overall Sheffield is not more specialised in manufacturing than England overall, and employment has declined in recent years, there are a number of sectors where there are clear concentrations of employment – including some important niches. Unsurprisingly Sheffield is highly represented in a

number of metals based sub-sectors, however employment in Satellite Telecommunications Activities is more than 10 times the national average and there are specialisms in Wireless Telecommunications, Special Purpose Machinery, and an automotive subsector.

Beyond manufacturing specialisms include a range of sectors from Higher Education, Insurance, and Legal Activities to Call Centres, and public sector employment (including Social Security, and Administration of the State).

The role of Employment Agencies is important, highlighting the relative importance of the temporary employment sector. Anecdotal evidence from one local agency that works in Sheffield and UK wide suggests the following sectors are busy in Sheffield: construction and manufacturing including food and drink. It was reported that the UK's Exit from the EU has meant there are more vacancy postings than job seekers currently though it was noted salaries where higher in Manchester and Leeds than Sheffield.

Sector	Employment	LQ
241: Manufacture of basic iron and steel and of ferro-alloys	2,250	16.3
255: Forging, pressing, stamping, and roll-forming of metal; powder metallurgy	1,750	12.3
613: Satellite telecommunications activities	500	10.2
257: Manufacture of cutlery, tools, and general hardware	1,125	6.2
245: Casting of metals	550	5.6
743: Translation and interpretation activities	275	5.1
325: Manufacture of medical and dental instruments and supplies	1,500	4.9
822: Activities of call centres	3,000	4.6
612: Wireless telecommunications activities	1,250	4.4
284: Manufacture of metal forming machinery and machine tools	325	4.1
854: Higher education	14,000	3.3
259: Manufacture of other fabricated metal products	1,125	2.7
843: Compulsory social security activities	800	2.7
651: Insurance	1,750	1.9
619: Other telecommunications activities	2,500	1.9
289: Manufacture of other special-purpose machinery	475	1.9
861: Hospital activities	25,000	1.8
531: Postal activities under universal service obligation	2,250	1.8
431: Demolition and site preparation	325	1.8
841: Administration of the State and the economic and social policy of the community	11,500	1.8
476: Retail sale of cultural and recreation goods in specialised stores	1,625	1.7
691: Legal activities	5,000	1.6
292: Manufacture of bodies (coachwork) for motor vehicles; trailer/semitrailers	300	1.6
781: Activities of employment placement agencies	2,250	1.5

Table 1: Sheffield Sector Specialisms

Source: BRES 2022

NATIONAL AND INTERNATIONAL COMPARATORS

KPMG's 2014 Magnet Cities report cited nine global 'turnaround cities' that have successfully reversed a long pattern of social and economic decline undertaking transformative projects to become fast growing

economically strong cities. KPMG used a wide-ranging qualitative method to try to unpick the factors that lay behind the transformative process that saw these cities become hotbeds for dynamism, population growth, new jobs, and investment.

Attracting a specific cohort of young dynamic wealth creators that build a new jobs base (i.e. green innovators) was quoted as a very significant factor with the number of patents per 10,000 residents seen as a good measure of success.

KPMG's research highlighted the importance of sustainability and environmental factors in attracting and retaining young talent. Physical fitness facilities, access to outdoor pursuits, artisan food and drink, strong civic networks and world class digital connectivity were all mentioned as key elements of a magnet city.

Continued physical renewal, a clear definable city identity, excellent connectivity, cultural & academic assets, multiculturalism, a culture of fundraising and capital attraction and strong civic leadership were the other factors cited.

Case studies of Bilbao, Malmo, and Pittsburgh are all particularly pertinent to Sheffield as they all share a history of rapid industrial growth, success, and late Nineteenth Century decline.

In Malmo regeneration was overseen by one civic leader, the mayor, over a twenty-year period. New high speed transport connections were established with Copenhagen and Hamburg. The city was physically overhauled with the old industrial docks decontaminated and developed into cutting edge sustainable housing with direct subway links to the city centre. A new university was created with a clear focus upon cleantech and life science R&D and start up support.

Bilbao placed a cultural asset, the Guggenheim Museum, improved transport infrastructure, land purchase and environmental improvements at the centre of a regeneration. The city has a long history of heavy industry and mining with 49% of Bilbao's workers still employed in the iron and steel industry within the 1980s. Deindustrialisation in the late 1980s saw unemployment rates reach almost 30% and the city's most famous asset, its river, declared environmentally dead. This cultural and environmentally led regeneration programme, accompanied by local budgetary focus upon supporting R&D heavy technology businesses³, has largely been credited with inspiring an economic and social renaissance within the city that has saw Bilbao's economy grow by 14% between 2004 and 2014⁴.

Sheffield's twin city Pittsburgh was long characterised as the home of the US Steel Industry. Following a period of deindustrialisation, the city was perceived in the 1980s to be in terminal decline characterised by a falling population and unemployment rates of up to 18%. Yet an economic recovery centred upon the city's two major universities, technical and medical educational assets⁵ and city partnership team with a clear shared focus on downtown regeneration and research and technology, has seen it become home to large numbers of dynamic young talent forming new businesses and jobs in fields such as robotics, AI, 3D printing and data analytics. The University of Pittsburgh's Medical school has developed an international reputation for excellence with a non-profit health conglomerate that employs over 62,000 turnover US\$10 billion annually. More people now work within Pittsburgh's medical sector than worked

³ The Basque Government allocated 2.08% of its annual budget towards supporting the development on new technologies, businesses, and industrial ideas.

⁴ KPMG (2014), <u>Magnet Cities</u>. Page 34. Available at.

⁵ CMU University's Robotic Institute has over 500 scientists and researchers focused on the commercial and clinical application of robotics.

in the steel industry at its peak⁶. A downtown renaissance plan saw new arts performance centres, galleries, theatres, convention centres, hotels, a new baseball stadium and an American Football stadium built. CMU's Collaborative Innovation Centre, with tenants such as Disney, Intel, Microsoft, and Apple, has supported large numbers of university spinouts and a R&D focus has seen some of Pittsburgh's core industries diversify into nuclear energy production, water purification and shale gas extraction.

GLOBAL JUST TRANSITION

In 2021 the C40 Cities Group published their case for a Green and Just Recovery. Citing extensive research and economic modelling based upon Canadian cities, they argued that an international stimulus programme focused upon inclusive environmental measures could reduce air pollution by up to 29% between 2020 and 2030 whilst creating over 50 million good sustainable jobs. This report argues for investment in the following areas:⁷

- Efficient and resilient buildings
- Clean energy sources
- Sustainable transportation
- Urban nature-based solutions

C40 called for a focus upon a collective shared vision across cities that prioritises new good, green jobs underpinned by an expanded and refocused skills programme; resilient and equitable public services; and health and wellbeing programmes that support nature, reclaim the streets, and clean the air.

Promisingly, the key drivers of economic renewal highlighted above reflect a number of priorities identified in the State of Sheffield 2020 report. Written at the peak of Covid and reflecting on how the city should position itself for recovery, including for residents and businesses most adversely affected by Covid, the report highlights the need to consider a range of issues, including:

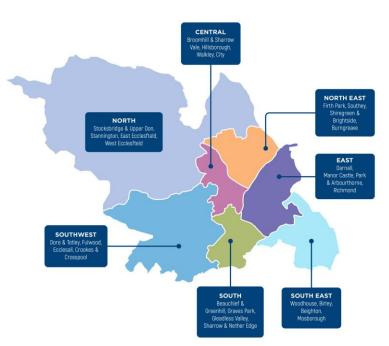
- How best to build on the strong foundations of the community response to Covid
- Thinking creatively about the role of the city centre
- How to tackle digital exclusion and support the city's schools and education providers
- How to support active travel
- How to best support arts and culture
- How to enhance democratic engagement in the city.

LOCAL AREA COMMITTEE PROFILES

In this evidence base LSOA data has been aggregated and analysed to report by the seven Local Area Committees (LACs), which are bespoke sub-geographical areas used by Sheffield City Council (Figure 3). The following section provides a profile of key socio-demographic statistics.

⁶ <u>Ibid</u>.

⁷ C40 Cities (2021). <u>Canada: The Case for an Urban Green and Just Recovery.</u> Available here.



Sheffield Local Area Committees

Figure 3: Sheffield's Local Area Committees

LAC PROFILES

Central

Indicator	Figure Indicator		Figure
Population	13,0413	Employment per 1,000 population	842
Population: Under 16	14,389	4,389 Claimant Count (Rate %)	
Population: 16-64 (%)	105,002	Business Count (density)	32.72
Population: 65+ (%)	11,022	Healthy Life expectancy	61

East

Indicator	Figure	Figure Indicator	
Population	96,320	Employment per 1,000 population	659
Population: Under 16	21,010	Claimant Count (Rate %)	7.6%
Population: 16-64 (%)	60,891	60,891 Business Count (density)	
Population: 65+ (%)	14,419	Healthy Life expectancy	56.5

North East

Indicator	Figure	igure Indicator	
Population	88,407	Employment per 1,000 population	265
Population: Under 16	17,283	Claimant Count (Rate %)	8.4%
Population: 16-64 (%)	5,4021	Business Count (density)	26.19
Population: 65+ (%) 17,103		Healthy Life expectancy	55.5

South East

Indicator	Figure	Figure Indicator	
Population	74,595	Employment per 1,000 population	266
Population: Under 16	16,610	Claimant Count (Rate %)	3.8%
Population: 16-64 (%)	46,052	Business Count (density)	22.24
Population: 65+ (%)	11,933	Healthy Life expectancy	61.5

North

Indicator	Figure Indicator		Figure
Population	70,573	Employment per 1,000 population	250
Population: Under 16	11,708	Claimant Count (Rate %)	3.1%
Population: 16-64 (%)	41,762	Business Count (density)	26.67
Population: 65+ (%)	17,103	Healthy Life expectancy	64

South

Indicator	Figure	Indicator	Figure
Population	69,400	Employment per 1,000 population	221
Population: Under 16 13,551		Claimant Count (Rate %)	4.9%
Population: 16-64 (%)	4,3916	Business Count (density)	30.09
Population: 65+ (%)	11,933	Healthy Life expectancy	61.5

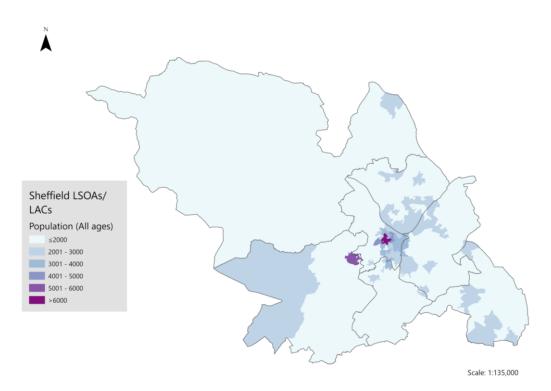
South West

Indicator	Figure Indicator		Figure
Population	59,506	Employment per 1,000 population	190
Population: Under 16	9,819	Claimant Count (Rate %)	1.3%
Population: 16-64 (%)	36,740	Business Count (density)	22.24
Population: 65+ (%)	12,947	Healthy Life expectancy	70

MAPPING THE SHEFFIELD ECONOMY AND POPULATION

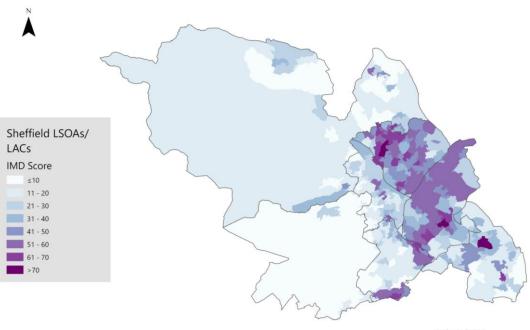
The following GIS maps display economic and population figures for Sheffield at lower super output area (LSOA) and middle super output area (MSOA) levels within their respective Local Area Committees (LAC) displaying the relative differences between different parts of the city.

The next map illustrates population estimates for Sheffield by LSOA and LAC for 2020. The highest population figures are within the Central LAC in and around the city centre with some LSOAs in excess of 6000 people. Population figures drop off progressively with distance from the city centre with most areas sub-3000 residents.



Population (All ages) for Sheffield by LSOA and LAC (2020). Source: <u>ONS Lower layer Super Output Area population</u> <u>estimates</u>. Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown copyright and database right 2022.

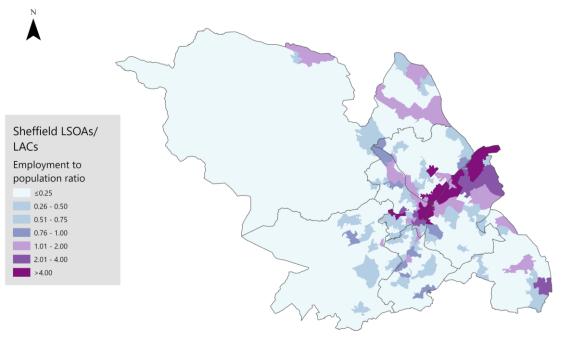
This map displays the Index of Multiple Deprivation scores (2019) for Sheffield's LSOAs. IMD scores ranged from 1.69 to 74.8 with the highest levels of relative deprivation in the east of Sheffield, specifically in the North East, East, and South East LACs. On average, the South West LAC scored lowest in regard to the index score (i.e. indicating a much lower prevalence of deprivation).



Scale: 1:150,000

Index of Multiple Deprivation Score by LSOA and LAC. Source: Gov.Uk <u>English indices of deprivation 2019</u> (File 7).Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

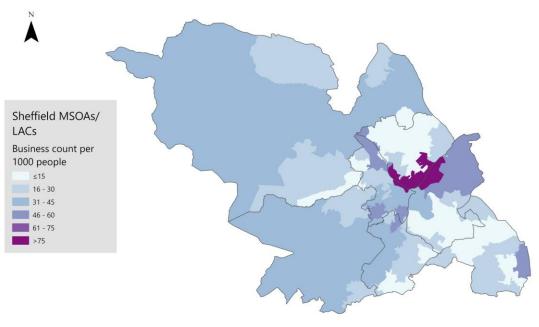
The below map compares employment figures against population estimates for Sheffield LSOAs (2020). The higher ratios indicate more jobs per people for the lower-level output area. Figures varied significantly from 0.007 to 6.905. The highest employment to population ratios were in the central and eastern parts of the district along the intersection between the North East, East and Central LACs, a reoccurring theme for these contextual data sets. Large swathes of the North and East recorded very low ratios likely due to lower levels of urban and industrial density.



Scale: 1:150,000

Employment to population ratio. Source: <u>ONS Lower layer Super Output Area population estimates (2020)</u> and <u>ONS Business Register and Employment Survey (2020)</u>. Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

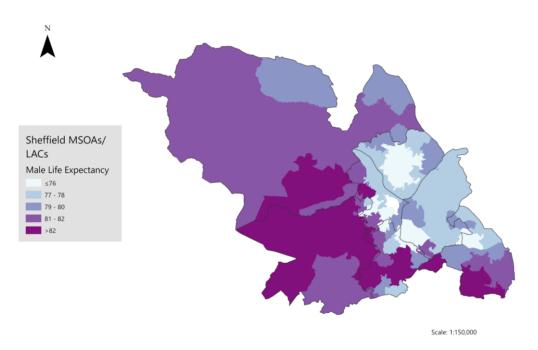
The next map displays business numbers per 1000 people at MSOA level for Sheffield. Count per 1000 varied from 7 to 87 businesses with the highest ratios in the centre of Sheffield in and around the Central, North East and East local area committees. Lower business figures are clustered towards the South.



Scale: 1:150,000

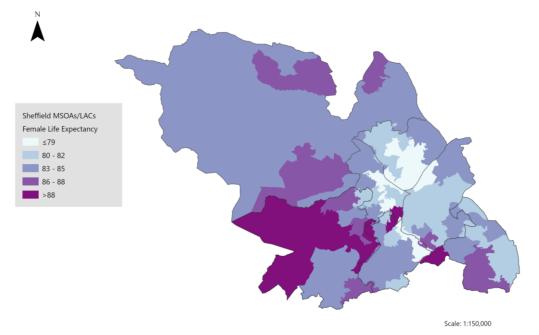
Business count per 1000 people by MSOA/LAC. Source: <u>ONS Middle Super Output Area population estimates (2020)</u> and ONS UK Business Counts (2020). Contains National Statistics data licensed under the Open Government Licence v.3.0 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown Copyright and database right 2022.

Male life expectancies by birth in Sheffield range from 74.0 years to 84.2. As depicted the highest are primarily in the West and the South East. Lowest expectancies are towards the centre of Sheffield in the Central and North East local area committees. This gap of 10.2 years is the second lowest of all the Core Cities and lower than the with a Core City average of 12.07.



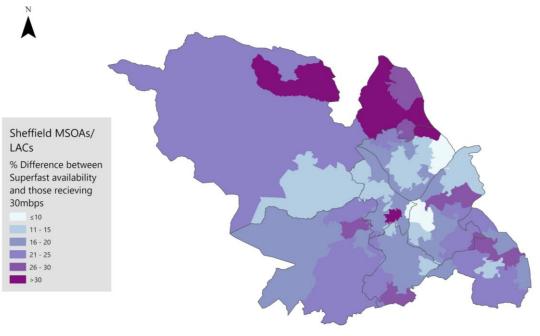
Male life expectancy by birth (upper age band 90+) by MSOA/LAC. Source: <u>Office for Health improvement and disparities</u> (2019). Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

In comparison, female life expectancies are higher ranging between 76.0 and 90.9 years of age. The distribution across Sheffield is comparable to that of Male Life Expectancy with the highest expectancies to the West and lower life expectancies towards the centre in the Central and North East LACs. This gap of 14.9 years is the second highest of all Core Cities (Manchester is highest at 16.6 years) and higher than the Core City average of 12.76 years.



