



Sheffield Economic Evidence Base 2022

A report for the Sheffield
City Partnership
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KADATM
RESEARCH



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EXECUTIVE SUMMARY

This evidence base is a starting point for the Sheffield City Partnership to shape and deliver a new shared future vision for Sheffield that addresses the issues facing the city and seizes opportunities. The city has high business survival rates, innovation strengths, steady job growth, and a highly qualified population, combined with relative housing affordability, renowned greenspace and extensive countryside. However, Sheffield’s economy underperforms compared to other major cities, especially in terms of productivity. Equally, the city has long-lasting challenges of health, education, and income inequalities, with the situation in some neighbourhoods having deteriorated following COVID-19.

CONTEXT AND INTRODUCTION

In addition to existing issues of widening economic and health inequalities and climate change Sheffield, the UK and global economies have recently faced a series of unprecedented shocks. These include the UK exiting the European Union, the impact of COVID, the challenges associated with the constrained labour supply across different 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 situations are interrelated and, while they are playing out on the national and global stages, there have already been observable impacts on Sheffield’s residents and businesses. These events also occurred after a challenging decade following the 2008 global financial crash, which resulted in an extended period of constrained economic and wage growth, meaning the economy is not addressing the current threats from a position of strength.

At the time of writing, UK growth is expected to reach 3.7% in 2022 but then stagnate in 2023, while rising inflation is forecast to peak at up to 14% by the end of 2022, continuing to erode real disposable incomes even as inflation falls to 5% in 2023¹. This represents a long-term loss of income for workers and the UK economy that will affect 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. Importantly, many people, including those on lower incomes, will experience even slower wage growth over this period.

The UK’s response to the Paris Agreement was the publication of the Committee on Climate Change report, ‘Net Zero – the UK’s contribution to stopping global warming’, while in June 2019, the Government legislated to increase the national emissions reductions target from 80% to net-zero emissions by 2050. It is important that the city takes climate change seriously, which means creating good green jobs while adapting to a low-carbon economy. This will mean some companies and sectors in Sheffield gain economic opportunities, but others will face declining markets and some jobs will become redundant.

¹ British Chamber of Commerce, UK Economic Outlook, September 2022. [Available here:](#)

Despite these multifaceted challenges, the coming years will bring new opportunities for Sheffield's businesses and residents. These relate to wider trends, including accelerated changes to consumer spending patterns, shifting patterns of global trade, technological advancements, and the transition to green and carbon-neutral economies, alongside the UK Government's commitment to addressing regional inequalities.

Looking ahead, policymakers in Sheffield must capitalise on these opportunities in an inclusive way which improves the economic and social wellbeing of all its residents, while supporting the resilience of those most at risk of global headwinds.

Therefore this evidence base goes beyond a traditional economic study by taking a much broader view of Sheffield's economy and communities to support the development of the next city strategy being developed by the Sheffield City Partnership. As well as looking at different types of businesses and jobs this evidence base provides initial groundwork for the Sheffield City Partnership to consider new ways of thinking about inclusivity, wellbeing and sustainability to improve the prosperity and fortunes of the city and, most importantly, its people and communities.

SHEFFIELD'S BUSINESS, EMPLOYMENT, AND POPULATION HEADLINES

Indicator	Value	Indicator	Figure
Population ²	589,214	Employment ³ per 1,000 population	442.6
Population under 16 (%)	18%	Claimant Count ⁴ (Rate %)	4.6%
Population 16-64 (%)	66%	Business Count per 1,000 population ⁵	40
Population 65+ (%)	16%	Healthy Life Expectancy ⁶	61.6

In 2020, there were 262,500 jobs in Sheffield across all sectors, the fifth-largest of the eight [Core Cities in England](#). In terms of the number of jobs per resident, the evidence shows that private-sector jobs are under-represented in Sheffield's economy, which is why the public sector is the largest employer, accounting for over one-third of all jobs.

Although Sheffield is strongly associated with its manufacturing and industrial heritage, only 20,500 are employed in this area overall, accounting for 8% of all jobs in the city, in line with the national average. 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 sub-sector.

Sheffield has an international reputation for medical device innovation, manufacturing, and production, and a cluster of orthopaedic and orthotic firms are based there. The city has a strong and growing wellbeing and applied research business community. The city 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.

² Population data source: ONS Mid-Year Population Estimates 2021

³ Employment data source: Business Register and Employment Survey (BRES) 2020

⁴ Claimant Count data source: ONS Claimant count by sex and age (2022)

⁵ Business Count data source: Inter Departmental Business Register (IDBR) UK Business Counts, Local Units (2021)

⁶ Healthy Life Expectancy Data Source: Office for Health Improvement and Disparities. Fingertips Public Health Profiles, 2022

Business growth, research, and innovation are supported by the region's academic expertise, including Sheffield Hallam University, the University of Sheffield, and the city's Further Education sector. These strengths mean Sheffield has been able to attract and retain new investors, graduates, entrepreneurs, and multinationals. This has been possible through assets like the Advanced Manufacturing Innovation District (AMID), which describes itself as a "world-leading, research-led advanced manufacturing cluster along the Rotherham-Sheffield Corridor"⁷.

Sheffield has been significantly impacted by COVID and, with the process of recovering from the pandemic underway, the long-term legacy will affect the city's residents and businesses. Data from the COVID-19 Places Economic Recovery Index (CoPERI) illustrates that between March and December 2020, the number of hours worked in Sheffield fell by 14% compared to the same period for 2019, partly reflecting that only 35% of the city's residents and employees had jobs they could do from home. This was also associated with a substantial increase in Universal Credit claims, which reached 4.5 people per 100 residents.⁸

Both the CoPERI data and the State of Sheffield Report 2020 highlight the inequality across areas and groups in the city. The Report notes that residents of more deprived areas are twice as likely to die of COVID-19 compared to those living in the least deprived areas. Thus, health and wellbeing are an important part of this evidence base and tackling physical and mental health inequalities is a key priority for the city.

PEOPLE – SNAPSHOT OF KEY GROUPS

This section of the report considers data surrounding the systematic inequalities and subsequent impacts experienced by, women, people from ethnic minorities, people living with disabilities, and young people who have been particularly affected over time.

In Sheffield, fewer women than men are employed, and those who are employed receive lower salaries.⁹ However, the average gender pay gap is slightly lower than the national average. The COVID-19 pandemic and the subsequent restrictions have widened long-standing existing inequalities.

Sheffield is an ethnically diverse city, yet people from ethnic minority backgrounds face deep-rooted inequalities which the Sheffield Race Equality Commission has investigated. People from ethnic minorities have a lower employment rate than the Sheffield and national averages. Minority ethnic groups have been disproportionately impacted during the pandemic and experience inequalities in employment, education, housing, accessing social security (including Universal Credit), and health.

In Sheffield, 48% of those aged 16-64 living with disabilities are employed, compared to 75.7% of the non-disabled population – a disability employment gap of 27.7 percentage points. There has been a lack of progress nationally to tackle the fact that half of those experiencing poverty in the UK are disabled or live with a disabled person. This has been compounded by the fact disabled people were more likely to struggle to pay household bills and buy food during COVID-19 and will find it harder to cope with a rising cost of living.

Inequalities in education attainment and child poverty have been entrenched in Sheffield, and around the county, for many years. This has continued with young people who have been heavily impacted by

⁷ Invest Rotherham: [Available here](#)

⁸ University of Sheffield: [Available here](#).

⁹ The Fawcett Society (2019). *Making Devolution Work for Women*. [Available here](#).

the COVID-19 pandemic due to the restrictions imposed to minimise the spread of the virus, such as closures of education and support services, as well as social distancing. Children of secondary school age in Sheffield were worried about the impact of the pandemic on their future opportunities and many reported feelings of isolation, anxiety, and poorer mental health.¹⁰ The attainment gap between the most and least disadvantaged pupils grew during the pandemic and, at Key Stage 4 level, this attainment gap increased more in Sheffield than in the other Core Cities.

ENTERPRISING CITY

The first section of the evidence base discusses how Sheffield's productivity is falling behind that of the other Core Cities and explores potential causes and effects of this. The full analysis investigates the nature of the economic output gap, business demographics and innovation, labour market qualifications and skills, and the trends in commercial property supply and demand. This section summarises the story of Sheffield's economic performance, business base, and labour market.

Sheffield is facing a widening economic output gap.

Sheffield makes a strong economic contribution to the UK, with its annual economic output valued at £13 billion. Despite pre-pandemic growth, there is growing evidence that Sheffield is not achieving its full potential, with its productivity and output slipping relative to the rest of the country, including the Core Cities. The current trend is for Sheffield to fall further behind, with the current economic output gap relative to the Core Cities standing at £1.4 billion of GVA per year.

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 demonstrates a significant lost opportunity for Sheffield.

The business base is one of several interrelated factors behind Sheffield's declining productivity. These include the occupational profile of the city's workforce (which has fewer professional and managerial roles), the sector mix (there are fewer private-sector jobs), and fewer firms operating in highly innovative fields or fast-growing sectors with lower levels of business R&D expenditure than the Core City average.

Sheffield's businesses face the challenge of making more extensive cuts to carbon emissions but they also have opportunities to benefit from the transition to net zero.

Addressing the climate emergency requires investment in new technologies, new transport infrastructure, circular economy principles, and new energy generation and efficiency measures. This investment will stimulate innovation and the growth of businesses and jobs, on which Sheffield will need to capitalise. Supporting a business ecosystem and providing people with the necessary skills could create new inclusive job opportunities.

As an indication of the scale of the opportunity, the Local Government Association (LGA) has forecast that Sheffield will need 8,000 green economy jobs by 2030 and over 13,100 by 2050. These will be distributed across all aspects of the green economy, primarily in alternative fuels, energy efficiency, and the generation of heat and power. Retrofit is the greatest short-term opportunity and an essential element in reducing the city's emissions. However, a lack of capability and investment means that Sheffield risks having to import retrofit from outside the city, rather than seeing its own businesses benefit.

¹⁰ Sheffield City Council (2021). *Experience of the COVID-19 Pandemic*. [Available here](#).

Emissions reductions have not happened sufficiently quickly to reach net zero, and a knowledge gap exists in terms of understanding indirect emissions across supply chains. Bridging this gap will be important to attracting institutional investment in the region and ensuring that Sheffield's companies do not lose contracts that require sustainability credentials.

Businesses and employees in carbon-intensive industries or declining markets face existential risks. The sectors most at risk tend to have an older and less-qualified workforce, whilst many green jobs require different skillsets. For inclusive growth and just transition, ensuring that the existing workforce retraining and moves into new roles is just as important as developing the skills of the future workforce.

Sheffield's business base is less dynamic than that of other cities but across different types of businesses, there are strengths and assets on which to build.

Building on its reputation as a city of makers, Sheffield has thriving and vibrant independent businesses and a track record of 'survival resilience'. Business survival rates for Sheffield are among the highest of all the Core Cities and above average for England.

However, Sheffield has a lower rate of business start-ups, lower business density, and fewer high-growth businesses than stronger-performing Core Cities. The lower business density affects Sheffield's economic resilience and its ability to seize new growth opportunities.

Inward investment also makes a significant contribution to the local economy, beyond job creation and wages to productivity gains and the fostering of innovation, research, and development. For every 1,000 businesses in Sheffield, 61 are foreign-owned - the third-highest percentage of the Core Cities.

At arguably the opposite end of the ownership spectrum are social enterprises, the third sector, and the voluntary sector, which have been growing in number in Sheffield. In all, 219 social enterprises are active in Sheffield, including the small number that belong to the Sheffield Social Enterprise Network (SSEN) but are based outside the local authority area. Of these 219, 39% were established within the last two years, illustrating the role played by social enterprises in the recovery from COVID-19. Furthermore, almost 3,389 voluntary and community sector organisations are active across Sheffield. Their work covers a wide range of activities, from supporting families with children to providing health and wellbeing services for older people and upskilling young people not in employment.

Employee ownership is rare across the country, but this is growing in importance and Sheffield is home to a handful of successful global and local employee-owned firms.

Sheffield has thriving sectors and specialisms 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 with potential (health and wellbeing). The key assets supporting the transition to a low-carbon economy include companies like hydrogen producers ITM, as well as research and innovation assets such as the Translational Energy Research Centre and the South Yorkshire Sustainability Centre. Importantly, the city's foundational economy is strong, particularly in industries such as care, construction, and food and drink manufacturing.

Both Sheffield's population and labour market are highly qualified, providing a foundation for business investment and growth.

A skilled workforce is a critical feature of competitive cities and Sheffield's population is more highly qualified than the Core City average. In fact, among Sheffield's 16-64 years old population, 47% have a qualification at NVQ4+ level, compared to 44% in the Core Cities. This advantage, combined with relative

housing affordability, indicates the opportunities to attract new inward investment, business relocations, or indigenous start-ups.

However, a highly qualified population does not necessarily translate into job roles with high qualifications. Sheffield has 29,800 more residents with NVQ4+ qualifications than there are employees. This suggests that highly qualified people are working outside the city or in roles below their qualification level. This could also explain why the average wages of people working in Sheffield are lower than those living in Sheffield but not necessarily working in the city – a trend that may continue if more people continue to live in Sheffield but work remotely following COVID-19.

Sheffield has a highly qualified labour market but fewer jobs requiring high qualifications, which is reflected in the low rates of skills-shortage vacancies in the city compared to the Core Cities and England overall. Sheffield has the lowest proportion of firms with at least one hard-to-fill vacancy. Before COVID-19, the proportion of vacancies in Sheffield that were skills-shortage vacancies was substantially lower than the Core City and England averages, suggesting that skills supply is not outstripped by demand.

FAIRER CITY

Building on the discussion of the experiences of key groups, the Fairer City section of the evidence base unpicks the data to explore inequality through several dimensions. These include spatial and demographic inequality, which are examined through the lenses of health, deprivation, work and worklessness, child poverty, education outcomes, and housing quality. This section summarises the story of deprivation, child poverty, education outcomes, work and worklessness, as well as health and wellbeing.

Deprivation, child poverty, and education outcomes are worsening for some communities in Sheffield, whilst others are performing better than communities in other cities.

In the Index of Multiple Deprivation (IMD), Sheffield ranks as the 57th most deprived (the overall deprivation score) of 317 local authorities in England. The IMD suggests that Sheffield is relatively less deprived than the Core Cities of Manchester, Birmingham, Nottingham, Newcastle, and Leeds. The series of maps completed for this study and presented in Chapter Two illustrates that a concentration of businesses and jobs does not necessarily imply that places are prosperous. The Index of Multiple Deprivation scores (2019) for Sheffield's Lower Layer Super Output Areas (LSOAs) demonstrate the nature of the spatial inequalities.

Food-bank usage in Sheffield almost doubled between 2019/20 and 2020/21, with an increase of 91% compared to a national rise of 41%. This includes a 117% increase in the number of parcels distributed to children in Sheffield, compared to a 43% national rise. Food poverty is just one element of child poverty which, in Sheffield, has been consistently above the national average and increasing faster than the national trend since 2019.

More children living in households with low incomes and low disposable incomes will experience a continued decline of their education outcomes compared to other pupils, which is a priority to address. Although Sheffield's pupils have performed better than the Core City average at KS4 (GCSE) in recent years, pupils eligible for free school meals (FSM) are falling behind. This attainment gap has been widening since 2020, reversing a more positive pre-pandemic trend.

Inequality during childhood and school results in different outcomes for post-GCSE young people. In 2021, 8.7% of Sheffield's young people (16-17 years old) were not in education or training (NEET). This rate has fluctuated since 2018, when it was 8.4% and is comparable with the Core City average of 8.6%.

Different groups are affected more than others, with mixed-race¹¹ and White young people more likely to be NEET, as are a higher proportion of boys compared to girls.

Mixed patterns of work and worklessness, as well as various national trends, are playing out in Sheffield but to a greater extent and more negatively for certain communities in the city.

The proportion of Sheffield's people claiming Jobseekers Allowance (JSA) and Universal Credit (UC) has risen sharply during COVID-19, increasing from 2.9% in February 2020 to 4.6% February in 2022. A greater proportion of men than women are claiming JSA. Although the rates for both gender groups have increased since 2020, they are below the Core City average.

Claimant count rates show an unequal spatial pattern. However, it is key to recognise that spatial inequality is a symptom and not a cause. That is, people with lower incomes as a result of multiple factors have to live wherever housing is more affordable.

Sheffield's Pakistani and Bangladeshi population has the lowest employment rate in the city, lower than the national average. Considering intersectional inequality, the Indian population has the lowest rate of female employment, which represents the greatest gender divide. Sheffield's Pakistani and Bangladeshi population also has an economic inactivity rate more than twice as high as the Sheffield average, which changed from being below the national average in 2015/16 to above this level in 2020/21.

Sheffield's people have a higher healthy life expectancy, however health inequalities persist and happiness has fallen disproportionately during COVID-19.

Poor health affects every aspect of life – whether it is the ability to enjoy life as a private individual, be creative, or contribute to society through work, caregiving, or volunteering one's time for the common good. Too many people, especially from less advantaged areas, spend their fifties and sixties with health conditions that limit their everyday activities. People in the poorest parts of the city are living shorter lives than those in the richest. Not only are widening health inequalities unjust, but they also present an urgent threat to prosperity due to their impact on productivity and public service demand. The problem is not an ageing society; it is the preventable loss of health. Some of the key building blocks of good health include financial security, good work, and affordable homes.

Good-quality work is characterised by fair pay, a safe and healthy workplace, decent and respectful treatment, secure hours, the opportunity for Union representation and consultation on what matters at work, as well as opportunities for progression inside and outside work.¹²

Health and deprivation are clearly linked, and inequalities in these areas are widening. Citizens in the most deprived areas have shorter lives, fewer years in good health, and higher rates of preventable mortality than those in the least deprived areas.

Of Sheffield's economically inactive population, over a quarter are inactive due to sickness or disability. This illustrates the impact of poor health and disability on people's work opportunities, which of course in turn exacerbates the economic inequalities.

The percentage of Sheffield's population with work-limiting disabilities has been consistently above the national average for several years, peaking in 2019, when close to a quarter of the city's people were

¹¹ The Department for Education dataset '*NEET and participation: local authority figures*' uses the following categories for ethnic groups: 'White'; 'Mixed race'; 'Black or black British'; 'Asian or Asian British'; 'Chinese'; 'Other'

¹² Director of Public Health Sheffield Report (2018). *Health and Wealth*. [Available here](#).

experiencing this. Whilst this does not mean that all the affected individuals are out of work, it is a contributing factor to the amount of work that individuals can undertake, potentially limiting the nature of the work that people can perform or the opportunities made available to them by employers.

Notwithstanding the barriers facing people with disabilities, Sheffield is a healthy city in terms of life expectancy, albeit one that is experiencing a decline in happiness and wellbeing. Furthermore, the good overall life expectancy hides the inequalities in the city.

Healthy life expectancy (HLE) in Sheffield is comparable to the national average and the highest among the Core Cities. HLE at birth has also increased in Sheffield over the past five years, despite a marginal national decline, demonstrating the prevailing good health in the city. However, this masks the various inequalities. In terms of expected years of 'very good health', the North East LAC and the South West LAC differ, with 15 years for women and 14 years for men. This demonstrates the scale of the lost opportunities for individuals, communities, and the economy.

Despite the worsening trends in certain health conditions, Sheffield had the highest score of all the Core Cities across the headline indicators in the ONS Health Index before COVID-19. However, research by Sheffield Flourish found that over half of those surveyed felt that their mental health had worsened during the pandemic, but few had pursued mental health support.

Sheffield has a marginally higher prevalence of depression and serious mental illness compared to the national average and is mid-ranked among the Core Cities in England. Economic inactivity and unemployment rates are higher for those in Sheffield experiencing mental health problems although, more positively, these rates have fallen over the past five years. Less positively, for people with existing mental health conditions, the pandemic has often led to further damage to their mental health. Combined with the deteriorating mental health of the population as a whole, this has resulted in a significant drop in happiness levels in Sheffield. This decline has been greater than the fall nationwide and across the Core Cities. Thus, whereas Sheffield's people were happier on average than those in the other Core Cities in 2019, the opposite was true by 2021.

LIVEABLE CITY

Sheffield is renowned as a green city and has excellent access to greenspace. However, several areas of inequality exist, including exposure to poor air quality, fuel poverty, and access to essential services by modes other than the car. The Liveable City section of the evidence base discusses these themes and summarises the story of Sheffield's housing and transport, emissions, air quality and greenspace,

Greenspace and green infrastructure can help to moderate and enhance adaptation to climate change, but some communities continue to face worsening air quality.

Sheffield is rightly proud of its extensive greenspace, and the city has been said to have a higher proportion of greenspace than any other city in the world. Maintaining and enhancing green space in the face of national decline and loss of biodiversity will be important. In addition, Sheffield's 4.5 million trees mean there are more trees per person than in any other city in Europe. As a result, the Centre for Thriving Place's 2021 Thriving Cities Index scored Sheffield's 'local environment' higher than that of any other Core City. Access to this high-quality greenspace and environment can provide a resource that would help to address wellbeing and mental health challenges. Similarly, the green infrastructure in the city centre, as well as the natural flood defences and carbon capture in the Peak District, provide important allies against climate change, protecting homes and businesses while reducing the city's carbon footprint.

Sheffield has major advantages with which to mitigate negative environmental trends: the abundance of greenspace and trees in the city centre, as well as the rural areas and the Peak District National Park. Despite this, the average distances that people must travel from their homes to public greenspace are the fifth-longest among the Core Cities. Therefore, it is important to ensure everyone in the city has affordable and safe access to greenspace.

Poor energy efficiency in Sheffield's housing stock is a barrier to reaching net zero. It also increases the risk of fuel poverty and is a sign of poor-quality housing.

In 2019, domestic carbon emissions – those from households – comprised the largest proportion of the city's carbon footprint, contributing 35%.

Three-quarters of domestic emissions come from gas appliances, which are primarily used for heating, with electricity consumption creating most of the remainder. Industry produces two-thirds of Sheffield's business and public-sector emissions, with a relatively even split between emissions from gas and electricity.

Sheffield uses more household energy than average, which can partly be explained by the characteristics of the houses. The UK government is proposing a new regulation that all rental properties will need a minimum energy performance certificate (EPC) rating of C or above by 2025 (on a scale of A to G). Fewer than half of Sheffield's homes currently meet this criterion, which is worse than the Core City average. The fact that the majority of homes in Sheffield have an EPC rating of D or lower illustrates the challenge of reducing domestic carbon emissions in an affordable way. The proportion of houses with an EPC rating of C or higher varies across the city.

Poor energy efficiency contributes to fuel poverty, which increased faster in Sheffield than the national average rise between 2014 and 2019. The higher concentration of poor-quality and less-efficient homes in parts of the city already facing other economic and health challenges further compounds the inequalities.

Transport is a major source of emissions, which is causing the air quality in certain parts of the city to deteriorate and affecting health and wellbeing. Greenspace provides an opportunity to reduce the impact of poor air quality and brings other benefits to the city.

In 2002, transport was responsible for 30% of Sheffield's GHG emissions. Whilst the pandemic has resulted in people travelling less, the spatial nature of Sheffield's economy means that road traffic volumes in some areas have increased during the pandemic. Emissions from transport contribute to concentrations of poorer air quality in certain areas compared to others – primarily those in which the communities are already facing worse health outcomes..

In terms of movement around the city, the pandemic has resulted in a reduction in travel. However, the spatial nature of Sheffield's economy means that road traffic volumes in some areas have increased during the pandemic.

Journey times data shows that Sheffield residents have opportunities to utilise active travel for key journeys, and the infrastructure to support this is needed. To avoid worsening air quality and increased GHG emissions, action will be needed to discourage increased car use when people begin to travel more frequently, including when they return to office-based work.

KEY MESSAGES AND POLICY IMPLICATIONS

Thus chapter of the evidence base collates the key messages from each and raises policy implications. Each of the report's three themes has a specific and more detailed key messages section. Several of the key messages presented below cover long-standing and systemic challenges, and the Sheffield City Partnership will have to consider a range of actions when developing the City Strategy. This should include considering a new approach to economic policy, such as Wellbeing Economy principles or new devolution asks so that South Yorkshire has the delivery powers and funding needed.

- If Sheffield cannot maintain and improve its economic position relative to other areas, the issues will become more challenging to tackle as everyone will have fewer opportunities. Sheffield is creating neither enough businesses nor the right jobs to match the qualifications and requirements of the workforce.
- The life expectancy and health inequalities are current threats to the future wellbeing of the city's residents and workforce, and these gaps have become entrenched. This could impact the long-term health and educational attainment of younger residents, which would likely have a tangible long-term effect on the city.
- Health and wellbeing inequalities are also constraining certain communities' access to suitable opportunities, whilst economic inequality is having negative health impacts.
- The city has made progress in reducing the emissions created by business and household energy use in Sheffield. However, the pace of change must accelerate if the city is to meet its ambitious net-zero target by 2030 while delivering 'just transition' across Sheffield's economy and communities.
- Sheffield has the benefit of natural green infrastructure, which should be enhanced and restored to support climate mitigation and adaptation. Urban greenspace, trees, and urban green infrastructure development also benefit the city's population and economy
- A longer-term and place-based approach to inclusive and green growth and a wellbeing economy should increase the focus on the key causes of inequality at earlier life stages. For example, investing in understanding and addressing the factors behind the growing inequality in education outcomes would prevent life-long inequalities and ensure that Sheffield's future economic growth is inclusive.
- Community wealth building offers an opportunity for a more people-centred approach to local economic development that redirects wealth, control, and benefits back into the local economy and to local people. Wealth will be kept circulating and working for the community rather than leaking away.
- The opportunity for newly devolved local powers from Whitehall offer a potentially powerful mix for change. This "provides the impetus for a move away from business-as-usual models of economic growth".¹³ However, the City Partnership need to consider whether devolved powers and funding are sufficient for the region to deliver the interventions needed and if not, make the case to be granted these.

The potential economic policy implications emerging from the data are that interventions are needed to make sure Sheffield's growing sectors provide inclusive jobs that benefit the whole city. This means concerted effort to address long-standing economic, social and health inequalities within the city is required. Measures to tackle poverty (including fuel poverty) and support good mental health are needed, as are actions aimed at mitigating the effects of the cost-of-living crisis and the legacy of Covid-19. These might include increasing the number of living-wage employers and expanding housing

¹³ Dixon & Tewdwr-Jones (2022). *Urban Futures, Planning for City Foresight and City Visions*. Pg 228.

affordability actions. Public-sector investments could also be used to achieve better health and wellbeing and sustainability outcomes in the city.

When considering Sheffield's future health, resilience, and prosperity, it is important to ensure that the city's future growth is built on a strong social foundation that supports all its residents and communities while being delivered on a sustainable basis and accommodating the local and global ecological and environmental challenges.

Various far-reaching carbon reduction policy implications could be introduced to ensure that emissions are cut to meet the required zero-carbon target by 2030. These might range from tackling air pollution to decarbonisation in energy, transport, industry, businesses, and the built environment (commercial and domestic). Active travel will reduce transport emissions while improving 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 life cycle of green jobs.

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

However, a focus on traditional economic policy and strategy is unlikely to solve the challenges facing the city. Sheffield City Partnership will have to consider a range of actions when developing the City Strategy. This should include considering a new approach to economic policy, such as Wellbeing Economy principles or new devolution asks so that South Yorkshire has the delivery powers and funding needed.

One unintended finding of this study is that a lack of data is hindering a deeper understanding of issues at a granular level. This includes information at a highly localised level or about very small demographic groups. There is a lack of data on the indirect carbon emissions of the city's supply chains and consumption. Similarly, the way in which economic data classifies industrial sectors poses challenges when assessing Sheffield's level of preparation for the future economy, with the city's industries and markets neither well defined nor well represented in the current official statistics. Action by partners to create a bespoke local data collection process would help to bridge these gaps.

ENTERPRISING CITY



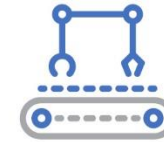
The Sheffield economy was worth **£13 billion** in 2019.



There are **29,800** more residents with NVQ4+ qualifications than employees within Sheffield.



Sheffield's proportion of Grade A office space (**12%**) is the lowest of all the Core Cities (17% below the Core City average).



The economic gap compared to the other Core Cities is **£1.4 billion**. This is up from £0.5 billion in 2015.



The LGA forecast nearly **8,000** green jobs are needed within Sheffield to support net zero targets. Business emissions are decreasing but still contribute around 35% of the city's carbon emissions.

FAIRER CITY



35.3% of women who work part-time in Sheffield earn less than the living wage (compared to 31.7% across England).



In Sheffield there is a gap in average life expectancy of **8.8** years for men and **11.4** years for women. Sheffield has the highest average healthy life expectancy of any of the Core Cities.



The KS4 attainment gap between pupils in receipt of free school meals and other pupils has grown to **17.2** points in 2021 from 12 points in 2017.



5.3% of Sheffield's residents claim incapacity benefits compared to 4.4% nationally.



Fuel poverty rates within Sheffield increased at a faster rate between 2014 and 2019 than the national average.

LIVEABLE CITY



21% of Sheffield's premises have gigabit availability compared to a Core City average of 62%



13% of Sheffield is designated as woodland compared to a Core City average of 7%.



7% of Sheffield's LSOAs are in the UK's most deprived decile for living environment and housing quality.



Sheffield has better air quality than the Core City average, but there are areas of poor and worsening air quality across the city. Parts of east Sheffield have seen a **50% increase** in particulate matter since 2020.



39% of Sheffield's residents can reach a large employment site within 30 minutes on foot; and **83%** can do so by bicycle.

1) INTRODUCTION AND CONTEXT

This evidence base is a starting point for the Sheffield City Partnership to shape and deliver a new shared future vision for Sheffield that addresses the issues facing the city and seizes opportunities. The city has high business survival rates, innovation strengths, steady job growth, and a highly qualified population, combined with relative housing affordability, renowned greenspace and extensive countryside. However, Sheffield's economy underperforms compared to other major cities, especially in terms of productivity. Equally, the city has long-lasting challenges of health, education, and income inequalities. Sheffield, the UK and global economies have recently faced a series of unprecedented shocks and the City needs to improve economic and social wellbeing of all its residents and supporting those most at risk of global headwinds.

This evidence base goes beyond a traditional economic study by taking a much broader view of Sheffield's economy and communities to support the development of the next city strategy being developed by the Sheffield City Partnership. The study provides a rounded evidence base to support the development of the next city strategy, reflecting new ways of thinking about inclusive and sustainable development. This represents a marked shift from previous approaches, which have tended to adopt a narrower economic lens. This study also examines health and wellbeing, inclusion in and the transition to a greener economy, as well as how long-term improvements in these areas and within particular geographies might improve the city's prosperity and fortunes.

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 this approach, while the data indicators explored were agreed upon and collated through engagement with a project Working Group and Steering Group, which comprised representatives from organisations operating in the city's public, private, and voluntary sectors.

As well as looking at different types of businesses and jobs this evidence base provides initial groundwork for the Sheffield City Partnership to consider new ways of thinking about inclusivity, wellbeing and sustainability to improve the prosperity and fortunes of the city and, most importantly, its people and communities.