Female life expectancy by birth (upper age band 90+) by MSOA/LAC. Source: <u>Office for Health improvement and disparities</u> (2019). Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

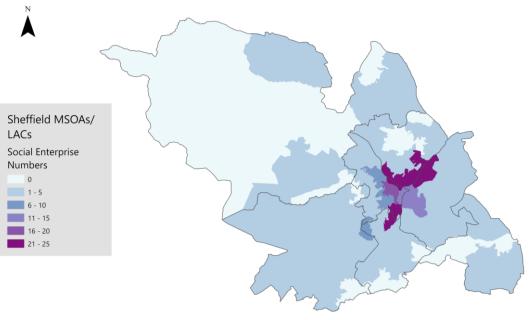
Ofcom Connected Nations data for Sheffield comparing the difference between superfast broadband availability and those receiving speeds of over 30mbps is shown above. The biggest differences between reception and availability are in the north with a gap of up to 39.4 percentage points between premises with superfast availability and premises currently receiving those speeds. Only two of the 70 MSOAs in Sheffield have a gap of less than 10 percentage points between those with superfast availability and those receiving over 30mbps. To compare, in the wider Yorkshire and Humber region the average gap is 18.5 percentage points and in London, 14.9.



Scale: 1:150,000

Variation between Superfast availability and lines receiving over 30mbps by MSOA/LAC. Source: <u>Ofcom Connected Nations</u> 2021, House of Commons Library. Contains National Statistics data licensed under the Open Government Licence v.3.0 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown Copyright and database right 2022.

Social Enterprise Network statistics for Sheffield are shown below. Predictably the highest density of social enterprises is in close proximity to the city centre spanning the Central, North East and East LACs with between 21-25 social enterprise in some LSOAs. The distribution and concentration of social enterprises shows a similar pattern to the business base in general.



Scale: 1:150,000

Social Enterprise numbers by MSOA/LAC. Source: Sheffield Social Enterprise Network. Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

COVID IMPACTS

Sheffield, as with towns and cities across the UK has been significantly impacted by Covid, and while we are in the process of recovering from the pandemic, there will remain a lasting and long-term legacy impacting on the city's residents and businesses.

Data from CoPeri illustrates that between March and December 2020 there was a 14% reduction in hours worked within Sheffield (13% for Sheffield residents) compared to 2019, partly reflecting that only 35% of residents and employees had jobs where they could work from home. This was also associated with a substantial increase in Universal Credit claims of 4.5 people per 100 residents⁸. Government data also indicates that by November 2021 85,900 jobs⁹ in Sheffield had been supported by the Furlough scheme at some point through the pandemic. In June 2021, the most significantly affected sectors were Wholesale and Retail (with 1,900 jobs on furlough in that month), Manufacturing (2,100), and Accommodation and Food Services (2,500).

The CoPeri data also notes that between 2019 and 2020, there was a 36% increase in loans to SMEs, with typical loans per business standing at £42,600.

Both the CoPeri data and the State of Sheffield Report 2020 highlight the disparity across areas and groups within the city. The report notes that those living in the more deprived areas are twice as likely to die of Covid compared to those living in the least deprived areas, regardless of gender; the risk of dying is higher in those in Black, Asian and Minority Ethnic (BAME) groups than in White ethnic groups; males are twice as likely to die as females; and beyond the immediate impact of Covid, BAME people were found to be significantly more likely to be affected by an increased risk of unemployment and associated, poverty or financial hardship, to lower educational attainment than expected due to a lack of IT equipment or overcrowded housing¹⁰.

Looking beyond the impact on residents, the report notes that in Sheffield, the estimated in-year financial impact of Covid-19 on the City Council is around £80m in 2020/21 (July 2020), largely due to increased cost of service provision, income loss, and loss of Council Tax and Business Rate incomes.

Data from the University of Sheffield's Covid-19 Places Economic Recovery Index (CoPERI) shows the relative recovery risk for all businesses in each MSOA, based on the industry, the change in SME debt and whether jobs can be done remotely or have to be done on site (referred to as zoomshock).

The North East, Central and East Local Area Committees have the highest percentage of MSOAs with high levels of risk to business resilience (Figure 4).

⁸ <u>https://sites.google.com/sheffield.ac.uk/coperi/dashboard</u>

⁹ Defined as 'employments.

¹⁰ State of Sheffield 2020

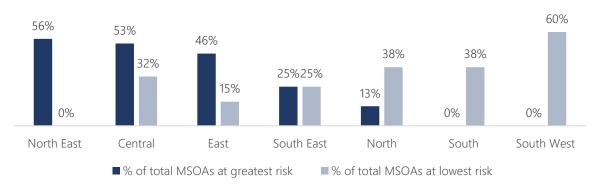
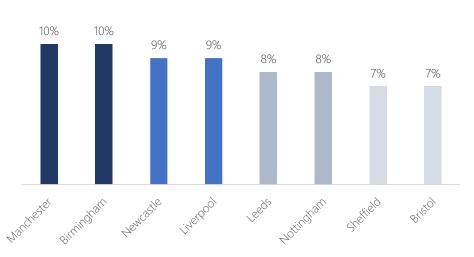


Figure 4: Risk to businesses resilience by LAC. Source: University of Sheffield CoPERI (2021)

In May 2021 8% of employees in the UK were enrolled on the furlough scheme. Across the Core Cities Sheffield had the second lowest rate, at 7% and compared to 10% in Manchester and Birmingham (Figure 5).



Furlough Take-up rate, 31 May (Share of employment)

Figure 5: Furlough Take Up Rate (May 21)

3) **PRODUCTIVITY CHALLENGE & OPPORTUNITIES**

Sheffield has lower productivity than the other Core Cities and the gap is widening. Its economic structure and specialisation partially explain this as does the mix and type of firms, access to skills, propensity to export and innovate, and infrastructure. The city lacks the business density and start-up rates of its peers although survival rates are good, and it has a high proportion of highly qualified residents and specialist areas of innovation. Sheffield is home to some dynamic independent companies, household names and headquarters of homegrown, UK, international and foreign owned companies. It has some strong and well-known sectors and emerging growth sectors too, but less fast-growing firms or original equipment manufacturers than other cities. With concerted action to address some of these 'productivity inhibitors' the city has an opportunity to create more firms and better paying jobs and stimulate business and inward investment.

THE PRODUCTIVITY CHALLENGE

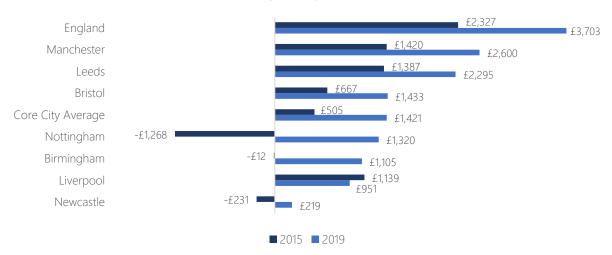
Sheffield makes a strong contribution to the UK and sub-regional economy, with economic output valued at £13 billion a year. However as noted above, despite pre-pandemic growth, there is growing evidence that Sheffield is not achieving its full potential, with its productivity performance slipping relative to the rest of the country, including the Core Cities.

Lower productivity means that Sheffield underperforms relative to the Core Cities and the current trend is for Sheffield to fall further behind. The economic output gap relative to the Core Cities is £1.4 billion, (up from £0.5 billion in 2015), and £3.7 relative to England (up from £2.3 million in 2015) (Figure 6).

Economic output ultimately represents value that can be shared between wages and profits or reinvested into businesses through higher capital investment and R&D. Therefore, the output gap is more than an abstract concept – it represents significant lost opportunity for the city and has the potential to reduce its long-term competitiveness further worsening its position.

Recent evidence from Sheffield Hallam University¹¹ suggests that poor and declining productivity may result, as mentioned, from a complex interplay of factors including the occupational profile of the city's workforce (with fewer professional and managerial roles), the sector mix (with fewer private sector jobs and a resulting dependence on public sector employment), and fewer firms operating in highly innovative and fast-growing sectors. While there is evidence that Sheffield firms are performing relatively well against a number of innovation metrics, further evidence suggests that these are not translating into commercial opportunities or business investment in R&D that are benefiting the city's businesses and residents.

¹¹ Beatty, C. & Fothergill, S., 2020. *The Productivity of Industry and Places*. Sheffield: Sheffield Hallam University (CRSER).



Sheffeld's Output Gap Relative to (£m)

Figure 6: Sheffield output gap. Source: BRES and Regional Growth Value Added 2019

Sheffield is not well represented in some high productivity sectors and its employment base is more heavily concentrated in public sector jobs than other Core Cities. This reflects an under-representation of the non-public sector related sectors, rather than an over-representation of public sector jobs. However, this is not the main driver of lower productivity which appears to be prevalent across all sectors, even traditionally more productive ones.

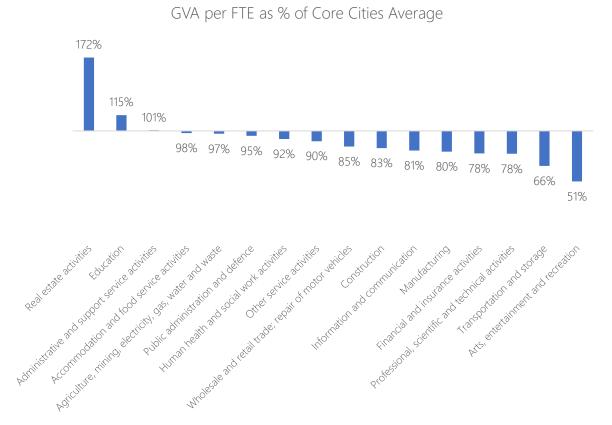
In addition, while a greater concentration of employment in more productive sectors (including highly productive sub-sectors) will be critical to closing the productivity gap, the next graph illustrates the scale of the challenge with all but two of Sheffield's broad sectors being less productive than the Core City average. Of particular relevance is the Professional, Scientific, and Technical services sector which is a fifth less productive (22%) in Sheffield than the other Core Cities (and 31% lower than the England average). Information and Communications (identified above as a specialist sector) is 19% less productive than the Core City average and 28% less productive than the England average (Figure 7).

While figures for England are to some extent skewed by London and the South East, Figure 6 above helps to demonstrate the scale of the challenge – particularly in priority growth sectors. Closing this gap will bring wide ranging improvement to Sheffield's business base and labour markets – from driving up productivity within existing roles, increasing the share of employment in higher level occupations, and promoting growth in higher value subsectors.

It is also important to note that, while Real Estate is highly productive in Sheffield relative to the Core Cities, it is broadly in line with the national average (at 98%). It is not possible to delve below the broad sectors due to limitations in data availability, but it is reasonable to assume that the strong performance of education is linked to the presence of the two universities.

Lower productivity within sectors is at least in part due to the types of job roles hosted in the city. For example, in Sheffield's financial sector, 34% of jobs are classed as managerial or professional occupations compared to a Core City average of 43%.

Across the workforce as a whole the share of jobs in Sheffield that are at manager and senior official level (occupation level 1)¹² is lower than the Core City average. If the occupational profile of jobs in Sheffield was in line with the Core City average, there would be 2,400 more manager and senior official roles in the city.





Sheffield does have comparable levels of employment in occupation levels 1 to 3 as the Core City average (Figure 8), however there is a slightly higher proportion of employment in occupation levels 7 to 9 than the Core Cities (Figure 9).

The types of job roles in Sheffield could explain why the average pay of residents is £22 per week higher than average earnings than people who work in the city. Sheffield is the only Core City where the pay differential is this way round and the data suggests higher earning residents are travelling outside the city to work.

¹² Jobs are classified into groups according to the concept of 'skill level' and 'skill specialisation' (1=highest, 9=lowest). Skill specialisation is defined as the field of knowledge required for competent, thorough, and efficient conduct of the tasks. Skill levels are approximated by the length of time deemed necessary for a person to become fully competent in the performance of the tasks associated with a job

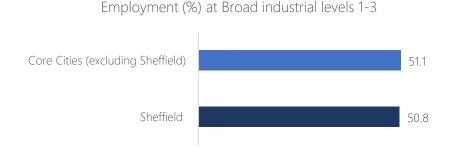
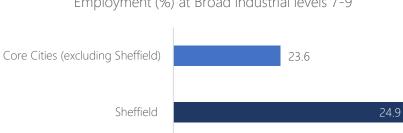


Figure 8: Employment in Standard Occupational Classifications levels 1-3. Source: Annual Population Survey (2021)



Employment (%) at Broad industrial levels 7-9

Figure 9: Employment in Standard Occupational Classifications levels 7-9. Source: Annual Population Survey (2021)

The lower level of productivity also reflects the historical reliance on large family businesses, the lack of Original Equipment Manufacturers (OEMs) and the position of many firms within their supply chains. The city has many branches and secondary functions and few unicorns¹³. It does have some well-known UK and foreign owned companies with a major presence in Sheffield in Finance and Law (Aviva, HSBC, DLA, Nabarro), IT (Sky Bet, BT), Green Industries (ITM Power, ARM Holdings and NXP Semiconductors) and Manufacturing (McLaren, Modelēz, Tata). Famous Sheffield companies and headquarters include a cluster of medical instrument manufacturers (B Braun), metal manufacturers (Forgemasters, Gripple, Outokumpu), technology companies (Fluent), digital tech (Sumo, Twinkl, WanDisco), construction and related professional and engineering services (Arnold Laver, ARUP, Henry Boot, Davey Markham, SIG) and legal services (Irwin Michelle).

Modern economies are increasingly dependent upon knowledge-intensive sectors. Sheffield has some strong sectors on which to build including well-known industries (advanced manufacturing and materials) and conventional sectors (creative and professional services). It also has emerging industries (digital tech) and areas of potential (health and well-being). It is well represented in foundation industries such as care and construction.

BUSINESS BASE AND LABOUR MARKET

Sheffield's economy was the 6th largest of the eight England Core Cities in terms of economic output. The city accounts for 47% of economic activity in South Yorkshire. Employment in Sheffield was growing slightly before the pandemic; however, this growth was outstripped by other Core Cities and employment change varied widely across local areas within the city.

¹³ Start-ups/private companies which have reached a valuation of at least \$1bn (currently about £812m).

Turning to businesses, Sheffield benefits from a stable employment base with high rates of business survival. However, the economic contribution of the city is also potentially constrained by the size of the local business base, with a business deficit and low rates of business start-ups likely to impact on the potential for the city to adapt to and benefit from the changing socio-economic, technological, and environmental context. Closing this gap will be essential if the city is to maintain and improve upon its competitive position.

Nationally, women and people from BAME communities are underrepresented as employers and within business leadership boards. Only 16% of SME's are led by women and only 6% were BAME led. There were significant variations within the BAME communities, with Indian led businesses at 28% compared to Pakistani at 8% and Black African at 4%. Female led businesses were most likely to be in the health and education sectors and BAME businesses in the hospitality and information and communication sectors¹⁴.

Finally, there is evidence that Sheffield residents are underemployed or seeking employment opportunities elsewhere. This is a lost opportunity for the city and there is more Sheffield can do to benefit from both the attractiveness of many parts of the city and the quality of life which encourage many people to live in Sheffield but work elsewhere.

SHEFFIELD HAS A RELATIVELY STABLE AND RESILIENT BUSINESS BASE BUT LESS DYNAMISM THAN OTHER CORE CITIES.

Sheffield is a city of makers with thriving and vibrant independent businesses and some evidence of 'survival resilience'. For instance, of businesses formed in 2015 (the most recent cohort with 5-year business survival data), the three, four and five-year business survival rates for Sheffield are better (or among the best) in comparison to other Core cities and the England average.

However, Sheffield has a lower rate of business start-ups, lower business density and fewer high growth businesses than stronger performing Core Cities.

A lower business density impacts on Sheffield's economic resilience and its ability to seize new growth opportunities. There are 40 businesses per 1,000 residents in Sheffield compared to a Core City average of 48 (Figure 10).

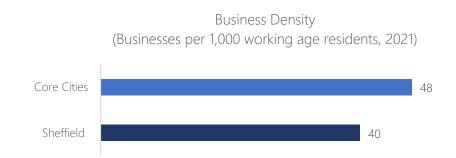
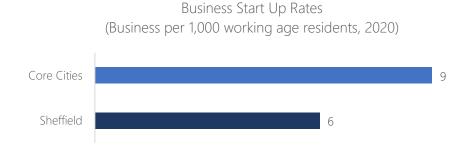


Figure 10: Sheffield business density. Source: LG Inform (2022)

Lower rates of business start-ups will result in Sheffield's business density falling further behind. In 2020 Sheffield saw 6 business starts per 1,000 residents compared to a Core City average of 9 (Figure 11).

¹⁴ Hutton, G. and Ward, M. (2021). *Business statistics*. <u>Available here.</u>





Amongst the businesses which do start-up in Sheffield fewer go on to be high growth businesses, based on the ONS definition¹⁵, compounding the economic impact of lower business density and fewer start-ups. In 2020, Sheffield was home to 0.23 high growth businesses per 1,000 residents compared to a Core City average of 0.31 (Figure 12).





Figure 12: Sheffield high growth business density. Source: LG Inform (2022)

WORKFORCE DYNAMICS

Between January 2021 and February 2022 in Sheffield there were 80,004 unique job postings. Of these, 67% of the unique postings in this time period had advertised salary observations (53,300 of the 80,004) and the median advertised salary per hour was \pounds 13.69.

Figure 13 shows the rise and fall in unique vacancy postings between March 2021 and February 2022. The absolute change in the number of unique jobs was +1,344, however there was a significant spike between August 2021 and January 2022 where unique postings reached its highest point at 24,085 in November 2021.

¹⁵ Defined as firms with at least 10 staff, firms that have grown at least 10% a year for three years. Note this is a 'high bar' as there are only 1730 businesses in England that meet this threshold.



Figure 13: unique jobs postings trend. Source: Sheffield City Council/Esmi Burning Glass

The top posted occupations in Sheffield between January 2021 and February 2022 include nurses (14,682 total posts, 6.7%), care workers and home carers (7,675, 3.5%) and programmers and software development professionals (7,031, 3.2%).

Finance skills and warehousing skills were cited as the most sought after in postings between January 2021 and February 2022, both at 7% of total postings. Other sought-after skills included a range of requirements in professional services - accounting (5%), auditing (5%) and business development (4%). Foundation industries (health, retail, finance) featured most frequently in the postings.

SHEFFIELD'S POPULATION IS MORE HIGHLY QUALIFIED THAN ITS WORKFORCE.

A skilled workforce is a critical feature of competitive cities. The accumulation of skills and human capital are central to the process of urban economic growth¹⁶.

Looking at Sheffield's 16-64 years old population, 47% have an NVQ4+ level qualification compared to 44% in the Core Cities (Figure 14). This advantage combined with better housing affordability than many Core Cities provides an opportunity to attract new inward investment, business relocations or indigenous start-ups, to take advantage of new growth. The city is a highly desirable place to live, even if not all residents work in the city.

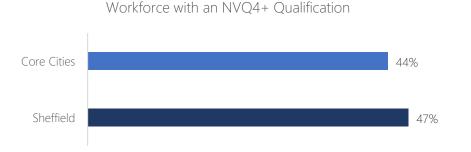


Figure 14: NVQ4+ level qualifications of 16-64 population. Source: Annual Population Survey (2021)

¹⁶ Chinitz, B., 1961. *Contrasts in agglomeration: New York and Pittsburgh*. American Economic Review 51(2): 279–289.

There are 29,800 more residents with NVQ+ qualifications than employees (Figure 15). This suggests highly qualified people are working outside of the city, or in roles below their qualification level. This could also explain why average wages of people working in Sheffield are lower than those living in Sheffield but working elsewhere.



Figure 15: NVQ4+ level qualifications of Sheffield's workforce and population. Source: Annual Population Survey (2021)

FOREIGN INVESTMENT, EXPORTING AND MAJOR EMPLOYERS

Inward investment can make a significant contribution to a local economy – beyond job creation and wages to productivity gains and fostering innovation, research, and development.

There is a substantial body of evidence showing that foreign-owned firms are more productive than domestically owned ones (see <u>Griffith et al. (2004)</u>) and that their presence can boost the spread of knowledge and productivity. For example, <u>Haskel et al. (2007)</u> document the existence of knowledge spill-overs from foreign companies located in the UK to domestic companies. <u>Griffith et al. (2002)</u> find that greater foreign presence within an industry increases the speed with which technology in that industry converges towards that of the world's most productive firms.

6.1% of Sheffield's business base are foreign owned companies, the third highest percentage of the eight core cities and 0.1% higher than the Core City average. Therefore, per 1,000 businesses, 61 are foreign owned in Sheffield.

Area	% of business base foreign owned
Liverpool	7.0%
Leeds	6.3%
Sheffield	6.1%
Manchester	5.9%
Bristol	5.9%
Newcastle	5.8%
Nottingham	5.6%
Birmingham	5.6%
Core City Average	6.0%

Table 2: Foreign owned businesses as a percentage of all businesses

Source: Databubble (Databroker)

The foreign owned businesses in Sheffield are in the manufacturing sector, leasing of medical equipment, computer systems and software as well as distribution services. Key examples are listed in Table 3.

Foreign Owned Company	Description
B Braun Medical	Develops effective solutions and guiding standards for the healthcare system in a construction dialog with customers and partners.
J R I Orthopaedics	Orthopaedic firm offering portfolio of implants and instrumentation providing a variety of solutions for primary arthroplasty through to complex revision surgery.
Alcoa	A metal finishing and polishing services company.
Liberty Speciality Steel	The third largest steel manufacturer in the country.

Table 3: Selected major foreign owned businesses

Of the eight core cities, Sheffield has the highest proportion of exporters as a total of their business base which is 1.2% higher than the Core City average. For every 1,000 businesses in Sheffield, 61 are exporters (Table 4), a selection of which are shown in Table 5.

Table 4: Exporting businesses as a percentage of all businesses

City	% of exporters in business base
Sheffield	6.1%
Leeds	5.3%
Manchester	5.0%
Nottingham	5.0%
Birmingham	5.0%
Bristol	4.5%
Liverpool	4.5%
Newcastle	3.9%
Core City average	4.9%

Source: Databubble (Databroker)

Table 5: Selected major foreign owned businesses.

Foreign Owned Company	Description		
Sheffield Forgemasters International	A global steel production and engineering firm that designs, manufactures, and delivers world-class steel forgings and castings.		
Sumo Digital	A video game developer based in Sheffield and principal subsidiary of Sumo Group.		
Servelec Technologies/Servelec Controls	Integrating service areas into one digital pathway that encompasses modern technologies, channel shift and integration across social care, healthcare, and education/early years.		
Welbilt	Development of touchscreen controls, smart systems and fully connected digital solutions to kitchen equipment		
Insight	A computer systems and software company.		
Cooper & Turner	Global manufacturer of bolts, studs, and industrial fasteners.		
Advanced Engineering Techniques Ltd	Leading engineering providers, supplying product to a host of sectors (Road Transport, Coach & Bus, Construction Equipment and Rail).		
Ovarro	A global IT consultancy company advancing productivity and environmental performance.		

Source: Databubble (Databroker)

Looking at business size, 0.6% of the business base in the city made up of large employers with over 250 employees (Table 6), 4th out of the eight core cities in the UK. Key large employers in the

public sector in Sheffield include higher education establishments such as The University of Sheffield, Sheffield Hallam University and The Sheffield College, as well as hospitals including The Sheffield Teaching Hospital, the Sheffield Health & Social Care Trust, The Royal Hallamshire Hospital, and the Sheffield's Children's Hospital NHS Trust.

The NHS Clinical Commissioning Group is also a key larger employer, commissioning most of the hospitals and community NHS services in Sheffield. Key large service sector employers include PlusNet Technologies. Capita Employee Benefits – a pensions advisory and consultancy company, Energy Assets who provide innovative metering services as well as Irwin Mitchell Solicitors.

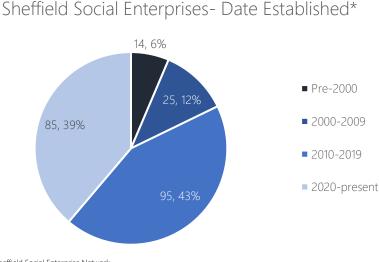
Core city	% of business base with 250+ employees	
Leeds	1.1%	
Newcastle	0.9%	
Birmingham	0.7%	
Sheffield	0.6%	
Liverpool	0.6%	
Manchester	0.6%	
Nottingham	0.5%	
Bristol	0.5%	

Table 6: Large businesses as a percentage of all businesses

Source: Databubble (Databroker), Note may differ from ONS data.

THE THIRD SECTOR IN SHEFFIELD

Sheffield has a vibrant and growing social enterprise sector. There are 219 Social Enterprises active in Sheffield, including a small number who are part of the Sheffield Social Enterprise Network (SSEN) but based outside of the local authority area. Of these 219, 39% were established within the last two years (Figure 16).



*Known by Sheffield Social Enterprise Network

Figure 16: Age of Sheffield's social enterprises

In terms of the type of activity undertaken by social enterprises the largest three sectors are Creative and Cultural, Education and Training, and Health and Wellbeing (Figure 17) which account for just over 40% of social enterprise activity. A number of social enterprises operate in more than one sector.

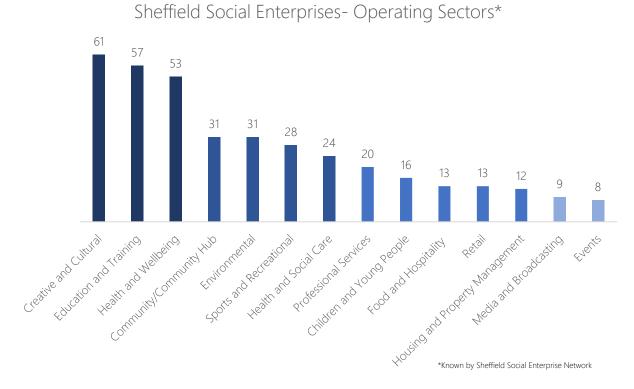


Figure 17: Sector of Sheffield's social enterprises. Note 25 sectors excluded from this figure as all had 4 or fewer citations.

INNOVATION

SHEFFIELD COMPETES WELL WITH CORE CITIES ON TECHNOLOGY INNOVATION AND INNOVATE UK FUNDED INNOVATION PROJECTS

The UK Tech Innovation Index measures both current activity and potential for innovation in seven technology sectors across UK cities. Sheffield is ranked 5th out of the Core Cities for innovation across all technology areas. Sheffield's strength is in Virtual Reality, ranking 2nd of all Core Cities, followed by Artificial Intelligence where the city is ranked 3rd.

Further evidence from BEIS provides data on innovation activities of UK businesses for Local Enterprise Partnership Areas. Data is available for the period 2016-18 for South Yorkshire and demonstrates that the sub-region has performed extremely well (and outperformed other 'core city' LEP areas) in terms of the proportion of businesses who are 'innovation active' (Rank 2 out of 38) and who are undertaking product innovation activities (Rank 1). More generally, South Yorkshire is ranked within the top 50% of LEP areas on all other metrics (and performs well relative to other Core City LEP areas) except for the proportion of turnover on new to market goods and services (Rank 30).

This suggests that South Yorkshire businesses have been good at engaging with and implementing innovative practices but are potentially weaker at translating these into viable commercial propositions to take to market.

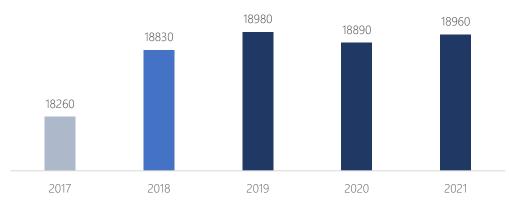
Since 2004, Sheffield has received an average InnovateUK funding allocation of £280,000 per collaborative academic and business research projects. This outperforms the Core City average of £261,000, and second only to Bristol (£615,000 per project). Since the start of 2017, 78 businesses have

received a total of £48.1m funding across 169 innovation projects. This shows that there have been some successes in applied research reflecting strengths within the City's flagship research centres and institutes.

COMMERCIAL PROPERTY

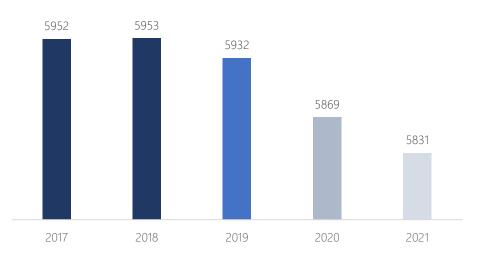
OFFICE TAKE-UP RATES ACROSS SHEFFIELD WERE 11% UP ON THE 10-YEAR AVERAGE COMPARED TO 3% ACROSS THE CORE CITIES

Between 2017 and 2021, total commercial property stock in Sheffield increased by 4% to 18,960 units but notably over the same time period, total floorspace (m²) decreased by 2% to 5,831,000m² (see Figure 18). This is slower growth than the national trend, where total commercial stock has increased by 6%, and floorspace by 1%, over the same period. Average floorspace per unit has fallen in both Sheffield (by 5%) and England (6%) during the 2017 to 2021 period.



Total Number of Commercial Units

Figure 18: Total Number of Commercial Units (2017-2021). Source: Gov.uk (NNDR) and SCC (2021)



Total Floorspace (1,000 m²)

Figure 19: Total Commercial Floorspace (2017-2021) Source: Gov.uk (NDR) and SCC (2021)

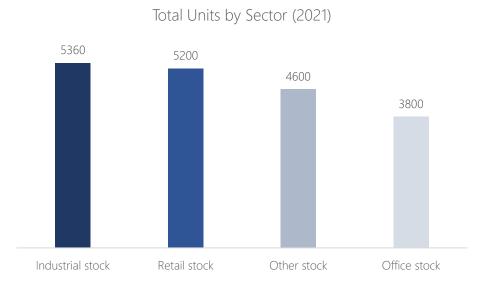


Figure 20: Total Commercial Units by Sector (2021). Source: Gov.uk (NDR) and SCC (2021)

Sheffield's share of Grade A office space (12%) is the lowest of all the Core Cities (17% below the average) (Figure 21). The Sheffield Property Association noted that low proportion of Grade A office space could be part explained by a viability gap where the cost of site preparation and commercial property development is greater than the end property values realised. The implication is that any major occupiers will have to either wait for a pipeline building or compromise by taking a lower standard of accommodation¹⁷.

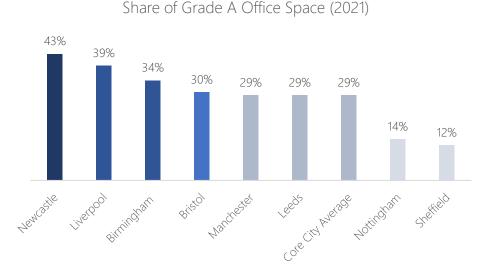


Figure 21: Share of Grade A Office Space by Core City. Source: LSH (2022)

In 2021, 2,684 commercial properties were vacant in Sheffield, a vacancy rate of 14%. Vacancy rates were 15% for retail (the highest for all the Core Cities), 22% for office and 10% for industry, all higher than the respective Core City averages of 10%, 19% and 9%. The vacancy rate for Grade A office space is 6%, 1 percentage point below the Core City average.

¹⁷ <u>https://www.business-live.co.uk/commercial-property/sheffield-development-aims-tackle-citys-20077568</u>

Core City	Office	Industrial	Retail
Birmingham	13%	8%	6%
Manchester	28%	17%	14%
Leeds	24%	9%	11%
Bristol	17%	7%	7%
Liverpool	22%	11%	14%
Newcastle	19%	6%	6%
Nottingham	9%	5%	5%
Sheffield	22%	10%	15%
Core City Average	19%	9%	10%

Table 7: Vacancy Rate by Sector (2022). Source: Value Office Agency Data and Local Insights

Reflecting upon these figures the Sheffield Property Association identified growing demand for leisure space as an opportunity for future growth, particularly within the context of a nationwide decrease in demand for retail space. Sheffield's relative lack of Grade A office space was also seen as an area that required addressing to attract large employers, though they acknowledged that both residential and commercial development is currently constrained by increased construction costs and land prices. Developments at West Bar, the Heart of the City and Sheffield Digital Campus (Endeavour House) were welcomed but the 401,322 ft² of new office space currently under construction does still fall below the Core City average of 558,223 ft².¹⁸ It was also acknowledged that the move towards increased levels of hybrid working was having shifting the types of commercial demand.

PRODUCTIVITY SUMMARY AND POLICY IMPLICATIONS

To summarise:

- The city has some dynamic independent companies, household names and headquarters of homegrown, UK and international and foreign owned companies but few OEMs or 'unicorns' (companies valued at \$1bn or more). It has strong medical and advanced manufacturing capabilities and well-known technology and digital firms as well as established construction and related professional, legal, and engineering services.
- If business density and start up rates were at the Core City average, Sheffield would be home to 3,400 more businesses, and every year there would be 950 more business starts.
- Sheffield has a highly qualified population, but the city is not making as much of this as it could and there is an occupational divergence for some important sectors such as professional services between Sheffield and the Core Cities.
- The most recent detailed innovation data shows the sub-region has a high proportion of innovation active businesses, some good examples of applied research and a high propensity for product innovation.
- There is a shortage of high-quality office space in part caused by a viability gap meaning potential occupiers either have to compromise or choose to locate elsewhere which could have a very detrimental impact on the future growth of the economy. There are currently high retail vacancy rates suggesting the city has struggled to recover from the effects of Covid-19.

The review of productivity data raises some potential policy implications:

• The skills profile and city's innovation assets offer a potent proposition for inward investment.

¹⁸ Knight Frank (2022). UK Cities Sheffield – Q4 2021. <u>Available here.</u>

- Investment in the next generation of leaders and managers and greater employee ownership would improve the city's occupational profile, employee prospects and stimulate higher performing working practices within organisations.
- Sheffield has some strong sectors on which to build including well-known (advanced manufacturing and materials) and conventional (creative and professional services) sectors as well as emerging industries (digital tech) and areas of potential (health and well-being). It is well represented in foundation industries (care and construction for example).
- Sheffield could be positioned as a northern start-up hub a place where people (including residents) want to do business and where there are good business survival rates. A focus on tech start-ups (with key verticals like health and wellbeing, educational technology, industrial automation, and green tech) could help to reduce the city's productivity gap.
- Potential commercial development sites need to be stimulated and brought forward and city centre resilience bolstered. Sheffield Future High Street Fund is re-purposing obsolete buildings including converting the upper floors of retail premises to inner city living.
- There is scope to boost the innovation and enterprise ecosystem, sub-regional innovation support and to build on the success of accelerators, world-class translational research facilities, and existing measures such as the Sheffield Innovation Programme. There is potential for new technology adoption programmes and business incubators and strategic collaboration on innovation across the sub-region. The Advanced Manufacturing Innovation District for instance can act as a lever to attract new inward investment and world class research infrastructure.

4) UNEQUAL CITY

Sheffield thrives on its diversity and the strength of its communities, supported by a dedicated voluntary sector and a growing number of social enterprises. However, as this chapter shows there are economic and social inequalities in our city, some of which have been exacerbated by Covid-19. Sheffield is overall a healthy city compared to other Core Cities, but with wide disparities seen between the different LAC areas in relation to healthy life expectancy (HLE) levels and levels of deprivation. HLE and deprivation are interlinked as people residing in the most deprived areas of the city experiencing the lowest healthy life expectancy. ("the poorer the area the worse the health" Marmot Review 2020). Health and wellbeing challenges can prevent people from working as much as they would like to and from fulfilling their potential resulting in years of potential life lost, (and in some cases working years lost) for some individuals and communities. This is a missed opportunity for our city. Similarly, unequal education outcomes mean the city is not maximising its potential skills base and can limit future opportunities for young people.

There are wide disparities in Sheffield across a broad range of socio-economic indicators. These reflect differences between neighbourhoods and communities, but also across different demographic groups.

There is also evidence that some groups have been impacted harder by recent economic shocks. For example, there is evidence that the pandemic has more greatly impacted on female employment in the city, both overall and for specific groups, including those with work-limiting disabilities.