CONTEXT

GLOBAL AND NATIONAL SITUATION

In addition to existing issues of widening economic and health inequalities and climate change Sheffield, the UK and global economies have recently faced a series of unprecedented shocks. These include the UK exiting the European Union, the impact of COVID, the challenges associated with the constrained labour supply across different 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 have already been clearly observable impacts on Sheffield's residents and businesses. These events also occurred after a challenging decade following the 2008 global financial crash, which resulted in an extended period of constrained economic and wage growth. It is important to recognise that the recent period of turbulence was entered from a weaker starting point than had been the case in previous economic cycles and this will affect the recovery process. For 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 years.¹⁴

Looking ahead, the IMF has forecast¹⁵ that global growth will slow from an estimated 6.1% in 2021 to 3.6% in 2022 and 2023. Beyond 2023, global growth is forecast to decline to about 3.3% over the medium term. Inflation is expected to remain higher for longer than previously forecast, driven by war-induced commodity price increases and broadening price pressures. The war in Ukraine 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 neglect the longer-term goals, which include novel ways of working, productivity enhancements and positive structural change wherever possible, embracing the digital transformation, as well as retooling and reskilling workers to meet the challenges. The IMF forecast concludes with a prescient point of relevance for Sheffield: the green energy transition will entail "labour market reallocation across occupations and sectors".

At the time of writing, UK growth is expected to reach 3.7% in 2022 but then stagnate in 2023, while rising inflation is forecast to peak at up to 14% by the end of 2022, continuing to erode real disposable incomes even as inflation falls to 5% in 2023¹⁶. This represents a long-term loss of income for workers and the UK economy that will affect 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. Importantly, many people, including those on lower incomes, will experience even slower wage growth over this period. However, if the increases in the cost of living continue at a higher rate for longer than expected, the implications for living standards will be more severe. Stagflation is a risk without the appropriate fiscal and monetary policy resources.

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 have been provided that have potential implications for Sheffield, including (i) a mismatch between the types of available jobseekers and the skills of jobseekers, (ii) health-related concerns leading to the withdrawal of older workers from the workforce, (iii) changing job preferences among workers resulting in historically high quit rates, and (iv) school and childcare disruptions forcing parents (particularly women) of young people to leave the labour force.¹⁷

Mitigating and adapting to climate change are crucial factors that influence the nature and drivers of future worldwide economic growth, including in the UK. The Paris Agreement, a legally binding international climate change treaty, was adopted by 196 parties at COP 21 in Paris on 12th December 2015 and entered into force on 4th November 2016. The Paris Agreement's long-term temperature goals are to keep the rise in global average temperatures at well below 2°C (3.6°F) above pre-industrial levels

¹⁴ ONS Gross Domestic Product Time Series (Wages and Salaries).

¹⁵ At the time of writing.

¹⁶ British Chamber of Commerce, UK Economic Outlook, September 2022. [Available here](#):

¹⁷ IMF. *World Economic Outlook*, April 2022.

and pursue efforts to limit the increase to 1.5°C (2.7°F), recognising that this would substantially reduce the impacts of climate change. This should be done by reducing emissions as soon as possible and achieving net-zero emissions in the second half of the 21st century. The International Energy Agency stated in 2015 that an estimated \$13.5 trillion of public and private investment in the global energy sector alone would be required between 2015 and 2030 if the signatories to the Paris Agreement are to meet their national targets.

The UK's response to the Paris Agreement was the publication of the Committee on Climate Change report, '[Net Zero – the UK's contribution to stopping global warming](#)' and, in June 2019, the Government legislated to increase the national emissions reductions target from 80% to net-zero emissions by 2050. Meanwhile, significant levels of public concern for and activism about this issue have been identified. In December 2020, the Climate Change Committee (an independent, statutory body established under the Climate Change Act 2008) published its recommendations for the [sixth carbon budget](#), and the Government announced that it would target a 68% reduction in carbon emissions by 2030 as a new ambitious milestone on the way to its 2050 net-zero target. Subsequently, October 2021 saw the launch of the UK Government's 'Net Zero Strategy: Build Back Greener', which was updated in April 2022. This presents a ten-point plan for a 'Green Industrial Revolution'.

The UK has a strong record of clean growth, having cut carbon emissions by 42% between 1990 and 2015 while experiencing a 67% increase in GDP during the same period, in contrast to the overall G7 emissions reduction of 3% and GDP increase of 61%. This was achieved through various strategies, including improved energy efficiency, more recycling of waste products, and better automobile engine technology, with the largest emissions reduction contribution coming from the decarbonisation of power. [Government analysis shows](#) that the UK now has the world's largest installed offshore wind capacity.

Sheffield City Council declared a Climate Emergency in February 2019 with a net zero target of 2030, making it the largest council to have done so at the time, with more than 300 local councils making a declaration by the end of 2021. Achieving this transition successfully in Sheffield means creating good green jobs and adapting to a low-carbon economy. Some companies and sectors in Sheffield gain economic opportunities, but others will face declining markets and some jobs will become redundant and action will be needed to help business and employees gain new skills and find new opportunities.

In summary, given the changes to consumer spending patterns, the shifting patterns of global trade, the continuing technological advancements, the shift to green and carbon neutral economies, as well as the UK Government's levelling up commitment, the coming years will bring considerable further changes and provide a myriad of opportunities and challenges for Sheffield's businesses and residents.

Looking ahead, policymakers in Sheffield must capitalise on these opportunities in an inclusive way which improves the economic and social wellbeing of all its residents, while supporting the resilience of those most at risk of global headwinds.

ABOUT THE STUDY AND THIS REPORT

This evidence base goes beyond a traditional economic study by taking a much broader view of Sheffield's economy and communities to support the development of the next city strategy being developed by the Sheffield City Partnership. As well as looking at different types of businesses and jobs this evidence base provides initial groundwork for the Sheffield City Partnership to investigating new

ways of thinking about inclusivity, wellbeing and sustainability to improve the prosperity and fortunes of the city and, most importantly, its people and communities.

The City Partnership’s next city strategy will build on Sheffield’s strengths: its leading economic assets, global companies, transforming city centre, and proximity to the Peak District National Park. A key part of the city strategy will be to ensure that future growth is inclusive and sustainable. This means that everyone will benefit from future growth, which will also be a catalyst for reducing the inequalities between different communities in the city.

The policy implications stated throughout this report are the view of the report authors based on the evidence; they are not necessarily endorsed or adopted by Sheffield City Council. Equally, there is a wide range of policy considerations presented some of which require a brand new way of designing and delivering interventions, not all of which will be possible with current powers, funding and resources.

NAVIGATING THE RESEARCH AREAS IN THIS REPORT

Following an overview of Sheffield, the evidence base tells the story of Sheffield through three interrelated and thematic chapters which reflect the key issues revealed by the data. Together, these three themes represent the different systems that comprise the city of Sheffield. The city is more than just a concentration of people and business. Instead, Sheffield is composed of different systems that involve energy, utilities, food, transport, health and wellbeing, and nature. These underpin Sheffield’s society and economy.

To help readers navigate the report, the thematic chapters have been colour-coded as follows:

Enterprising City	Fairer City	Liveable City
Data on the different types of businesses, the labour market and economic output, innovation, commercial property, and climate change effects on business.	A review of Sheffield’s population and data on education, deprivation, unemployment and income, health and wellbeing and the inequality within all of these areas.	Data on the quality and accessibility of green space, energy efficiency and affordability, housing quality and affordability, transport use and accessibility, and air quality.

This report contains the following sections:

- The next chapter presents an overview of Sheffield and the Local Area Committee areas.
- Chapter three is the Enterprising City
- Chapter four is the Fairer City
- Chapter five is the Liveable City
- Chapter six recaps the key messages from this report, raises issues to be considered in the City Strategy, and summarises several potential policy opportunities.

GEOGRAPHICAL FOCUS

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

Where data is available, it has been analysed at the Medium or Lower Super Output Area (M/LSOA) level. LSOAs are small areas designed to contain populations of similar sizes. Up-to-date information for

LSOAs is limited, although more will become available when the 2021 census data is released. MSOAs are slightly larger and comprised of groups of contiguous Lower Layer Super Output Areas.

ACKNOWLEDGEMENTS

We are grateful to the following organisations for playing an important role in 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 Property Association
- Sheffield Technology Parks
- Sheffield Social Enterprise Network
- City Taxis
- Colloco
- Proaktive
- Sheffield Hallam University
- The University of Sheffield

NOTES AND GLOSSARY OF KEY TERMS

This evidence base utilises a broad range of data, primarily official figures from the ONS and UK Government departments. Having been informed by this data, different topics are discussed, and it is recognised that the language used in official statistics may not always be considerate or sensitive when describing important demographic and health topics.

The following notes and definitions are intended to provide the report's various audiences with clarity and avoid repetition in the main report.

1. **Demographic data:** In accordance with the Civil Service guidelines, this report uses the term 'ethnic minorities' to be consistent with other data-led reports. However, the authors recognise the inappropriateness of using this term to represent different experiences and voices. Readers may wish to employ different language when using information from this report. For example, Sheffield's Race Equality Commission final report used the term 'Black Asian and Minoritised Ethnic'. Individual datasets use their own terms and categories, and these have been used in the evidence base, which is why different language is used for different datasets.
2. **Health and disability data:** Different datasets from the ONS and the NHS are used in this report to refer to different physical and mental health conditions and disabilities. These terms do not fully reflect the experiences of individuals, so the relevant sections of the report include qualitative introductions. Particular challenges are encountered when discussing economic data. For example, the ONS provides data on the reasons for unemployment and economic inactivity as an indicator of why people are unable to work. This language can appear crude and not fully reflective of the nuanced and varied factors that bring about the different circumstances experienced by individuals. There is no implication that individuals themselves should be blamed, although the authors recognise that the language used in the official datasets does not make this clear.
3. **Inclusive growth:** This report refers to inclusive growth throughout, which can mean different things to different audiences. The Scottish Government's definition of inclusive growth is closest to the meaning used in this evidence base: "growth that combines increased prosperity with greater equity; that creates opportunities for all; and distributes the dividends of increased prosperity fairly". Inclusive growth, if successful, will reduce economic inequalities "to benefit people on lower incomes, and people and places with less of a share in wealth".
4. **Just Transition:** This report refers to just transition in different sections. This term means "making sure that action on climate change supports an inclusive economy, with a particular

focus on workers and communities”¹⁸. Furthermore, the authors use the European Bank for Reconstruction and Development’s definition of just transition, which “seeks to ensure that the substantial benefits of a green economy transition are shared widely, while also supporting those who stand to lose economically – be they countries, regions, industries, communities, workers or consumers”.

5. **SIC codes:** The economic analysis in this evidence base generally refers to industry sectors. The ONS uses the Standard Industrial Classification (SIC) to categorise business establishments and other statistical units by the type of economic activity in which they are engaged. The UK SIC is a hierarchical five-digit system. The UK SIC (2007) is divided into 21 sections, each denoted by a single letter from A to U. These letters can be uniquely defined by the next breakdown into divisions (denoted by two numerical digits). The divisions are then divided into groups (three digits), classes (four digits) and, in several cases, again into subclasses (five digits).
6. **SOC codes:** This evidence base refers to different occupation types. The ONS uses the Standard Occupational Classification (SOC) to categorise systematically the occupational information for the UK. The UK SOC system defines a job as the set of tasks or duties undertaken by one person. Jobs are classified into groups according to the concepts of 'skill level' and 'skill specialisation'. 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. This, in turn, is a function of the time taken to gain the necessary formal qualifications or the required amount of work-based training. Apart from formal training and qualifications, some tasks require varying types of experience, possibly in other tasks, for competence to be acquired. The nine major groups of SOC 2020 are used in this evidence base.
7. **Core City:** The English Core Cities are Sheffield, Manchester, Newcastle upon Tyne, Birmingham, Nottingham, Bristol, Leeds, and Liverpool.

¹⁸ (Grantham Institute/London School of Economics, 2019)

2) SHEFFIELD OVERVIEW

Sheffield is globally synonymous with its ‘Steel City’ moniker. England’s greenest city, its name derives from the River Sheaf, which runs through the city. Sheffield is the fourth-largest 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.

SHEFFIELD’S BUSINESS, EMPLOYMENT, AND POPULATION HEADLINES

“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”¹⁹.

These strengths mean the city has been able to attract and retain new investors, graduates, entrepreneurs, and multinationals. Its well-known anchor assets include two world-class research Universities and the Sheffield Teaching Hospitals (STH). The STH NHS Foundation Trust comprises 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.

CITY PROFILE

In 2020, there were 262,500 jobs in Sheffield across all sectors, making it the fifth-largest of the eight Core Cities in England. This equates to 442.6 jobs for every 1,000 city residents (see Table 1). Table 1 below provides an overview of Sheffield’s population, employment, and healthy life expectancy.

Table 1: Sheffield overview.

Indicator	Value	Indicator	Figure
Population ²⁰	589,214	Employment per 1,000 population ²¹	442.6
Population under 16 (%)	18%	Claimant Count (Rate %) ²²	4.6%
Population 16-64 (%)	66%	Business Count per 1,000 population ²³	40
Population 65+ (%)	16%	Healthy Life Expectancy ²⁴	61.6

The public sector is a major employer in Sheffield, with health, education, and public administration combined accounting for 89,500 jobs, or 34% of all employment across the city. This is consistent with

¹⁹ Made in Sheffield. [Available here](#).

²⁰ Population data source: ONS Mid-Year Population Estimates 2021

²¹ Employment data source: BRES 2020

²² Claimant Count data source: ONS Claimant count by sex and age (2022)

²³ Business Count data source: IDBR UK Business Counts, Local Units (2021)

²⁴ Healthy Life Expectancy Data Source Office for Health Improvement and Disparities. Fingertips Public Health Profiles. 2022

the rate of employment in the other smaller Core Cities (these sectors account for 39% of employment in Newcastle) but significantly higher than the rates in some of the larger Core Cities, including Manchester (27%) and Leeds (25%). Considering the number of jobs per resident, the evidence suggests that this reflects a lower representation of the private sector, rather than above-average levels of public-sector employment. In terms of the breakdown of these 89,500 public-sector jobs, human health and social care activities make up 41,000 of these positions, education accounts for 32,500, and public administration and defence for 16,000, as shown in Figure 1 below.

Turning to the private sector, the largest employers in Sheffield are in wholesale and retail trades, as well as administrative support services. Together, these fields employ 60,500 people, or 23% of all jobs in the city, broadly in line with the figures for England (24%) and the other Core Cities (which range 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, only 20,500 are employed in manufacturing overall, accounting for 8% of all jobs in the city. This is above the rates for the other Core Cities, which range from 3% in Newcastle to 6% in Birmingham and Leeds, but aligns with the rate across England.

The share of jobs accounted for by the professional services-related sectors (information and communications, finance and insurance, real estate, and professional services) is lower than in all the other Core Cities. In Sheffield, these fields account for one in six jobs, or 16%, compared to 25% in Manchester and 27% in Leeds.

Figure 1 shows the breakdown of all 261,990 jobs in Sheffield. For comparison, a Core City average is shown, adjusted for the same number of total jobs. This indicates how many more or fewer jobs Sheffield would need in each sector to match the Core City average.

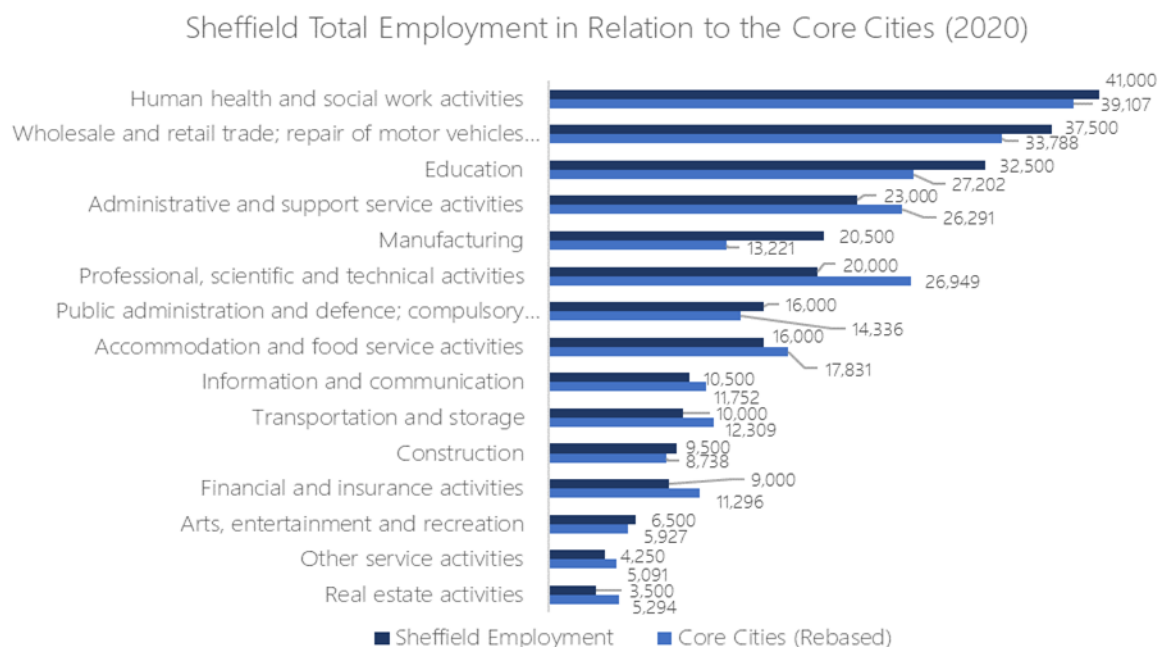


Figure 1: Sectoral breakdown of employment. Source: BRES 2020.

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

The fastest-growing sector in Sheffield over this period was public administration and defence, which grew by 33% to add 4,000 jobs, more than double the rate across the Core Cities overall.

The information and communications sector grew strongly (by 24%, or 2,000 jobs); however, this was below the level achieved across all the Core Cities (31%). The strong growth of administration and support services (21%, or 4,000 jobs) compared to the weaker growth in professional and scientific services (3%, or 500 jobs) and financial and insurance activities (-10%, or a loss of 1,000 jobs) also suggests that private-sector employment has focused on lower-productivity and lower-skilled sectors.

The decline of the manufacturing and wholesale and retail trade fields (-10%, a loss of 4,000 jobs) alongside the growth of sectors such as information and communications (24%, or 2,000 jobs) indicates wider structural economic changes and the need to support those less able to transition into new and growing employment sectors.

Figure 2 shows the percentage changes in employment in different sectors in Sheffield and in the Core Cities as a whole, using the ONS Broad Industry Group definitions.

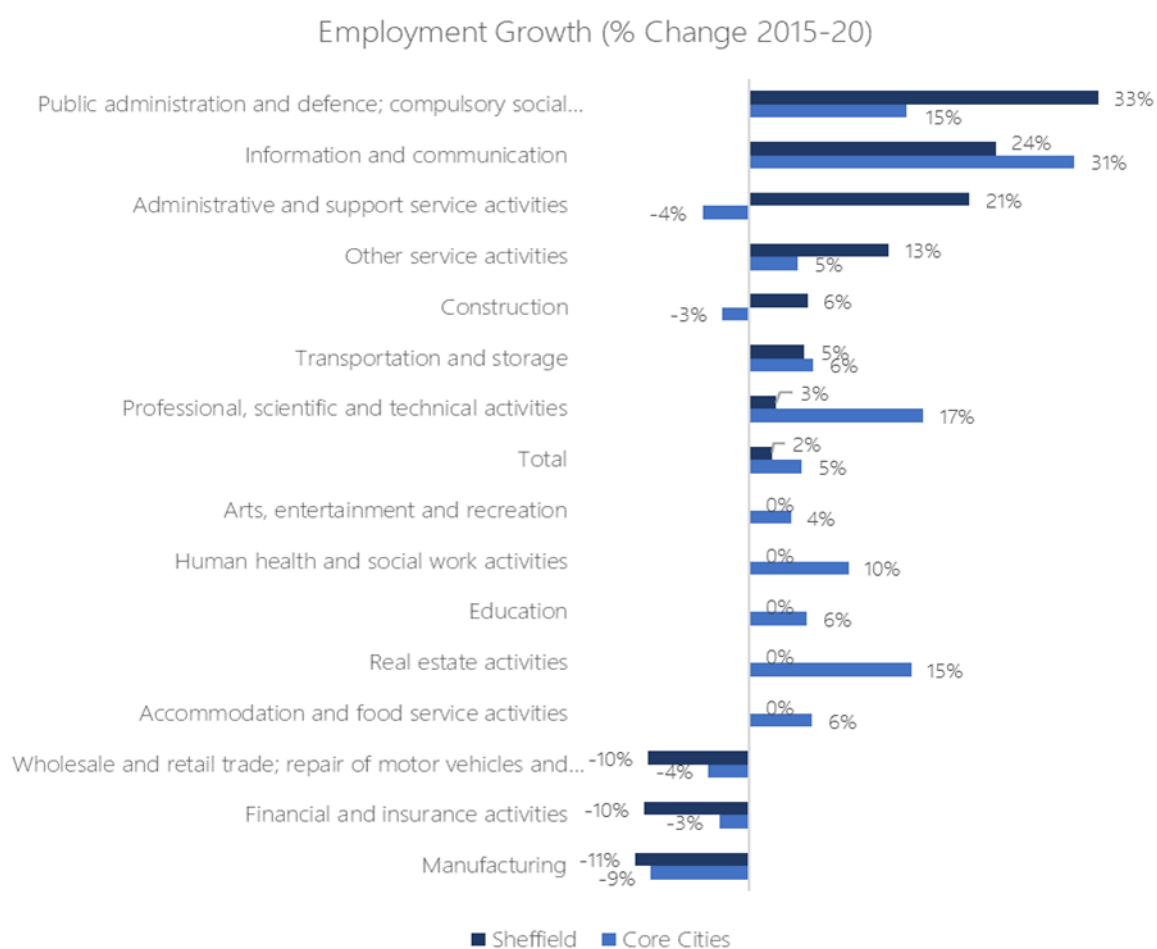


Figure 2: Employment growth by sector. Source: BRES 2020

Table 2 shows the absolute numbers and percentage changes for Sheffield only.

Table 2: Sheffield employment change, 2015-2020.

Sector	Change in employment 2015-2020	% change
A: Agriculture, forestry, and fishing	75	16%
B: Mining and quarrying	-20	-57%
C: Manufacturing	-2,500	-11%
D: Electricity, gas, steam, and air conditioning supply	-25	-8%
E: Water supply; sewerage, waste management, and remediation activities	125	10%
F: Construction	500	6%
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	-4,000	-10%
H: Transportation and storage	500	5%
I: Accommodation and food service activities	0	0%
J: Information and communication	2,000	24%
K: Financial and insurance activities	-1,000	-10%
L: Real estate activities	0	0%
M: Professional, scientific, and technical activities	500	3%
N: Administrative and support service activities	4,000	21%
O: Public administration and defence; compulsory social security	4,000	33%
P: Education	0	0%
Q: Human health and social work activities	0	0%
R: Arts, entertainment, and recreation	0	0%
S: Other service activities	500	13%

Source: BRES 2020

Table 3 outlines all the three-digit sectors in Sheffield with a Location Quotient above 1.5 (i.e. where employment accounts for 50% or more in Sheffield than it does nationally) and more than 250 employees. The Location Quotient is a measure of industrial specialisation in the economy of a particular place.

Sheffield does not specialise more in manufacturing than England overall, and employment in this field has declined in recent years; nevertheless, a number of sectors offer clear concentrations of employment, including some important niches. Unsurprisingly, Sheffield is highly represented in various metals-based sub-sectors, while employment in satellite telecommunications activities is more than 10 times the national average. There are also specialisms in wireless telecommunications, special-purpose machinery, and an automotive sub-sector.

Beyond manufacturing, the city's specialisms include a range of sectors from higher education, insurance, and legal activities to call centres and public-sector employment (including social security and State administration).

Employment agencies play a key role, highlighting the relative importance of the temporary employment sector. Anecdotal evidence from one local agency working across Sheffield and the UK suggests that the construction and manufacturing (including food and drink) sectors in Sheffield are busy. That the UK's exit from the EU has reportedly resulted in more vacancy postings than jobseekers at present, although it was noted that salaries were higher in Manchester and Leeds than in Sheffield.

Table 3: Sheffield Sector Specialisms.

Sector	Employment	LQ
241: Manufacture of basic iron and steel; manufacture 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: Call centre activities	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/semi-trailers	300	1.6
781: Activities of employment placement agencies	2,250	1.5

Source: BRES 2020

NATIONAL AND INTERNATIONAL COMPARATORS

The KPMG Magnet Cities report of 2014 cited nine global ‘turnaround cities’ that had successfully reversed a long pattern of social and economic decline by undertaking transformative projects to become fast-growing, economically strong cities. KPMG used a wide-ranging qualitative method to unpick the factors behind the transformative processes through which 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 highly significant factor, with the number of patents per 10,000 residents seen as a good measure of success. The KPMG 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 clearly definable city identity, excellent connectivity, cultural and academic assets, multiculturalism, a culture of fundraising and capital attraction, as well as strong civic leadership were the other factors cited. The 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 20th-century

decline. An overview of these places is provided in **Error! Reference source not found.**, with further discussion below the table.

Table 4: Overview of Sheffield compared to selected turnaround cities.

	Sheffield	Malmö	Bilbao	Pittsburgh
Population ²⁵	589,214	351,749	342,662	303,668
Employment Numbers	262,500	204,900	157,200	162,700
Employment Rate	67.6%	67.8%	73.8%	76.7%
Life Expectancy	80	82	82	80
Largest Sector(s)	Human health and social work activities (41,000); wholesale and retail trade, repair of motor vehicles and motorcycles (37,500); Education (32,500).	Consultancy and business services (34,800); healthcare (30,700); trade (26,600), education (20,500).	Construction, commerce, and tourism. ²⁶	Healthcare and social assistance (29,500); educational services (22,700); Professional, scientific and technical services (20,000).

Source: KPMG Magnet Cities, Appendix 1: Comparative Data

Malmö's regeneration was overseen by one civic leader, the mayor, over a twenty-year period and combined with a substantial and sustained period of investment. 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 on cleantech, life science R&D, and start-up support.

Bilbao placed at the centre of its regeneration a cultural asset, the Guggenheim Museum, as well as transport infrastructure, land purchase and environmental improvements. 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 in the 1980s. De-industrialisation in the late 1980s saw unemployment rates reach almost 30% and the city's most famous asset, its river, was declared environmentally dead. This culturally and environmentally led regeneration programme, accompanied by a local budgetary focus on supporting R&D in technology-heavy businesses,²⁷ has largely been credited with inspiring the city's economic and social renaissance, which saw Bilbao's economy grow by 14% between 2004 and 2014.²⁸

Sheffield's twin city of Pittsburgh was long characterised as the home of the US steel industry. Following a period of de-industrialisation, the city was perceived to be in terminal decline in the 1980s and

²⁵ The estimated population thresholds and dates vary depending on the source data: Sheffield (16-64, 2020), Malmö (15-64, 2018), Bilbao (18-64, 2018), and Pittsburgh (18-64, 2020).

²⁶ Identified priority sectors, breakdown by employment is unavailable at this level.

²⁷ The Basque Government allocated 2.08% of its annual budget to supporting the development of new technologies, businesses, and industrial ideas.

²⁸ KPMG (2014). *Magnet Cities*. Pg 34. [Available here](#).

characterised by a falling population and unemployment rates of up to 18%. Nevertheless, an economic recovery centred on the city's two major universities, its technical and medical educational assets,²⁹ and a city partnership team with a clear, shared focus on downtown regeneration and research and technology. This has seen it become home to many dynamic, young, and talented people, who have established 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 and has an annual turnover of US\$10 billion. More people now work in Pittsburgh's medical sector than worked in the steel industry at its peak.³⁰

A downtown renaissance plan saw new arts performance centres, galleries, theatres, convention centres, and hotels, as well as the building of a new baseball stadium and an American Football stadium. The region attracts both tourists and the film industry.³¹ Carnegie Mellon University's (CMU) Collaborative Innovation Centre, with tenants such as Disney, Intel, Microsoft, and Apple, has supported numerous university spinouts, while a focus on R&D has seen some of Pittsburgh's core industries diversify into nuclear energy production, water purification, and shale gas extraction.

The city is now shifting from steel to sustainability. In the spring, when President Joe Biden unveiled the White House's climate-focused jobs and infrastructure plan worth \$2 trillion, he chose Pittsburgh as his backdrop to announce schemes for electric vehicle charging stations and a zero-emissions economy. Pittsburgh was also one of the first US cities to formally integrate the Sustainable Development Goals (SDGs) into its city plans and policies, following years of leadership on sustainability.³²

This commitment to the SDGs extends beyond the City Hall, with private-sector leaders (Pittsburgh Chamber of Commerce and the Economy League of Greater Pittsburgh) coming together at the 2019 Allegheny Conference, which used the SDGs as a starting point.³³ In parallel, the city's mayor and local universities announced their commitments to these global goals, and the Allegheny Conference's 10-year plan for the region includes its members' commitment to uphold and promote regional cooperation on the global goals as a way to build vitality.

²⁹ CMU University's Robotic Institute has over 500 scientists and researchers focused on the commercial and clinical application of robotics.

³⁰ [Ibid.](#)

³¹ Pontpark University, A Short History of Pittsburgh Business [Available here.](#)

³² [Ibid.](#)

³³ <https://www.alleghenyconference.org/about/sustainability-principles/>

LOCAL AREA COMMITTEE BUSINESS, EMPLOYMENT, AND POPULATION HEADLINES

Sheffield Local Area Committees

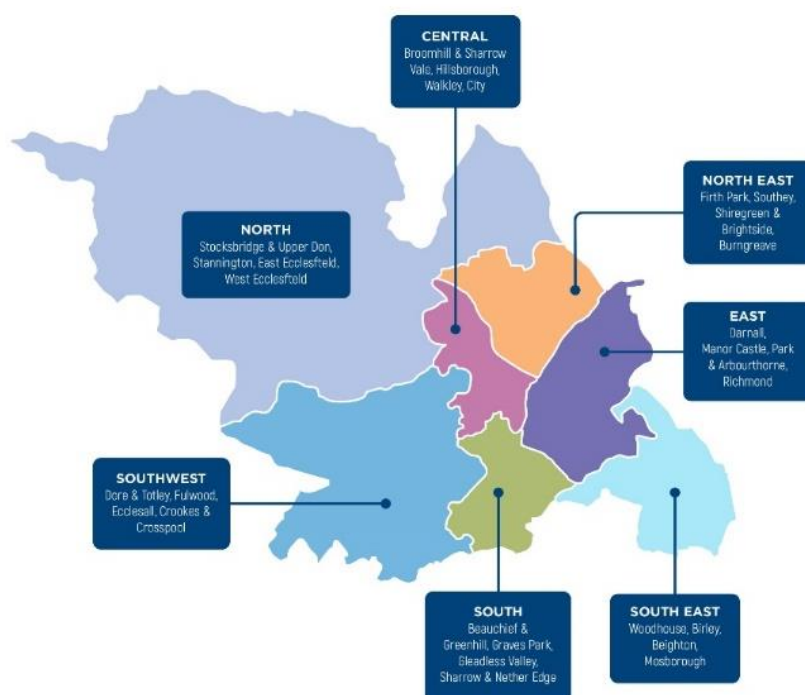


Figure 3: Sheffield's Local Area Committees.

In this evidence base, LSOA data has been aggregated and analysed to report on the seven Local Area Committees (LACs). LACs are bespoke sub-geographical areas used by Sheffield City Council (Figure 3).

LAC PROFILES

Central

Indicator	Figure	Indicator	Figure
Population	130,413	Employment per 1,000 population	842
Population under 16	11%	Claimant Count Rate	2.7%
Population 16-64	81%	Business Count per 1,000 population	32.72
Population 65+	8%	Life Expectancy	61

East

Indicator	Figure	Indicator	Figure
Population	96,320	Employment per 1,000 population	659
Population under 16	22%	Claimant Count Rate	7.6%
Population 16-64	63%	Business Count per 1,000 population	24.79
Population 65+	15%	Life Expectancy	56.5

North East

Indicator	Figure	Indicator	Figure
Population	88,407	Employment per 1,000 population	265
Population under 16	20%	Claimant Count Rate	8.4%
Population 16-64	61%	Business Count per 1,000 population	26.19
Population 65+	19%	Life Expectancy	55.5

South East

Indicator	Figure	Indicator	Figure
Population	74,595	Employment per 1,000 population	266
Population under 16	22%	Claimant Count Rate	3.8%
Population 16-64	62%	Business Count per 1,000 population	22.24
Population 65+	16%	Life Expectancy	61.5

North

Indicator	Figure	Indicator	Figure
Population	70,573	Employment per 1,000 population	250
Population under 16	17%	Claimant Count Rate	3.1%
Population 16-64	59%	Business Count per 1,000 population	26.67
Population 65+	24%	Life Expectancy	64

South

Indicator	Figure	Indicator	Figure
Population	69,400	Employment per 1,000 population	221
Population under 16	20%	Claimant Count Rate	4.9%
Population 16-64	63%	Business Count per 1,000 population	30.09
Population 65+	17%	Life Expectancy	61.5

South West

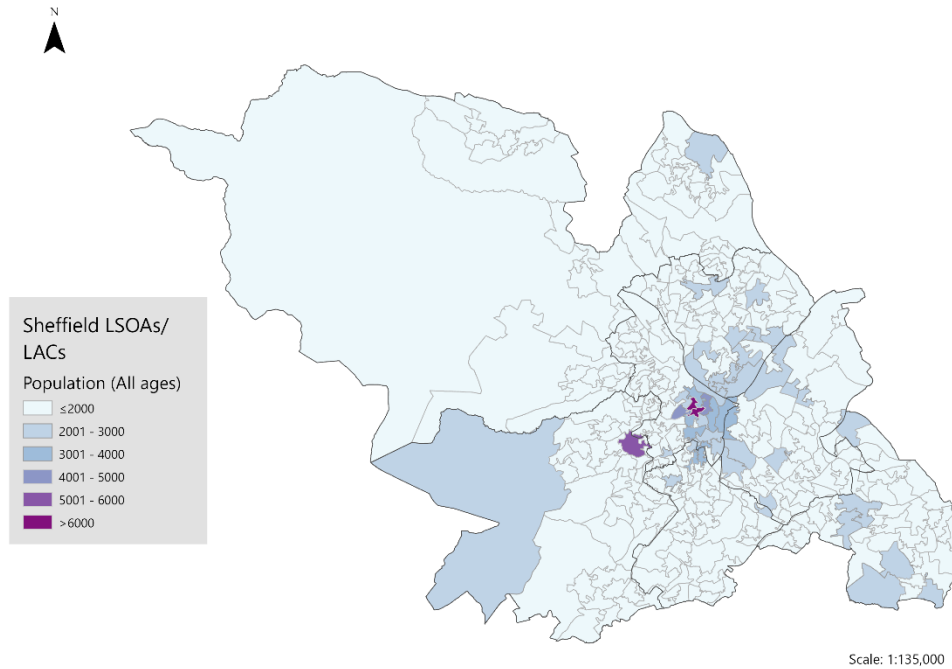
Indicator	Figure	Indicator	Figure
Population	59,506	Employment per 1,000 population	190
Population under 16	17%	Claimant Count Rate	1.3%
Population 16-64	62%	Business Count per 1,000 population	22.24
Population 65+	22%	Life Expectancy	70

MAPPING SHEFFIELD'S ECONOMY AND POPULATION

The following GIS maps display economic and population figures for Sheffield at lower super output area (LSOA) or middle super output area (MSOA) levels in their respective Local Area Committees, illustrating the relative differences between different parts of the city. The thicker boundary lines show the seven LACs, with the LSOA boundaries shown within these.

Map 1 shows population estimates for Sheffield in 2020 by LSOA and LAC. The highest population figures can be found in the Central LAC (in and around the city centre), with some LSOAs in excess of 6,000 people. The population figures fall progressively as the distance from the city centre increases, with most LSOAs having fewer than 2,000 residents.

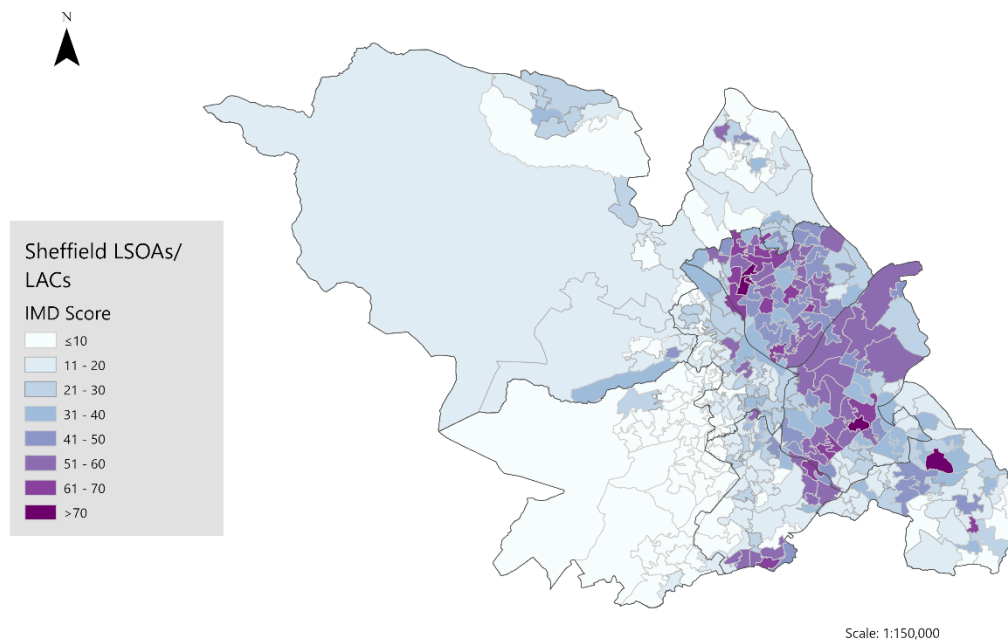
Map 1: Population of Sheffield.



Population (All ages) for Sheffield by LSOA and LAC (2020). Source: [ONS Lower layer Super Output Area population estimates](#). 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.

Map 2 displays the Index of Multiple Deprivation scores (2019) for Sheffield’s LSOAs. The IMD scores ranged from 1.69 to 74.8, with the highest levels of relative deprivation found in the east of Sheffield, specifically in the North East, East, and South East LACs. On average, the South West LAC scored lowest on the index, indicating a far lower prevalence of deprivation.

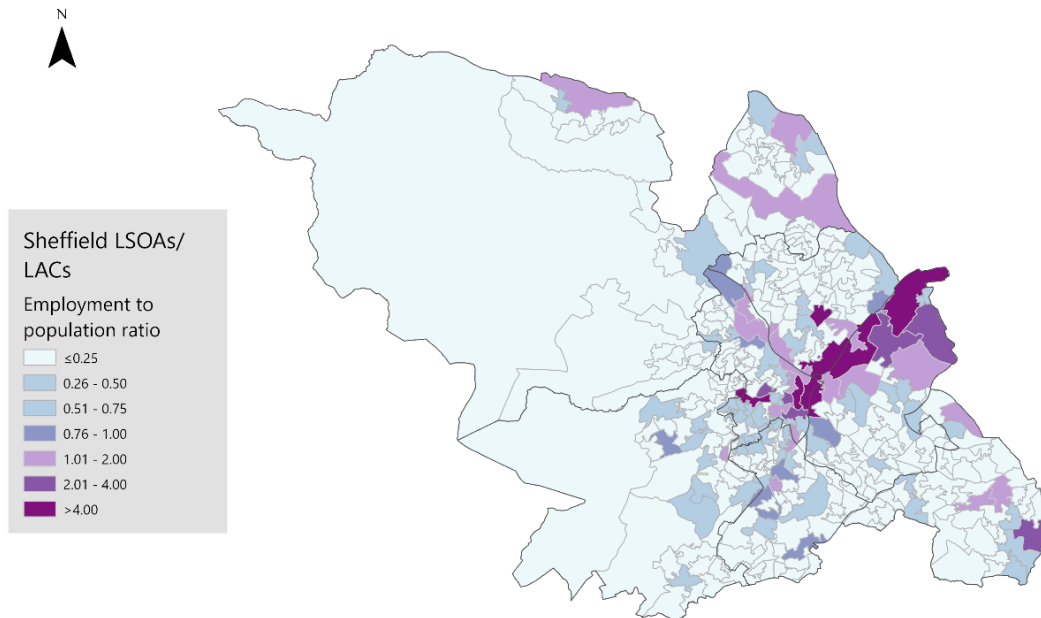
Map 2: Index of Multiple Deprivation.



Index of Multiple Deprivation Scores by LSOA and LAC. Source: Gov.uk [English indices of deprivation 2019 \(File 7\)](#). 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.

Map 3 shows the employment density, or employment per head of population, for Sheffield’s LSOAs (2020). The higher ratios indicate more jobs per head for each lower-level output area. The figures vary 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 datasets. Large swathes of the North and East LACs recorded very low ratios, probably due to their lower levels of urban and industrial density.

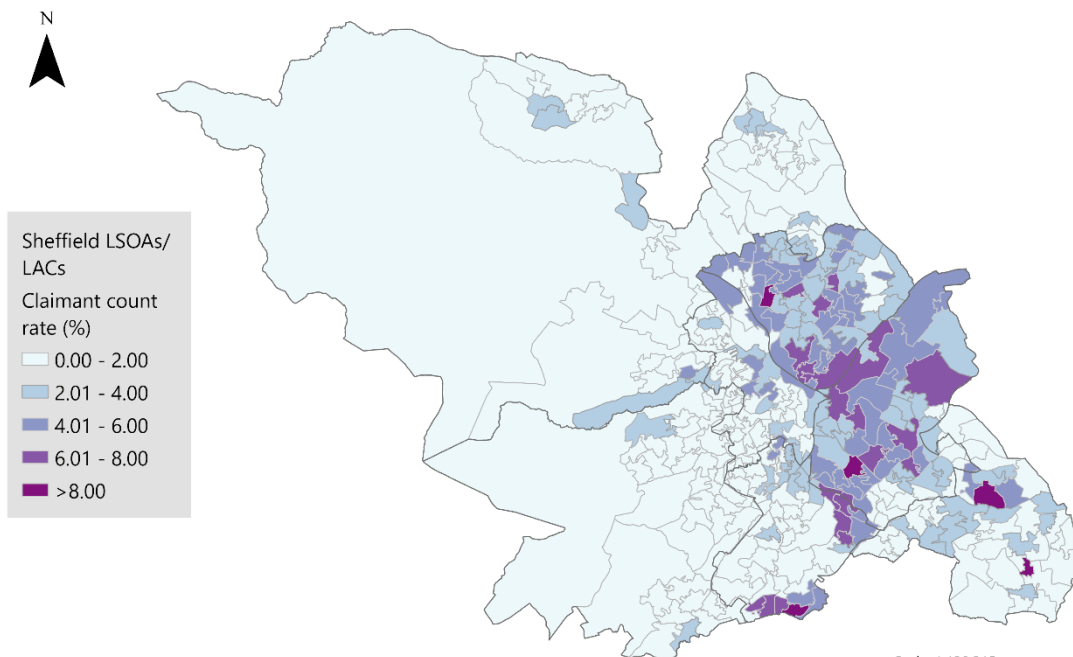
Map 3: Employment density.



Scale: 1:150,000

Employment to population ratio. Source: [ONS Lower layer Super Output Area population estimates \(2020\)](#) and [ONS Business Register and Employment Survey \(2020\)](#). 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.

Map 4: Claimant count rate.

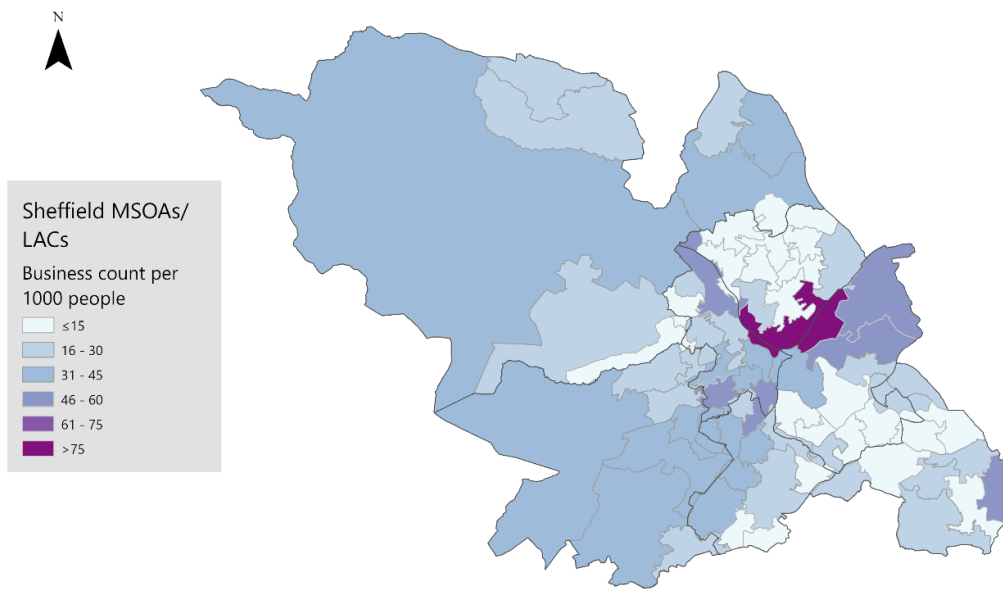


Scale: 1:130,315

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.

Map 4 presents the JSA and Universal Credit claimant count rates. These are far higher in the LSOAs in the East and North East LACs, with pockets of high rates in more peripheral parts of the South and South East LACs.

Map 5: Business density.

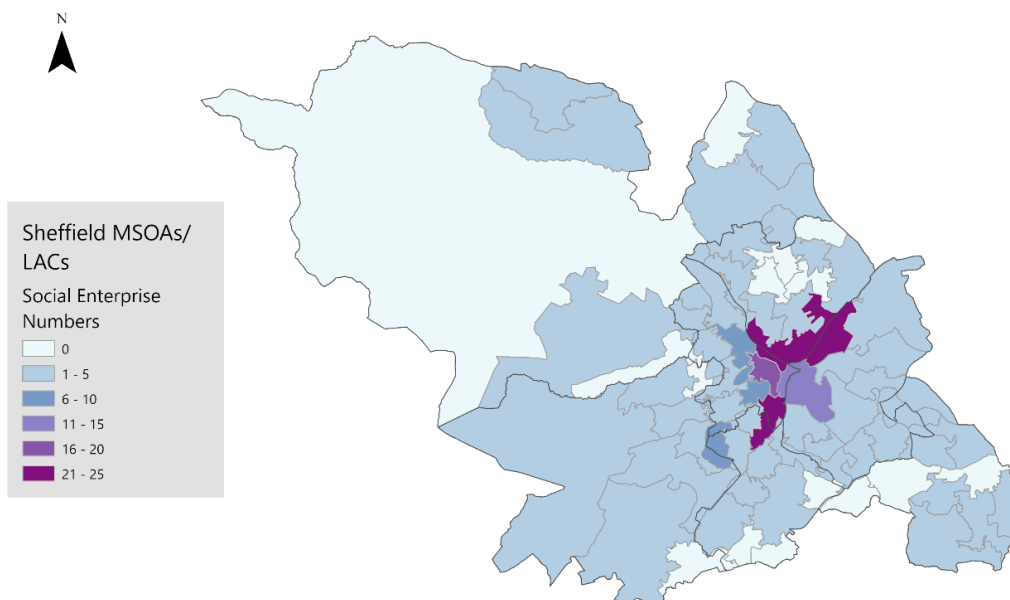


Scale: 1:150,000

Business count per 1,000 people by MSOA/LAC. Source: [ONS Middle Super Output Area population estimates \(2020\)](#) 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.

Map 5 displays the number of businesses per 1,000 people at the MSOA level for Sheffield, which is a measure of business density, with the highest ratios in the city centre, in and around the Central, North East, and East local area committees. Lower business figures are clustered towards the South.

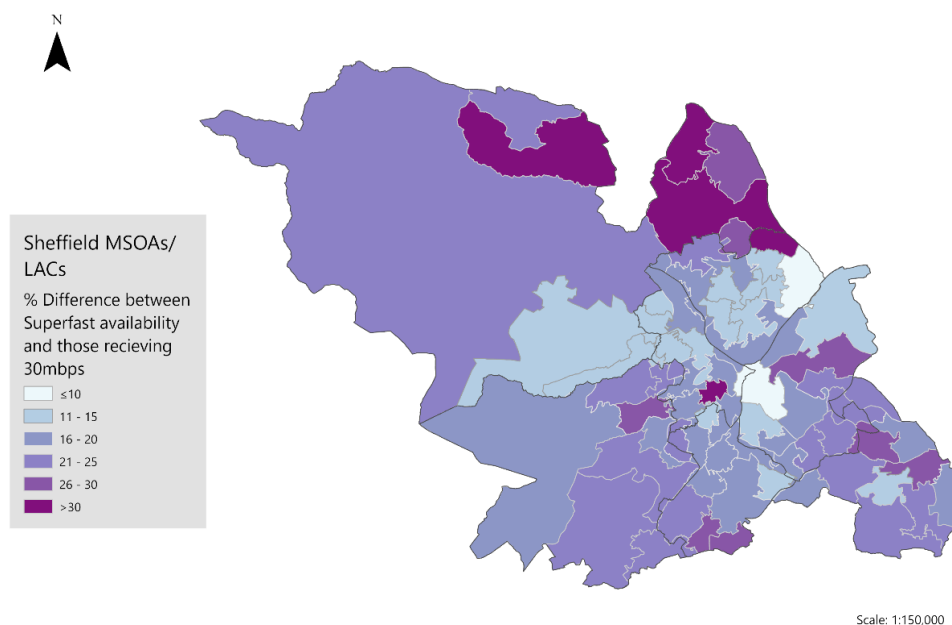
Map 6: Concentration of Sheffield's social enterprises.



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 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown copyright and database right 2022.

Map 7: Gaps between having superfast broadband available and receiving it.



Variation between superfast broadband availability and lines receiving over 30 Mbps by MSOA/LAC. Source: [Ofcom Connected Nations 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.

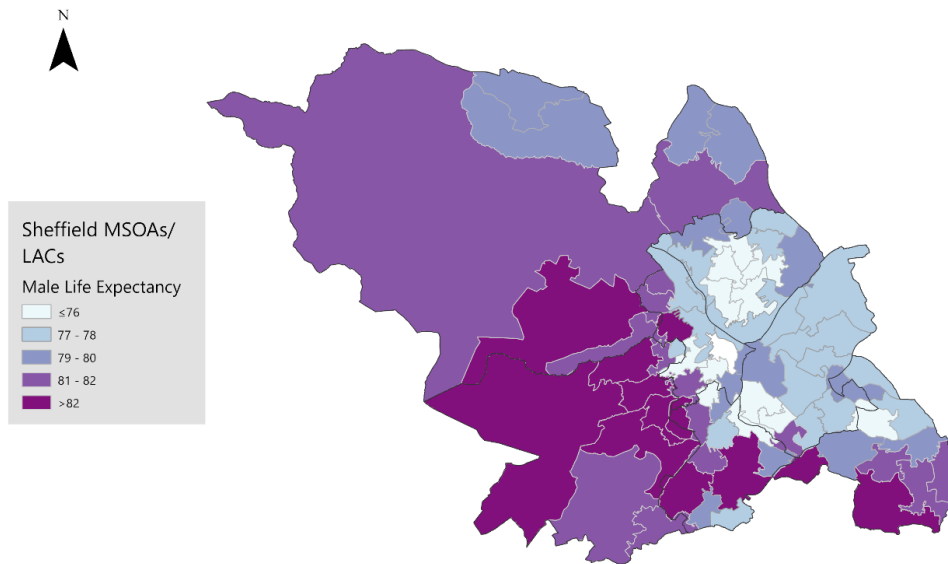
Map 6 shows the concentration of social enterprises across Sheffield. As with the other businesses, the highest density of social enterprises is in close proximity to the city centre, spanning the Central, North East, and East LACs, with between 21 and 25 social enterprises in some LSOAs. The pattern of the distribution and concentration of social enterprises was similar to that of the general business base.

Map 7 shows the Ofcom Connected Nations data for Sheffield, comparing the difference between premises with superfast broadband availability and those currently receiving speeds of over 30 Mbps. The greatest differences between reception and availability are in the north, with a gap of up to 39.4 percentage points. Only two of Sheffield's 70 MSOAs have a gap of less than 10 percentage points between those with superfast availability and those receiving over 30 Mbps. In comparison, in the wider Yorkshire and Humber region, the average gap is 18.5 percentage points and the gap in London is 14.9.

Map 8 shows that male life expectancy at birth in Sheffield ranges from 74.0 to 84.2 years. As the map illustrates, the highest levels are primarily in the West and South East. The 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 Core City average of 12.07.

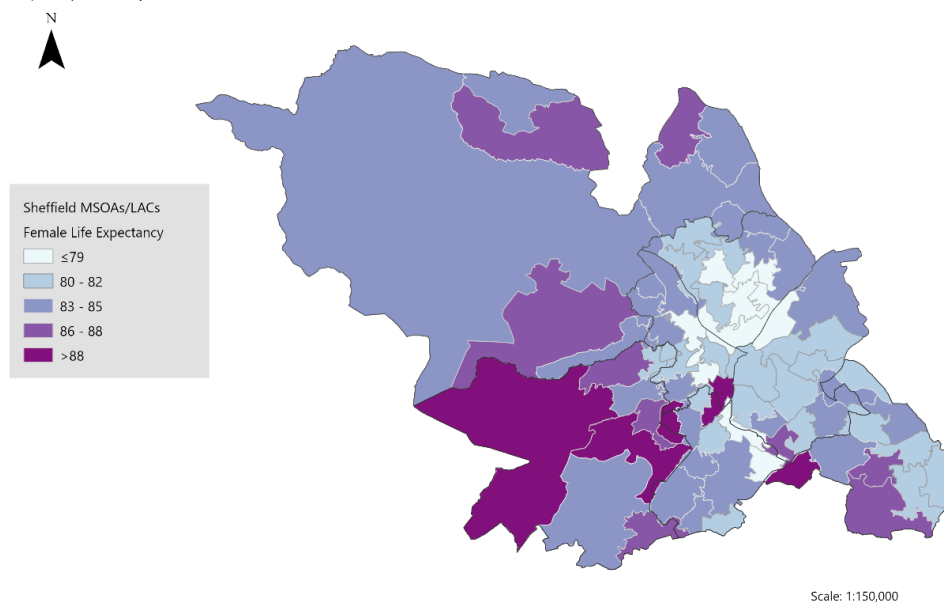
In comparison, Map 9 shows that female life expectancy is higher, ranging between 76.0 and 90.9 years. The distribution across Sheffield is comparable to that of male life expectancy, with the highest expectancies to the West and lower expectancies towards the centre (in the Central and North East LACs). This gap of 14.9 years is the second-highest of all the Core Cities (Manchester has the highest, at 16.6 years) and higher than the Core City average of 12.76 years.

Map 8: Male life expectancy.



Male life expectancy by birth (upper age band 90+) by MSOA/LAC. Source: [Office for Health improvement and disparities \(2019\)](#). 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.

Map 9: Female life expectancy.



Female life expectancy by birth (upper age band 90+) by MSOA/LAC. Source: [Office for Health improvement and disparities \(2019\)](#). 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.

CARBON EMISSIONS

The BEIS data on the total greenhouse gas (GHG) emissions (CO₂e) for Sheffield illustrates the total emissions for the city economy overall, up to 2020. In that year, Sheffield’s emissions were 2,271.6 kt CO₂e.

As well as the total emissions, the BEIS data reveals that various sources of emissions are excluded from those within the Council’s scope of influence: ‘Large industrial installations’, ‘Land use, land-use change, and forestry (LULUCF)’, ‘Motorways’, and ‘Diesel Railways’.

This is because, for example, the Council cannot control motorway use but it 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 used by large industrial installations (primarily power stations, steelworks, and similar plants).

In this evidence base, total emissions was used because this demonstrates the scale of the challenge. The data in this evidence base may therefore appear to differ from that used in previous analyses delivered for Sheffield City Council. For example, the 2017 carbon inventory baseline for Sheffield did not include transport emissions from motorways or railways, but the data in this evidence base does.

Carbon emissions in Sheffield fell between 2016 and 2020. In 2020, domestic carbon emissions – those from households – comprised the largest proportion of the city’s carbon footprint, contributing 33%.

More emissions sources have been added to the BEIS data in recent years. Before 2018, agricultural emissions data did not include those from livestock, and waste data did not include landfill emissions. Therefore, two time series are shown in Figure 4 and Figure 5 – the first including landfill and livestock emissions, and the second without these features.

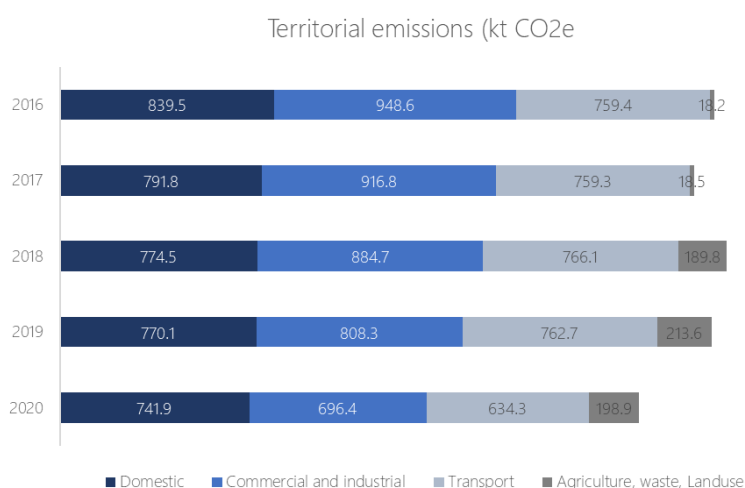


Figure 4: Carbon emissions by source, 2016-2020, with landfill and livestock emissions included from 2018 onwards. Source: BEIS UK local authority and regional greenhouse gas emissions

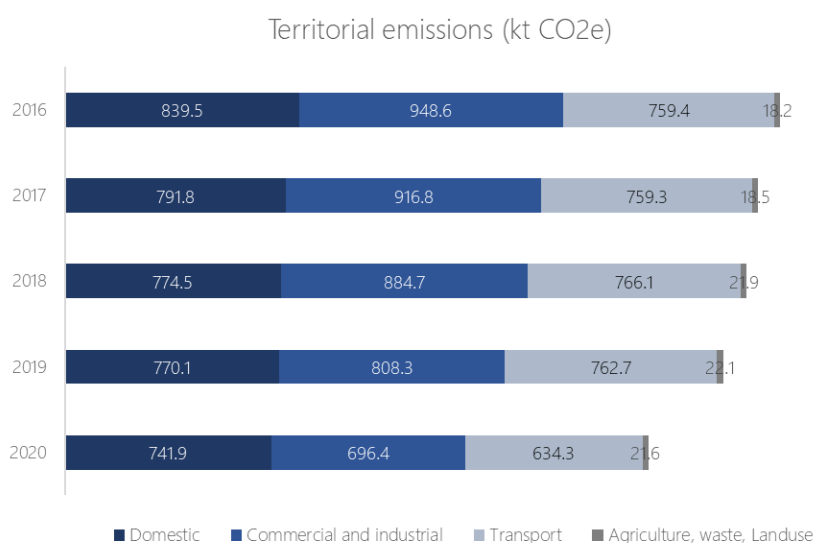


Figure 5: Carbon emissions by source, 2016-2020, with landfill and livestock emissions excluded from 2018 onwards. Source: BEIS UK local authority and regional greenhouse gas emissions

COVID-19 IMPACTS

Sheffield has been significantly impacted by COVID-19, as have all towns and cities across the UK. Although the process of recovering from the pandemic is underway, its lasting and long-term legacy will continue to affect the city's residents and businesses.

Data from CoPERI reveals a 14% reduction in hours worked in Sheffield (13% for Sheffield residents) between March and December 2020, compared to the same period for 2019, partly reflecting that only 35% of the residents and employees had jobs they could do from home. This was also associated with a substantial increase in Universal Credit claims, which reached 4.5 people per 100 residents.³⁴ Government data also indicated that by November 2021, 85,900 jobs³⁵ in Sheffield had been supported by the furlough scheme at some point during 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 reveals that between 2019 and 2020, loans to SMEs increased by 36%, with the typical sum of loans per business standing at £42,600.

Both the CoPERI data and the State of Sheffield Report 2020 highlight inequalities across different 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-19 compared to those living in the least deprived areas, regardless of gender.

The risk of dying is higher among ethnic minority groups than among White ethnic groups. For example, people of Bangladeshi ethnicity were found to be twice as likely to die from COVID-19 compared to those from a White ethnic background.

Males are twice as likely to die as females and, beyond the immediate impact of COVID, people from ethnic minority backgrounds were found to be significantly more likely to be affected by an increased risk of unemployment and the associated poverty or financial hardship. For people from ethnic minority backgrounds lower educational attainment was observed, likely due to a lack of IT equipment or overcrowded housing.³⁶

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

Beyond the impact on residents, the report notes that in Sheffield, the estimated in-year financial impact of COVID-19 on the City Council was around £80 million in 2020/21 (July 2020), largely due to the higher service provision costs, lost income, and the loss of council tax and business rate incomes.

The North East, Central, and East Local Area Committees have the highest percentage of MSOAs in which there are high levels of risk to business resilience (see Figure 6).

³⁴ <https://sites.google.com/sheffield.ac.uk/coperi/dashboard>

³⁵ Defined as 'employments'.

³⁶ State of Sheffield 2020.