When considering the health of Sheffield's residents, across many areas the city performs in line with or better than the Core Cities. For example, it has the highest rate of healthy life expectancy and has bucked the recent trend of marginal decline in life expectancy experienced nationally. However, this masks significant variation within the city, which also has a high rate of inequality in life expectancy and pockets of severe health deprivation.

In addition to poor life expectancy in parts of the city, there are also a range of wider health and wellbeing challenges that will directly contribute to the economic challenges outlined previously. Examples include high rates of mental health problems, including depression, and severe concentrations of poverty. Evidence suggests that child poverty is worsening within the city, and this will be further compounded by the cost-of-living crisis. This presents a major threat to the future wellbeing of the city's residents and impacts on long term health and educational attainment of younger residents. It is likely to have a tangible long-term impact on the city if it is not adequately addressed over the coming months and years.

PEOPLE – THE EXPERIENCES OF KEY GROUPS

This section considers the experiences of women, Black, Asian and minority ethnic groups, and people living with disabilities who all face significant challenges in Sheffield. Although these groups are discussed separately, they are not homogenous, and this section cannot capture the variety of experiences within these groups. It is also important to recognise the intersectionality of experiences and the cumulative impacts of inequalities.

Gender inequality in Sheffield means less women are employed and those who are receive lower salaries compared to men. A Fawcett Society¹⁹ report found over 42,000 women in Sheffield were missing from the labour market and average earnings were £10k less a year than men. Sheffield has an average gender pay gap of 12.6%, which is slightly lower than the national average²⁰. The Fawcett Society explain the gender inequalities are caused by caring responsibilities (adult and child) and high costs of childcare which impact Sheffield women's career progression and financial security.

Nationally, the gender pay gap has reduced by a quarter over the last 25 years, yet most of this improvement is due to increasing female educational attainment. There are variations within the gender pay gap, with women in the highest paying jobs receiving only 77% of a male salary compared to 90% of the lowest paid jobs²¹.

The Covid-19 pandemic and subsequent restrictions negatively impacted gender inequalities. Women are disproportionately represented in industries such as health and social care which were on the frontline of the pandemic. Women were also more likely to work in sectors which closed during the lockdowns for example retail, and therefore at an increased risk of job loss. Additionally, as women are more likely to be in insecure employment (i.e. zero hours) they were less likely than men to receive a discretionary employer top up on furloughed earnings or be entitled to Statutory Sick Pay. During the pandemic, the childcare gender gap increased with women spending increased hours on caring responsibilities as many families juggled working from home with childcare. Women were more likely to be furloughed compared to men and reported more difficulties with working productively at home²².

Women account for 90% of single parents and this group were more likely to be impacted by job loss, reduced hours or furlough during the pandemic compared to coupled parents. Single parents earn half the weekly wage of coupled mothers and were less likely to work from home. During the pandemic, single parents reported an 'impossible balancing act' between paid employment and caring responsibilities²³.

Sheffield is an ethnically diverse city yet, Black, Asian, and Minority Ethnic (BAME) groups face deep rooted inequalities which the forthcoming Sheffield Race Equality Commission has investigated. The employment rate in Sheffield for ethnic minorities is 61.2% compared to the city average of 74.6%²⁴. This ethnic minority employment rate is lower than the national average. Emerging findings from the Sheffield

¹⁹ The Fawcett Society. (2019). Making Devolution Work for Women. <u>Available here</u>.

²⁰ Office for National Statistics. (2021). Annual Survey of Hours and Earnings. <u>Available here</u>.

²¹ Andrew, A., Bandiera, O., Costa-Dias, M. and Landais, C. (2021). 'Women and men at work', IFS Deaton Review of Inequalities. <u>Available here</u>.

²² Women and Equalities Committee. (2021). *Unequal impact? Coronavirus and the gendered economic impact.* <u>Available here</u>.

²³ Gingerbread. (2020). Caring without sharing: Single parents' journeys through the Covid-19 Crisis – Interim Report. <u>Available here</u>.

²⁴ Office for National Statistics. (2021). Annual Survey of Hours and Earnings. <u>Available here</u>.

Race Equality Commission²⁵ have highlighted racial inequality and the widespread racism experienced by BAME communities, workforce pipeline issues and a lack of diversity at senior/board level across the city. The lack of representation at this level means the lived experiences of BAME are not heard in the spaces where strategic decisions are made.

During the Covid-19 pandemic, BAME groups have been disproportionately impacted due to entrenched inequalities and structural racism²⁶. The Runnymede Trust²⁷ found *"Indian households have 90–95p for every £1 of White British wealth, Pakistani households have around 50p, Black Caribbean around 20p, and Black African and Bangladeshi approximately 10p".* BAME people experience inequalities in employment, education, housing, accessing social security including Universal Credit, and health – for example Black ethnic groups have significantly higher Covid-19 mortality rates than White ethnic groups. BAME are over-represented in 'key worker' sectors and low-skilled roles for example Black African men are seven times more likely to be care workers than White British men. People from ethnic minorities are also more likely to be working in sectors closed during Covid-19 lockdowns in jobs which are low-paid and insecure²⁸. BAME women are twice as likely to be in insecure work compared to white workers and experience low-pay and underemployment²⁹.

The 2010 Equality Act³⁰ defines disability as "if you have a physical or mental impairment that has a 'substantial' and 'long-term' negative effect on your ability to do normal daily activities" and these characteristics are protected against discrimination. In Sheffield, 48% of people aged 16-64 living with disabilities are employed compared to 75.7% of the non-disabled population – a disability employment gap of 27.7%³¹. National statistics demonstrate the variations of the employment gap from different conditions for example people with learning disabilities, autism, or mental illness most greatly affected by the employment gap. Concerningly, almost half of people experiencing poverty in the UK are disabled or live with a disabled person³². Disabled people were more likely to struggle to pay household bills and buy food during Covid-19 than non-disabled people³³. Furthermore, disabled workers in Yorkshire and the Humber earn £11.45 per hour compared to £12.82 for non-disabled employees³⁴.

27% of people living with disabilities faced redundancy during Covid-19 compared to 17% of nondisabled people, this risk increased to 48% for those who are extremely clinically vulnerable³⁵. Turn2Us found people with disabilities were more likely to make a Universal Credit claim due to the pandemic including people in work³⁶. Those with disabilities are also a greater risk of Covid-19 mortality, for

²⁵ Hylton, K. (2021). Interim update. <u>Available here.</u>

²⁶ Marmot, M. et al. (2020). Build back fairer: The Covid-19 Marmot Review. Available here.

²⁷ Runnymede Trust. (2020). The colour of money. <u>Available here.</u>

²⁸ Women and Equalities Committee. (2021). Unequal impact? Coronavirus and BAME people. Available here.

²⁹ TUC. (2020). BME Women and Work. <u>Available here</u>.

³⁰ The 2010 Equality Act is <u>available here</u>.

³¹ Office for National Statistics. (2021). Annual population survey. <u>Available here.</u>

³² Oakley, M. (2021). *Time to think again*. <u>Available here</u>.

³³ Joseph Rountree Foundation. (2020). The financial impact of Covid-19 on disabled people and carers. <u>Available here.</u>

³⁴ Office for National Statistics. (2021). Annual population survey. <u>Available here</u>.

³⁵ Citizen's Advice. (2020). An unequal crisis. <u>Available here</u>.

³⁶ Turn2Us. (2020). Coronavirus and the impact on people with protected characteristics. <u>Available here</u>.

example people with learning disabilities are six times more likely to die from Covid-19 than the general population and this increases to thirty times for adults aged 18-24³⁷.

EDUCATION INEQUALITY AND DEPIVATION AND IMPACTS OF PEOPLE POTENTIAL

CHILD AND FOOD POVERTY HAVE INCREASED FASTER THAN THE NATIONAL AVERAGE IN DEPRIVED AREAS OF SHEFFIELD

In the UK, there are 3.9 million children living in poverty which is 27% of all children. Children in single parent families, from BAME communities and in larger families were all at greater risk of experiencing poverty. Importantly, 75% of children living in poverty are from a household with at least one person in work demonstrating that paid employment does not safeguard against experiencing poverty³⁸. Child poverty harms the health of the child at the time and for the rest of their life. Children living in the most deprived communities are nearly twice as likely to die compared to the most advantaged children, and children in deprived communities are more likely to have a serious childhood illness or long-term disability³⁹. During the Covid-19 pandemic, the impacts of child poverty were intensified due to school and nursery closures. The attainment gap between the most and least disadvantaged pupils grew during the pandemic, with the most deprived students less likely to have access to digital devices, the internet, and a quiet place to work at home. This gap in education attainment will serve to maintain existing inequalities and potentially limit future social mobility⁴⁰.

There are also disparities within free early education with lower levels in the most deprived areas compared to the least deprived. Evidence has clearly shown the importance of high-quality early education for the development and outcomes of children. In Sheffield, the average take-up for 15 hours per week free childcare for disadvantaged households was 64% in 2019. Yet, there were variations across the city with deprived areas such as Darnall (48%) and Burngreave (43%) having lower levels of take-up⁴¹.

Based on the Index of Multiple Deprivation (IMD), Sheffield is the third least deprived of the Core Cities. However, compared to England as a whole rates of deprivation are double the national average. Important when considering inclusive growth is the relative levels of deprivation within Sheffield. Income deprivation (the proportion of the population experiencing deprivation relating to low income) varies significantly across the city and Sheffield has some of the most deprived communities in the country. Nearly 25% of LSOAs in Sheffield are within the 10% most deprived nationally, concentrated in the North East and East LACs. That said, all LACs have areas that have at least two LSOAs which fall into the most income deprived 10% across England.

The North East LAC is the most income deprived LAC in Sheffield with almost 70% of the LSOAs falling in the most deprived 10% nationally. This is followed by the East LAC where close to 50% of LSOAs are in the most deprived 10% (Figure 22).

³⁷ Mencap. (2021). Eight in 10 deaths of people with a learning disability are COVID related as inequality soars. <u>Available here</u>.

³⁸ Child Poverty Action Group. (2021). *Child poverty facts and figures*. <u>Available here</u>.

³⁹ Marmot, M. (2020). Health Equity in England: The Marmot Review ten years on. Available here.

⁴⁰ Ofqual. (2021). Learning during the pandemic: review of research from England. Available here.

⁴¹ National Audit Office. (2020). *Supporting disadvantaged families through free early education and childcare entitlements in England*. <u>Available here</u>.

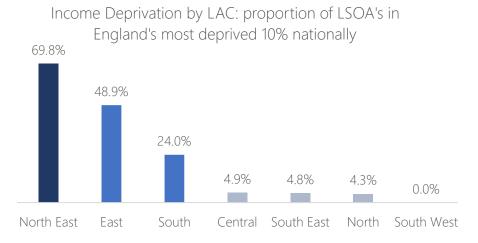


Figure 22: Income deprivation by LAC. Source: Index of Multiple Deprivation (2019)

Child poverty has increased by 22.4% since 2014/15, with an additional 6,865 children living in poverty. Sheffield performs relatively poorly in the Income Deprivation Affecting Children Index, with 21.7% of the population in the most deprived 10% nationally for this domain. As of 2019/20, there were 37,578 children (35.5%) living in poverty within the city. This is above the national average of 30.4% but below the Core City average of 37.4% (Figure 23).





Figure 23: Child poverty rates in Sheffield, Core Cities and England. Source: DWP/HMRC (2020)

Between April 2021 – March 2022, the Trussell Trust distributed over 2.1 million emergency food parcels, 832,000 of these parcels were for children which is a 15% increase from the year before. The Trussell Trust's own research found 94% of food-bank users were experiencing destitution meaning their income did not cover the essentials needed to live⁴². The Trussell Trust is just one food bank network in the UK, the true extent of food poverty is far greater. It is estimated there are over 6,000 food aid providers in the UK with the Trussell Trust representing around 40% of this⁴³.

Looking more widely than the Trussell Trust, and over a longer timeframe, food bank usage in Sheffield has almost doubled between 2019/20 and 2020/21, a 91% increase, compared to 41% nationally. This includes a 117% increase in the number of parcels distributed to children in Sheffield compared to 43% nationally.

⁴² Trussell Trust. (2022). <u>Available here</u>.

⁴³ Independent Food Aid Network. (2022). *Mapping the UK's Independent Food network*. <u>Available here</u>.

HOUSING AFFORDABILITY AND QUALITY

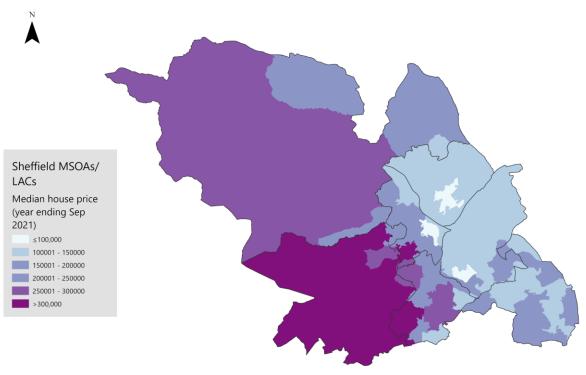
Poor quality housing contributes to poor health and wellbeing, for example through lack of heating or damp. Poor quality houses are often more energy inefficient (see Just Transition section) which can in turn exacerbate fuel poverty. There is a circular relationship between poverty, housing, and health.

Housing affordability is falling in Sheffield, but remains a relative strength compared to England and the Core Cities. Although this is a strength, if housing costs continue to rise without addressing poverty and economic disparities, there is a risk that relative poverty increases, and that these inequalities become more entrenched.

The subsequent two maps display median house pricing for the year ending September 2021 and the IMD housing affordability indicator for 2019 for Sheffield at MSOA and LSOA levels.

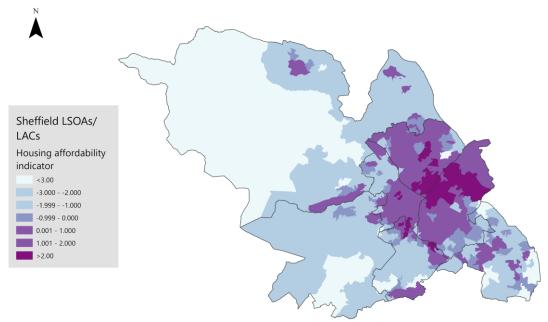
As visualised the highest house prices are located in the west of Sheffield particularly in the South West local area committee with median prices in excess of £300,000. The lowest house prices (as low as £83,000) are closer to the city centre in the Central, North East and East LACs.

This pattern is somewhat mirrored in the IMD housing affordability index which measures inability to afford to enter owner-occupation or the private rental market. Households less able to enter private property market are concentrated in the areas with lower median housing prices in the North East and East LACs.



Scale: 1:150,000

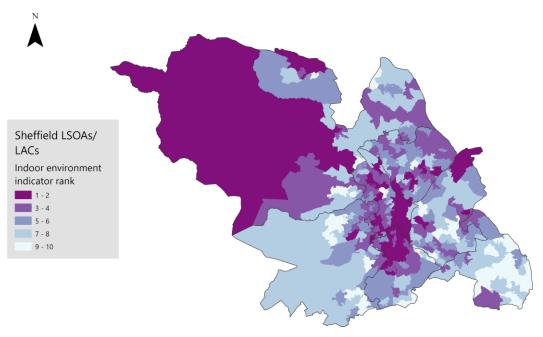
Median House Price by MSOA and LAC. Source: ONS House Price Statistics for Small Areas (HPSSAs). Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.



Scale: 1:150,000

Housing Affordability indicator by LSOA and LAC. Source: Gov.Uk <u>English indices of deprivation 2019</u>. Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

The indoor environment indicator is a combined indicator measuring housing quality, measuring homes in poor condition and homes without central heating. The below map shows how Sheffield's LSOAs rank nationally. A score of 1 means an LSOA is in the top 10% of most deprived LSOAs in the country, whilst a score of 10 means it is in the least deprived 10%. The most deprived areas are located around the city centre and in the North LAC, which may reflect the age and more rural nature of homes to the north of the city. Overall. 24 of Sheffield's 345 LSOAs fell within the most deprived 10% of LSOAs in the country.



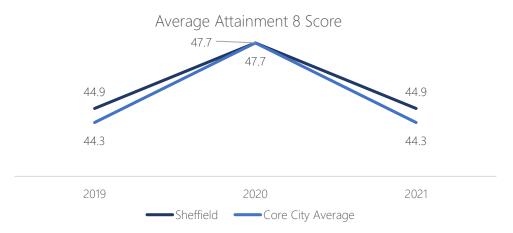
Scale: 1:150,000

Indoor Environment indicator rank by LSOA and LAC. Source: Gov.Uk <u>English indices of deprivation 2019</u>. Contains National Statistics data licensed under the Open Government Licence v.3.0 \bigcirc Crown copyright and database right 2022. Contains Ordnance Survey data \bigcirc Crown Copyright and database right 2022.

POORER SCHOOL PUPILS ARE FALLING FURTHER BEHIND AT KEY STAGE FOUR

Education can have life-long implications for young people and improving outcomes for groups with lower levels of attainment is a vital component of inclusive growth and tackling inequalities.

Sheffield's pupils have performed relatively well at KS4 over the last three years of available data. Average Attainment 8⁴⁴ scores across the city have been higher than the Core City average in two of the last three years. In the last academic year Sheffield pupils achieved on average 0.6 more Attainment 8 points than their peers in other Core Cities (Figure 24).





That said, Sheffield pupils eligible for free school meals (FSM) are falling behind in terms of GCSE / Key Stage Four (KS4) attainment. Between 2016/17 and 2020/21 average Attainment 8 scores have increased by 8.2 but only by 3.0 amongst FSM pupils. As a result the gap in average KS4 Attainment 8 scores between FSM pupils and their peers has grown to 17.2 points (Figure 25). This is the second largest gap of all the Core Cities (Figure 26).