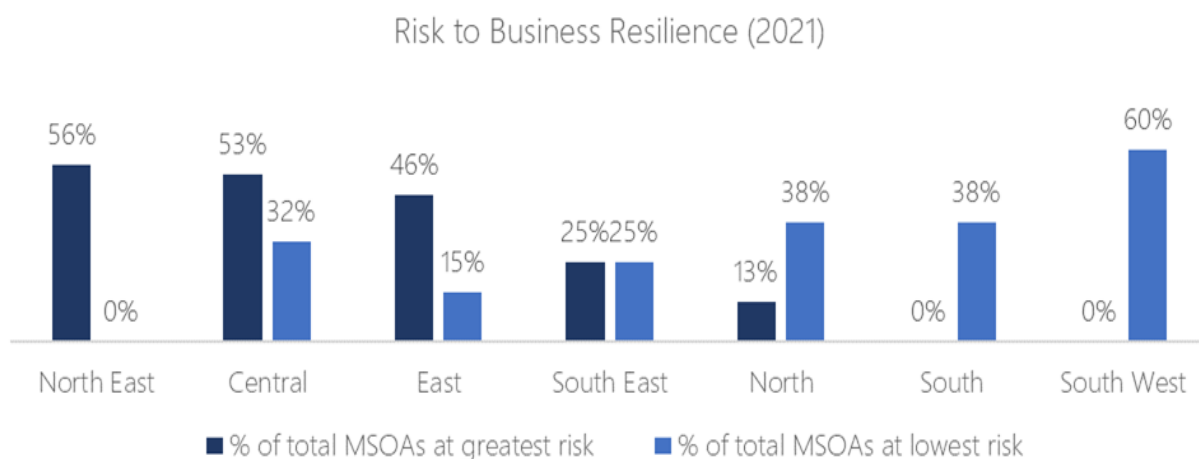
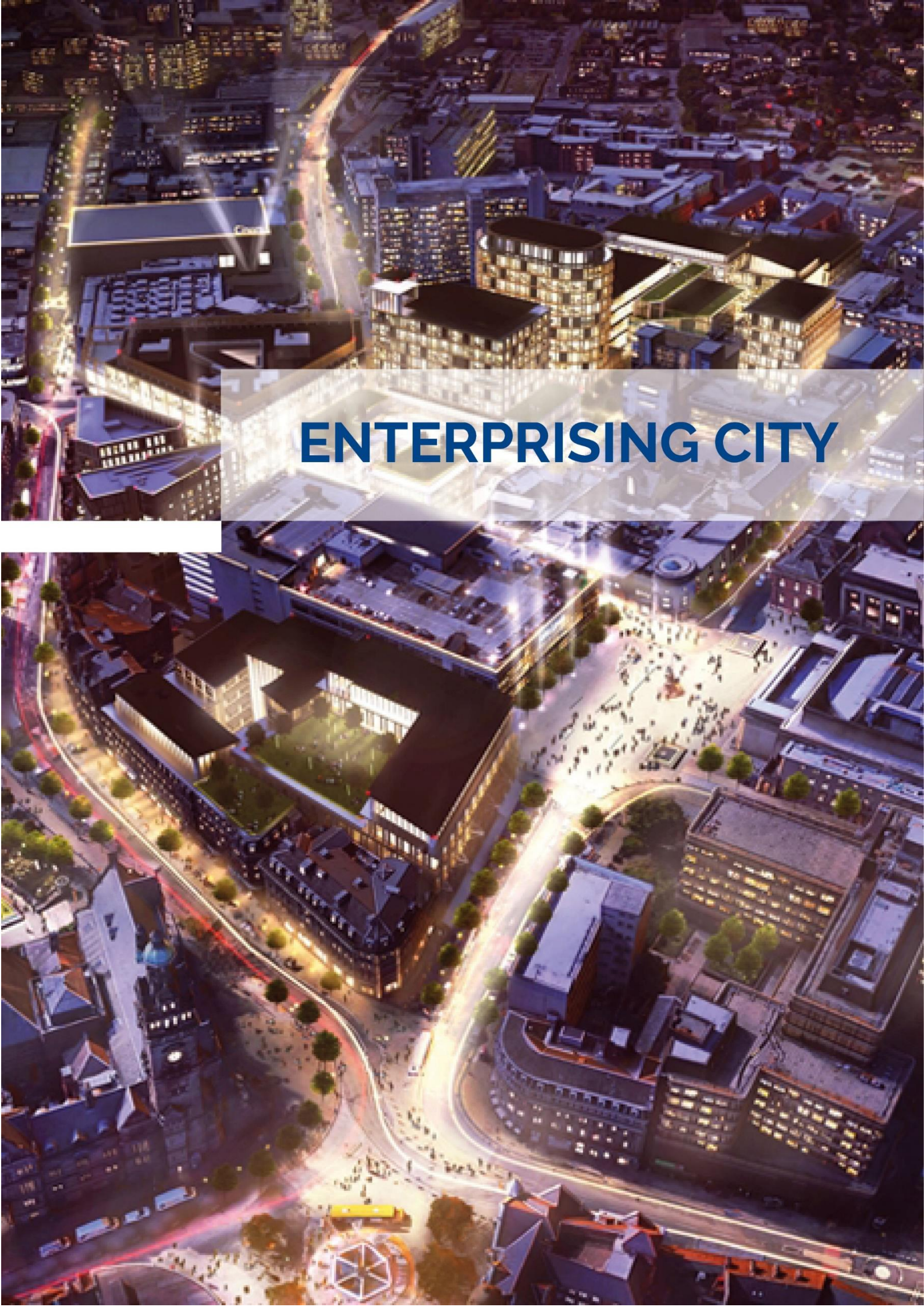


Figure 6: Risk to business resilience by LAC. Source: University of Sheffield CoPERI (2021).

SUMMARY

To summarise:

- Sheffield's population experiences inequality according to a range of socio-economic measures, including deprivation, life expectancy, and unemployment.
- Deprivation is greatest in the east of the city, where a higher proportion of the population is under 16, creating implications for the future.
- COVID-19 exacerbated the inequalities between different communities.
- Business and employment are concentrated in the city centre. However, more centrally located businesses have faced greater risks due to COVID-19.
- Sheffield relies more than the other Core Cities on public-sector employment.
- Compared to the other Core Cities, Sheffield has experienced slower growth in sectors which traditionally have higher productivity and higher pay.
- Sheffield's carbon emissions have been gradually reducing, but more rapid and extensive cuts are needed across all elements of the economy (business, transport, and homes) for net zero by 2030 to be a realistic aim.



ENTERPRISING CITY

3) ENTERPRISING CITY

Building on its reputation as a city of makers, Sheffield has thriving and vibrant independent businesses, with one of the highest business survival rates amongst the Core Cities. However, Sheffield has a lower rate of business start-ups, lower business density, and fewer high-growth businesses than stronger-performing Core Cities. From local social enterprises to foreign-owned companies, Sheffield is seeing growth. Sheffield has thriving sectors and specialisms on which to build, including well-known industries (advanced manufacturing and materials) and conventional sectors (creative and professional services). Importantly, the city's foundational economy is strong, particularly in industries such as care, construction, and food and drink manufacturing. With businesses contributing one-third of the city's carbon emissions, they will need help to tackle climate change. Equally, employees and businesses in markets which will decline or alter in response to climate change will need help to develop the skills needed in a greener economy.

THE PRODUCTIVITY CHALLENGE

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 a significant lost opportunity for the city and has the potential to reduce its long-term competitiveness and further damage its position.

Recent evidence from Sheffield Hallam University³⁷ suggests that the evidence for the variations in productivity between industries and places is complex and does not lend itself to a single explanation. Structural factors like wage levels, the underlying differences in efficiency, and the mix of activities appear to play a significant role. The analysis in this report demonstrates that Sheffield has fewer private-sector jobs and, consequently, a dependence on public-sector employment, while it also has fewer professional and managerial roles. The report concludes that 'productivity' should not be confused with 'efficiency' and that the complexity of local productivity must be understood to inform the tailoring of measures according to industry and place.

While some evidence indicates that Sheffield firms are performing relatively well against a number of innovation metrics, as outlined later in this report, other data suggests that this is not translating into commercial opportunities or business investment in R&D that benefit the city's businesses or residents.

Sheffield is not well represented in some high-productivity sectors and its employment base is more heavily concentrated in public-sector jobs than those of other Core Cities. For example, 34% (89,500 jobs) of employment in Sheffield is in public administration, health, or education. This figure is only exceeded by Liverpool (37%) and Newcastle (39%), and it is above the Core City average of 31%. This

³⁷ Beatty, C. & Fothergill, S., 2020. *The Productivity of Industry and Places*. Sheffield: Sheffield Hallam University (CRSER).

reflects an under-representation of non-public sector-related fields, rather than an over-representation of jobs. However, this is not the main driver of lower productivity, which appears to be prevalent across all sectors, even those that are traditionally more productive.

SHEFFIELD'S OUTPUT GAP.

Sheffield makes a strong contribution to the UK and sub-regional economies, with its annual economic output valued at £13 billion. However, growing evidence indicates that Sheffield is not achieving its full potential, with its productivity performance slipping relative to the rest of the country and the Core Cities

Lower productivity means that Sheffield is underperforming relative to the Core Cities, and the current trend is for Sheffield to fall further behind. The economic output gaps are £1.4 billion relative to the Core Cities (up from £0.5 billion in 2015) and £3.7 billion relative to England (up from £2.3 billion in 2015) (see Figure 7).

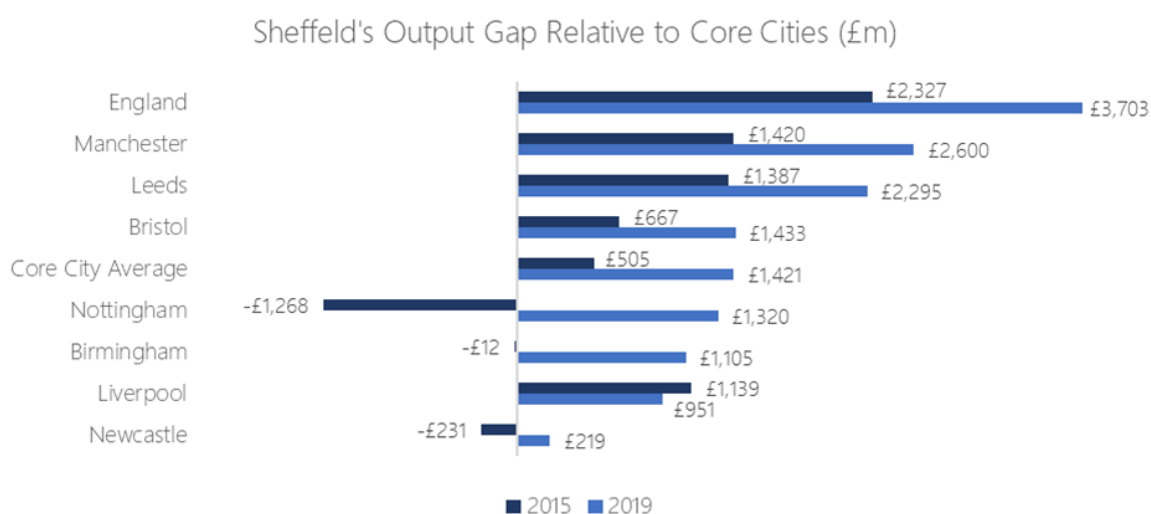


Figure 7: Sheffield output gap. Source: BRES (2020) and ONS Regional Growth Value Added (2019).

SHEFFIELD HAS LOWER PRODUCTIVITY WITHIN INDIVIDUAL SECTORS.

In addition, Sheffield has productivity gaps within sectors. Figure 8 shows how the productivity (measured as GVA per Full-Time Equivalent (FTE) Employee) in different sectors compares to the Core City average. As the figure illustrates, all but two of Sheffield's broad sectors are less productive than the Core City average.

Sheffield's professional, scientific, and technical services sector has a GVA per employee of £44,629, making this area one-fifth less productive (22%) than the Core City average of £67,455 (see Figure 8). The North generally lags behind the national productivity rates by a substantial margin in finance and insurance, as well as in professional, scientific, and technical businesses.³⁸ The reasons for the stagnant output growth in these sectors since the financial crisis remain unclear – it may partly reflect the large number of micro businesses or companies reducing their investment in better, more efficient practices.³⁹

Information and communications (identified above as a specialist sector) has a GVA per employee of £83,070, which is 19% less productive than the Core City average of £102,804 (see Figure 8). It is also important to note that while real estate is highly productive in Sheffield relative to the Core Cities, it is

³⁸ https://www.ippr.org/files/2019-06/1559567818_perspectives-on-smes-and-productivity-in-the-northern-powerhouse-final-report.pdf

³⁹ <https://www.ft.com/content/3e0082a8-e502-11e4-bb4b-00144feab7de>

broadly in line with the national average. It is impossible to delve into the broad sectors due to the data availability limitations, but it is reasonable to assume that the strong performance of education in Sheffield is linked to the presence of the two universities.

Figure 8 demonstrates the scale of the challenge, particularly in priority growth sectors. Closing this gap will bring wide-ranging improvements to Sheffield’s business base and labour markets. These include driving up productivity within existing roles, increasing the share of employment in higher-level occupations, and promoting growth in higher-value sub-sectors.

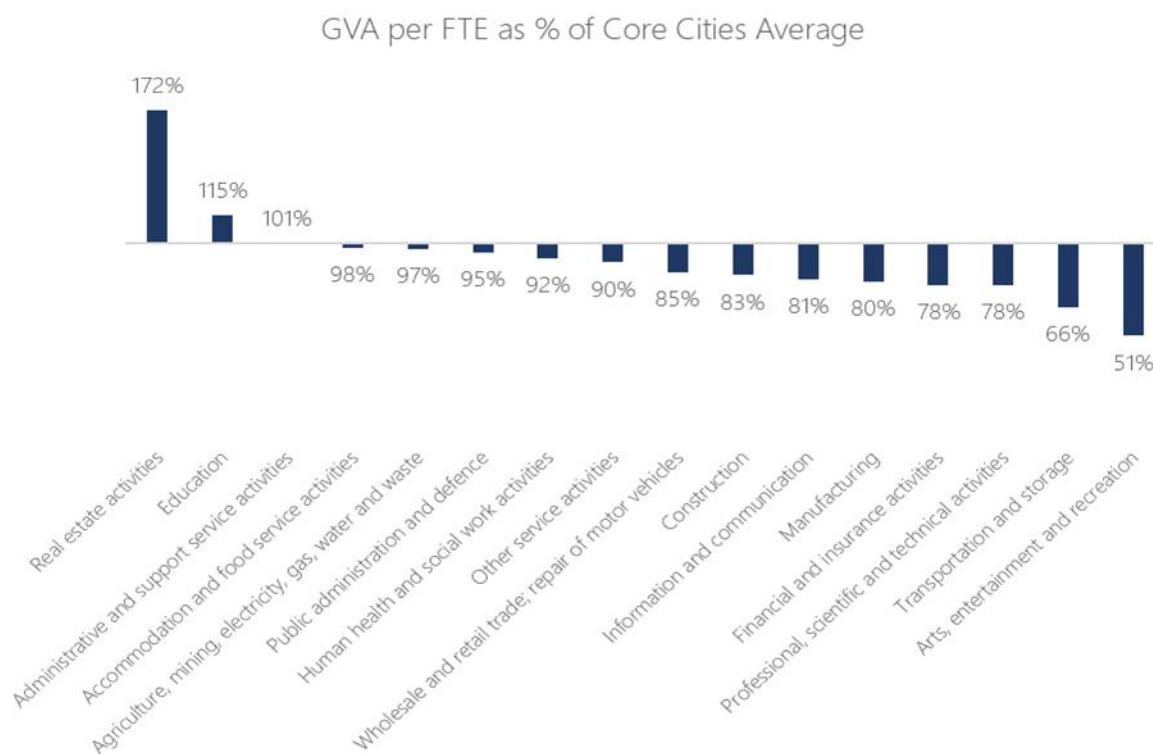


Figure 8: Sheffield GVA by sector against Core City average. Source: BRES (2020) and ONS Regional Growth Value Added (2019).

OCCUPATION LEVELS ARE LINKED TO LOWER PRODUCTIVITY WITHIN INDIVIDUAL SECTORS.

The lower productivity within sectors is at least partially due to the types of job roles hosted in the city. In Sheffield’s financial sector, for example, only 34% of the 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 at the managerial and senior official level (occupation level 1)⁴⁰ is lower than the Core City average. If the occupational profile of jobs in Sheffield was in line with the Core City average, the city would host 2,400 more managerial and senior official roles.

⁴⁰ Jobs are classified into groups according to the concepts 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.

Sheffield has employment rates at occupation levels 1 to 3⁴¹ that are comparable to the Core City average (see Figure 9); however, occupation levels 7 to 9 have a slightly higher proportion of employment⁴² than the Core Cities (see Figure 10).



Figure 9: Employment in Standard Occupational Classifications levels 1-3. Source: Annual Population Survey (2021).

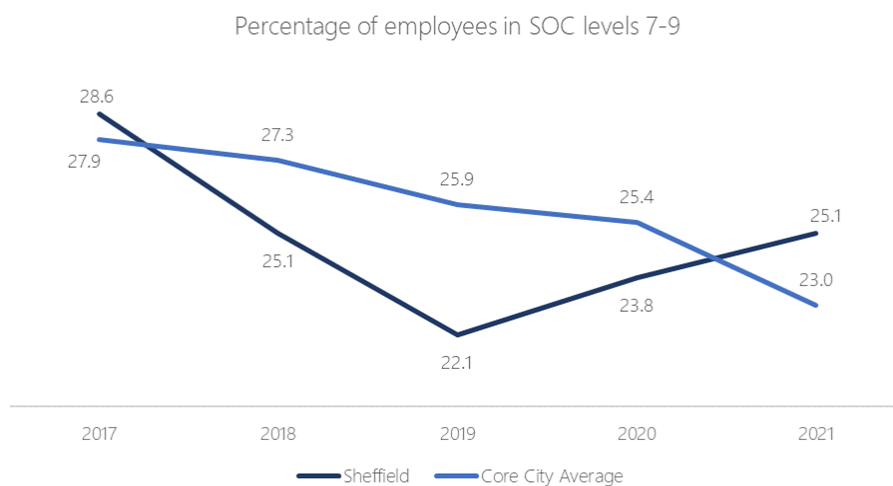


Figure 10: Employment in Standard Occupational Classifications levels 7-9. Source: Annual Population Survey (2021).

Interestingly, Sheffield has experienced a different trend to the Core Cities as a whole. Between 2018 and 2020, Sheffield saw a relatively steep rise in the proportion of jobs in occupation levels 1 to 3, reaching six percentage points higher than the Core City average. However, since 2020, the Core City average has continued to increase whilst the proportion in Sheffield has fallen. At this stage, it is difficult to determine if this reflects a change in Sheffield’s economy since COVID-19, and studying the trend in future years will give a clearer picture.

The types of job roles in Sheffield could explain why the average pay of city residents is £22 per week higher than the average earnings of people working in the city. Sheffield is the only Core City where the

⁴¹ 1: Managers, Directors, and Senior Officials; 2: Professional Occupations; 3: Associate Professional Occupations.

⁴² 7: Sales and Customer Service Occupations; 8: Process, Plant, and Machine Operatives; 9: Elementary Occupations.

pay differential is this way round, and the data suggests that higher-earning residents are travelling out of the city to work.

THE HISTORICAL NATURE OF SHEFFIELD'S BUSINESSES IS LINKED TO LOWER PRODUCTIVITY.

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 but fewer large-scale fast-growing start-ups, often known as unicorns.⁴³

Some well-known UK and foreign-owned companies have a major presence in Sheffield, including in the fields of finance and law (Aviva, HSBC, DLA, and Nabarro), IT (Sky Bet, and BT), green industries (ITM Power, ARM Holdings, and NXP Semiconductors), and manufacturing (McLaren, Modelēz, and Tata). Famous Sheffield companies and those with headquarters in the city include a cluster of medical instrument manufacturers (B Braun), metal manufacturers (Forgemasters, Gripple, and Outokumpu), technology companies (Fluent), digital tech (Sumo, Twinkl, and WanDisco), construction and related professional and engineering services (Arnold Laver, ARUP, Henry Boot, Davey Markham, and SIG), as well as legal services (DLP Piper, Wake Smith, and Irwin Michell).

Modern economies depend increasingly on 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 growth (health and wellbeing). It is well represented in foundation industries such as care, construction, and food and drink.

The food and drink manufacturing sector is the UK's largest manufacturing sector, contributing more to the economy than all other areas of manufacturing, including automotive and aerospace. Around 360 food and drink companies are registered in Sheffield alone (such as Greencore Fresh-Pak), with global and national businesses also operating sites in the city (Mondelez, Premier Foods, Cerealto Siro, and 2 Sisters Food Group). The city is home to the National Centre of Excellence for Food Engineering at Sheffield Hallam University and the Institute for Sustainable Food at the University of Sheffield, which aim to drive research and innovation to meet the challenges of food system resilience, health, and net zero.

Sheffield also has a vibrant sports, arts, and cultural sector. This includes a diverse range of sub-sectors from creative writing to games, music, and software publishing, as well as more traditional sectors like academic publishing, newspapers, and magazines. Sheffield is a leading northern literary city with a good mix of smaller independent publishers and a strong poetry sector (spoken and written). Sheffield boasts one of the UK's significant games clusters, anchored by Sumo Digital - one of the country's most storied and prolific 'triple A' games studios - but it is also home to a host of smaller and independent developers, support services, and training centres that cover all formats and genres.

The city has a strong presence in software applications, with strengths in industrial applications and a significant cluster of e-learning businesses, ranging from the technologies behind e-learning to learning content publishers and developers for both the commercial and education sectors. Sheffield is the home of DocFest, one of the world's largest international documentary film festivals, and the Children's Media Conference. Many film, TV, and video production companies are based in Sheffield. Examples include Warp Films, Sort of Films, and Let There Be Light Productions. Together, these provide an opportunity

⁴³ Start-ups/private companies which have reached a valuation of at least \$1bn (currently about £812m).

to enhance the screen presence of Sheffield, following other cities like Malmo, Pittsburgh and, in the UK, Manchester. Sheffield has a strong reputation for music, having produced artists including Joe Cocker, Moloko, the Human League, the Long Blondes, Heaven 17, Artery, Clock DVA, Cabaret Voltaire, ABC, Pulp, Arctic Monkeys, and Reverend and the Makers.

Sheffield is a national city of sport and one of the largest sports and physical activity research clusters in the UK. It is home to the English Institute of Sport, the Olympic Legacy Park, and the Advanced Wellbeing Research Centre at Sheffield Hallam University.

DIFFERENT TYPES OF BUSINESSES IN SHEFFIELD

THE MAJORITY OF SHEFFIELD'S BUSINESSES ARE SMES WITH A TURNOVER OF LESS THAN £500,000.

The size of Sheffield's businesses remained broadly unchanged between 2017 and 2021. Table 5 shows that the total number of businesses increased from 15,905 in 2017 to 16,345 in 2021, with fluctuations in these numbers across different turnover bands. Table 6 shows that 31.1% of the businesses in Sheffield had an annual turnover of between £100,000 and £199,000 in 2021. Meanwhile, 81% had a turnover of less than £500,000 per year in 2021, marginally different to the 2017 figure (82%).

Table 5: Sheffield business counts by turnover sizeband.

Turnover Sizeband (£ thousands)	Business counts				
	2017	2018	2019	2020	2021
0 to 49	2,630	2,440	2,260	2,165	2,415
50 to 99	3,725	3,400	3,575	3,565	3,575
100 to 199	4,720	4,915	5,030	5,125	5,090
200 to 499	1,970	2,060	2,130	2,160	2,155
500 to 999	1,190	1,240	1,285	1,300	1,330
1,000 to 1,999	775	770	745	800	760
2,000 to 4,999	510	520	565	540	565
5,000 to 9,999	195	205	190	205	225
10,000 to 49,999	145	155	160	170	170
50,000+	40	40	50	50	50
Total	15,905	15,745	15,985	16,075	16,345

Source: ONS UK Business Counts

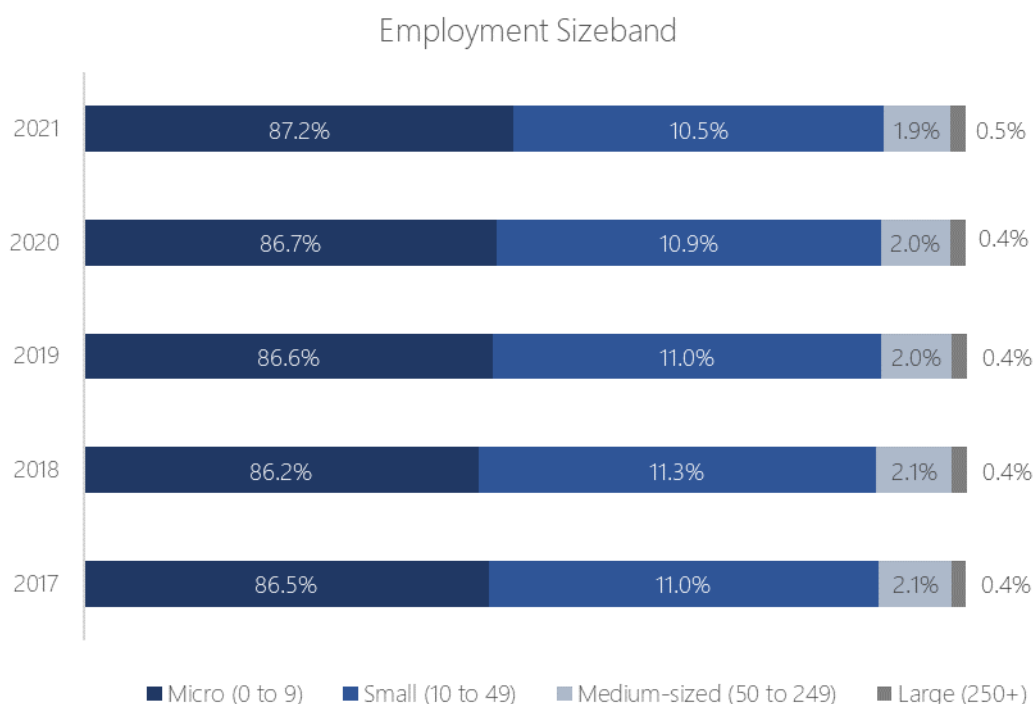
Table 6: Profile of Sheffield's businesses by turnover sizebands.

Turnover Sizeband (£ thousands)	Percentage of businesses				
	2017	2018	2019	2020	2021
0 to 49	16.5%	15.5%	14.1%	13.5%	14.8%
50 to 99	23.4%	21.6%	22.4%	22.2%	21.9%
100 to 199	29.7%	31.2%	31.5%	31.9%	31.1%
200 to 499	12.4%	13.1%	13.3%	13.4%	13.2%
500 to 999	7.5%	7.9%	8.0%	8.1%	8.1%
1,000 to 1,999	4.9%	4.9%	4.7%	5.0%	4.6%
2,000 to 4,999	3.2%	3.3%	3.5%	3.4%	3.5%
5,000 to 9,999	1.2%	1.3%	1.2%	1.3%	1.4%
10,000 to 49,999	0.9%	1.0%	1.0%	1.1%	1.0%
50,000+	0.3%	0.3%	0.3%	0.3%	0.3%

Source: ONS UK Business Counts

Likewise, Figure 11 shows that 87.2% of Sheffield's businesses are micro enterprises with 0-9 employees, which is marginally different to the 2017 figure (86.5%). In 2021, 97.7% of businesses had fewer than 10 employees, compared to 97.5% in 2017.

Figure 11: Employment sizebands of businesses.



Source: ONS UK Business Counts

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

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

EMPLOYEE OWNERSHIP AND DEVELOPMENT TRUSTS HELP TO KEEP WEALTH WITHIN SHEFFIELD'S COMMUNITIES.

The UK has 1,030 employee-owned businesses with an annual growth rate of 10%.⁴⁴ According to the Employment Ownership Association (EOA), the UK's leading 50 employee-owned companies had 181,213 employees overall and combined sales worth £21.7 billion in 2021. Of these firms, 60% saw their sales increase, with productivity rates rising by 5.2% and wages by 7.8%.⁴⁵ Sheffield-based specialist engineering firm Gripple (part of the Glide group) and surgical blade manufacturers Swann-Morton Ltd are both in the EOA's top 50 (employees and revenue) list. Engineering, management, and development consultancy Mott MacDonald and professional service provider Arup were both in the top three employee-owned firms; both have Sheffield offices. Sheffield-based architects HLM transferred 100% of their shareholdings to an Employee Ownership Trust in 2021. In 2022, they won the Architect's Journal 100 Employer of the Year Award for their "deep commitment to social mobility, widening access to the profession and positive employee-centred approach to the COVID-19 pandemic".⁴⁶ HLM Managing

⁴⁴ Employee Ownership Association (2022). *How to become Employee Owned*. [Available at](#).

⁴⁵ Employee Ownership Association (2022). *The Employee Ownership Top 50 2022*. [Available at](#).

⁴⁶ Architects Journal (2022). *AJ100 Employer of the Year*. [Available at](#).

Director Karen Mosley has credited employee ownership with being a "huge contributory factor" in increasing revenue, profitability, productivity, and creativity.⁴⁷

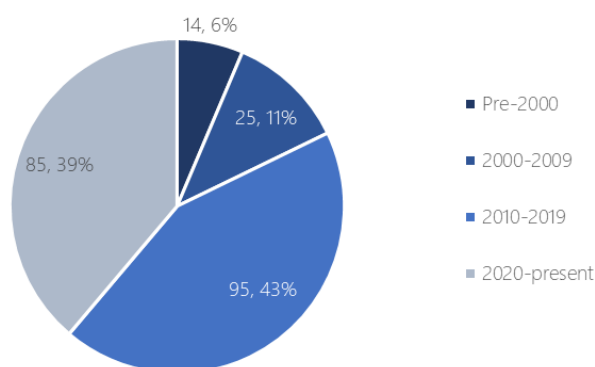
Large public-sector organisations such as the Sheffield Teaching Hospitals, the two universities, and Sheffield City Council are increasingly being regarded as vital anchor assets in community wealth-building models. As geographically fixed large employers with significant financial resources, they play a role in incentivising the growth of local businesses, cooperatives and social enterprises, reducing leakage from the local economy. They can also promote 'good jobs' locally through social value procurement.

Sheffield is also home to a variety of community development groups, many of whom utilise local assets to support community work. Heeley Trust, formerly Heeley Development Trust, was founded in 1996 by local volunteers, business owners, and residents as a charitable trust. Its principal aim has been to coordinate regeneration and community development work in Heeley. They have adopted various community assets, including the former St Ann's Grove School building, and used their commercial operations to support a variety of community projects, including a people's park and a digital media centre. HT describe themselves as a "community anchor" dedicated to Heeley and the "wellbeing of the people who live there".⁴⁸ The Manor and Castle Development Trust was created in 1997 as a community body focused on meeting local neighbourhood challenges and supporting regeneration. Since its creation, it has raised over £17 million in funds and helped to leverage over £200 million in private-sector investment.⁴⁹ It currently has custody of several community assets, supporting community development and engagement through its outreach projects and work with three local neighbourhood forums.

SOCIAL ENTERPRISES ARE GROWING IN SHEFFIELD, HELPING TO CREATE JOBS AND VIBRANCY WHILST FOCUSING ON INVESTING IN SOCIALLY BENEFICIAL ACTIVITIES.

Alternative community-led economic models include social enterprises, cooperatives, and community interest companies. Sheffield's growing, 'rich and varied'⁵⁰ social enterprise sector is supported by the Sheffield Social Enterprise Network (SSEN).⁵¹ The SSEN has identified approximately 219 active social enterprises in Sheffield, including a small number who belong to the SSEN but are based outside the local authority area. Of these 219, 39% have been established within the last two years (see Figure 12).

Sheffield Social Enterprises- Date Established*



*Known by Sheffield Social Enterprise Network

⁴⁷ Employee Ownership Association (2022). *EOA Case Study*. [Available at](#).

⁴⁸ Heeley Development Trust (2022). *Who we are?* [Available at](#).

⁴⁹ Manor and Castle Development Trust (2022). *Our History*. [Available at](#).

⁵⁰ Social Enterprise UK (2022). *History of Social Enterprises in Sheffield*. [Available at](#).

⁵¹ Key partners include Sheffield Chamber of Commerce, the University of Sheffield, Sheffield Hallam University, and Business Sheffield.

Figure 12: Sheffield's social enterprises by date of establishment.