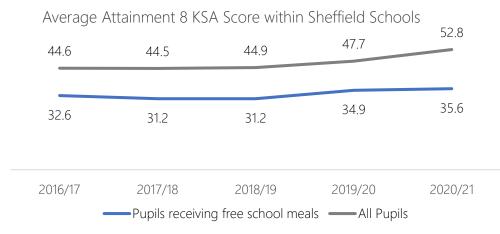
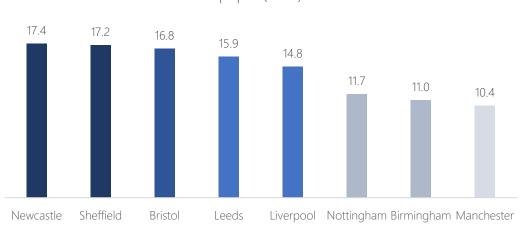


Figure 25: Average Attainment 8 score in Sheffield 2016/17 to 2020/21. Source: DfE (2021)

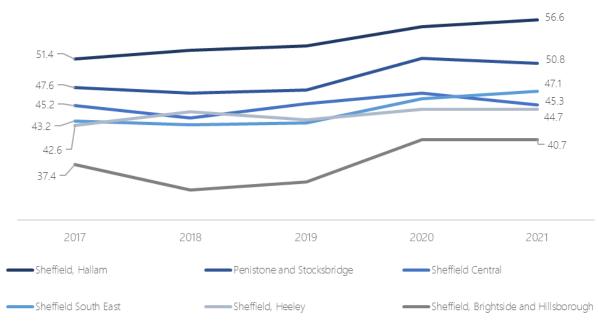
⁴⁴ A standard DofE measure that tracks GCSE attainment across six subjects (English and Maths are double weighted)



Average Gap in KS4 Attainment 8 Scores - FSM and non-FSM pupils (2021)

Figure 26: Attainment gap in Core Cities. Source: DfE (2021)

Key Stage Four attainment varies across the city with schools located within the Sheffield Hallam constituency consistently outperforming schools in other areas. Schools within the Brightside and Hillsborough constituency are consistently the worst performing. In 2021 there was a 15.9-point difference between the average Attainment 8 score in the two constituencies. This represents a 1.9 point widening of the gap since 2017 (Figure 27).



KS4 Performance by Parliamentary Constituency (2017-2021)

Figure 27: KSA4 Attainment 8 by constituency

KEY STAGE TWO PUPILS ACROSS SHEFFIELD PERFORMED WELL AGAINST OTHER CORE CITIES

According to the most recently available data. 64% of Sheffield's pupils met the expected standard in reading, writing and maths by the end of KS2. This was the third highest proportion of pupils amongst all the Core Cities and above the Core City average of 63% (Figure 28).

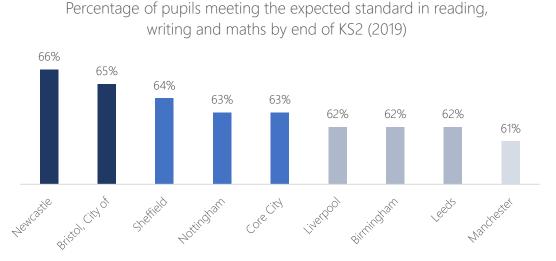


Figure 28: Percentage of pupils meeting expected standard in reading, writing and maths by end of KS2 in Core Cities. Source: DfE (2021)

KEY STAGE 1 PUPILS HAVE PERFORMED WELL OVER THE LAST THREE YEARS

At Key Stage 1 Sheffield schools have performed well over the last three years of available data. In 2019 76% of KS1 pupils reached the expected standard in Maths (Figure 29), 67% reached the expected standard in writing (Figure 30), and 72% in reading (Figure 31). The figures are for Maths and writing are above the Core City average whilst the figure for reading is in line with the Core City average.

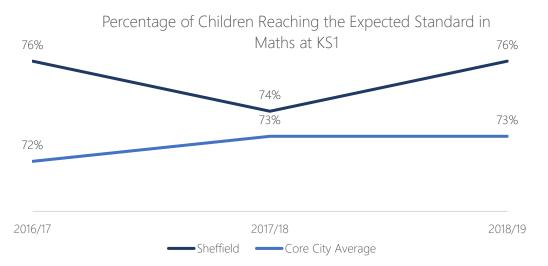


Figure 29: Percentage of pupils meeting expected standard in maths by end of KS1. Source: Department for Education

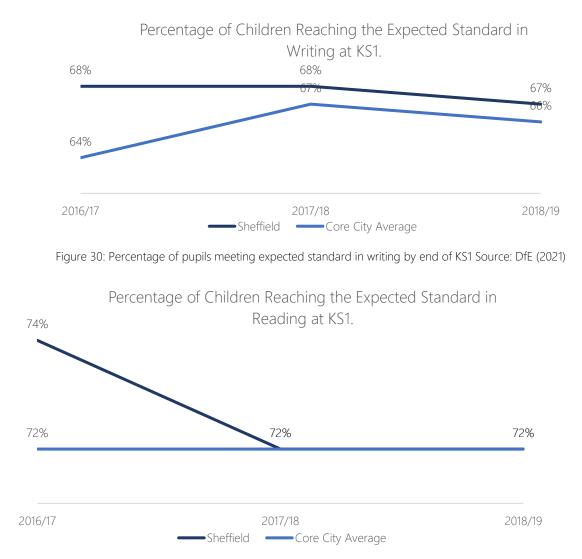
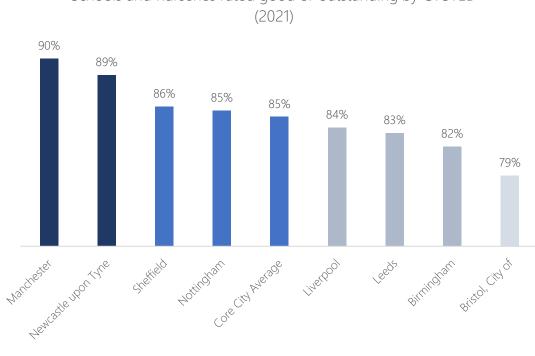


Figure 31: Percentage of pupils meeting expected standard in reading by end of KS1 in Sheffield. Source: DfE (2021)

Sheffield has a relatively high number of schools rated as Ofsted 'Good' or 'Outstanding' 86% of Sheffield's schools are currently rated as either 'Good' or 'Outstanding' by the school regulator Ofsted This is compared to a Core City average of 85% (Figure 32). This is reflective of the inspector's confidence in the school's leadership, standards, curriculum, safeguarding procedures and the levels of progress their pupil's make. To maintain this position Sheffield's KS4 providers will have to introduce effective measures for reducing the FSM attainment gap.



Schools and nurseries rated good or outstanding by OFSTED

Figure 32: Percentage of schools and nurseries rated good or outstanding by OFSTED. Source: DfE (2021)

THE NUMBER OF 16-17-YEAR OLDS NOT IN EDUCATION OR TRAINING IS FALLING BUT IT IS HIGHER THAN THE CORE CITY AVERAGE

8.7% (1,028) of 16-17-year-olds in Sheffield are not in education or training, compared to the Core City average of 8.6%. Across Sheffield the rates are highest amongst males (10.7%) and amongst white (9.8%) and mixed-race young people (11%). As Table 8 shows, the number of 16-17-year-olds not in education or training has been falling (down 7% points in the last two years). The fall in the number of pupils in apprenticeships or work-based learning should be noted.

Year	Full time education and training	Apprentice	Work based learning	Part time education	Employment combined with study	Other	Total	NEET
2021	83.4%	5.0%	2.4%	0.0%	0.3%	0.1%	91.3%	8.7% (1,028)
2020	80.9%	7.0%	2.4%	0.0%	0.7%	0.2%	91.1%	8.9% (1,017)
2019	79.9%	8.7%	2.7%	0.0%	0.5%	0.0%	91.8%	8.2% (913)
2018	78.9%	8.7%	3.4%	0.0%	0.6%	0.0%	91.6%	8.4% (954)

Table 8: Destination Data	for 16-17-Year-Olds withir	Sheffield (2018-2021).	Source: Gov.uk (2021)

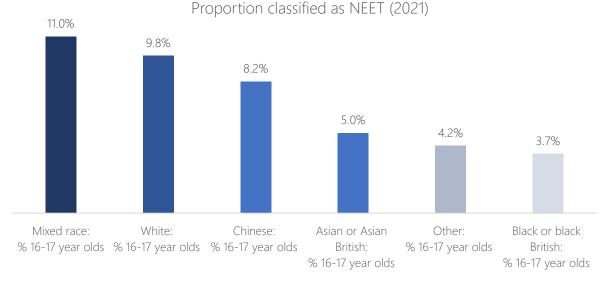


Figure 33: NEETs in Sheffield. Source: Gov.uk (2021)

UNEMPLOYMENT

A recent Sheffield Hallam research paper, 'The Real Level of Unemployment 2022', argues that the official unemployment statistics distort the full scale of UK unemployment. The authors state that as official figures do not incorporate the 760,000 incapacity benefit claimants that could be expected to work in "a genuinely fully employed economy"⁴⁵ they only provide a partial picture of UK unemployment. Table 9 provides an overview of the number of 'hidden unemployed' the authors believe reside in each Core City.

Area	Unemployment benefit claimants	Hidden on incapacity benefits	Number
Newcastle Upon Tyne	9,740	3,600	13,300
Manchester	22,750	9,800	32,600
Liverpool	19,130	17,800	36,800
Sheffield	15,880	7,900	23,800
Leeds	22,490	6,700	29,200
Nottingham	12,000	6,000	18,000
Birmingham	60,110	17,500	77,600
Bristol	11,350	5,800	17,200

Table 9: Hidden unemployment overview

The 'real' unemployment figure for Sheffield is 6.1%. As Figure 34 below highlights this is the third lowest of all the Core Cities, but it still represents 1.5% increase from the official claimant count. As hidden unemployment is more prevalent within weaker labour markets this situation worsens the inequality gaps that exist between the richer and poor areas of the country. With LSOA hidden unemployment data unavailable LSOA health inequality indicators provide the best measure of the scale of the issues across the city.

⁴⁵ Beatty, C., Fothergill, S., Gore, T., & Leather, D. (2022). *The Real Level of Unemployment 2022*. Pg3. <u>Available here</u>.

The authors state that this situation could be improved by increasing the number of 'good jobs' across the economy with the pay, conditions, and access needed to open up opportunities for many incapacity claimants.

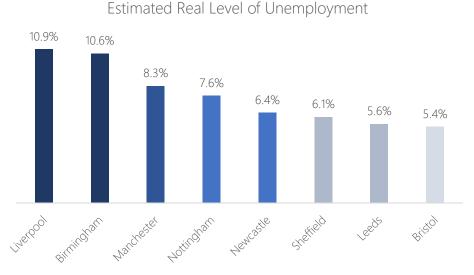


Figure 34: Estimated 'Hidden' and 'Real' Level of Unemployment by Core City. Source: Sheffield Hallam University (2022)

BENEFIT CLAIMANT RATES HAVE RISEN ACROSS THE CITY, BUT UNEQUALLY BETWEEN AREAS, WITH GREATER RISES FOR WOMEN THAN MEN SINCE THE START OF THE PANDEMIC.

The ONS claimant count data measures the number of individuals claiming Universal Credit and Job Seekers Allowance. The claimant count rate is the percentage of population aged 16-64 years old who receive the benefits and who are looking for work and defined as economically active.

In Sheffield the claimant count rate has increased from 2.9% in February 2020 to 4.6% February in 2022. This is below the Core City average (6.1%) and the second lowest of the Core Cities.

Across the city the female claimant count is 3.6%, an increase from 2.2% in February 2022. The male claimant count for Sheffield is 5.5%, an increase from 3.6% in February 2020. The female claimant count for Sheffield is below the Core City average of 4.7%, whilst the male claimant count is below the Core City average of 7.7%. This does not necessarily mean that women have higher levels of employment and will represent the fact that fewer women are engaged in the labour market and economically active, which is discussed shortly.

Although the claimant count rate in Sheffield is higher for men, the pandemic appears to have had a greater impact upon women. In fact, 63% more women were claiming benefits in February 2022 compared to February 2020, compared to a rise of 53% for men.

Figure 35 below shows the spatial disparity in claimant count rates across Sheffield. The highest claimant counts are largely concentrated within the East and North East LACs.

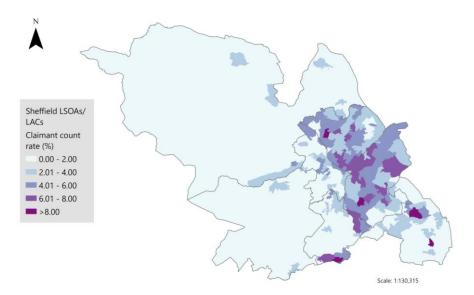


Figure 35: Claimant count rate by LSOA and LAC. Source: ONS/NOMIS Claimant Count and Mid-Year Population Estimates (2020-22). Contains National Statistics data licensed under the Open Government Licence v.3.0 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown Copyright and database right 2022.

HEALTH AND WELLBEING IS IMPACTING ON ECONOMIC ACTIVITY. THERE IS GENDER INEQUALITY WHEN IT COMES TO ECONOMIC INACTIVITY, WHICH IS STARKER BETWEEN ETHNIC GROUPS

When a society is flourishing health tends to flourish. When a society has large social and economic inequalities there are large inequalities in health⁴⁶.

There are clear links between health and deprivation and these inequalities are widening, with citizens in the most deprived areas having shorter lives, fewer years in good health and higher rates of preventable mortality compared to the least deprived areas. Long-term unemployment negatively impacts people's mental and physical health, as does work which is insecure, low-paid, poor quality or stressful. People from marginalised groups are more likely to be unemployed or employed in 'bad' work therefore at greater risk of poor mental and physical health⁴⁷. Thus, employment is an important tool where health inequalities are created and maintained. Reducing health inequalities brings economic benefits, for example it is estimated £30bn annually could be generated through increased productivity if the health in the north of England matched the rest of the country⁴⁸.

In official statistics, economically inactive people are not in employment and are also not classified as unemployed due to not seeking work. The Annual Population Survey provides data on reasons why people are economically inactive. These reasons are categorised as: studying; looking after family/home; temporary sickness; long-term sickness (including disability); discouraged; and retired.

Within Sheffield's economically inactive population, 27% are inactive due to sickness and disability. This shows the impact poor health and disability has on people's work opportunities, which of course in turn widens economic inequalities. Tackling health inequalities and improving access to work and working with employers will not only benefit individuals, but also help the city's economy.

Inactivity varies between ethnic groups (the Pakistani/Bangladeshi community have the highest proportion of economically inactive residents at 27%) however the biggest gap remains between men

⁴⁶ Marmot, M. (2020). *Health Equity in England: The Marmot Review ten years on*. <u>Available here</u>. Pg 5.

⁴⁷ Marmot, M. (2020). *Health Equity in England: The Marmot Review ten years on*. <u>Available here</u>.

⁴⁸ Thomas, C. (2021). *The Disease of Disparity*. <u>Available here</u>.

and women (17.2% and 22.8% respectively). Intersectional inequalities compound these disparities, with ethnic minority women having the highest levels of economic inactivity (26%) and white men having the lowest levels (16%).

RATES OF WORK-LIMITING DISABILITIES ARE HIGHER IN SHEFFIELD AND IMPACTS WOMEN MORE

People living with disabilities are less likely to be in employment than non-disabled people and were at an increased risk of redundancy and financial insecurity during Covid-19. The disability employment gap has reduced over the past decade and since 2017 the Government has aimed to get a million more disabled people into employment by 2027 – which was achieved in 2022⁴⁹. However, this aim has been criticised for not going far enough and the progress which has been made is in part due to increased reporting of disabilities and increasing employment levels more generally⁵⁰. Citizen's Advice research found nearly one and a half million disabled people are unemployed but want to work. Yet, they face challenges in the workplace with disabled people twice as likely to stop work in a year and three times less likely to return to employment⁵¹. Clearly, more support is required for people with disabilities to enter and stay in paid work as currently their potential is being missed, with the Business Disability Forum stating in May 2022 that "disabled people represent a huge and untapped talent pool. With skills shortages in many sectors, there has never been a greater imperative for business to access this available talent."

Across Sheffield, 20,600, or 5.3% of working age residents claimed incapacity benefits, which is higher than the national rate of 4.4%.

Unequal patterns of employment show how those facing barriers to work are at risk of being economically left behind or excluded from the workplace. People with work-limiting disabilities (defined as Equality Act Core⁵²) can be at greater risk if they experience more barriers.

In Sheffield, the unemployment rate amongst people with work-limiting disabilities is 8.6%, which is slightly above the national average of 8.1% nationally. There has however been a positive trend in Sheffield, with the unemployment falling from 13.4% five years ago. However, this positive trend has not been experienced by women with work-limiting disabilities, amongst whom unemployment has risen from 4.8% to 9.1% during the last five years. This is compared to 8.1% for men.

PAY DISPARITIES WITHIN THE CITY ARE GROWING INCLUDING GENDER DISPARITIES

Increases in the minimum wage over recent years has reduced the prevalence of low hourly pay in the UK, but pockets of low pay persist. Self-employment has grown over the last two decades, yet these workers face significantly higher rates of low pay than employees as they do not gain from the increasing minimum wage. The young, women, people from BAME communities, and people with disabilities are all at greater risk of low pay. Low paid workers are also at a greater risk of job insecurity, pay volatility, and insufficient hours than higher paid workers. Hospitality, retail, caring and childcare, cleaners, and elementary factory workers all experience high levels of low pay and job insecurity⁵³. Due to the cost-of-living crisis real household disposable income will reduce this year as increases in wages do not match

⁴⁹<u>https://businessdisabilityforum.org.uk/media-centre/press-release/bdf-responds-government-announcement-1-million-disabled-people-in-work/</u>

⁵⁰ Work and Pensions Committee. (2021). *Disability employment gap*. <u>Available here</u>.

⁵¹ Citizen's Adivce. (2016). Working with a health condition or disability. <u>Available here</u>.

⁵² Those who have a long-term disability which substantially limits their day-to-day activities

⁵³ Cominetti, N. et al. (2022). *Low Pay Britain 2022*. <u>Available here</u>.

inflation. The rising costs are impacting the poorest households the most for example after the energy price increase in April 2022 low-income households are spending 18% of their income after housing costs on energy bills⁵⁴. Research⁵⁵ found the rise in inflation has impacted women more due to their low-paid roles, spending commitments and the gendered expectations surrounding household shopping. Women also spent more time on unpaid work (i.e. childcare) and less time on paid work during the pandemic compared to men and were at a greater risk of job loss or furlough.

The gap between the lowest and highest earners living in Sheffield has grown in absolute terms from 2017 to 2021. In Sheffield, the 10% of residents with the lowest earnings have gross weekly median pay of less than \pm 167.20 per week according to the ONS Annual Survey of Hours and Earnings. This represents an increase of \pm 22.10 since 2017. This compares to the 10% of residents with the highest pay who earn over \pm 992.70 per week, an increase of \pm 129.10 since 2017.

	2017	2018	2019	2020	2021
Median	£416.6	£426.8	£449.4	£439.4	£483.6
10th Percentile	£145.1	£140.9	£148.0	£135.0	£167.2
25th Percentile	£257.0	£277.2	£292.0	£231.7	£253.7
75th Percentile	£626.9	£640.8	£664.0	£649.7	£723.7
90th Percentile	£863.6	£849.5	£896.7	£906.9	£992.7

Table 10: Gross Weekly Earnings for Sheffield Residents of Working Age.

Source: Annual Survey of Hours and Earnings (2021)

The pay differential between the lowest and highest 10% of earners has grown from £718.50 in 2017 to £825.50 in 2021 (Figure 36).

£863.60	£849.50	£896.70	£906.90	£992.70
£416.60	£426.80	£449.40	£439.40	£483.60
£145.10	£140.90	£148.00	£135.00	£167.20
2017	2018	2019	2020	2021
_	-Median	10 Percentile	90 Percentile	

Figure 36: Gross Weekly Earnings for all Sheffield Residents of Working Age (2017-2021). Source: ONS Annual Survey of Hours and Earnings (2021)

Amongst Sheffield's residents, there are disparities between men and women. Looking at full time and part time employment, median gross weekly incomes for men in 2021 were £573.20, a 16% increase from 2017. Women experienced a lower growth of 11% over the same period, to an average of £377.50 (Figure

⁵⁴ Joseph Rountree Foundation. (2022). *Rising energy bills to 'devastate' poorest families*. <u>Available here</u>.

⁵⁵ Living Wage Foundation. (2022). *Low paid work and the cost-of-living crisis disproportionately affecting women*. <u>Available here</u>.

37). The pay differential between men and women has grown from £155.10 per week in 2017 to £195.70 in 2021.

More women in Sheffield earn below the living wage than the national average with 35% of women working part time (31.7% nationally) and 17% of women working full time across the city earning less than the living wage (13.2% nationally).

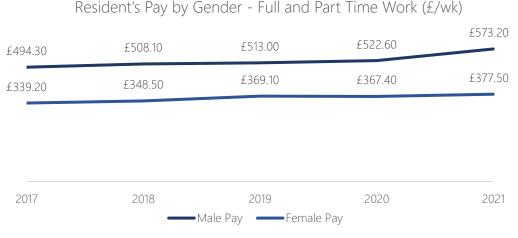


Figure 37: Median Gross Weekly Pay (Full and Part Time) by Gender. Source: Annual Survey of Hours and Earnings (2021)

Full time workplace earnings within Sheffield were £27.90 below the Core City average in 2021 at £568.50 (Figure 38). This disparity between Sheffield workplace earnings and the Core City average has grown from £5.20 in 2018.

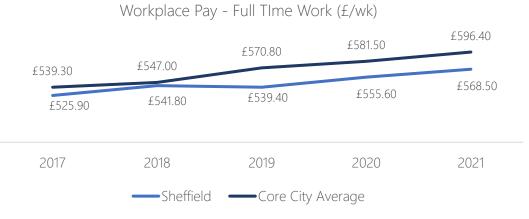


Figure 38: Median Gross Workplace Weekly Pay (Full Time) in Sheffield and Core Cities 2017-2021. Source: Annual Survey of Hours and Earnings (2021)

In 2021, earnings for Sheffield residents working full time were £27.10 above the Core City average, a large reversal from 2020 when they were £10.10 below the Core City average (Figure 39). This could be indicative of an increased number of higher earners moving to live within Sheffield during the Covid Pandemic and ensuing lockdown but not working within the city.

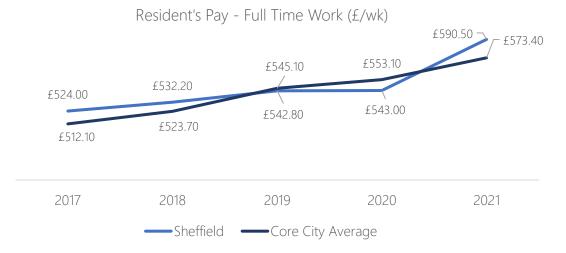


Figure 39: Median Gross Residence Weekly Pay (Full Time) in Sheffield and Core Cities 2017-2021. Source: Annual Survey of Hours and Earnings (2021)

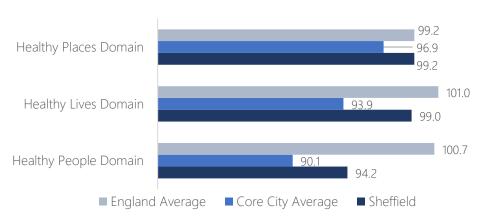
HEALTH AND WELLBEING

SHEFFIELD PERFORMS WELL RELATIVE TO THE CORE CITIES ON HEALTH MEASURES AND HEALTHY LIFE EXPECTANCY. HOWEVER, THERE ARE DEEP INEQUALITIES ACROSS THE CITY

The key ONS measures for physical health use data on respiratory disease, coronary heart disease, circulatory disease, strokes, and cancer as indicators of public health, which are conditions interrelated with deprivation. Looking at these, Sheffield has higher rates of deaths compared to the national average for coronary heart disease, circulatory disease, strokes, and cancer but lower rates for respiratory disease. These high rates result in many years of lost life (YLL) and productivity loss. On economic grounds alone this would justify prioritising health policies and interventions toward preventing sudden unexpected deaths.

Despite the analysis of specific health conditions according to the most recent ONS Health Index Sheffield has the highest score of all the Core Cities across the three main domains measured in the index, 'Healthy People', 'Healthy Lives', and 'Healthy Places' (Figure 40).⁵⁶ Sheffield performs better across most of these health measures than the Core Cities, demonstrating that Sheffield is healthy by English city standards.

⁵⁶ Higher values indicate better health. A score of 100+ indicated better health than the 2015 English average.



ONS Health Index Scores 2019

Figure 40: ONS Health Index for Sheffield, Core Cities and England. Source: ONS Health Index (2019)

Healthy life expectancy (HLE) in Sheffield is comparable to the national average and highest among the Core Cities. HLE at birth has also increased within Sheffield over the past five years, despite a marginal decline nationally. The latest data is published data for 2019/2020 is separated by men and women rather than providing a combined figure. HLE expectancy for women in Sheffield is 64.3, which is above the national average of 63.4 and is highest of all the core cities. HLE for men is 62.5 slightly below the national average of 63.1 but is again the highest of the core cities.

Within the city the picture is different. Data on HLE is not available at a small area level, so we have to look at the more traditional total life expectancy data which does not consider quality of life and healthy ageing. Total life expectancy ranges from 75.0 for men and 77.8 for women in Burngreave ward compared to 83.8 for men and 89.2 for women in the Ecclesall ward. Life expectancy for men is 13 years higher in the South West LAC (68) than in the North East LAC (55) and 15 years higher for women (71 and 56 respectively).

Closing this gap would reduce the number of years of lost life experienced in the more deprived local areas.

INEQUALITY IN MENTAL HEALTH IS CONTRIBUTING TO ECONOMIC INEQUALITY

A survey by Sheffield Flourish⁵⁷ found 60% reported their mental health had worsened during Covid-19, most of which had not pursued mental health support. The main concerns raised were around isolation and fear of the future. This snapshot from Sheffield is reflective of the national picture. The Covid-19 pandemic and subsequent restrictions have significantly impacted mental health with 75% of people reporting reduced mental health. The top reasons for this were feelings of separation, anxiety, and isolation⁵⁸. For people with existing mental health conditions, the pandemic has further reduced their mental health with increased anxiety, isolation, and concern about the future.

Notably, those receiving social security were more likely to report worsening mental health during the pandemic and experience poor mental health prior, thus existing health inequalities have been

⁵⁷ Sheffield Flourish. (2020). Impact of Covid-19 on Mental Health and Wellbeing: Survey Results. <u>Available here.</u>

⁵⁸ British Association for Counselling and Psychotherapy. (2021). 75% of people say their mental health has been impacted by the pandemic. <u>Available here</u>.

reinforced. Young people have also been disproportionately impacted with 88% reporting loneliness reducing their mental health⁵⁹. Research⁶⁰ with people with long-term mental health difficulties found Covid-19 had removed vital support and destabilised people's recovery. It noted how the pandemic could intensify existing inequalities surrounding employment, education, and housing for people with long-term mental health conditions. Thus, whilst Covid-19 has reduced mental health for many it has hit the most vulnerable the hardest which will likely cement pre-existing inequalities.

There is a clear link between mental health and productivity⁶¹. It is worrying therefore that Sheffield has a Mental Health Index score of 57.2⁶² that is 14.6 points higher than the national score of 42.6. 52.7% of Sheffield residents with depression, learning difficulties, mental health problems or nervous disorders are economically inactive, compared to inactivity rate of 35.9% across Sheffield's over-16 population.

In some parts of Sheffield, rates of depression are 40% higher than the national and city averages. The South East and North East LACs have the highest prevalence of depression (16.5% and 15.2% respectively). These figures are significantly above both the Sheffield average (12.0%) and the average across England (11.7%). Between 2012 and 2018 the number of ESA claimants for mental and behavioural disorders has more than doubled in Sheffield from 15.4 per 1,000 of the working age population to 34.8. Although this reflects the national picture the rate within Sheffield remains above the national average (27.3 per 1,000).

The 'happiness' score within a city provides a useful measure of resident well-being to supplement other measures (income and labour market outcomes for instance). In Sheffield, between 2019/20 and 2020/21, there has been a reduction in the number of residents with positive levels of life satisfaction and happiness and an increase in the number of residents experiencing anxiety, indicating the impact of Covid-19 on mental health and wellbeing. There was relatively significant drop in happiness levels in Sheffield during this time, greater than the fall nationally and across the Core Cities.

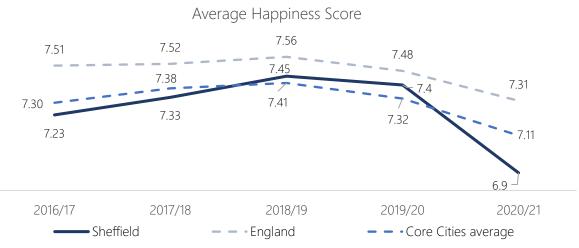


Figure 41: Average happiness score for Sheffield, Core Cities and England. Source: ONS Personal Wellbeing in the UK 2021)

⁵⁹ MIND. (2021). Coronavirus: the consequences for mental health. <u>Available here</u>.

⁶⁰ Leeming, D. et al. (2022). *Report shows pandemic's effects on those with long-term mental health issues*. <u>Available here</u>.

⁶¹ <u>https://mhpp.me/employers/research/</u>

⁶² This score is calculated using data from NHS Digital with a higher score indicating a greater prevalence.

The ONS measure provides a score out of 10 to indicate the average level of happiness across an area: 0 to 4 (low levels); 5 to 6 (medium levels); 7 to 8 (high levels); and 9 to 10 (very high levels). In Sheffield, average happiness levels fell from 7.4 in 2019/20 to 6.9 in 2020/21. This compares to a decline from 7.5 to 7.3 in England and from 7.3 to 7.1 in the Core Cities (Figure 41 above).

SUMMARY AND POLICY IMPLICATIONS: ADDRESSING INEQUALITIES

To summarise:

- The pandemic has deepened pre-existing inequalities for key groups including women and some ethnic minority communities.
- Employers can do more to offer appropriate employment opportunities for people with disabilities and mental health challenges (with post-pandemic working practices creating many new opportunities across many sectors), better enabling individuals to seek such opportunities and thrive at work.
- It would appear that the city's happiness levels are worse than its peers and declining. This is important as 'happy people are more successful in multiple life domains, including marriage, friendship, income, work performance, and health'⁶³.
- Children growing up in poorer families in Sheffield are emerging from school with lower levels of educational attainment. The 'long-standing results gap' is widening resulting in an increased unevenness in outcomes and reducing social mobility and evidence of increasing child poverty has the potential to further entrench this disparity.
- Sheffield is an affordable place to live compared to England and the Core Cities, but food bank usage is rising and there is a danger housing inequalities and affordability challenges could increase.

Looking at the data there are several potential policy implications to help address inequality:

- A range of measures is required to combat the disproportionate effect that Covid has had on key groups including women and ethnic minorities. For women better childcare, flexible working, equal pay, and menopausal awareness would help to ensure a more gender equal recovery⁶⁴.
- Measures to support good mental health and take a proactive, holistic, and preventive approach towards building employee and organisational resilience in Sheffield workplaces will ultimately increase productivity.
 - Existing and new measures will be required to ensure young people from all backgrounds can fulfil their potential in education. This is crucial to securing a more inclusive economy.
 - Sheffield will need to implement the measures within the Sheffield Tackling Poverty Framework 2020-2030 to reduce the high incidence of deprivation in some local areas.
 - Sheffield should continue to offer a sufficient supply of affordable housing for sale or rent, for those whose needs are not met by the market including for instance affordable housing for rent, starter homes and affordable routes to home ownership.
 - Sheffield partners could support employers to become living wage employers to help mitigate the effects of the cost-of-living crisis.

⁶³ Accessed from Positive Phycology <u>here</u> 11.5.22

⁶⁴ <u>https://www.kcl.ac.uk/giwl/research/essays-on-equality-covid-19-road-to-gender-equal-recovery-2021</u>

5) JUST TRANSITION

The challenge of achieving inclusive growth and reducing health inequalities is coinciding with the climate change challenge and the need to reduce emissions. The city has made progress in reducing emissions but there is still more to do to decarbonise business, homes, and transport to meet the 2030 net zero target. Reducing energy and fuel use, adopting new energy and fuel sources, and retrofitting buildings will be difficult but also provide considerable innovation and job opportunities. Air quality, active travel and access to green space also impact on health, with pockets of poor air quality overlapping with areas of deprivation.

A just transition to net zero carbon emissions means that economic benefits of a green economy support all residents. For example, Sheffield has a significant industrial base who are high energy users and have processes which are difficult to decarbonise. The city also has a considerable volume of old urban housing which have relatively poor energy efficiency levels and are difficult to retrofit, and in more peripheral suburbs sustainable transport options are limited compared to the city centre. These represents significant challenges to address. In a just transition, all residents will be brought along the journey to net zero with vulnerable/low-income residents protected from the associated costs. This means all residents who need it are supported to adopt cleaner transport and improve the efficiency and carbon footprint of their homes. Similarly, a just transition means that high energy consuming industries are supported to stay competitive.

Mirroring the disparity in health and wellbeing outlined in the previous section, emissions, air quality and fuel poverty are unevenly distributed in the city, partly driven by the spatial nature of Sheffield's industrial economy and trunk road network. Communities in the East LAC suffer most from poor air quality, which could further enhance the health inequalities and health-related worklessness. Fuel poverty is more prevalent in the North East and East LACs, primarily as a result of economic poverty although the East LAC also has the highest proportion of homes with poor energy efficiency.

However, whereas industrial emissions, poor air quality and fuel poverty are affecting the east of the city more, looking at household emissions, the carbon footprint per person is larger in more rural areas of Sheffield in the West and South West. This is primarily a result of higher car use and higher energy consumption. Climate change requires action on many fronts.

Sheffield's innovation and manufacturing business base are well placed to play a key role in producing the goods and services that Sheffield, the UK, and the world, needs to tackle climate change. The supply chain opportunities for businesses in the city will be significant, and further show the importance of enhancing Sheffield's business dynamism and capitalising on the highly qualified labour market and innovation ecosystem discussed earlier in this report.

CARBON EMISSIONS AND ENERGY EFFICIENCY

ONS data on total carbon emissions (CO₂e) for Sheffield includes emissions judged to be outside and within the scope of the Council's influence. Total emissions for the whole city economy in 2019 were 2,464.2 KtCO₂e, compared to 2,317.2KtCO₂e for emissions within the Council's scope of influence.

Emissions within the Council's scope of influence excludes emissions from 'Large industrial installations', 'Land use, land-use change and forestry (LULUCF)', 'Motorways', 'Diesel Railways'. This is because, for example, the Council cannot control motorway use but can influence how people travel on local roads through policy interventions. Similarly, Councils can support the local generation of renewable energy and business energy efficiency but have less influence over the fuel sources large industrial installations (primarily power stations, steelworks, and similar plants). All emissions contribute to the city's carbon footprint and affect air quality; however the focus of the City Strategy should be on the emissions the Council can more readily influence.

Carbon emissions within the Council's scope of influence have been falling in Sheffield from 2015 to 2019, although transport emissions have slightly increased between 2017 and 2019 (Figure 42).

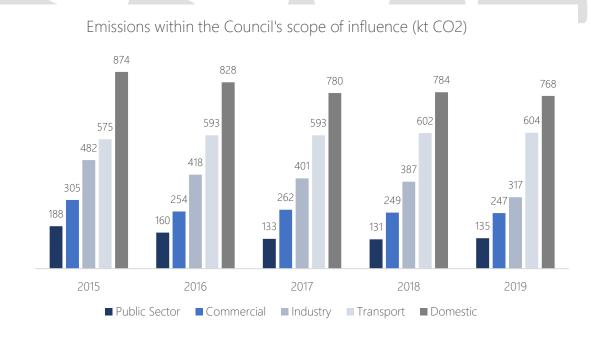


Figure 42: Carbon emissions within the Council's scope of influence by source 2015-2019

In 2019 domestic carbon emissions – those from households – make up the biggest proportion of the city's carbon footprint, contributing 37%. Transport contributes 29% and business (commercial plus industry) and public sector combined generate 34% (Figure 43). Domestic sources still emit over 760kt of CO₂e across Sheffield every year. Transport emits over 600kt of CO₂e annual with the 2019 figure (604.1 kt) an increase of 28.9 kt since 2015 (572.2 kt).