Figure 13 shows the number of social enterprises operating in different sectors. The three largest sectors are creative and cultural (61), education and training (57), and health and wellbeing (53) enterprises, which account for just over 40% of all social enterprise activity. Social enterprises may operate in more than one sector.

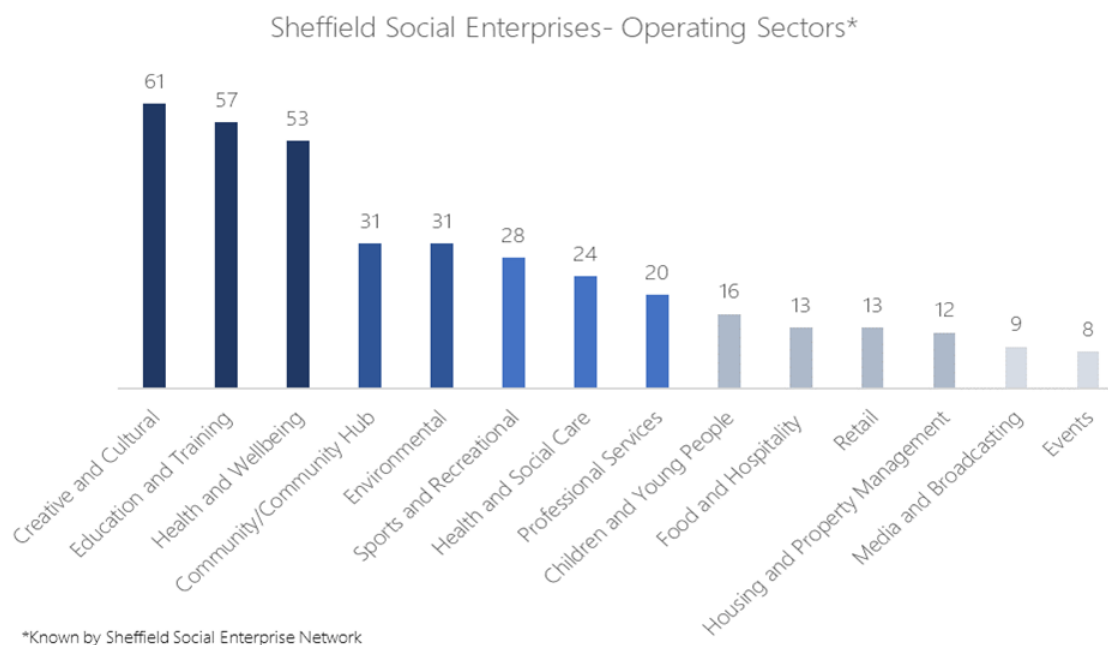


Figure 13: Sheffield's social enterprises by sector. Note: 25 sectors were excluded from this figure as all had four or fewer citations. Source: Sheffield Social Enterprise Network

THE VOLUNTARY AND COMMUNITY SECTOR IS STRONG IN SHEFFIELD AND IS WORKING TO MAKE LIVES BETTER FOR THE MOST VULNERABLE.

According to the most recent estimates, Sheffield has almost 3,389 voluntary and community sector organisations.⁵² Their work covers a wide range of activities, from supporting families with children to providing health and wellbeing services for older people and upskilling young people not in employment. A 2019 University of Sheffield sectoral report⁵³ found that 51% of Sheffield's voluntary and community sector organisations provide healthcare, welfare, and social care, whilst the remainder provide services in areas such as environment and heritage, arts and culture, and leisure and sport. The report also stated that this sector contributes up to £287 million per annum to Sheffield's economy, generating an annual income of £700 million and providing unpaid work worth up to £125 million via 100,000 volunteers and 20,500 committee/board members. This sector also provides 19,000 full-time and 10,500 part-time paid jobs (3.4% of Sheffield's total workforce).⁵⁴ There is also a dynamic social housing and homelessness charity sector.

This sector also played a vital role in providing a rapid, well-informed, and targeted response to the COVID-19 pandemic. This work generally centred around a network of 19 community and 17 specialist citywide hubs which, by May 2020, were feeding over 3,000 people weekly, handling an

⁵² The University of Sheffield (2019). Sheffield State of the Voluntary and Community Sector 2018. [Available here](#).

⁵³ Ibid.

⁵⁴ Ibid.

average of 120 calls daily and supporting 2,964 people with COVID-19-specific issues.⁵⁵ Coupled with its other work across the city, the voluntary and community sector has been described as ‘the bedrock that underpins the support that keeps Sheffield residents safe and happy’.⁵⁶

INWARD INVESTMENT CAN MAKE A SIGNIFICANT CONTRIBUTION TO A LOCAL ECONOMY, BY CREATING AND FOSTERING JOBS IN INNOVATION, RESEARCH, AND DEVELOPMENT.

Evidence suggests that foreign-owned firms are more productive than domestically owned companies (see [Griffith et al., 2004](#)) and that their presence can boost the distribution of knowledge and productivity, as well as the speed at which technology is adopted by the world’s more productive firms. For example, [Haskel et al. \(2007\)](#) documented the existence of knowledge spillovers to domestic businesses from foreign companies located in the UK. However, this is not a clear-cut argument and runs counter to alternative locally owned business models (see next section). For instance, foreign-owned firms have been criticised for not reinvesting profits back into the host country, leading to large capital outflows or the displacement of local businesses that cannot compete.⁵⁷

As Table 7 shows, 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, for every 1,000 businesses in Sheffield, 61 are foreign-owned. Given the minor differences and margins of error, it is suggested that these figures are treated with caution. A selection of the major foreign-owned businesses is shown in Table 8.

Table 7: Foreign-owned businesses as a percentage of all businesses.

Area	% of foreign-owned business base
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%

Source: Databubble (Databroker)

The foreign-owned businesses in Sheffield operate across sectors, most notably in manufacturing, the leasing of medical equipment, computer systems and software, as well as distribution services. Key examples are listed in the following table.

⁵⁵ VAS (2020). *The Voluntary and Community Sector's Initial Response to the COVID-19 Pandemic in Sheffield*. [Available here](#).

⁵⁶ Ibid.

⁵⁷ <https://sghiscock.com.au/the-pros-and-cons-of-foreign-direct-investment/>

Table 8: Selected major foreign-owned businesses.

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

SHEFFIELD HAS STRONG EXPORTING PERFORMANCE, SHOWING THE STRENGTH OF THE CITY'S GLOBAL OFFER.

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 (see Table 9), a selection of which are shown in Table 10. This strength is worth building on as exports offer Sheffield's people and firms many more markets for their goods.

Table 9: 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 10: Selected exporting businesses.

Exporting businesses	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; the 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 products 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)

BUSINESS AND LABOUR MARKET DYNAMICS

Sheffield's economy was the sixth-largest of England's eight 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 the other Core Cities and employment changes varied widely across local areas of the city.

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

Nationally, women and people from minority ethnic backgrounds are underrepresented as employers and within business leadership boards. Only 16% of SMEs were led by women and only 6% by an individual from an ethnic minority. Significant variations were evident within the ethnic minority communities, with Indian-led businesses at 28%, compared to Pakistani and Black African businesses at 8% and 4%, respectively. Female-led businesses were likely to be in the health or education sectors, while ethnic minority-led businesses were generally in the hospitality, information, or communication sectors.⁵⁸

Finally, evidence indicates that Sheffield residents are underemployed or seeking employment opportunities elsewhere, which is a lost opportunity for the city. Sheffield can do more to encourage people to come to live and work in the city by highlighting its attractive neighbourhoods and quality of life.

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 evidence of survival resilience. For instance, of the businesses formed in 2015 (the most recent cohort according to the five-year business survival data), the three-, four- and five-year business survival rates for Sheffield are better (or among the best) in comparison to those of the 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 affects Sheffield's economic resilience and its ability to seize new growth opportunities. As Table 13 shows, Sheffield has 50 businesses per 1,000 residents, the second-lowest rate amongst the Core Cities, which average 62 businesses per 1,000 residents.

⁵⁸ Hutton, G. & Ward, M. (2021). *Business statistics*. [Available here](#).

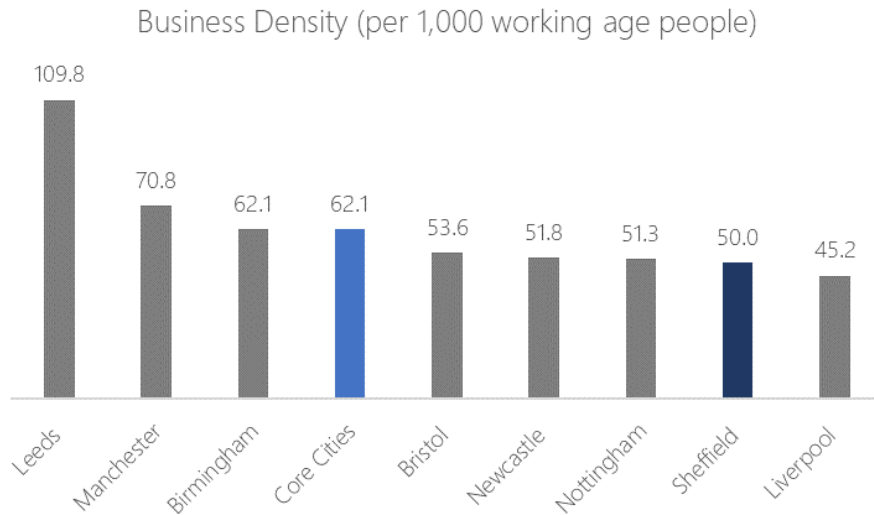


Figure 14: Business density per 1,000 working-age people in Sheffield. Source: LG Inform (2022).

Lower rates of business start-ups will result in Sheffield’s business density falling further behind. In 2020, Sheffield saw six business start-ups per 1,000 residents compared to a Core City average of nine, as shown in Figure 15. This was the lowest rate of business births of all the Core Cities; alongside the similar trend of business ‘deaths’, this suggests that despite the relatively stable business base, businesses are underrepresented and the city lacks the level of business dynamism seen elsewhere.

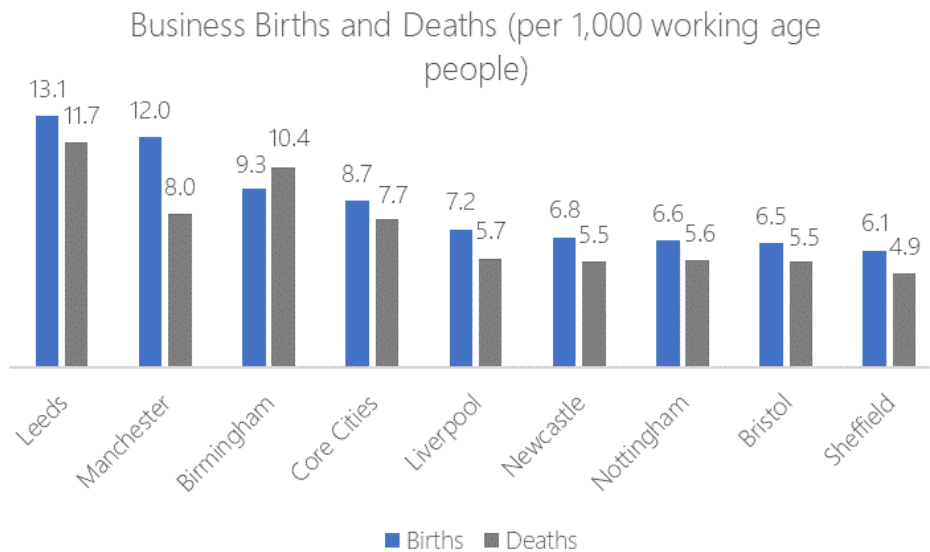


Figure 15: Start-up rates in Sheffield. Source: LG Inform (2022).

In relation to business survival, Sheffield performs strongly relative to various other cities and the national average. For example, Table 11 shows that almost 90% of businesses survive for more than one year, which corresponds to the national average. In addition, 41% survive for five years, which is marginally above the national average and far higher than the rates for Birmingham (30%), Liverpool (34%), and Manchester (34%).

Table 11: Business survival rates for firms established in 2015.

	Sheffield	Birmingham	Bristol	Leeds	Liverpool	Manchester	Newcastle	Nottingham	England
1-year survival	89.9	89.6	90.0	88.3	90.3	88.5	87.3	87.9	89.7
2-year survival	71.3	69.8	71.0	71.3	68.4	66.9	68.3	71.3	71.4
3-year survival	57.5	49.2	56.7	56.0	50.3	50.8	52.8	57.5	55.2
4-year survival	49.2	35.4	48.3	46.9	41.1	40.6	44.0	49.2	45.9
5-year survival	41.1	29.9	41.7	40.8	34.3	33.8	37.7	41.1	39.5

Source: Business demography, ONS.

The survival of a large proportion of business start-ups is a positive finding that should be promoted as one of the factors that make Sheffield a good place to do business. However, the extent to which the business birth, death, and density data reflects a weakness of business dynamism could highlight underlying weaknesses in Sheffield’s economy that need to be addressed.

Of Sheffield’s business start-ups, fewer become high-growth businesses, based on the ONS definition,⁵⁹ compounding the economic impact of lower business density and fewer start-ups. In 2020, Sheffield was home to 0.17 high-growth businesses for every 1,000 residents, compared to a Core City average of 0.23 (see Figure 16).

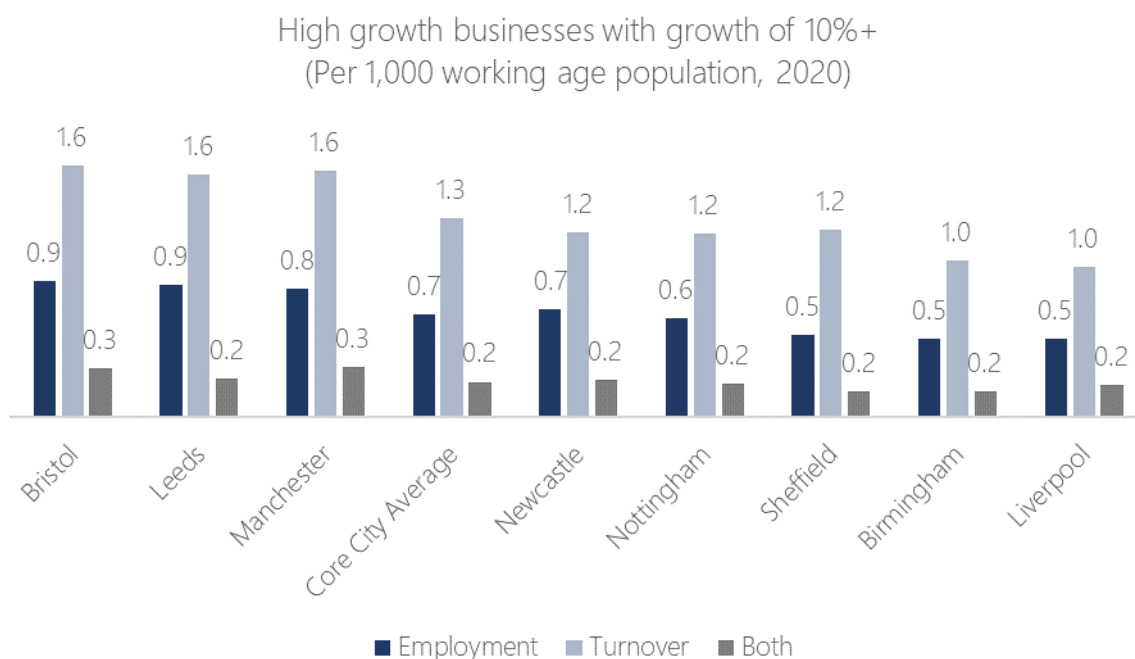


Figure 16: High-growth business density per 1,000 working-age population in Sheffield. Source: LG Inform (2022).

A larger number of firms have experienced growth on this scale against one of these metrics. For example, in 2020, 205 businesses (0.5 per 1,000 working-age people, compared to 0.7 across the Core

⁵⁹ Defined as firms with at least 10 staff that have grown at least 10% annually for three years. Note this is a ‘high bar’ since only 1,730 businesses in England meet this threshold.

Cities) had achieved annual employment growth of 10% over the previous three years; 470 had achieved turnover growth at this level (1.2 per 1,000 working-age people, compared to 1.3 across the Core Cities).

Comparisons with specific Core Cities are presented below, revealing that Sheffield is one of the poorer-performing areas, with significantly higher rates achieved in Manchester, Leeds, and Bristol. For example, 125 businesses in Manchester had achieved turnover and employment growth of 10% or above for three years (a rate of 0.32) in 2020, with 325 businesses achieving this level of employment growth (a rate of 0.8) and 625 achieving this level of turnover growth (a rate of 1.6).

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

A skilled workforce is a critical feature of competitive cities. The accumulation and utilisation of skills and human capital is central to urban economic growth.⁶⁰

Examining Sheffield's population aged 16 to 64 years old, Figure 17 shows that 47% have a qualification at NVQ4+ level, compared to 44% in the Core Cities. This advantage, combined with the fact that housing in Sheffield is more affordable than in many Core Cities, represents an opportunity to attract new inward investment, business relocations, or indigenous start-ups to maximise the benefits of new growth. The city is a highly desirable place to live, even if not all residents work in the city.

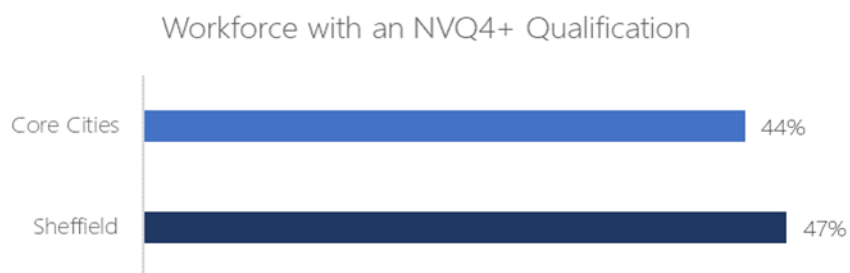


Figure 17: Qualifications at NVQ4+ level of 16-64 population. Source: Annual Population Survey (2021).

Figure 18 shows that Sheffield has 29,800 more residents with NVQ4+ qualifications than there are employees, suggesting that highly qualified people are working outside the city or in roles below their qualification level. This could also explain why those working in Sheffield earn lower average wages than those living in Sheffield but working elsewhere.

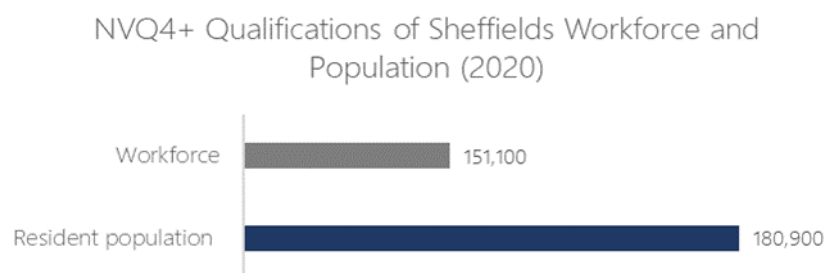


Figure 18: Qualifications at NVQ4+ level of Sheffield's workforce and population. Source: Annual Population Survey (2021).

⁶⁰ Chinitz, B., 1961. *Contrasts in agglomeration: New York and Pittsburgh*. American Economic Review 51(2): 279–289.

WORKFORCE DYNAMICS

Between January 2021 and February 2022, 80,004 unique jobs were posted in Sheffield, with the monthly trend shown in Figure 19 below. Of these unique postings, 67% (53,300 of the 80,004) advertised salary observations and the median advertised hourly salary was £13.69.

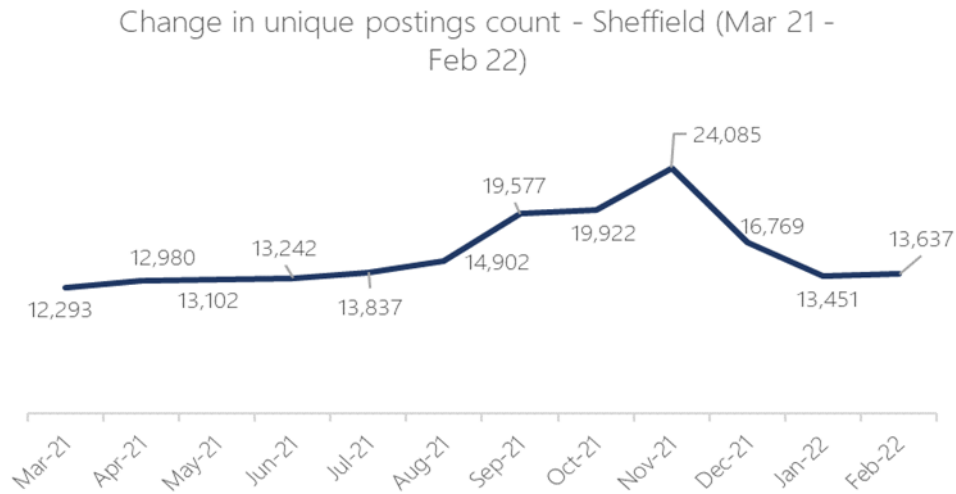


Figure 19: Unique jobs postings trend. Source: Sheffield City Council/Esmi Burning Glass.

The most frequently posted occupations in Sheffield between January 2021 and February 2022 included nurses (14,682 total posts, or 6.7%), care workers and home carers (7,675, or 3.5%), and programmers and software development professionals (7,031, or 3.2%). Finance and warehousing skills were cited as the most sought-after in postings between these dates, with each accounting for 7% of the 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, and finance) featured most frequently in the postings.

Compared to the Core City and England averages, Sheffield’s businesses find it easier to obtain the skilled workers they need, according to the Employer Skills Survey (ESS) 2019. A slightly smaller proportion of businesses in Sheffield had one or more hard-to-fill vacancies (6% of firms), compared to the figure of 8% for both the Core Cities and the nation (see Figure 20).

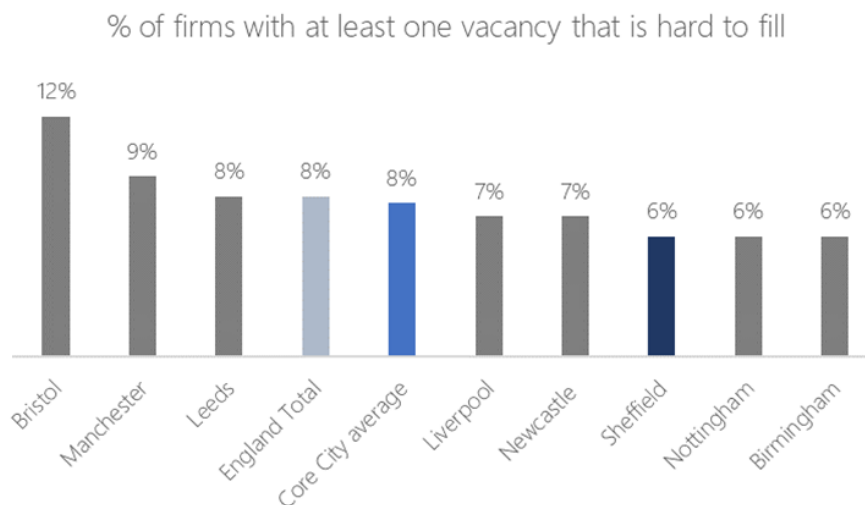


Figure 20: Percentage of firms with at least one hard-to-fill vacancy, 2019. Source: Employer Skills Survey.

The Employer Skills Survey records the number of vacancies, defined as ‘skills-shortage vacancies’, and the percentage of all vacancies they represent. Figure 21 presents all the vacancies in Sheffield, showing that just 14% are defined as skills-shortage vacancies, compared to 21% in the Core Cities and 25% nationally. This reflects the fact Sheffield currently has more highly qualified residents than highly qualified employees (supply side) but it may also be due to the fewer Level 1 occupations and lower productivity (demand side).

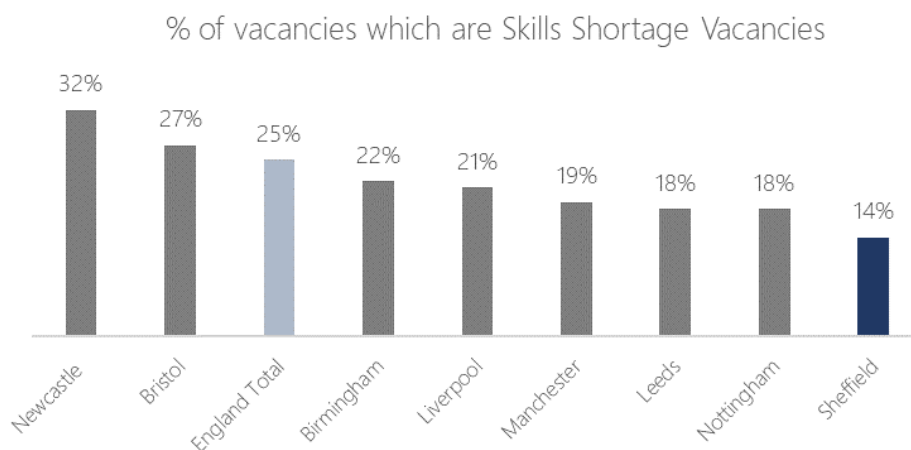


Figure 21: Percentage of vacancies that were skills shortage vacancies, 2019. Source: Employer Skills Survey.

As the lower rate of skills-shortage vacancies suggests, Sheffield has a smaller proportion of firms with at least one skills-shortage vacancy, as shown in Figure 22 below.

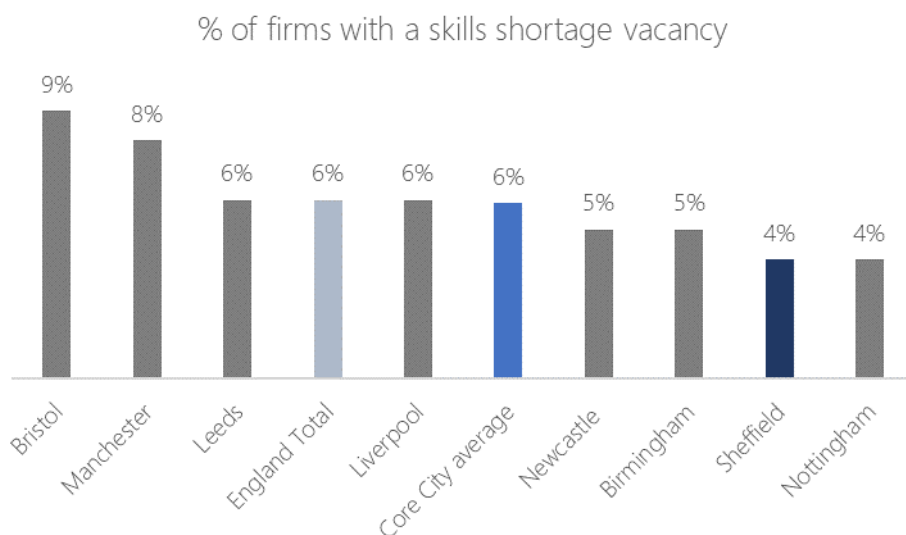


Figure 22: Percentage of firms with a skills shortage vacancy in 2019. Source: Employer Skills Survey.

INNOVATION

Sheffield competes well with the other Core Cities on technology innovation and InnovateUK-funded innovation projects

The UK Tech Innovation Index measures both current activity and the potential for innovation in seven technology sectors across cities in the UK. Sheffield is ranked fifth out of the Core Cities for innovation

across all technology areas. Sheffield’s strength is in virtual reality, in which it ranks second of all the Core Cities, followed by artificial intelligence, in which the city is ranked third.

Further evidence from BEIS provides data on the innovation activities of UK businesses in Local Enterprise Partnership Areas, with Table 12 showing the different measures applied. For South Yorkshire, data is available for the period 2016-18 and demonstrates that the sub-region has performed extremely well in terms of the proportion of ‘innovation-active’ businesses (ranking second out of 38) and those undertaking product innovation activities (ranking first). More generally, South Yorkshire is ranked in the top 50% of LEP areas on all other metrics (and performs well relative to the other Core City LEP areas), except for the proportion of turnover on new-to-market goods and services (ranking 30th).

Table 12: Innovation activities by UK businesses in 2016-18, by NUTS2 geographic boundaries and Local Enterprise Partnership (LEP) area (BEIS 2019).

LEP area	LEP Rank (% businesses that are 'innovation active')	LEP Rank (% businesses undertaking product innovation activity)	LEP Rank (% businesses undertaking process innovation activity)	LEP Rank (% businesses undertaking strategic & marketing innovation activity)	LEP Rank (% businesses undertaking internal R&D innovation activity)	LEP Rank (% businesses collaborating within business groups)	LEP Rank (% turnover - new-to-market goods and services)
Derby, Derbyshire, Nottingham, and Nottinghamshire	17	28	32	25	8	21	5
Greater Birmingham and Solihull	32	29	25	30	26	19	7
Greater Manchester	26	15	22	10	18	11	35
Leeds City Region	19	17	21	31	20	24	18
Liverpool City Region	37	38	37	36	30	29	34
North East	16	15	18	28	7	24	25
Sheffield City Region	2	1	6	15	10	6	30
West of England	5	24	14	2	18	13	19

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 project. This outperforms the Core City average of £261,000 and is second only to Bristol (£615,000 per project). Since the start of 2017, 78 businesses have received funding worth a total of £48.1 million across 169 innovation projects. Of course, local companies do not have to work with their local universities, but the data shows that some successes have been achieved in applied research, reflecting the strengths of the city’s flagship research centres and institutes.

However, across the whole economy, the evidence suggests that Sheffield is particularly weak compared to other areas. Table 13 below shows ONS data on business, government, and Higher Education R&D expenditure, which suggests that £440 million was spent on R&D across these sectors in South Yorkshire in 2017. The largest share of spend was in the Higher Education sector (£246m) and it is therefore reasonable to assume that the majority of this expenditure was in Sheffield, due to the presence of the two universities.

This is considerably below the levels of the other Core Cities. Overall, spend is only 60% of the level in Greater Manchester and, when focusing on businesses, the level of investment in South Yorkshire is less than half the level (43%) of Greater Manchester.

This may reflect the mix of firms located in Sheffield and South Yorkshire. It is also important to note that the figures are not adjusted to reflect the size of each area's economy or business base; however, the fact that Sheffield is within the poorest-performing NUTS 2 area represents a lost economic opportunity. This will be a major driver of the productivity challenges outlined earlier in this section.

Table 13: Expenditure on R&D, 2017 (£ million).

	Sector performing the R&D				Total
	Business	Government	Higher Education	Private Non-Profit	
Gloucestershire, Wilts & Bristol/Bath	£1,253	£162	£292	£1	£1,707
Derbyshire and Nottinghamshire	£1,068	£51	£189	-	£1,307
West Midlands	£703	£71	*	*	£1,162
Merseyside	£491	*	£266	*	£772
Greater Manchester	£345	*	£351	*	£718
West Yorkshire	£403	£39	£232	-	£675
Northumberland & Tyne and Wear	£249	*	£176	*	£474
South Yorkshire	£150	£42	£246	£3	£440

* Disclosive Data. Source: ONS Expenditure on research and development, by sector of performance and NUTS 2 region

Therefore, while the evidence suggests some positive innovation and R&D findings at a business level, these are not being translated into new opportunities and, overall, there is significant underinvestment in R&D across South Yorkshire.

COMMERCIAL PROPERTY

Office take-up rates across Sheffield were 11% higher than the 10-year average, compared to 3% across the Core Cities. The average floorspace per unit dropped in both Sheffield (by 5%) and England (by 6%) between 2017 and 2021.