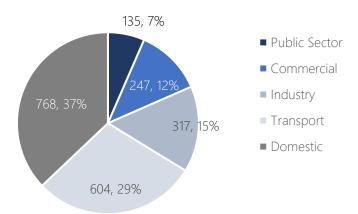


Figure 43: Carbon emissions by source 2019

BUSINESS AND PUBLIC SECTOR EMISSIONS HAVE BEEN DECREASING BUT STILL CONTRIBUTE CLOSE TO 35% OF THE CITY'S CARBON EMISSIONS.

Globally, industrial sectors that account for approximately 20 percent of world GDP are most directly exposed to a transition to net zero as they have high levels of emissions in their operations.⁶⁵

Industry produces 61% of Sheffield's business emissions, with 21% coming from industrial gas consumption and 17% from industrial electricity use. Large industrial installations represent 12% of business emissions, and the use of other industrial fuels 11%. Given the role of industry in Sheffield's economy, the challenge of a just transition is to decarbonise without harming the productivity and competitiveness of these business.

Carbon emissions have been reducing across Sheffield, with an 14% fall from 2016 to 2019, and an 20% fall in business and public sector emissions over the same period. As well as benefitting from gradual decarbonisation of Sheffield's energy grid due to growth in renewable energy, emissions reductions are a result of efforts to reduce energy consumption and increase energy efficiency.

Energy reduction and efficiency improvements become harder and more expensive as so-called 'quick win' interventions are delivered. For example, switching to more efficient appliances and equipment will reduce an organisation's emissions to an extent but to substantially move to net zero would require more difficult and expensive changes to its heating systems, energy sources, or fleet vehicle fuel sources.

Non-industrial commercial businesses produce slightly more carbon from electricity consumption than gas. However, as prices continue to rise for both energy sources, both industrial and commercial businesses will be facing cost pressures. The impact this has on investment in decarbonisation has yet to be observed.

ENERGY EFFICIENCY IMPROVEMENTS REDUCE EMISSIONS AND HELP FUEL POVERTY

Three quarters of domestic emissions come from gas appliances, primarily used for heating. Electricity contributes 21%, and other fuels 3%.

⁶⁵ McKinsey (2022), The net-zero transition: What it would cost, what it could bring

The energy efficiency of the housing stock is not equal across the city, which combined with rising energy bills impact on poorer households more. Homes in the east, centre and south of Sheffield have the lowest prevalence of loft insulation and a higher proportion of homes with an EPC rating of E or lower. The least efficient homes are not only harder to decarbonise but leave lower earning residents more exposed to fuel poverty, as indicated in the maps earlier in this report showing how the spatial distribution of low-quality housing matches the pattern of deprivation across the city.

According to data from the Department for Business, Energy & Industrial Strategy between 2014 and 2019 fuel poverty in Sheffield increased faster than the national average, and whilst a smaller proportion of households are in fuel poverty than the Core City average it is some way above the national level. More than one in six households (17.3%) is in fuel poverty (nearly 43,000 households). Sheffield is performing better than the Core Cities where 18.2% of households experience fuel poverty, but worse than the England average of 13.4% (Figure 44). This picture is unequal across Sheffield, with 25% of households in the North East LAC facing the same challenge.

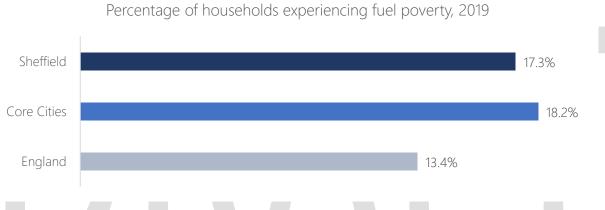


Figure 44: Fuel poverty rates in Sheffield, Core Cities and England. Source: BEIS (2019)

Coinciding with a lower rate of fuel poverty in Sheffield, the latest BEIS data suggests average energy use per domestic property per year is higher than other Core Cities. Figure 45 compares energy use per property during the first quarter of each of the last three years. Sheffield has seen average consumption grow to be higher than in the Core Cities. It is therefore no surprise that carbon emissions per property are also higher in Sheffield than the Core Cities (Figure 46).

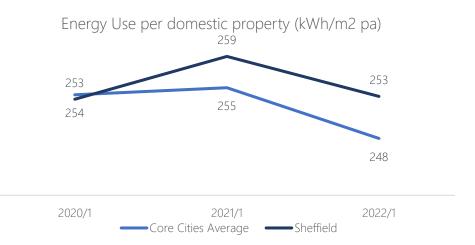


Figure 45: energy use per domestic property. Source: BEIS



Carbon Dioxide Emissions per domestic property (tonnes pa)

Figure 46: Carbon dioxide emissions per domestic property. Source: BEIS

Higher than average energy use in Sheffield can partly be explained by the nature of houses. All domestic properties in the country have an energy performance certificate (EPC) which gives a property an energy efficiency rating from A (most efficient) to G (least efficient).

The UK government is proposing new regulation that all rental properties will need a minimum EPC rating of 'C' or above by 2025. Currently, in the Core Cities as a whole 55.5% (Figure 47) of all domestic properties have an EPC rating of C or higher, which falls to 49% in Sheffield (Figure 48). The fact that the majority of homes in Sheffield have an EPC rating of D or lower shows the challenge of reducing domestic carbon emissions in an affordable way.

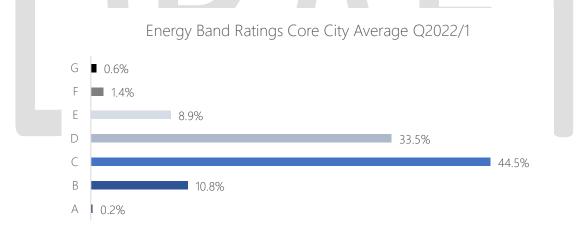


Figure 47: Proportion of Core City domestic property stock in each EPC category. Source: BEIS





Figure 48: Proportion of Sheffield domestic property stock in each EPC category. Source: BEIS

SUSTAINABLE TRANSPORT AND AIR QUALITY

PERSONAL AND COMMERCIAL TRANSPORT EMISSIONS REFLECT THE SPATIAL NATURE OF SHEFFIELD'S ECONOMY. AIR QUALITY CAN EXACERBATE SPATIAL HEALTH INEQUALITIES

Just over 600 kt of Sheffield's carbon emissions come from transport, rising to just over 700kt if motorways and diesel railways are included.

Road traffic volume has increased in some areas outside of the city centre during the pandemic as more people choose to drive rather than use public transport, although car journeys are still below 2019 levels. Transport Interchange data indicates that passenger numbers are still 20% down on pre Covid figures.

Cycling as a proportion of all trips made in Sheffield is estimated to be around 1%, with the proportion for commuting being slightly higher at closer to 2%, which is consistent with the national picture. This varies across LACs, with the 2011 census showing areas in the Central LAC and more central areas of the South and South West LACs having higher rates of cycle commuting than the national average whilst the South East, East and North East are below the national average.

There are six air quality monitoring sites across Sheffield, spread from the south west of the city through the city centre to the north east. Since the start of the pandemic, air pollution levels have risen in the non-central sites of King Ecgbert to the south west, Fir Vale to the north of the city centre and Tinsley to the north east. Tinsley has seen a 50% increase in average air pollution particulate matter (PM2.5) between 2020-21 and 2021-22. This could compound air quality inequality as show in the IMD's air quality deprivation index which show that LSOAs in the east of the city have higher levels of air quality deprivation (Figure 49). Sheffield's air quality regularly exceeds legal limits. The affects the young and old and those with pre-existing heart and lung conditions. It can reduce life expectancy by nine years and there are 500 premature deaths per year as a consequence of poor air quality.

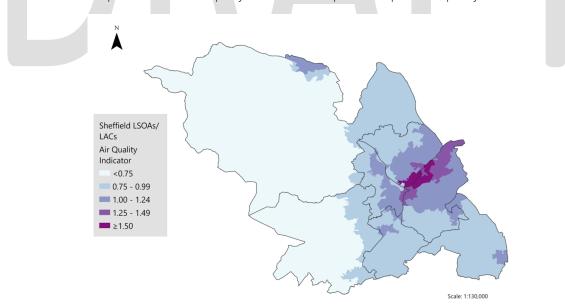


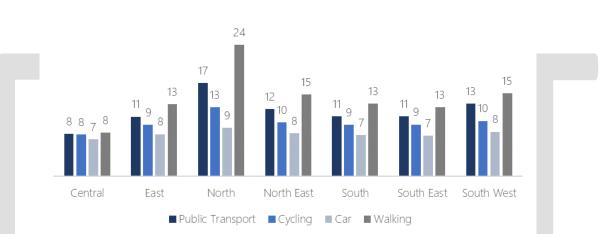
Figure 49: Air quality indicators by LAC. Source: Index of Multiple Deprivation (2019)

Credits: Contains National Statistics data licensed under the Open Government Licence v.3.0 Crown copyright and database right 2022. Contains Ordnance Survey data

DIFFERENT LEVELS OF ACCESS TO TRANSPORT WILL INFLUENCE HOW EASILY COMMUNITIES CAN SWITCH TO MORE SUSTAINABLE MODES.

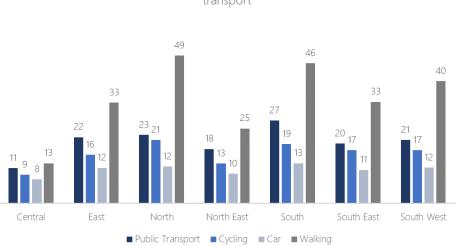
The charts below outline the time it takes in minutes for people living in the Sheffield LAC areas to travel to the nearest employment site (with 500 to 4999 jobs), to the town centre, the nearest primary school, and the nearest food store.

Residents in the North LAC have a relatively higher travel time to employment sites than elsewhere in Sheffield: Average travel time by bike to employment sites is ten minutes or less in all LACs apart from the North (13 minutes), however latest data shows that only 2% of commuting journeys are made by bike (Figure 50).



Travel time in minutes to nearest employment site with 500 to 4999 jobs

For travel to town centres, the North LAC again has the highest average travel time, especially for walking. The South East and South West also have average walking times of 40 minutes or more (Figure 51), making travel to town centres on foot unlikely. This highlights the importance of other modes.

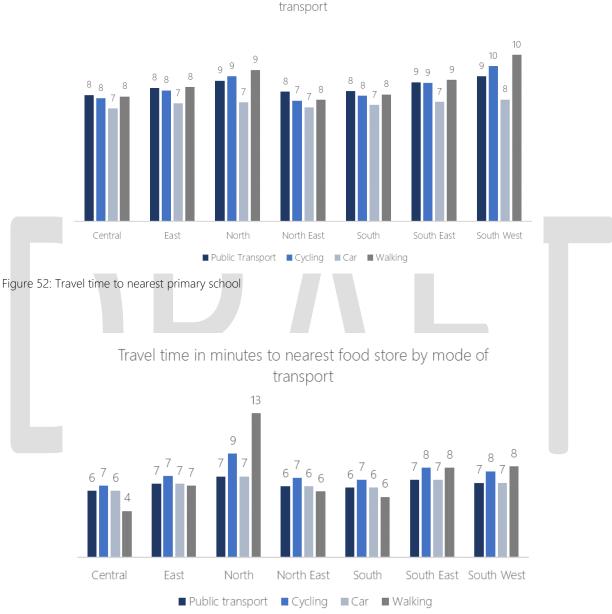


Travel time in minutes to the nearest Town Centre by mode of transport

Figure 51: Travel time to town centres

Figure 50: Travel time to employment sites

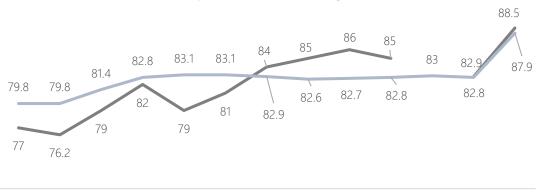
There is little difference between travel time by each mode of transport and between each LAC to the nearest primary schools (Figure 52) and food stores (Figure 53), increasing the likelihood of people switching to other modes in the future if the right infrastructure is in place.



Travel time in minutes to the nearest primary school by mode of transport

Looking at public transport alternatives to car use, bus reliability for non-frequent services, as reported by operators has increased over the last ten years but has fallen below the national average (Figure 54). More exploration of the location of bus stops compared to the concentrations of population and deprivation will be undertaken to feature in the full evidence base.

Figure 53: Travel time to nearest food store



% of non-frequent services running on time

2008/09 2009/10 2010/11 2011/12 2012/13 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21

Figure 54: non-frequent bus reliability. Source: Department for Transport.

Car ownership and use will still be an important mode of transport for many people across the country and in Sheffield. In November 2020 the UK Government announced that the phase-out date for the sale of new petrol and diesel cars and vans will start in 2030 and all new cars and vans be fully zero emission at the tailpipe from 2035.

Although electric vehicles (EV) are currently more expensive than internal combustion engine (ICE) vehicles, the price is forecast to continue to fall and price parity between EV and ICE vehicles expected from 2027⁶⁶. As well as price, availability of sufficient EV charging infrastructure is essential, especially for those people who do not have private off-street parking.

The proportion of vehicles classified as Ultra Low Emission Vehicles (ULEV) and the number of charging points are both increasing in Sheffield, but they are still below the core city average.

According to the last available data (2020), Sheffield's proportion of vehicles classified as ultra-low emitting (ULEV) was 0.04% percentage points below the Core City average. This represents a significant improvement from 2019 where it was 0.3% percentage points below the Core City average (Figure 55).

The number of electric vehicle charging points across the city has increased from 8.6 per 100,000 residents in 2019 to 22.9 in 2022. Although this represents an increase of an additional 14.3 points per 100,000 residents Sheffield it is still 10 charging points lower than the Core City average (Figure 56).

⁶⁶ <u>https://www.transportenvironment.org/discover/evs-will-be-cheaper-than-petrol-cars-in-all-segments-by-2027-bnef-analysis-finds/</u>

Number of ULEVs as a Proportion of all Vehicles

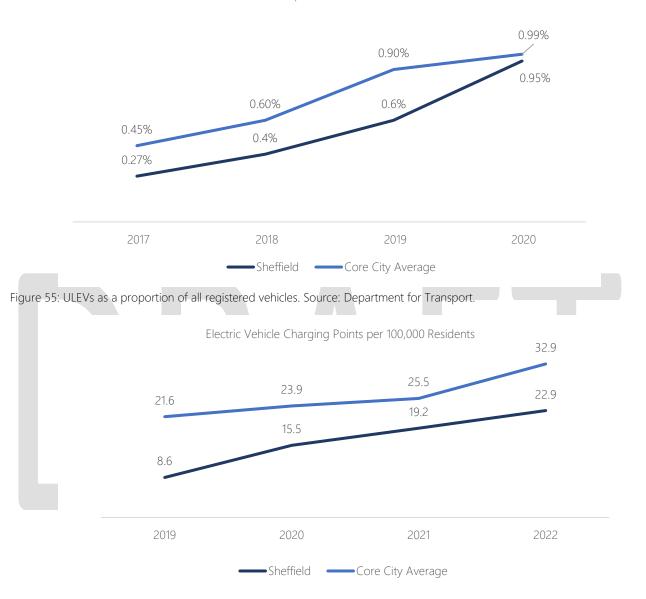


Figure 56: Electric vehicle charging points per 100,000 residents

COVID HAS CHANGED HOW AND WHY PEOPLE TRAVEL WHICH WILL AFFECT EFFORTS TO REDUCE CARBON EMISSIONS AND IMPROVE AIR QUALITY.

Around the world, government and public response to Covid-19 has changed the way people travel. From Auckland, to London, to New York people are travelling less. Patterns of transport have also changed, with weekend public transport usage recovering more than weekday usage, and more trips being made around and between local communities rather than traditional commuter routes into city centres. This global trend, which is beginning to look like a fundamental shift in work patterns, is as apparent in Sheffield as it is in cities around the world.

In South Yorkshire⁶⁷, annual bus patronage was declining 6% per year from 2016/17 to 2019/20 compared with 3% nationally. The impact of Covid-19 and resulting restrictions and behaviour change saw

⁶⁷ South Yorkshire ITA

patronage decline by 64% from 2019/20 to 20020/21 in South Yorkshire (Figure 57) compared with 61% nationally.

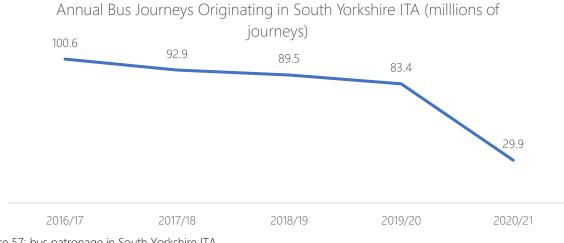


Figure 57: bus patronage in South Yorkshire ITA

Looking at bus passenger journeys per head of population, South Yorkshire has the second lowest rate out of the Core Cities and was experiencing the largest annual fall before Covid-19 (Table 11). During the first year of the pandemic, trips per head fell at similar levels across all core cities.

	2020/21 Journeys per head of	Average annual change 2016/17 to	Change 2019/20- 2020/2021
Local Authority/ ITA	population	2019/20	
Nottingham	46.3	-5%	-65%
Tyne and Wear ITA	36.0	-3%	-61%
West Midlands ITA	34.0	-3%	-60%
Bristol, City of	32.0	1%	-63%
Merseyside ITA	28.4	-2%	-59%
Greater Manchester ITA	24.0	-5%	-62%
South Yorkshire ITA	20.9	-7%	-64%
West Yorkshire ITA	18.4	-4%	-68%

Table 11: Bus passenger journeys per head of population

Looking at SuperTram usage, Sheffield has seen a similar fall in the number of journeys to other transit systems in Core City regions, however the fall in passenger miles has been noticeably higher (Table 12).

Table 12: Light rail transit passenger journeys and miles

	Change in passenger journeys 2019/20 to 2020/21	Change in passenger miles 2019/20 to 2020/21
England (outside London)	-75%	-13%
Nottingham Trams	-82%	-7%
Sheffield Supertram	-73%	-30%
Tyne and Wear Metro	-72%	-10%
Manchester Metrolink	-77%	-6%

Similar declines in railway station entries and exits across Sheffield have been seen during the same time period (Table 13).

Table 13: Railway station entries and exits

Train station	2019-20 entries and exits	2020-21 entries and exits	Change %
Sheffield	10,094,758	1,906,820	-81%
Meadowhall	1,796,048	379,456	-79%
Chapeltown (South Yorkshire)	307,430	74,514	-76%
Dore & Totley	219,336	29,118	-87%
Woodhouse	37,276	7,072	-81%
Darnall	13,450	4,954	-63%

GREEN JOBS

GREEN JOBS PROVIDE AN ECONOMIC OPPORTUNITY

Global action to reduce energy demand and create zero carbon energy is creating opportunities in the green economy. The UN Environment Programme defines the Green Economy:

"As low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services."

The Green Economy is therefore a combination of different systems, such as transport systems, energy systems, and land-use systems. Recent estimates suggest that global investment in energy systems and land-use systems will need to reach 3.5 trillion US Dollars to reach net zero by 2050, with 275 trillion US Dollars spent on infrastructure between now and 2050⁶⁸.

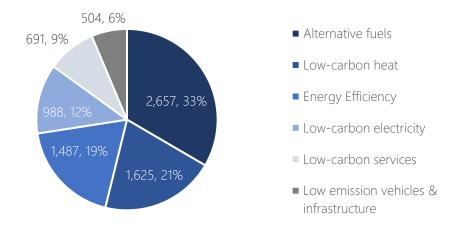
The latest data suggests that the UK Low carbon and renewable energy economy (LCREE) was estimated to be worth £41.2 billion in 2020, employing 207,800 full-time equivalent (FTE) roles⁶⁹. Businesses classified within the manufacturing, energy supply and construction industries accounted for 84% of all UK LCREE turnover in 2020, and 77% of all LCREE employment. However, so far, little growth has been observed in turnover or employment meaning there will need to be an acceleration if the UK is to grow its share of global investment to meet net zero targets. In fact, the Local Government Association (LGA) stated that in 2030 across England, there could be as many as 694,000 direct jobs employed in the LCREE, rising to over 1.18 million by 2050⁷⁰.

In Sheffield, the forecast is for 8,000 green economy jobs by 2030 and over 13,100 by 2050. These jobs will be spread across all aspects of the green economy, and primarily in alternative fuels (33%), low carbon heat (20%), and energy efficiency (19%) (Figure 58).

⁶⁸ McKinsey (2022), The net-zero transition: What it would cost, what it could bring

⁶⁹ ONS (2022), Low carbon and renewable energy economy, UK: 2020

⁷⁰ Local Government Association: Local green jobs - accelerating a sustainable economic recovery



Estimated jobs in 2030 by market segment

Figure 58: Breakdown of future green jobs by market segment. Source: Local Government Association (2019)

Sheffield's expertise in these areas ranges from companies like hydrogen producers ITM to research and innovation assets such as the Sustainable Aviation Fuels Innovation Centre, Translational Energy Research Centre, and The South Yorkshire Sustainability Centre. The Bioenergy sub-market segment has the highest potential jobs forecast, both in 2030 and 2050. Some sub-market segments see more mediumterm job growth such as insulation, which could need 1,086 jobs by 2030 with little job growth subsequently. For others, such as hydrogen boilers, job growth accelerates from 2030 to 2050. Table 14 shows the sub-market segments forecast to have more than 100 jobs in Sheffield by either 2030 or 2050.

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Jobs							
Market segment	By 2030	By 2050					
Bioenergy	2,639	3,889					
Heat pumps	1,504	1,914					
Insulation	1,086	1,090					
Offshore wind	738	1,630					
ICE > EV transition	367	622					
Lighting	229	277					
Control & monitoring	172	201					
Hydrogen boilers	54	449					
Stationary fuel cells	16	149					

Sheffield's industrial, research and innovation expertise means it is ranked 4th out of the Core Cities in terms of forecast LCEE jobs by 2030. Looking at market segments, Sheffield ranks 3rd amongst Core Cities for Low Carbon Heat and Energy Efficiency jobs by 2030, and 2nd for alternative fuels.

Job opportunities exist not only to help deliver a just transition in Sheffield but also as part of the wider national supply chain. For example, the biggest area of forecast job creation within the low-carbon electricity market segment is in offshore wind, demonstrating how Sheffield's manufacturing base can benefit from investment in new energy infrastructure around the UK.

Nearly 1,100 jobs are forecast to be needed for insulation, a key part of decarbonising Sheffield's homes and business properties. Creation of these skilled jobs, whilst also helping to improve local housing energy efficiency and combat fuel poverty is prime example of a just transition employment opportunity.

Developing a strong capability in this industry will ensure Sheffield is well positioned to play a role in the UK supply chain.

Looking solely at housing retrofit as an example, in 2020 the New Economics Foundation estimated that retrofitting over 8.7 million homes by 2023/24 could create over 500,000 new jobs, whilst analysis for Greenpeace says delivering the heat pumps and EPC upgrades needed to deliver the Climate Change Committee's central pathway to net zero would create 138,600 jobs by 2030.

Capitalising on the job opportunities of a transition to net zero will require embedding the right skills in the workforce of tomorrow. If skills development is effective, then green jobs can be a driver of inclusive growth. However, this will need a concerted effort. Research by Policy Exchange suggests that only 3.5% of those who work in the environment sector identify as from a minority background, leading Friends of the Earth and Ashden to recommend that "councils should work with disadvantaged communities to increase opportunities in the green sector, ensuring a common language and pathways to exploring skills requirements⁷¹."

GREEN SPACE

Sheffield is rightly proud of the fact that 61% of the city is greenspace, which has been said to be highest proportion of any city in the world. This green space is diverse, including 70 ancient woodlands, hundreds of green spaces and public parks, and the National Park (including peatland bog) which forms one third of the city. Across these settings, Sheffield's 4.5million trees mean there are more trees per person than any other city in Europe.

The multi-faceted nature of the city's greenspace provides health and wellbeing benefits⁷² for people, delivers climate change mitigation and adaptation including reduced flood risk, helps support biodiversity, and provides opportunities for local sustainable food production and energy generation.

The Peak District's Moors for the Future Partnership is part of the Great North Bog initiative, and Sheffield sits in the heart of the Northern Forest, demonstrating the national importance of the city's green space to climate change mitigation and adaptation and habitat restoration, in addition to local benefits.

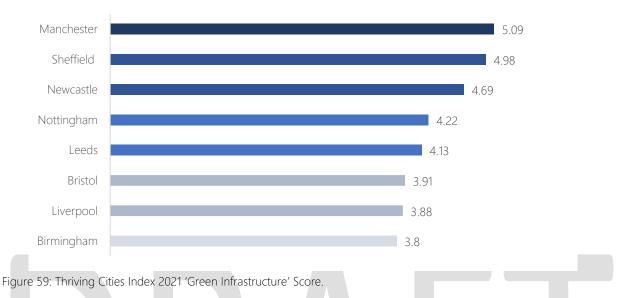
As well as benefits to people, green space will play an essential role in protecting the city from the economic impacts of climate change, especially flooding. The City's Flood Programme has invested more than £25m in flood risk reduction since the 2007 floods to protect over 500 businesses and 350 homes. There is a further £15m of schemes in delivery to protect a further 100 homes and over 150 businesses. Between now and 2027 more than £50m of further investment is planned across the Sheaf, Porter, and Blackburn Brook to protect 750 homes and over 500 businesses.

The Centre for Thriving Place's 2021 Thriving Cities Index scores Sheffield's 'Green Infrastructure' where Sheffield ranks second amongst the other core cities (Figure 59).

⁷¹ Road to zero carbon: council action on green jobs and skills, report by Shared Intelligence For Friends of the Earth and Ashden (2022).

⁷² World Health Organisation, Urban Green Space and Health: Intervention Impacts and Effectiveness (2016)

'Green Infrastructure' Score (2021)



GREEN SPACE AND PEOPLE

Sheffield's communities benefit from quality green space. The 15 Green Flag award winning spaces in the city make up nearly 20% of all Green Flag awards in the Yorkshire and the Humber region and the Centre for Thriving Place's 2021 Thriving Cities Index scores Sheffield's 'local environment' higher than any other core city (Figure 60). Access to this quality green space and environment can provide a resource for helping address wellbeing and mental health challenges described earlier in this report⁷³.

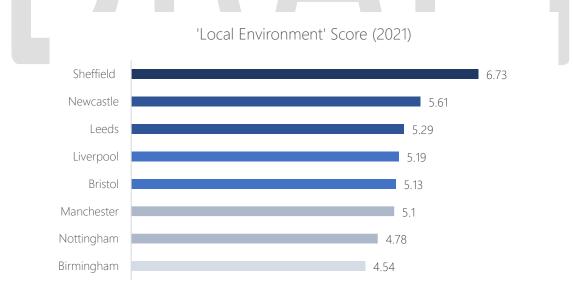
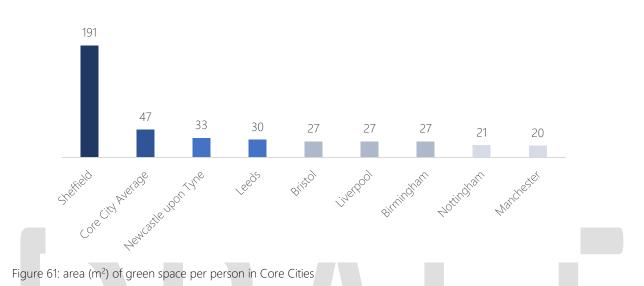


Figure 60: Thriving Cities Index 2021 'Local Environment' Score.

The extent of greenspace in Sheffield is why University of Southampton/NatWest's "Green Cities Report," named Sheffield as the UK's Greenest City and why the city was given "Tree City of the World" status by the Arbor Day Foundation and the United Nations Food and Agriculture Organisation in 2022.

⁷³ Birch J, Rishbeth C, Payne SR. Nature doesn't judge you - how urban nature supports young people's mental health and wellbeing in a diverse UK city. Health & Place. 2020

Looking at public green space, Sheffield has a much greater area of green space per person than the other Core Cities with $191m^2$ per person compared to the core city average of $71m^2$ (Figure 61).



Public Green Space: Area (m2) Per Person

However, when focussing more closely on the distance people live to a park, public garden, or playing field, people in Sheffield on average live 316m away, which is just above the average for core city average of 307m and the 5th furthest distance amongst the core cities (Figure 62).

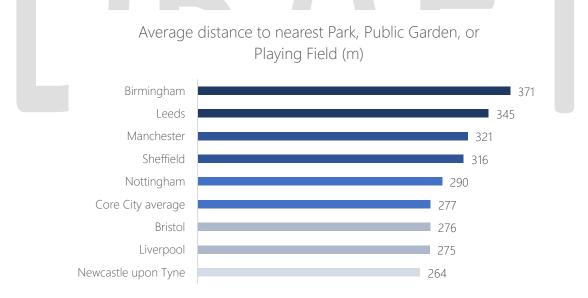
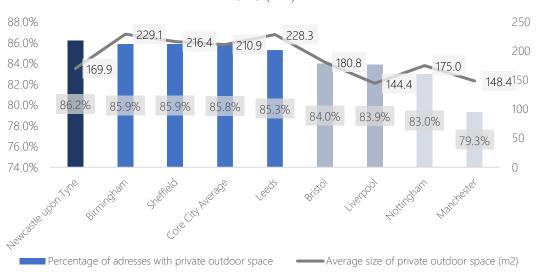


Figure 62: average distance to nearest park, public garden or playing field. Source: ONS Access to public greenspace

In terms of private outdoor space, just under 86% of Sheffield's addresses have private outdoor space which is the second highest of the Core Cities. The average size of this private outdoor space is 216m², the third highest amongst the core cities (Figure 63).



% of addresses with private outdoor space against average space size (m2)

Figure 63: Proportion of addresses with private outdoor space and average size of outdoor space. Source: ONS Access to public greenspace

SUMMARY AND POLICY IMPLICATIONS: A JUST TRANSITION

To summarise:

- Carbon emissions have been reducing but there is some way to go to reach the 2030 net zero target. The slower the progress now, the harder and more expensive meeting this deadline will become as bigger reductions will need to be made in a smaller amount of time.
- The health and economic costs of air pollution are substantial. Premature mortality is causing a persistent health risk and a drag on productivity.
- There are also more than one in six households (43,000 households) in fuel poverty.
- There is an opportunity for Sheffield and its partners to ensure residents and others benefit from new job green skills and opportunities including areas such as energy generation, carbon mitigation and retrofit, insulation and heating.

The potential policy implications are that emissions need to be cut even more deeply to meet the required zero carbon targets to 2030. This will require:

- Measures to continue to tackle air pollution including the proposed Clean Air Zone.
- There is a need for continued partnership working across the city and region.
- A clear roadmap setting out annual requirements to achieve:
 - The effective decarbonisation of domestic and commercial energy systems.
 - A cleaner and greener public transport system and investment in active travel measures.
 - A retrofitted built environment and climate resilient city with smart infrastructure.
 - Industrial and commercial decarbonisation including for instance measures for all and more intensive support for heavy emitters (steel decarbonisation for instance).
- Active travel should not just be seen as a means of reducing transport emissions. Instead, it should also be viewed as a public health benefit and interventions to enable and encourage active travel such as the Outdoor City will increase physical activity and improve health and wellbeing. Tools like the World Health Organisation's *Health economic assessment tool* (*HEAT*) for cycling and walking can be used quantify and value health and wellbeing benefits.

• A transition plan to shift towards a high-skill, low carbon economy identifying and supporting new jobs and skills across all stages of the green jobs' life cycle from pathways into green careers for people from all backgrounds to effective transitions for workers and communities dependent on the high carbon economy.

DRAFT

6) KEY MESSAGES

This chapter draws together key messages from this summary report. These interim observations raise important policy considerations for the forthcoming City Strategy and will be explored further with the Steering Group and Working Group when finalising the full evidence base report. The policy implications are the view of the report authors based on the evidence and are not necessarily endorsed or adopted by Sheffield Council.

- Economic growth is not a panacea to tackling many of the entrenched socio-economic problems that affect Sheffield, and improving participation and inclusion requires a broader consideration of the barriers affecting specific groups and communities.
- However, if the city is not effective in maintaining and improving upon its economic position relative to other areas, these issues will become more challenging to tackle as there are fewer opportunities for everyone.
- Equally, as well as having a direct impact on Sheffield's existing residents, inequalities in life expectancy and health inequality are a current threat to the future wellbeing of the city's residents and workforce and have the potential to entrench these gaps. This could impact on long term health and educational attainment of younger residents, which is likely to have a tangible long-term impact on the city.
- The opportunity for new devolved local powers from Whitehall combined with an emphasis on green economic growth offers a potentially powerful mix for change. This 'provides the impetus for a move away from business-as-usual models of economic growth'⁷⁴.
- Occupational deficits in key sectors and the make-up and structure of the economy means Sheffield isn't creating enough businesses or the right jobs to match the qualifications and requirements of the workforce. The recent trend data shows Sheffield is losing ground with Core Cities in terms of economic growth and will need to build on its unique characteristics and relative strengths as well as promote social, health and environmental values.
- A longer-term and place-based approach to inclusive growth should increase focus on the key causes of inequality at earlier life stages. For example, investing in understanding and addressing the factors behind growing inequality in educational outcomes to prevent life-long disparities and to ensure Sheffield's future economic growth is inclusive.
- Unless the widening disparities are addressed, existing trends will be reinforced. Health and wellbeing disparities are constraining some of communities' access to suitable opportunities more than others. Similarly, economic inequality can have negative impacts on people's health.
- The city has made progress at reducing emissions created by the energy used by businesses and households in Sheffield. However, the pace of change needs to accelerate if the city is to meet its ambitious 2030 target for net zero in way that delivers a 'just transition' across Sheffield's economy and communities.

The headline policy implications are as follows (more detail appears in each of the previous sections).

SUMMARY POLICY IMPLICATIONS

The potential productivity policy implications emerging from the data are that investment is needed in the next generation of leaders and managers and key sectors with growth prospects. The skills profile

⁷⁴ Urban Futures, Planning for City Foresight and City Visions, Dixon, and Tewdwr-Jones, 2022, p228

and city's innovation assets offer an attractive proposition for inward investment. A more concerted effort on start-ups (especially tech start-ups) or to make the city a place to start-up, would ensure Sheffield exploits its good business survival rates and helps to reduce the growing productivity gap with Core Cities. Potential commercial development sites need to be stimulated and brought forward with viability concerns addressed and city centre resilience bolstered. There is scope to boost the innovation and enterprise ecosystem, sub-regional innovation support and to build on the success of accelerators, world-class translational research facilities, and existing innovation adoption measures.

To reduce city inequalities a range of measures is required to combat the disproportionate effect that Covid has had on key groups including women and ethnic minorities as well as young people from all backgrounds in education. Measures to tackle poverty (including fuel poverty) and support good mental health are needed as well as action to help mitigate the effects of the cost-of-living crisis such as increasing the number of living wage employers and housing affordability actions.

There are some far reaching carbon reduction policy implications to ensure that emissions are cut to meet the required zero carbon targets to 2030. These range from tackling air pollution to decarbonisation in energy, transport, industry and businesses and the built environment (commercial and domestic). Active travel will reduce transport emissions and improve health and wellbeing. A transition plan to shift towards a high-skill, low carbon economy will support many new jobs and skills across all stages of the green jobs' life cycle.



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