Between 2017 and 2021, the total commercial property stock in Sheffield increased by 4% to 18,960 units; however, the total floorspace (m²) decreased by 2% to 5,831,000 m² over the same period (see Figure 23). This was slower growth than the national trend, where the total commercial stock increased by 6% and floorspace by 1% over the same period.

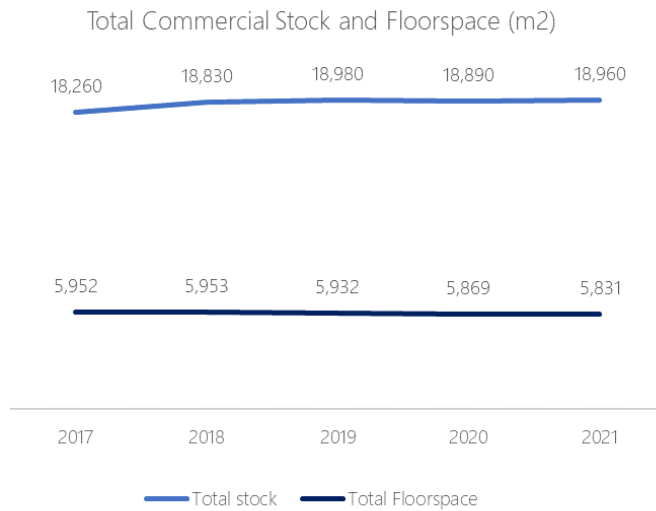


Figure 23: Total Commercial Stock & Floorspace (2017-2021). Source: Gov.uk (NDR) & SCC (2021).

The series of charts below shows the stock and floorspace for retail, office, and industrial properties.

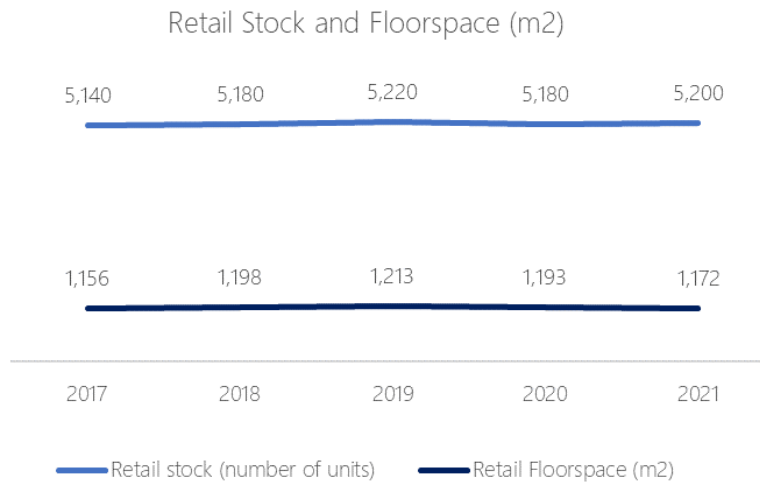


Figure 24: Total Retail Stock & Floorspace (2017-2021). Source: Gov.uk (NDR) & SCC (2021).

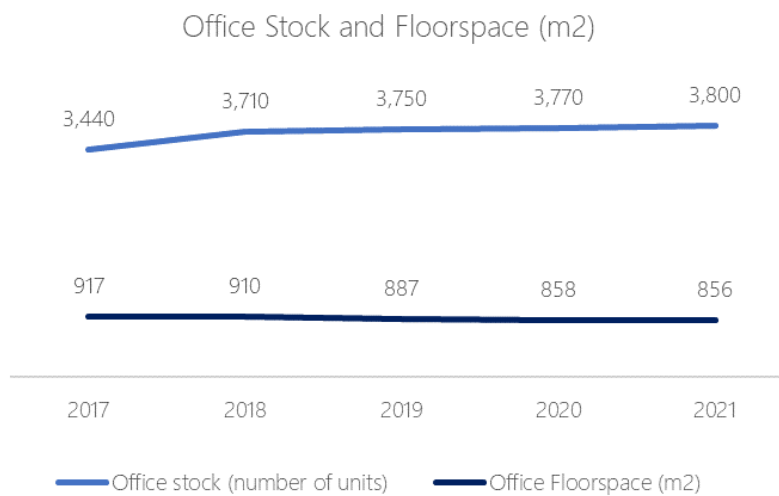


Figure 25: Total Office Stock & Floorspace (2021). Source: Gov.uk (NDR) and SCC (2021).

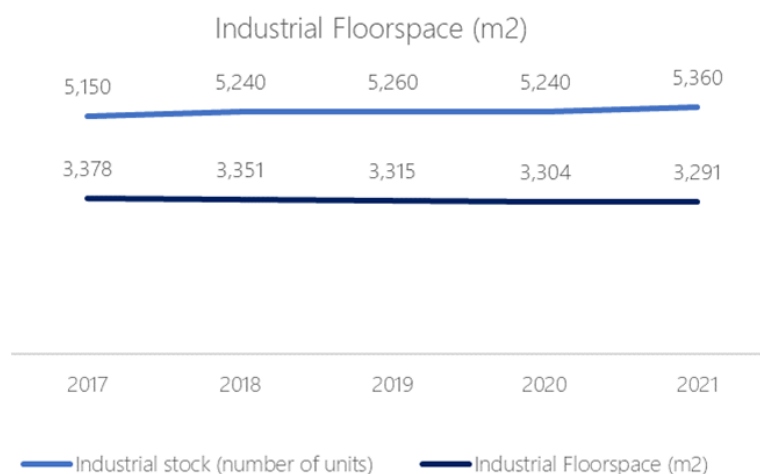


Figure 26: Total Industrial Stock and Floorspace (2021). Source: Gov.uk (NDR) and SCC (2021).

Figure 27 shows that Sheffield’s share of Grade A office space (12%) is the lowest of all the Core Cities (17% below the average). The Sheffield Property Association noted that the low proportion of Grade A office space could be partially explained by a viability gap, whereby the costs of site preparation and commercial property development are greater than the end property values realised. The implication is that any major occupiers must either wait for a pipeline building or compromise by taking a lower standard of accommodation.⁶¹

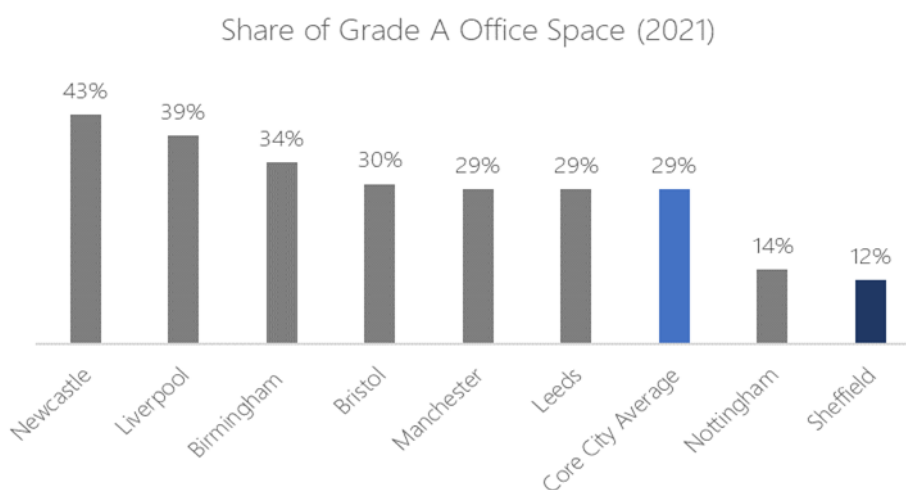


Figure 27: Share of Grade A Office Space by Core City. Source: LSH (2022).

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.

⁶¹ <https://www.business-live.co.uk/commercial-property/sheffield-development-aims-tackle-citys-20077568>

Table 14: Vacancy rate by sector (2022). Source: Value Office Agency Data and Local Insights.

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%

Reflecting on these figures, the Sheffield Property Association identified a growing demand for leisure space as an opportunity for future growth, particularly in the context of a nationwide decrease in demand for retail space. Sheffield's relative lack of Grade A office space was also regarded as an area that required addressing to attract large employers, although it was acknowledged that both residential and commercial development are currently constrained by higher 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 still falls below the Core City average of 558,223 ft².⁶² It was also acknowledged that the move towards increased levels of hybrid working was leading to a shift in the types of commercial demand.

THE BUSINESS CARBON EMISSIONS CHALLENGE AND GREEN INVESTMENT OPPORTUNITIES

LOCAL EFFORTS ARE NOT YET DEEP ENOUGH TO REACH NET ZERO. MEANWHILE, LOCAL, NATIONAL AND GLOBAL NET-ZERO POLICIES POSE RISKS TO BUSINESSES AND JOBS IN SHEFFIELD.

Globally, the industrial sectors (which account for approximately 20% of world GDP) are those most directly exposed to a transition to net zero as their operations involve high levels of emissions.⁶³

In Sheffield, business and public-sector emissions have been decreasing but they still contribute over 30% (696.4 kt CO₂e) of the city's total GHG emissions. This is shown in

⁶² Knight Frank (2022). *UK Cities Sheffield – Q4 2021*. [Available here](#).

⁶³ McKinsey (2022). *The net-zero transition: What it would cost, what it could bring*.

Table 15, which also provides a breakdown of business emissions since 2016 and illustrates the relative contribution that business emissions make to total GHG emissions.

Of all the business and public-sector GHG emissions, the major contributions come from industrial gas use (22.5%, or 156.6 kt CO₂e), followed by industrial electricity use (17.3%, or 120.2 kt CO₂e), and commercial electricity use (13.8%, or 96.0 kt CO₂e). These three sources combined represent over 16% of all GHG emissions from all sources in the city.

Table 15: Business emissions by source in Sheffield.

Business emissions source	Sheffield territorial emissions from business (kt CO ₂ e)					% of total business emissions (2020)	% of total emissions from all sources (2020)
	2016	2017	2018	2019	2020		
Industrial Gas	219.4	214.9	218.7	202.9	156.6	22.5%	6.9%
Industrial Electricity	156.6	143.4	132.3	115.3	120.2	17.3%	5.3%
Commercial Electricity	202.9	172.9	155.7	134.5	96.0	13.8%	4.2%
Industrial 'Other'	87.0	93.9	91.9	85.0	82.9	11.9%	3.7%
Public-Sector Gas	63.4	61.2	60.0	63.4	74.1	10.6%	3.3%
Commercial Gas	70.8	75.8	72.9	72.0	65.4	9.4%	2.9%
Large Industrial Installations	84.3	96.9	98.6	87.8	64.8	9.3%	2.9%
Public-Sector Electricity	62.5	55.7	52.4	45.7	35.8	5.1%	1.6%
Commercial 'Other'	1.3	1.4	1.5	1.3	0.6	0.1%	0.0%
Public Sector 'Other'	0.4	0.6	0.6	0.5	0.0	0.0%	0.0%
Total	948.6	916.8	884.7	808.3	696.4	100.0%	30.7%

Source: BEIS UK local authority and regional greenhouse gas emissions

Business and public-sector GHG emissions have been reducing across Sheffield, with a 15% fall (140 kt CO₂e) from 2016 to 2019, and a further 14% fall (111.9 kt CO₂e) from 2019 to 2020, representing a far greater annual decrease than had been seen in previous years. This may be a result of COVID-19, which meant fewer businesses operating during the lockdown. However, the fact that emissions from industrial gas use have fallen from 2019 whilst those from industry electricity have increased suggests a change in the make-up of industry or the energy sources being used.

The benefits accrued from the gradual decarbonisation of Sheffield's energy grid due to the growth in renewable energy can be augmented by the emissions reduction efforts to reduce energy consumption and increase energy efficiency. However, against a 2030 net-zero target, the progress in reducing emissions (as with all emissions) has been slow and had minimal impact in some areas, demonstrating the scale of the challenge.

The local, national, and global transition to net zero will not merely impact business operations. For some, this shift brings existential challenges to their business and employees. Businesses in some supply chains may have to demonstrate carbon reductions and sustainability measures to retain contracts if customers specify such requirements. Others may need to adopt new skills, such as construction and home maintenance companies having to develop capabilities for working with new building and retrofit materials, as well as different energy supply, storage, and management technologies. The jobs most at risk are those in markets that will be defunct. Examples demonstrating this are car engine mechanics or car engine suppliers, where the transition to electric vehicles and policies to stop petrol and diesel car

sales will mean these goods and services are no longer needed. This also shows how green jobs will change the skills required, with electric car technicians needing electrical engineering skills rather than engine maintenance skills.

Furthermore, the Resolution Foundation and London School of Economics June 2022 report '*Net zero jobs*' (part of the Economy 2030 Inquiry) highlights that "workers moving from non-green to green jobs tend to be younger and more educated than average green job workers", a trend scene across all technological change.⁶⁴ This highlights the concern that opportunities will be harder to identify for older and less-qualified workers in industries that are most likely to decline or change, which has important implications for inclusive growth ambitions.

In September 2021, the TUC estimated that more than 250,000 direct jobs across the UK manufacturing sectors and more than 400,000 supply chain jobs could be relocated to other countries that offer more enabling policy frameworks for decarbonisation. This includes 36,900 jobs from the Yorkshire and Humber region, with chemicals, glass and ceramics, and iron and steel manufacturing being the sectors most likely to experience the movement of jobs overseas.⁶⁵ Local ambition and leadership must be demonstrated to limit the risk of losing these jobs.

SUSTAINABILITY AND CARBON REDUCTION WILL BE AT THE HEART OF ECONOMIC RECOVERY IN THE UK. SHEFFIELD WILL NEED TO ENSURE IT HAS THE BUSINESS ENVIRONMENT AND SKILLS BASE TO CAPITALISE ON GREEN JOBS AND INVESTMENT OPPORTUNITIES.

Global action to reduce energy demands 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, energy, and land-use systems. Recent estimates suggest that global investment in energy 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 2050.⁶⁶

In the next ten years, Sheffield will take action to achieve its ambitious net-zero-carbon target, continue to restore and rehabilitate biodiversity and ecosystem services, help people and businesses to mitigate and adapt to climate change, and ensure that no one loses out due to the UK Government's net-zero policy. Supporting all this will be a shift to renewable energy, an increased focus on biodiversity, and the greater use of nature to manage flooding and protect against increasing temperatures.

Public and private transport will transition to zero-carbon tailpipe emission fuels such as electricity, which will need domestic, commercial, and public infrastructure development. Retrofitting existing homes to improve energy efficiency and so they can adopt low- or zero-carbon fuels will need to accelerate without increasing household bills. New homes and commercial properties will need to have less

⁶⁴ M Broome, S Cellini, K Henahan, C McCurdy, C Riom, A Valero & G Ventura. *Net zero jobs: [The impact of the transition to net zero on the UK labour market](#)*, The Resolution Foundation, June 2022.

⁶⁵ TUC. *600,000 jobs at risk from government inaction on reaching net zero*, September 2021. [Available here](#).

⁶⁶ McKinsey (2022). *The net-zero transition: What it would cost, what it could bring*.

embodied carbon in their materials and be more energy-efficient, whilst also building at the necessary pace and scale. New energy generation, distribution, and management systems will require advanced engineering and manufacturing.

Connected and smart technology across the city will be important. This could be for monitoring and managing the built and natural environment, managing smart buildings, smart parking, and energy grids, providing new forms of shared and automated mobility and micro-mobility services, as well as enabling active travel. This means Sheffield's digital, data, and technology firms have a growing marketplace, as do those manufacturing hardware and components like sensors, compound semiconductors, and advanced materials. As digital becomes more important, it is also vital to ensure that everyone has the digital skills needed to use the new goods and services.

This economic transition will be underpinned by public and private investment in new infrastructure, innovation, the growth of new goods and services, and the demand for new jobs and skills. Green growth describes the economic opportunity of this investment, innovation, and higher demand. It is essential to invest in and build the connectivity, business, and housing infrastructure needed to continue economic growth whilst reducing net carbon emissions.

Sheffield City Council can influence the extent to which districts benefit from green growth opportunities, which is a choice for the Council to make. Sheffield could 'buy in' new goods, services, and skills from other places, meaning the latter would benefit from job creation, new businesses, and economic growth. Alternatively, Sheffield could invest in developing its own capabilities quickly and then sell goods, services, and skills to other places, further creating new markets for the city's businesses, new jobs, and economic growth. Similarly, investing in the circular economy will ensure that products and value created in Sheffield stay in Sheffield.

The latest data suggests that the UK's low-carbon and renewable energy economy (LCREE) was estimated to be worth £41.2 billion in 2020 and to support 207,800 full-time equivalent (FTE) roles.⁶⁷ Businesses classified as manufacturing, energy supply, and construction industries accounted for 84% of all UK LCREE turnover in 2020 and 77% of all LCREE employment. However, little growth has been observed in turnover or employment to date, so acceleration is needed if the UK is to grow its share of global investment to meet the net-zero targets. In fact, the Local Government Association (LGA) stated that in 2030 across England, as many as 694,000 direct jobs could be engaged in the LCREE, rising to over 1.18 million by 2050.⁶⁸

Sheffield is forecast to host 8,000 green economy jobs by 2030 and over 13,100 by 2050. These will be distributed across all elements of the green economy, primarily in alternative fuels (33%, or 2,657 jobs), low-carbon heat (21%, 1,625 jobs), and energy efficiency (19%, 1,487 jobs). This breakdown is summarised in Figure 28.

⁶⁷ ONS (2022). *Low-carbon and renewable energy economy, UK: 2020*.

⁶⁸ Local Government Association: *Local green jobs - accelerating a sustainable economic recovery*.

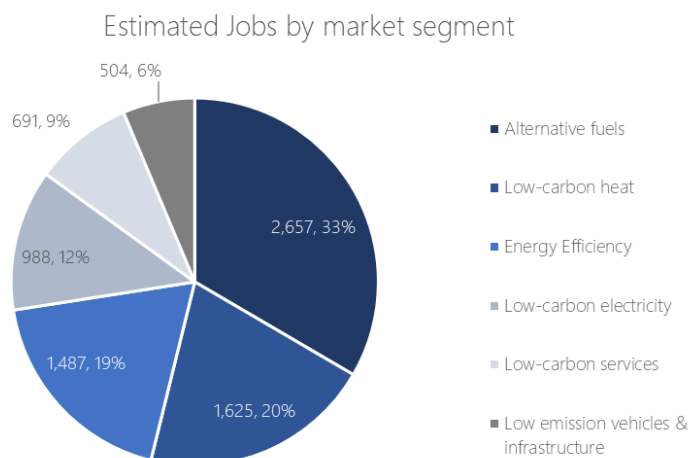


Figure 28: Breakdown of future green jobs by market segment. Source: Local Government Association Local green jobs - accelerating a sustainable economic recovery (2019).

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, the Translational Energy Research Centre, and the South Yorkshire Sustainability Centre. The bioenergy sub-market segment has the highest forecast number of potential jobs by both 2030 and 2050. Some sub-market segments will experience more medium-term job growth; for instance, insulation may need 1,086 jobs by 2030 but with little subsequent job growth. Other segments such as hydrogen boilers will see their job growth accelerating between 2030 and 2050. Table 16 shows the sub-market segments forecast to have more than 100 jobs in Sheffield by either 2030 or 2050.

Table 16: Forecast jobs by LCREE sub-market segments employing over 100 by 2030 or 2050.

Market segment	Jobs	
	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

Source: Local Government Association, Local green jobs - accelerating a sustainable economic recovery (2019).

Sheffield’s industrial, research, and innovation expertise means it is ranked fourth among the Core Cities in terms of forecast Low Carbon and Renewable Energy Economy (LCREE) jobs by 2030. Examining the market segments, Sheffield will rank third amongst the Core Cities for low-carbon heat and energy efficiency jobs by 2030 and second for alternative fuels.

Nearly 1,100 jobs are forecast to be needed in insulation, a key aspect of decarbonising Sheffield’s homes and business properties. The creation of these skilled jobs, whilst also helping to improve local housing energy efficiency and combat fuel poverty, is a prime example of a just transition employment opportunity. Developing a strong capability in this industry will ensure that Sheffield is well positioned to play a role in the UK supply chain.

Taking housing retrofit as a sole 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 claimed that 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.

Looking specifically at energy, research funded by Sheffield Hallam University (SHU) and the South Yorkshire Mayoral Combined Authority (SYMCA) and published in January 2022 sought to understand the low-carbon energy supply chains, employment, and skills in South Yorkshire.⁶⁹ Six strategic sectors for the region were assessed: carbon capture, utilisation and storage (CCUS); heat pumps; heat networks; hydrogen; insulation; and small-scale nuclear. Of these six sectors, heat pumps, heat networks, and insulation show the greatest potential to demonstrate the best technology maturity, highest growth potential, number of new jobs, and number of replaced jobs. However, these sectors were also revealed to have considerable skills gaps, which will limit their potential if not addressed.

There is a gap in the indirect emissions data from consumption and supply chains across all sectors, and it is important that stakeholders across Sheffield bridge these gaps to secure potential investment from global Environmental, Social, and Governance (ESG) investors. This is becoming increasingly important as ESG investors start focusing more on supply chain and indirect emissions in preparation for the economy of tomorrow. For example, Blackrock's framework⁷⁰ for ESG investing recognises that "indirect emissions are significantly higher and more evenly distributed across" sectors, meaning "that there's much more to consider than direct emissions alone". Blackrock provides the example of the healthcare sector, where a "large portion of the carbon footprint comes from medical devices, pharmaceuticals, transportation, and hospital buildings which are only captured by analysing indirect emissions". These considerations are influencing investment decisions, which demonstrates that Sheffield must provide evidence of the decarbonisation of indirect emissions across the sectors.

The circular economy will also drive sustainable jobs and businesses in Sheffield. In 2021, the Green Alliance⁷¹ estimated that through investment and policy, the Government could help to create over 450,000 jobs in this economy by 2035, including thousands of new jobs in those occupations most at risk of redundancy in a low-carbon future. In Yorkshire and the Humber, it is estimated that those in the new circular-economy jobs could represent over 40% of the currently unemployed workforce by 2035 if an ambitious and transformational policy is pursued. Around two-thirds of these jobs would be in the remanufacturing sector, with the remainder in rental and leasing, repair, and recycling.

Reskilling workers to utilise transferable skills will be important in helping to achieve the inclusive growth ambitions. Both universities in Sheffield have circular economy expertise. For example, the University of Sheffield's construction industry tool Regenerate, aims to instil circular principles in building design.

Capitalising on the job opportunities of the transition to net zero will require embedding the right skills in the workforce of tomorrow. If this skills development is effective, green jobs can drive inclusive growth. However, this will need a concerted effort. Research by Policy Exchange suggests that only 3.5% of those working in the environment sector identify as being from a minority background, leading Friends of the

⁶⁹ Sheffield Hallam University (2022). *Low Carbon Energy Supply Chains, Employment and Skills in South Yorkshire: Headline Findings*.

⁷⁰ Blackrock (2022). *The transition to a low carbon economy*. [Available here](#).

⁷¹ Green Alliance (2021). *Levelling up through circular economy jobs*.

Earth and Ashden to recommend that “councils should work with disadvantaged communities to increase opportunities in the green sector and pathways to exploring skills requirements”.⁷²

ENTERPRISING CITY SUMMARY AND POLICY IMPLICATIONS

To summarise:

- Looking to the future, Sheffield can capitalise on its skilled workforce to seize the economic opportunities of new, emerging and potential sectors, whether in the green economy, digital, or health and wellbeing.
- Sheffield has lower economic output per head than the other Core Cities and is falling further behind. The city has good business survival rates but less dynamism compared to its competitor cities. 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 start-ups.
- Carbon emissions have been reducing, although reaching the net-zero target by 2030 appears to be a major challenge. Future progress will have to be faster and more extensive, Businesses need support in this regard and efforts must be made to attract ESG investment.
- Sheffield and its partners have an opportunity to ensure residents and others benefit from new jobs, green skills, and openings in areas such as the circular economy, energy generation, carbon mitigation, retrofitting, insulation, and heating.
- The city has some dynamic independent companies and household names, and several homegrown, UK, international, and foreign-owned companies are headquartered there. However, there are few OEMs or ‘unicorns’ (companies valued at \$1bn or more) and a lower rate of high-growth start-ups. It has strong medical and advanced manufacturing capabilities, well-known technology and digital firms, as well as established construction and related professional, legal, and engineering services.
- Sheffield has the highest proportion of exporters as a total of their business base, 1.2% higher than the Core City average.
- Sheffield has a highly qualified population, but the city is not maximising its potential in this regard. Some important sectors like professional services employ a lower proportion of higher-paid senior roles in Sheffield compared to the Core Cities, which leads to a lower GVA per head and the under-utilisation of the qualified workforce.
- The most recent detailed innovation data indicates that the sub-region has a high proportion of innovation-active businesses, some good examples of applied research, and a high propensity for product innovation. Significant working partnerships also exist between universities and businesses to win innovation funding, but there is less evidence of this leading to commercial output in the city.
- The shortage of high-quality office space means that potential occupiers must either compromise or choose to locate elsewhere, which could be highly detrimental to future economic growth. The current high retail vacancy rates suggest that the city has struggled to recover from the effects of COVID-19.

A review of the productivity data reveals some potential policy implications:

- More action is needed to address the persistently lagging productivity; this must be highly tailored to particular local industrial or sectoral needs.
- The city’s skills profile and innovation assets offer a potent proposition for inward investment as hybrid working allows people to consider new locations.

⁷² Shared Intelligence For Friends of the Earth and Ashden report (2022). *Road to zero carbon: council action on green jobs and skills*.

- Making the case for greater employee ownership, would improve the city's occupational profile and employment prospects while stimulating better working practices within organisations. The city could highlight exemplar employers to inspire others.
- 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 growth (health and wellbeing). It is well represented in foundation industries such as care, construction, and food and drink manufacturing. The Advanced Manufacturing Innovation District and Tech Sector offer good prospects for inward investment and Sheffield also has a vibrant sports, arts, music, and cultural sector.
- A transition plan for the shift to a high-skill, low-carbon economy must involve identifying and supporting new jobs and skills across all stages of the life cycle of green jobs, from pathways into green careers for people from all backgrounds to effective transitions for workers and communities dependent on the high-carbon economy.
- An industrial and commercial decarbonisation plan should include intensive support for heavy emitters. This will require ambitious plans and extensive funding. For example, in the short- to medium-term, making low-CO₂ steel is likely to be more expensive than current steel production methods, while the future costs of alternative power are uncertain since they depend on the future costs of renewable hydrogen and electricity.⁷³
- Sheffield's export performance is a strength worth building on as this offers Sheffield people and firms many more markets for their goods. Working with DIT and the Chamber will ensure Sheffield businesses can seek support where required to enhance their propensity to export, whether these are new or serial exporters.
- Alternative business ownership models will help to address inequality and realign thinking towards Wellbeing Economy principles. These include employee ownership, community interest companies, as well as third sector, social, and community enterprises. This movement could be combined with more concerted social value procurement endeavours to benefit the city.
- Sheffield could be positioned as a northern start-up hub - a place where people (including residents) want to do business and where good business survival rates are good. 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. Independent businesses have been successful in the city, which should encourage and support new growth.
- Potential commercial development sites must be stimulated and brought forward, and the city centre's resilience should be bolstered. The Sheffield Future High Street Fund is repurposing obsolete buildings by, for instance, converting the upper floors of retail premises to inner-city residences. Sheffield has an opportunity to lead on green commercial, domestic, and industrial property retrofit, development, and low-carbon energy.
- There is scope to enhance the innovation and enterprise ecosystem, develop sub-regional innovation support, and build on the success of the city's accelerators, world-class translational research facilities, and existing measures like the Sheffield Innovation Programme. There is potential for new technology adoption programmes and business incubators, as well as strategic collaboration on innovation across the sub-region. The Advanced Manufacturing Innovation District, for instance, could act as a lever to attract new inward investment and world-class research infrastructure.

⁷³ https://joint-research-centre.ec.europa.eu/jrc-news/eu-climate-targets-how-decarbonise-steel-industry-2022-06-15_en



FAIRER CITY

4) FAIRER CITY

Sheffield thrives on its diversity and the strength of its communities, however city suffers from long-standing economic and social inequalities, some of which have been exacerbated by COVID-19. Overall, Sheffield is a healthy city compared to the other Core Cities, but wide inequalities in healthy life expectancy and deprivation exist between the different LAC areas. Health and wellbeing challenges can prevent people from fulfilling their potential and working as much as they wish. Years of potential life lost and working years lost is a missed opportunity for people and the city. Similarly, unequal education outcomes mean the city is not maximising its potential skills base, which may limit the future opportunities for young people.

Inequalities exist in Sheffield across a broad range of socio-economic indicators. These reflect differences between not only neighbourhoods and communities but also different demographic groups. Some groups also appear to have been impacted more severely by recent economic shocks. For example, evidence indicates that the pandemic has impacted female employment in the city more significantly, both overall and for specific groups, including those with work-limiting disabilities.

Considering the health of Sheffield's residents, many areas of the city match or better the performance of the Core Cities. For example, the city has the highest rate of healthy life expectancy (HLE) of Core Cities, although this is still below the national average despite countering the recent national trend of declining life expectancy. However, this masks the significant variations within the city, which also has a high rate of life expectancy inequality and pockets of severe health deprivation. HLE and deprivation are interlinked since people residing in the city's most deprived areas experience the lowest healthy life expectancy ("the poorer the area, the worse the health", Marmot Review 2020).

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

PEOPLE – A SNAPSHOT OF KEY GROUPS

The COVID-19 pandemic has intensified the systemic and entrenched inequalities encountered by women, ethnic minorities, people living with disabilities, and young people. Although these groups are discussed separately, they are not homogeneous 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 fewer women are employed and those who are working receive lower salaries compared to men. A Fawcett Society⁷⁴ report found that over 42,000 women in Sheffield were missing from the labour market and women's average earnings were £10,000 less a year than those of men. Sheffield has an average gender pay gap of 12.6%, slightly lower than the national average.⁷⁵ The Fawcett Society explained that the gender inequalities are caused by caring responsibilities (adult and child) and the high costs of childcare, which impact the career progression and financial security of Sheffield women. Therefore, greater access to affordable childcare would reduce the gender pay gap.

Nationally, the gender pay gap has reduced by a quarter over the last 25 years, yet most of this improvement has been due to higher female educational attainment. The gender pay gap varies, with women in the highest-paying jobs receiving only 77% of a male salary for an equivalent position, compared to a rate of 90% for the lowest-paid jobs.⁷⁶

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 during the pandemic. Women were also more likely to work in sectors that closed during lockdowns (for example, retail), so they faced a higher risk of job losses. 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 more hours on caring responsibilities as many families balanced working from home with childcare. Women were more likely to be furloughed than men and they reported more difficulties in working productively at home.⁷⁷

Women, who account for 90% of single parents, were more likely than coupled parents to be impacted by job losses, reduced hours, or furlough during the pandemic. 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 responsibilities.⁷⁸

Menopausal women are the fastest-growing demographic in the workforce, so it is more important now than ever to be able to speak openly about menopause at work. Menopause can affect a woman's working life. Menopausal symptoms or working conditions may impact the ability to concentrate or perform a role to the best of one's ability. In a survey of 1,000 adults in the UK, the [British Menopause Society](#) found that 45% of women felt that menopausal symptoms had a negative impact on their work and 47% who needed to take a day off work due to menopause symptoms said they would not tell their employer the real reason. A report produced by the Chartered Institute of Personnel and Development (CIPD) found that three out of five (59%) working women between 45 and 55 who were experiencing menopause symptoms said this had had negative impacts on them at work. Women over 50 are the fastest-growing group in the workforce and the average age for the menopause transition is 51. This transition can include a range of symptoms (e.g. lack of concentration or stress) that last for an average of four years. The CIPD research surveyed 1,409 women experiencing menopause symptoms and was

⁷⁴ The Fawcett Society (2019). *Making Devolution Work for Women*. [Available here](#).

⁷⁵ Office for National Statistics (2021). *Annual Survey of Hours and Earnings*. [Available here](#).

⁷⁶ Andrew, A., Bandiera, O., Costa-Dias, M. and Landais, C. (2021). 'Women and men at work', *IFS Deaton Review of Inequalities*. [Available here](#).

⁷⁷ Women and Equalities Committee (2021). *Unequal impact? Coronavirus and the gendered economic impact*. [Available here](#).

⁷⁸ Gingerbread (2020). *Caring without sharing: Single parents' journeys through the COVID-19 Crisis – Interim Report*. [Available here](#).

led by YouGov. Nearly a third of the women surveyed (30%) said they had taken sick leave because of their symptoms, but only a quarter had felt able to tell their manager the real reason for their absence. Research by [Health Awareness](#) found that 25% of women said they had considered leaving their job, with one in 10 actually handing in their notice.

Sheffield is an ethnically diverse city, yet people from ethnic minority backgrounds face deep-rooted inequalities which the 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%.⁷⁹ The ethnic minority employment rate is lower than the national average. The Sheffield Race Equality Commission findings⁸⁰ have highlighted the racial inequalities and widespread racism experienced by people from ethnic minorities, as well as workforce pipeline issues and a lack of diversity at senior/board level across the city. This lack of representation means that the lived experiences of ethnic minorities are not heard in the spaces where strategic decisions are made.

During the COVID-19 pandemic, ethnic minority groups have been disproportionately impacted due to entrenched inequalities and structural racism.⁸¹ In England and Wales, deaths involving COVID-19 between March and July 2020 were higher for people from all ethnic minority backgrounds compared to those from White British backgrounds. Men from Black African, Bangladeshi, and Black Caribbean backgrounds and women from Black Caribbean, Pakistani, and Black African backgrounds had the highest mortality rates. Excess deaths during COVID-19 (those higher than would be expected in normal conditions) were also higher for ethnic minorities compared to the White British population. Black African and Black Caribbean men had the highest excess mortality rate, with nearly twice the expected deaths between 20th March and 30th October 2020. For women, those from Asian other, Black other, Arab, and other ethnic groups⁸² had the highest rates of excess mortality, again nearly twice the expected rate.⁸³

People from ethnic minority backgrounds experience systematic inequalities in employment, education, housing, accessing social security (including Universal Credit), and health. The Runnymede Trust⁸⁴ found that *"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."*

Many ethnic minority groups are over-represented in 'key worker' sectors and traditionally undervalued roles. Black African men are seven times more likely to be care workers than White British men. Over 20% of Black African women work in health and social care roles. Although people from Indian ethnic backgrounds account for 3% of the working population of England and Wales, they make up 14% of doctors.⁸⁵ Black African, Bangladeshi, and Pakistani workers are less likely than White workers to have had adequate Personal Protective Equipment (PPE) during the COVID-19 pandemic. Compared with White key workers, Indian and Pakistani key workers are more likely to have reported that safety complaints had been ignored.⁸⁶ People from ethnic minorities are also more likely to be working in poorly paid or insecure jobs, as well as sectors that closed during COVID-19 lockdowns.⁸⁷ Black and

⁷⁹ Office for National Statistics (2021). *Annual Survey of Hours and Earnings*. [Available here](#).

⁸⁰ Hylton, K (2021). *Interim update*. [Available here](#).

⁸¹ Marmot, M. et al. (2020). *Build back fairer: The COVID-19 Marmot Review*. [Available here](#).

⁸² This categorisation is from the Office of National Statistics data.

⁸³ Marmot, M. et al. (2020). *Build back fairer: The COVID-19 Marmot Review*. [Available here](#).

⁸⁴ Runnymede Trust (2020). *The colour of money*. [Available here](#).

⁸⁵ Women and Equalities Committee (2021). *Unequal impact? Coronavirus and BAME people*. [Available here](#).

⁸⁶ Marmot, M. et al. (2020). *Build back fairer: The COVID-19 Marmot Review*. [Available here](#).

⁸⁷ Women and Equalities Committee (2021). *Unequal impact? Coronavirus and BAME people*. [Available here](#).

minority ethnic women are twice as likely to be in insecure work compared to White workers and to experience low pay and underemployment.⁸⁸

Research from Sheffield Citizen Advice⁸⁹ documented how insecure work was having a negative impact on residents' health and wellbeing, as well as increasing financial hardship and food-bank use. Job insecurity is one characteristic of low-quality work, while other factors are low job autonomy, low job satisfaction, low job wellbeing, and low pay. Analysis indicates that low-quality work produces poorer health outcomes for workers and that the more time spent in low-quality work, the greater the impacts.⁹⁰ Alternatively, growing evidence indicates the positive impacts of good-quality work on health and wellbeing.⁹¹

The 2010 Equality Act⁹² defines disability as follows: "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%.⁹³ National statistics demonstrate the variations in the employment gaps related to different conditions. For example, people with learning disabilities, autism, or mental illness were the most seriously affected by employment gaps. Concerningly, almost half of those experiencing poverty in the UK are disabled or live with a disabled person.⁹⁴ Disabled people were more likely than non-disabled people to struggle to pay household bills and buy food during COVID-19.⁹⁵ Furthermore, disabled workers in Yorkshire and the Humber earn £11.45 per hour, compared to £12.82 per hour for non-disabled employees.⁹⁶

Of those living with disabilities, 27% faced redundancy during COVID-19, compared to 17% of non-disabled people, a risk that increased to 48% for those deemed extremely clinically vulnerable.⁹⁷ Turn2Us found that people with disabilities, those people in work, were more likely to make a Universal Credit claim due to the pandemic.⁹⁸ Those with disabilities are also at greater risk of COVID-19 mortality; for 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 18-24.⁹⁹

Children and young people have been heavily impacted by the COVID-19 pandemic, not necessarily by the virus itself but by the restrictions imposed to minimise its spread, such as closures of education and support services, as well as social distancing. A survey of secondary school children in Sheffield (2021) found that they were worried about the impact of education disruption on their future opportunities, such as university or employment. Feelings of isolation, anxiety, and a lack of support were common.

⁸⁸ TUC (2020). BME Women and Work. [Available here](#).

⁸⁹ Sheffield Citizen Advice (2017). *Insecure Employment*. [Available here](#).

⁹⁰ The Health Foundation (2020). *What the quality of work means for our health*. [Available here](#).

⁹¹ Director of Public Health for Sheffield Report (2018). *Health and Wealth*. [Available here](#).

⁹² The 2010 Equality Act is [available here](#).

⁹³ Office for National Statistics (2021). *Annual population survey*. [Available here](#).

⁹⁴ Oakley, M. (2021). *Time to think again*. [Available here](#).

⁹⁵ Joseph Rowntree Foundation (2020). *The financial impact of COVID-19 on disabled people and carers*. [Available here](#).

⁹⁶ Office for National Statistics (2021). *Annual population survey*. [Available here](#).

⁹⁷ Citizen's Advice (2020). *An unequal crisis*. [Available here](#).

⁹⁸ Turn2Us (2020). *Coronavirus and the impact on people with protected characteristics*. [Available here](#).

⁹⁹ Mencap (2021). *Eight in 10 deaths of people with a learning disability are COVID-19-related as inequality soars*. [Available here](#).

Nearly two-thirds reported more struggles with their mental health and wellbeing.¹⁰⁰ There is growing concern over the indirect impacts of COVID-19 on young people across their lifetime, including reduced health and wellbeing, and evidence suggests that health and social inequalities are increasing now and will continue to do so in the future. Qualitative research among 10- to 13-year-olds in Bradford (part of the Born in Bradford study) found that the lockdown and school closures had impacted their mental and cognitive functioning during an important development stage, which could have implications in the future.¹⁰¹

During the COVID-19 pandemic, the impacts of child poverty 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 education attainment gap will serve to maintain the existing inequalities and potentially limit future social mobility.¹⁰² In Sheffield, deprived GCSE students were 1.61 grades behind in 2020, the fifth-highest grade gap of all local authorities in England. On average, students in South Yorkshire and the Humber lost 5.7 months of education, more than double the time lost in London and the Southwest. The catch-up provision for students was also far poorer in the north of England compared to the South, further reinforcing the educational divides. Growing evidence indicates the most disadvantaged students were experiencing greater educational declines and catching up at slower rates than the least disadvantaged.¹⁰³

ONS data¹⁰⁴ shows that during the COVID-19 pandemic, those aged 18 to 24 have experienced higher levels of unemployment and economic inactivity, as well as lower job-to-job movement than other age groups. Younger workers were also more likely to experience furlough, job losses, or reduced hours during the pandemic.¹⁰⁵ Compared to other age groups, young people are more likely to work in sectors forced to shut down during the pandemic (retail, wholesale, accommodation, and food) and less likely to be able to work from home. Additionally, the closure of these sectors severely limited young people's opportunities to secure their first job. Thus, the impacts of COVID-19 are likely to have long-term impacts on young people through 'scarring', which may reduce their future employment, progression, and pay opportunities.¹⁰⁶ Further evidence of 'scarring' can be found in the larger proportion of young people economically inactive and not in full-time study since Spring 2021.¹⁰⁷

Neurodevelopmental conditions affect the functioning of the brain or neurological system. Children with neurological conditions can have difficulties with language, speech, communication, motor skills, behaviour, memory, and learning. Examples include:

- Autistic Spectrum Disorder (ASD)
- Attention Deficit Hyperactivity Disorder (ADHD)
- Developmental Language Disorder (DLD)

¹⁰⁰ Sheffield City Council (2021). *Experience of the COVID-19 Pandemic*. [Available here](#).

¹⁰¹ Lockyer, B., Endacott, C., Dickerson, J. et al. (2022). *Growing up during a public health crisis: a qualitative study of Born in Bradford early adolescents during COVID-19*. [Available here](#).

¹⁰² Ofqual (2021). *Learning during the pandemic: review of research from England*. [Available here](#).

¹⁰³ Education Select Committee (2022). *Is the Catch-up programme fit for purpose?* [Available here](#).

¹⁰⁴ Office for National Statistics (2021). *Coronavirus and changing young people's labour market outcomes in the UK: March 2021*. [Available here](#).

¹⁰⁵ Resolution Foundation (2021). *Young workers in the coronavirus crisis*. [Available here](#).

¹⁰⁶ Institute for Fiscal Studies (2020). *COVID-19 and the career prospects for young people*. [Available here](#).

¹⁰⁷ Resolution Foundation (2022). *Leaving Lockdown*. [Available here](#).

A child or young person (up to the age of 25) has a special educational need (SEN) if they have a learning difficulty or disability which causes them to require special educational provision which differs from the standard provision for most pupils. As reported in a Special Educational Support booklet for Sheffield, 16% of the school population in the city (around 13,000 pupils) have SEN. Not all children with SEN receive a formal diagnosis. The SEN and Disabilities (SEND) Inclusion Strategy 2020-2025 outlines the importance of inclusion to ensure that all young people and their families have the opportunity to access better life chances. It highlights that the challenges of addressing inclusion in relation to SEND are growing nationally due to higher demand, the changing complexities of needs, a new academic curriculum, and financial pressures across all sectors. In 2019, Sheffield was home to 73,279 children aged 5-16, of whom 10,565 (14.4%) required SEN support and 1,998 (2.7%) had an education, health, and care plan in place.

EDUCATION INEQUALITY AND DEPRIVATION AND THEIR IMPACTS ON PEOPLE'S POTENTIAL

SHEFFIELD IS THE THIRD-LEAST DEPRIVED OF THE CORE CITIES. DEPRIVATION RATES ARE DOUBLE THE NATIONAL AVERAGE, HIGHLIGHTING THE SIGNIFICANT SPATIAL INEQUALITY ACROSS THE CITY.

In the Index of Multiple Deprivation (IMD), Sheffield ranks as the 57th most deprived (overall deprivation score) of 317 local authorities in England, where '1' is the most deprived.

The IMD suggests that Sheffield is relatively less deprived than the Core Cities of Manchester, Birmingham, Liverpool (which rank among the ten most deprived local authorities nationally), Nottingham, Newcastle, and Leeds.

Table 17 shows the average rank of Sheffield's LSOAs in different deprivation domains and the percentage of LSOAs in the most deprived 10% nationwide for each domain. The IMD indicates that in terms of overall deprivation, 23.8% of the city's LSOAs feature in the most deprived 10% nationwide. Sheffield performs poorly in terms of domains of deprivation, with over 20% of its LSOAs within the most deprived 10% nationwide for the following domains:

- Income
- Employment
- Education, Skills, and Training
- Health Deprivation and Disability
- Income Deprivation Affecting Children Index

Sheffield performs relatively well in terms of barriers to housing and services, ranking 246th nationally, with just 0.9% of LSOAs (two) in the most deprived 10% nationwide.

Table 17: Sheffield Index of Multiple Deprivation, 2019.

Domain	Rank of Average Score	% of LSOAs in most deprived 10% nationwide
Overall Index	57	23.8%
Income	62	23.5%
Employment	71	25.2%
Education, Skills, and Training	60	25.2%
Health Deprivation and Disability	63	20.6%
Crime	60	19.7%
Barriers to Housing and Services	246	0.9%

Living Environment	133	6.1%
Income Deprivation Affecting Children Index	49	21.7%
Income Deprivation Affecting Older People	57	15.1%

Source: Index of Multiple Deprivation (IMD) 2019

Table 18 combines the LSOA data to display the percentage of LSOAs in each LAC which are in the most deprived 10% nationally. The North East is the most deprived LAC in Sheffield, with 75% of the LSOAs in the most deprived 10% nationwide. The North East LAC performs particularly poorly in the following domains:

- Employment, with 74% of the LSOAs in the most deprived 10%
- Income and Education and Skills and Training; for both of these categories, 70% of the LSOAs are in the most deprived 10%
- Crime, with 60% of the LSOAs in the most deprived 10%
- Health Deprivation and Disability, with 55% of the LSOAs in the most deprived 10%

The South West LAC is the least deprived LAC in Sheffield, with no LSOAs in the most deprived 10% nationwide.

Table 18: Index of Multiple Deprivation, % of LSOAs in most deprived 10% nationally, 2019.

Domain	% of LSOAs in most deprived 10% nationally, by LAC						
	South West	North	Central	South East	South	East	North East
Overall Index	0.0%	4.3%	4.9%	7.1%	22.0%	42.6%	75.5%
Income	0.0%	4.3%	4.9%	4.8%	24.0%	48.9%	69.8%
Employment	0.0%	10.9%	4.9%	7.1%	26.0%	42.6%	73.6%
Education, Skills, and Training	0.0%	6.5%	7.3%	11.9%	20.0%	53.2%	69.8%
Health Deprivation & Disability	0.0%	8.7%	9.8%	11.9%	20.0%	36.2%	54.7%
Crime	0.0%	0.0%	4.9%	11.9%	22.0%	23.4%	60.4%
Barriers to Housing & Services	0.0%	2.2%	0.0%	0.0%	0.0%	2.1%	0.0%
Living Environment	0.0%	2.2%	9.8%	0.0%	2.0%	2.1%	7.5%

Source: Index of Multiple Deprivation (IMD) 2019

The East LAC is the second-most deprived LAC in Sheffield with 43% of the LSOAs in the most deprived 10% nationally. The North East LAC performs particularly poorly in the following domains:

- Income, with 73.6% of the LSOAs in the most deprived 10%
- Education, Skills and Training, with 69.8% of the LSOAs in the most deprived 10%
- Employment, with 73.6% of the LSOAs in the most deprived 10%

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

Child poverty across the country has increased. Children growing up in poverty often experience long-term disadvantages across a range of wellbeing outcomes,¹⁰⁸ from health to educational attainment. Research shows that poverty and disadvantages (rather than the quality of schools) have the greatest impact on regional educational attainment,¹⁰⁹ highlighting the interconnection between wellbeing outcomes and the need to develop a holistic approach to tackling inequality.¹¹⁰

In the UK, 3.9 million children are living in poverty, which amounts to 27% of all children. Children in single-parent families, from ethnic minorities, and in larger families are all at greater risk of experiencing poverty. Importantly, 75% of children living in poverty are from households with at least one person in work, demonstrating that paid employment does not necessarily prevent poverty.¹¹¹ Child poverty harms the child’s health immediately 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 the former are more likely to have a serious childhood illness or long-term disability.¹¹²

According to the IMD subdomain Income Deprivation Affecting Children Index, Sheffield performs poorly, ranking 49th out of 317 local authorities (where ‘1’ is the worst-performing area). In fact, 21.7% of the population are in the most deprived 10% nationally for this domain. Child poverty levels in Sheffield have consistently been above the national average but they followed the national trend until 2018/19. Since then, however, child poverty in Sheffield has increased faster than the national average, with more children living in households with low incomes and low disposable income.

As of 2019/20, 37,578 children in Sheffield were living in poverty, measured by the number of children aged 0-15 years living in households with below 60% of the median income after housing costs. This was equivalent to 35.5% of all children, which was above the national proportion of 30.4%, as shown in Figure 29.

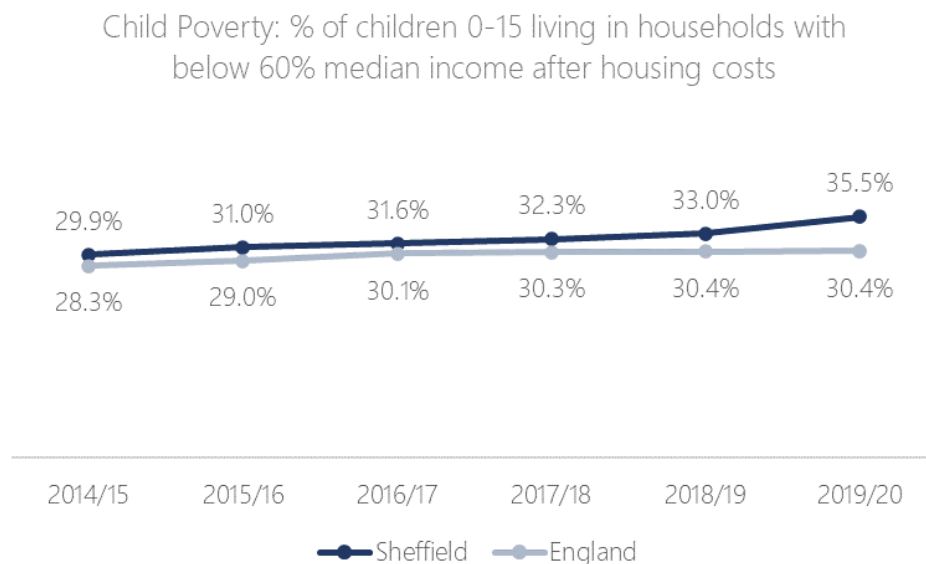


Figure 29: Child poverty rates in Sheffield, Core Cities, and England. Source: DWP/HMRC (2020).

¹⁰⁸ Round & Longlands (2020). *Child Poverty and Devolution in North East England*.

¹⁰⁹ Gorard & Siddiqui (2019). *How Trajectories of Disadvantage Help Explain School Attainment*.

¹¹⁰ Carnegie UK and North of Tyne Combined Authority (2021) *Wellbeing Framework for the North of Tyne*. [Available here](#).

¹¹¹ Child Poverty Action Group (2021). *Child poverty facts and figures*. [Available here](#).

¹¹² Marmot, M. (2020). *Health Equity in England: The Marmot Review ten years on*. [Available here](#).

Child poverty in Sheffield in 2019/2020 has risen since 2014/15, with the additional 6,865 children in poverty representing a 22.4% increase. In terms of the proportion of children living in households with a median income below 60% after housing costs, the percentage has increased by 5.6% since 2014/15, which is above the growth across England (+2.2%). Figure 30 illustrates how Sheffield and the other Core Cities have performed and how they compare to England in 2020.

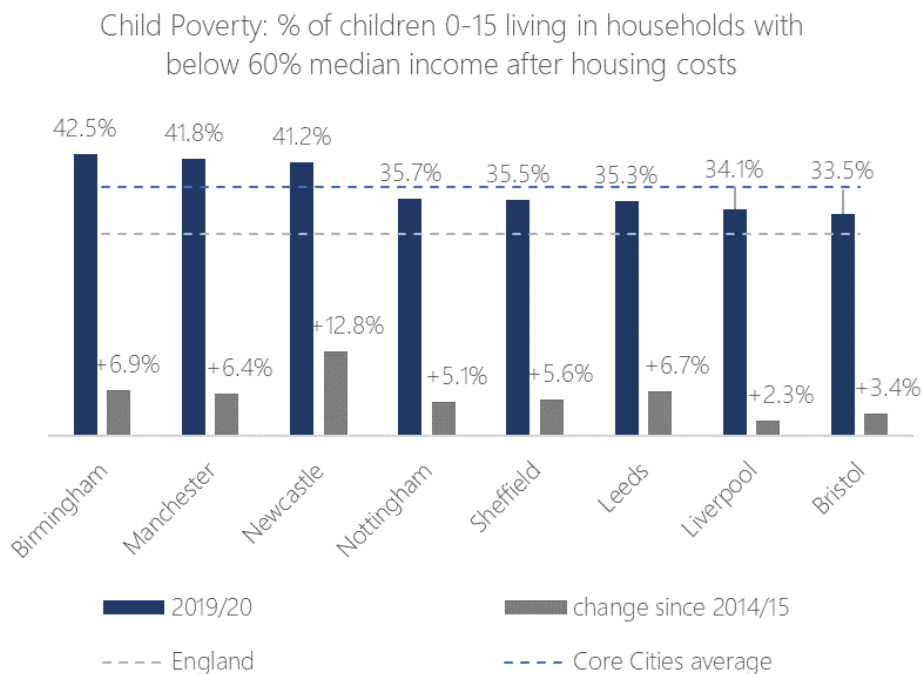


Figure 30: Child poverty rates in Sheffield, Core Cities, and England. Source: DWP/HMRC (2020).

Between April 2021 and March 2022, the Trussell Trust distributed over 2.1 million emergency food parcels, 832,000 of which were for children, a 15% increase from the previous year. The Trussell Trust’s own research found that 94% of food-bank users were experiencing destitution; that is, their income did not cover the essentials needed to live.¹¹³ The Trussell Trust is just one food-bank network in the UK, and the true extent of food poverty is far greater. It is estimated that over 6,000 food-aid providers operate in the country, with the Trussell Trust representing around 40% of these groups.¹¹⁴

Looking beyond the Trussell Trust and over a longer timeframe, food-bank usage in Sheffield almost doubled between 2019/20 and 2020/21, increasing by 91% compared to a 41% national rise. This includes a 117% increase in the number of parcels distributed to children in Sheffield, compared to the 43% rise nationwide.

There are variations in the take-up of free childcare in Sheffield. For example, the average take-up for 15 hours per week of free childcare for disadvantaged households was 64% in 2019. But deprived areas such as Darnall (48%) and Burngreave (43%) had lower take-up levels.¹¹⁵, which can impact both on parent’s ability to work and children’s development and outcomes.

¹¹³ Trussell Trust (2022). [Available here](#).

¹¹⁴ Independent Food Aid Network (2022). *Mapping the UK’s Independent Food network*. [Available here](#).

¹¹⁵ National Audit Office (2020). *Supporting disadvantaged families through free early education and childcare entitlements in England*. [Available here](#).

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

Sheffield schools have performed well at Key Stage 1, according to the last three years of available data. In 2019, 76% of KS1 pupils reached the expected standard in maths (see Figure 31), 67% reached the expected standard in writing (see Figure 32), and 72% in reading (see Figure 33). The maths and writing figures are above the Core City average, whilst the reading figure corresponds to the Core City average.

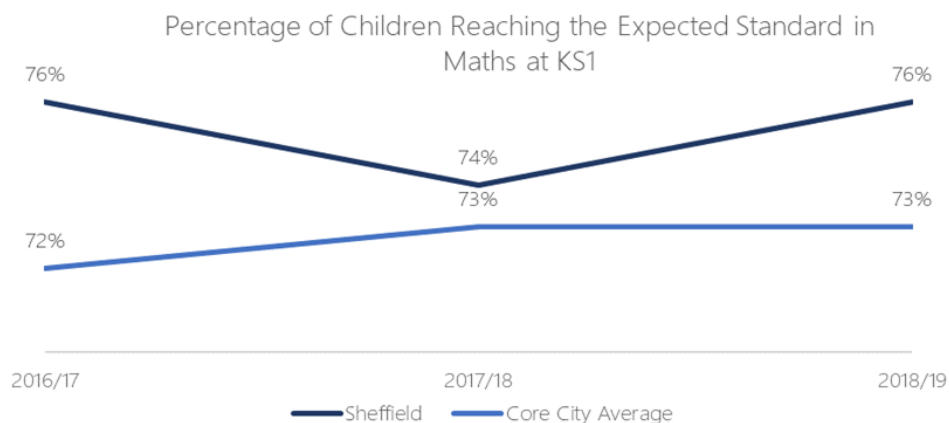


Figure 31: Percentage of pupils meeting expected standard in maths by end of KS1. Source: Department for Education.

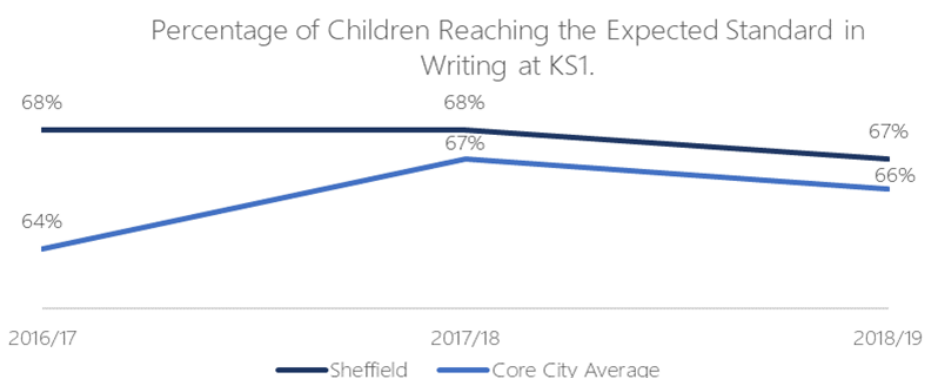


Figure 32: Percentage of pupils meeting expected standard in writing by end of KS1. Source: DfE (2021).

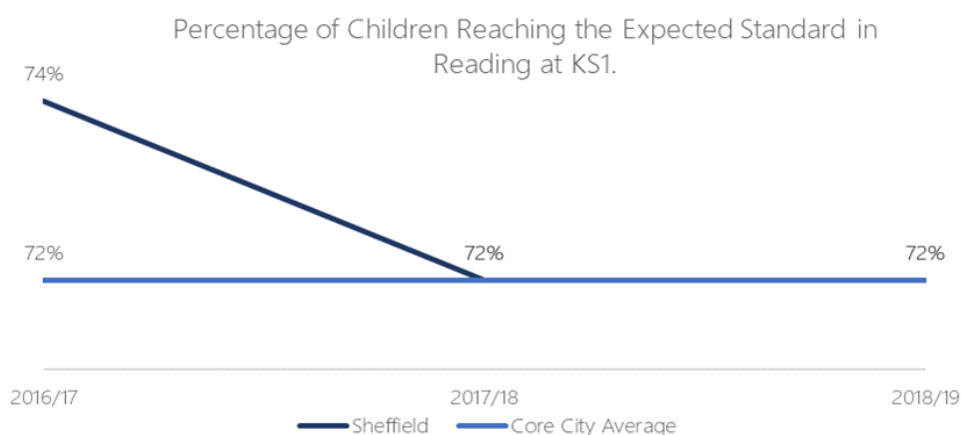


Figure 33: Percentage of pupils meeting expected standard in reading by end of KS1 in Sheffield. Source: DfE (2021).

A relatively high proportion of schools and nurseries in Sheffield (86%) are rated as 'good' or 'outstanding' by the school regulator OFSTED, compared to a Core City average of 85% (see Figure 34). This reflects the inspectors' confidence in the schools' leadership, standards, curriculum, safeguarding

procedures, and the levels of progress made by their pupils. To maintain this position, Sheffield’s KS4 providers must introduce effective measures to reduce the FSM attainment gap.

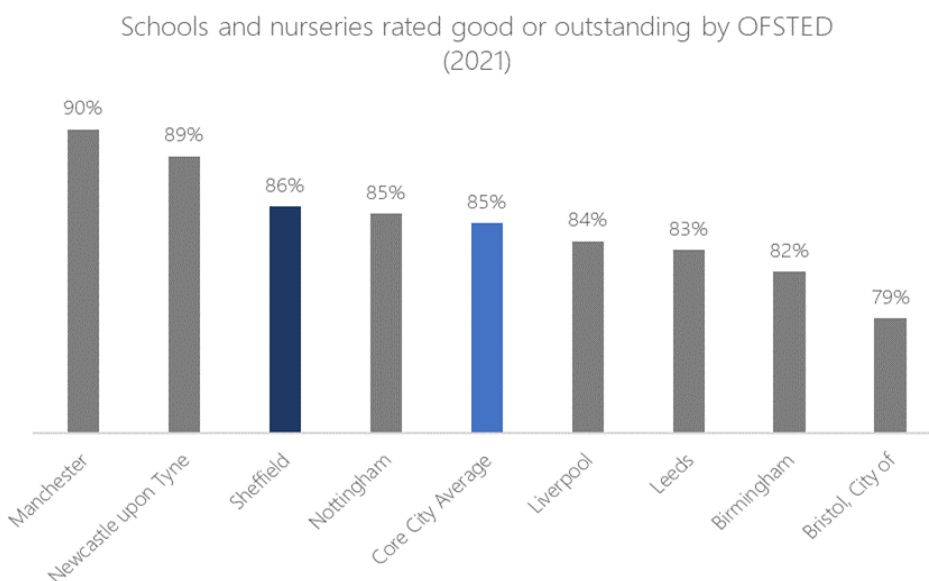


Figure 34: Percentage of schools and nurseries rated as ‘good’ or ‘outstanding’ by OFSTED. Source: DfE (2021).

KEY STAGE TWO PUPILS ACROSS SHEFFIELD PERFORMED WELL COMPARED TO THOSE IN OTHER CORE CITIES.

According to the most recently available data, 64% of Sheffield’s pupils were meeting the expected standards 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% (see Figure 35).

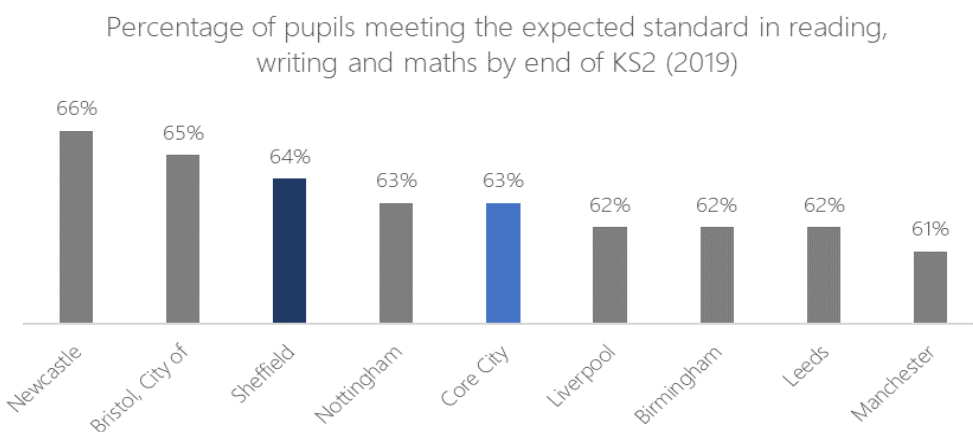


Figure 35: Percentage of pupils meeting expected standards in reading, writing, and maths by end of KS2 in Core Cities. Source: DfE (2021).

POORER SCHOOL PUPILS ARE FALLING FURTHER BEHIND AT KEY STAGE FOUR.

Education can have life-long implications for young people, so improving education 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 the available data. Average Attainment 8¹¹⁶ scores across the city have been higher than the Core City average in two of

¹¹⁶ A standard DofE measure that tracks GCSE attainment across six subjects (GCSE English and Maths are double-weighted).

the last three years. In the last academic year, Sheffield pupils achieved an average of 0.6 more Attainment 8 points than their peers in the other Core Cities (see Figure 36).

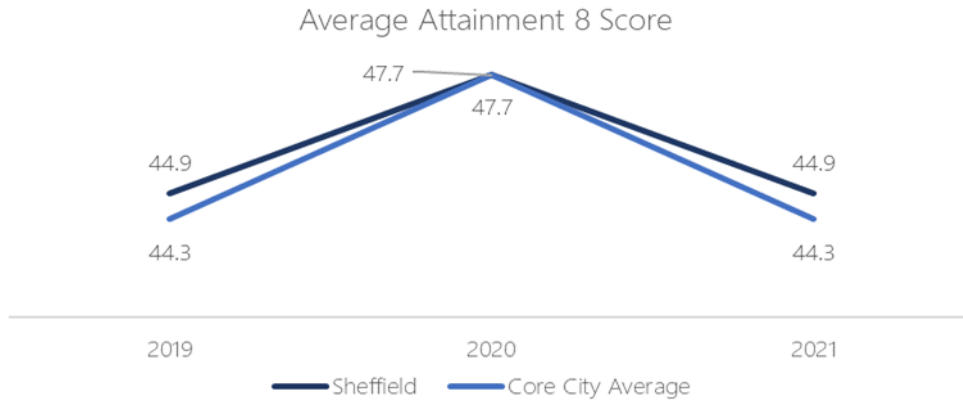


Figure 36: Average Attainment 8 scores for Sheffield, Core Cities, and England. Source: DfE (2021).

However, 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, the average Attainment 8 scores increased by 8.2 but rose only by 3.0 amongst FSM pupils. As a result, the gap between the average KS4 Attainment 8 scores of FSM pupils and their peers has grown to 17.2 points (see Figure 37), the second-largest gap of all the Core Cities (see Figure 38).

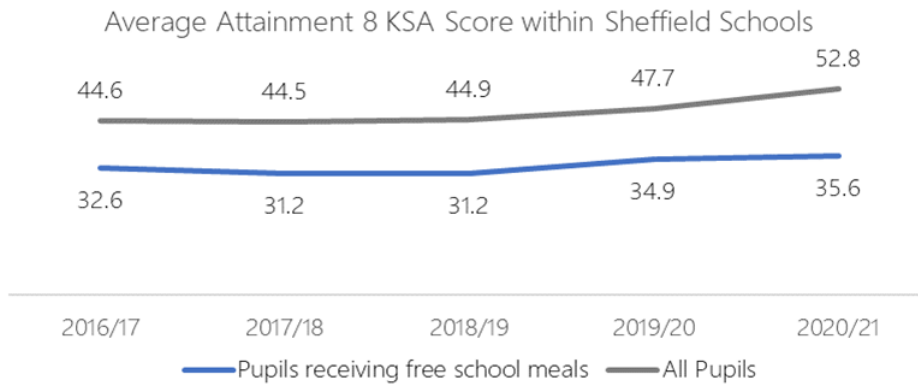


Figure 37: Average Attainment 8 scores in Sheffield, 2016/17 to 2020/21. Source: DfE Explore education statistics (2021).

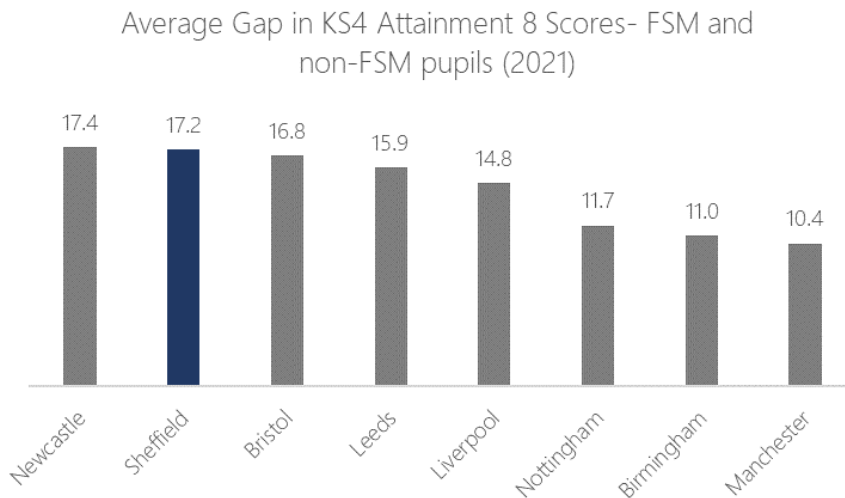


Figure 38: Attainment gap in Core Cities. Source: DfE (2021).

Key Stage Four attainment varies across the city, with schools in the Sheffield Hallam constituency consistently outperforming schools in other areas. Schools in the Brightside and Hillsborough constituency are consistently the worst-performing. In 2021, the difference between the average Attainment 8 scores in the two constituencies was 15.9 points, representing a 1.9-point widening of the gap since 2017 (see Figure 39).

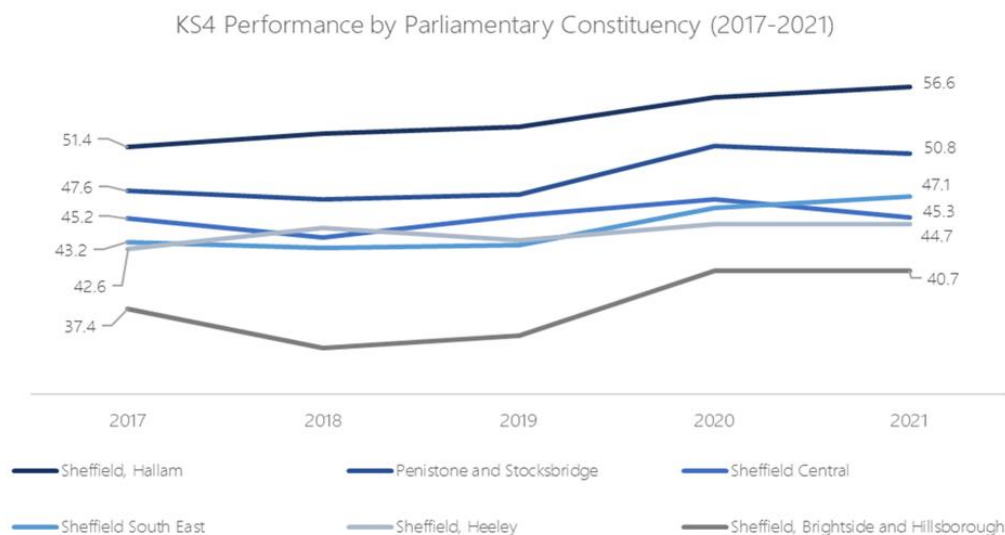


Figure 39: KSA4 Attainment 8 by constituency. Source: DfE Explore education statistics

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

In Sheffield, 8.7% (1,028) of 16- to 17-year-olds are not in education or training, compared to the Core City average of 8.6%. Across Sheffield, the highest rates are amongst males (10.7%), as well as White (9.8%) and mixed-race¹¹⁷ young people (11%). As Table 19 shows, the number of 16- to 17-year-olds not in education or training has risen since 2019. Moreover, fewer pupils are entering apprenticeships or work-based learning.

Table 19: Destination data for 16- to 17-year-olds in Sheffield (2018-2021). Source: Gov.uk (2021).

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)

¹¹⁷ The Department for Education dataset 'NEET and participation: local authority figures' uses the following categories for ethnic groups 'White'; 'Mixed race'; 'Black or black British'; 'Asian or Asian British'; 'Chinese'; 'Other'.

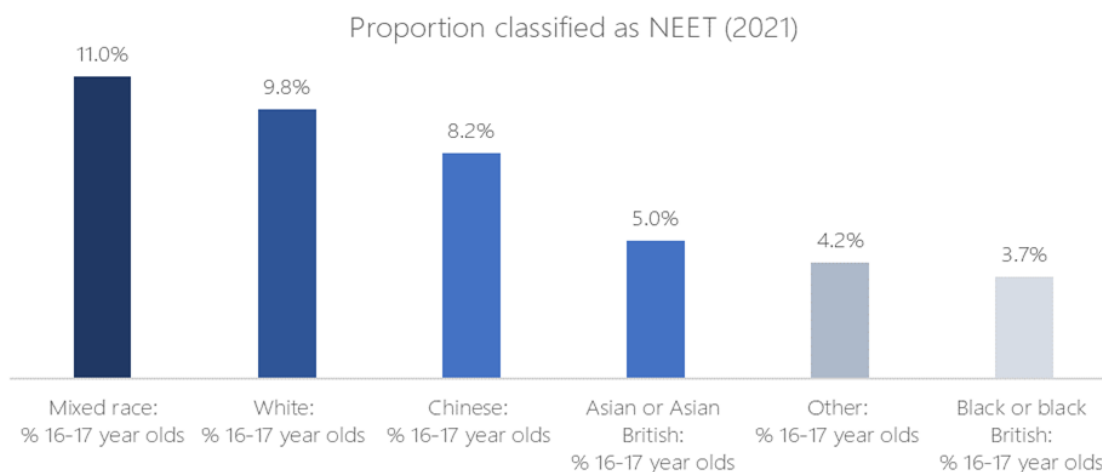


Figure 40: NEET figures in Sheffield. Source: Gov.uk (2021).

UNEMPLOYMENT AND INCOMES

Unemployment in Sheffield (using the claimant count) rose steeply between March 2020 and June 2020, peaking at 6.1% in February and March 2021, since when the rate has fallen steadily to 4.6% (as of February 2022). This is significantly above the pre-COVID-19 level, which was as low as 2.0% in January 2019, highlighting the impact of the pandemic on overall employment levels in the city. Whilst levels of unemployment are decreasing in the post-COVID-19 world, they remain high, potentially because of the furlough scheme coming to an end, changes in working patterns, and a shift in consumer spending to more online purchasing. This would appear to be a national trend, with Figure 41 showing that the claimant count, as a proportion of the working-age population in Sheffield, has typically been aligned with the national average over the past five years.

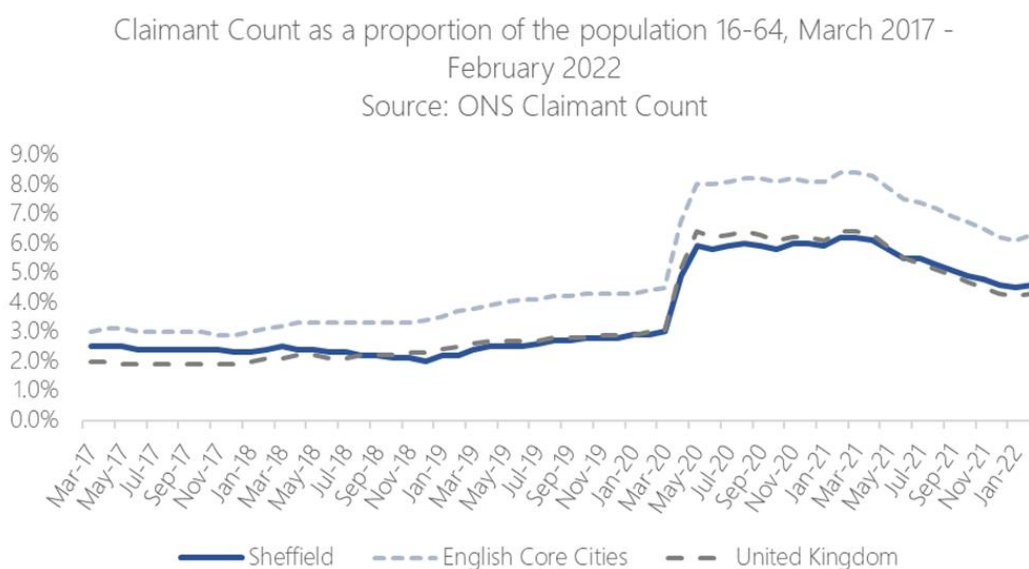


Figure 41: Claimant count. Source: Claimant Count data. Source: ONS Claimant count by sex and age (2022)

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 the official figures do not incorporate the 760,000 incapacity benefit claimants who could be expected to work in

“a genuinely fully employed economy”,¹¹⁸ they only provide a partial picture of UK unemployment. Table 20 provides an overview of the number of ‘hidden unemployed’ residing in each Core City, according to the authors.

Table 20: Hidden unemployment overview.

Area	Unemployment benefit claimants	Hidden unemployed on incapacity benefits	‘Real’ unemployment number
Newcastle	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

Source: ONS Claimant count by sex and age (2022) and Sheffield Hallam University *The Real Level of Unemployment 2022*

The ‘real’ unemployment figure for Sheffield is 6.1%. As Figure 42 highlights, this is the third-lowest of all the Core Cities but still represents a 1.5% increase from the official claimant count. As hidden unemployment is more prevalent in weaker labour markets, this exacerbates the inequality gaps between the country’s richer and poorer areas. With LSOA hidden unemployment data unavailable, the LSOA health inequality indicators provide the best measure of the extent of the issues across the city.

The authors state that this situation could be improved by increasing the number of ‘good jobs’ across the economy that offer the pay, conditions, and access needed to create opportunities for many incapacity claimants.

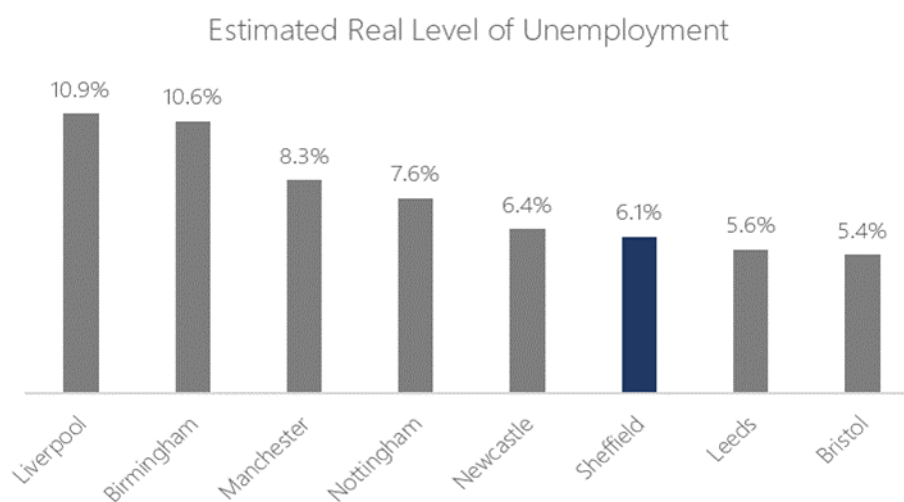


Figure 42: Estimated ‘Hidden’ and ‘Real’ Levels of Unemployment by Core City. Source: Sheffield Hallam University (2022).

¹¹⁸ Beatty, C., Fothergill, S., Gore, T., & Leather, D. (2022). *The Real Level of Unemployment 2022*. Pg 3. [Available here](#).

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 or Jobseekers Allowance. The claimant count rate is the percentage of the population aged 16 to 64 who receive these benefits and are economically active, including those in work and receiving Universal Credit.

Women across the city have an average claimant count rate of 3.6%, an increase from 2.2% in February 2020. Men have a claimant count rate of 5.5%, an increase from 3.6%. The claimant counts for women and men in Sheffield are below the Core City averages of 4.7% and 7.7%, respectively. This does not necessarily mean that women have higher levels of employment, and it illustrates that fewer women are engaged in the labour market and economically active, as discussed later.

Unemployment rose in all the LACs as a result of COVID-19. The data shows that the existing inequalities between areas have been exacerbated, with greater increases in unemployment in areas that had already been experiencing the highest rates. Where once a 2% gap existed between the Central LAC and North LAC in 2017, there is now a 7% gap, highlighting the growth in inequality across the city (see Figure 43).

The claimant count rates amongst Sheffield’s 16-24 population are below the averages for both England and the Core Cities (see Figure 44). However, there is greater spatial inequality in the levels of unemployment among young people in different parts of Sheffield than across the working-age population as a whole.

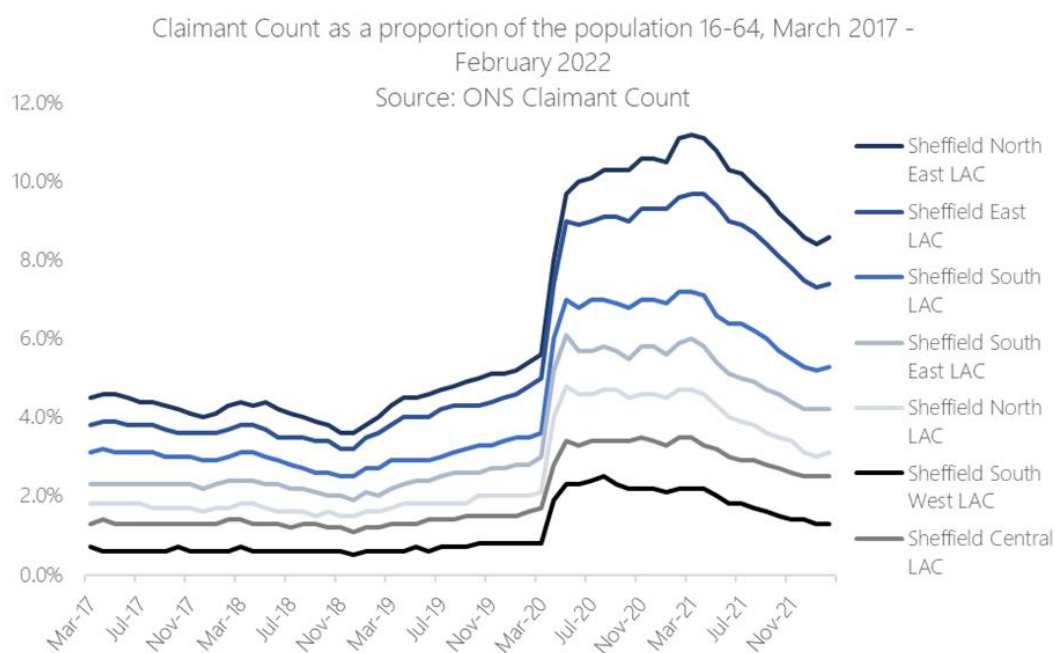


Figure 43: Claimant count rate by LAC.

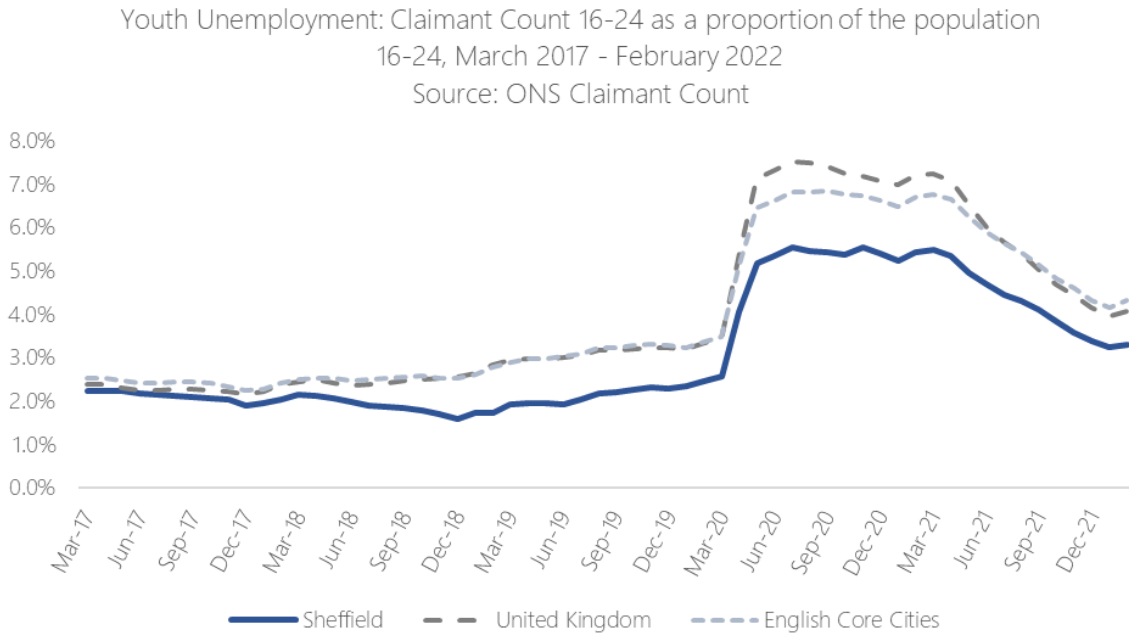


Figure 44: Youth claimant count rate.

As Figure 45 shows, the Central and South West LACs have far lower levels of youth unemployment than the rest of the city, with a significant gap evident between these two areas and the area with the next-lowest rate, Sheffield North. The data again highlights the levels of inequality in Sheffield between the neighbourhoods regarded as wealthier and the rest of the city. Significantly higher youth unemployment was experienced in the North East LAC (just under 14% in March 2021) than in the South West and Central LACs (just under 2%).

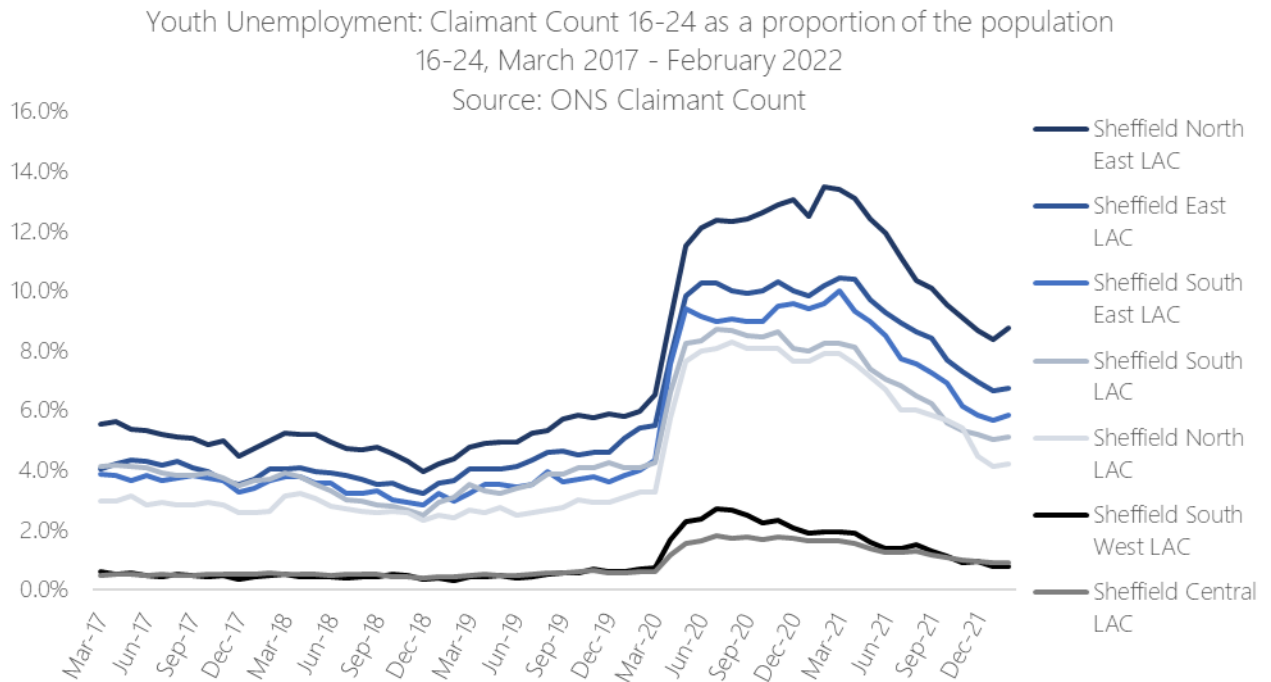


Figure 45: Young people claimant count rate and LAC.

The data also highlights the significant issues of high unemployment levels not only across Sheffield but also among youths, with the latter possibly linked to the lower levels of educational attainment among young people in certain parts of the city and the potential lack of appropriate employment opportunities for young people in the city.

In Sheffield, the unemployment rate for the ethnic minority population aged 16 and over was 19.6%, as of the year ending September 2021. This is significantly above the population-wide unemployment rate of 6.5% and the unemployment rate for the White population of 4.7% (a gap of 14.9 percentage points). This disparity exists across the country overall, however in Sheffield the gap has grown over the last five years (by 5.8 percentage points), whereas nationally it has remained relatively constant.

The income gap is larger still among the female population, with 26.8% of the ethnic minority female population in Sheffield unemployed, compared to 4.4% of the White female population, a gap of 22.4 percentage points (compared to 5.8 percentage points nationally).

Overall, the employment rates are lowest among the Pakistani and Bangladeshi population - as is the case nationally - although the employment rate in Sheffield is 15.1 percentage points lower than the national average. For women, the lowest employment rate is among the Indian population, while the equivalent for men is among mixed ethnic groups.¹¹⁹ The gap between men and women is widest in the Indian population and narrowest in the Black population.

HEALTH AND WELLBEING IS IMPACTING ECONOMIC ACTIVITY. THE GENDER INEQUALITY IN TERMS OF ECONOMIC INACTIVITY 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 health.¹²⁰

Poor health affects every aspect of life, whether it is the ability to enjoy life as a private individual, be creative, or contribute to society through work, caregiving, or volunteering one's time for the common good. Too many people, especially those from less advantaged areas, spend their fifties and sixties with health conditions that limit their everyday activities. People in the poorest parts of Sheffield are living shorter lives than those in the richest. Not only are widening health inequalities unjust, but they also present an urgent threat to prosperity as they affect productivity and public service demand. The problem is not an ageing society but the preventable loss of health. Some of the key building blocks of good health include financial security, good work, and affordable homes.

Health and deprivation are clearly linked, and inequalities in these areas are widening, with citizens in the most deprived areas having shorter lives, fewer years in good health, and higher rates of preventable mortality than those in the least deprived areas. Long-term unemployment negatively impacts people's mental and physical health, as does insecure, low-paid, poor-quality, or stressful work. People from marginalised groups are more likely to be unemployed or employed in low-quality work, so they are at greater risk of poor mental and physical health.¹²¹ Thus, unemployment is an important factor in why health inequalities are created and maintained. Reducing health inequalities is economically beneficial;

¹¹⁹ The ONS Annual Population Survey uses the following categories for ethnic groups: 'Mixed ethnic group'; 'Indian'; 'Pakistani/Bangladeshi'; 'Black or Black British'; 'Other ethnic group'.

¹²⁰ Marmot, M. (2020). *Health Equity in England: The Marmot Review ten years on*. [Available here](#). Pg 5.

¹²¹ Marmot, M. (2020). *Health Equity in England: The Marmot Review ten years on*. [Available here](#).

for example, it has been estimated that £30 billion could be generated annually through increased productivity if health levels in the north of England matched those of the rest of the country.¹²²

In the official statistics, economically inactive people are classified as 'not in employment' but not as 'unemployed' as they are not seeking work. The Annual Population Survey provides data on the reasons for economic inactivity. These reasons are categorised as studying; looking after the family/home; temporary sickness; long-term sickness (including disability); discouraged; and retired.

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

Inequality in economic activity rates affect demographic groups differently, but no more significantly in Sheffield than in the country as a whole. Table 21 below provides an overview of economic inactivity among different demographic groups.

The economic inactivity rate among those of working age is highest among the Pakistani and Bangladeshi population in Sheffield at 59.6%, compared to 35.8% nationally and 24.4% across Sheffield's overall population, with a particularly high inactivity rate among the female Pakistani and Bangladeshi population. Economic inactivity for the Pakistani and Bangladeshi population has risen significantly over the past five years, increasing from below the national average in 2015/16 to 21.1 percentage points above in 2020/21. The economic inactivity rate is lowest among the Black or Black British population in Sheffield at 18.2%, compared to 25.5% nationally and 24.4% across Sheffield's overall population.

Table 21: Ethnic minority economic inactivity rates.

	% of White people aged 16-64 who are economically inactive	% of ethnic minority people aged 16-64 who are economically inactive	% of White males aged 16-64 who are economically inactive	% of ethnic minority males of aged 16-64 who are economically inactive	% of White females aged 16-64 who are economically inactive	% of ethnic minority females of aged 16-64 who are economically inactive
Nottingham	21.4	24	18.7	23.5	24.3	24.5
Newcastle	22	35.5	19.3	20.8	25.2	48.3
Liverpool	21.6	24.1	20.4	16.4	22.8	32.7
Manchester	21.2	29.7	21	23.4	21.4	36.5
Bristol	19.2	30.2	17.1	26.8	21.3	33.4
Birmingham	23.4	33.1	22.6	26.1	24.2	40.3
Leeds	19.4	29.2	16.7	21.5	22.2	36.4
Sheffield	23.3	29.9	19.4	25.8	27.3	33.2
England	20.1	26.5	16.9	19.7	23.3	32.7

Source: ONS Annual Population Survey 2022

¹²² Thomas, C. (2021). *The Disease of Disparity*. [Available here](#).

RATES OF WORK-LIMITING DISABILITIES ARE HIGHER IN SHEFFIELD THAN THE NATIONAL AVERAGE.

People living with disabilities are less likely to be in employment than non-disabled people and were at 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 2022.¹²³ However, this aim has been criticised for its lack of ambition, and the progress made thus far has been due in part to the increased reporting of disabilities and increasing employment levels more generally.¹²⁴ Citizen’s Advice research found that nearly one and a half million disabled people are unemployed but want to work, yet they face challenges in the workplace: disabled people are twice as likely to stop work within a year and three times less likely to return to employment.¹²⁵ Clearly, more support is required to enable people with disabilities to enter and stay in paid work since their potential is currently being neglected. The Business Disability Forum stated 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”.

The percentage of the population with work-limiting disabilities in Sheffield has been consistently above the national average for several years, peaking in 2019 at 24.3%, as shown in Figure 46 below. Whilst this does not mean that all the affected individuals are out of work, it is a contributing factor to the amount of work that individuals can undertake and may limit the nature of this work. The figures reveal a drop in the number of people with work-limiting disabilities in 2020, bringing Sheffield more in line with the national average. This indicates a link with COVID-19, whereby fewer people did not present as having a work-limiting disability; otherwise, for those in work, flexible working arrangements and the furlough scheme may have resulted in more people being able to undertake their roles effectively from home.

% Population with work-limiting disabilities, 2015 - 2021

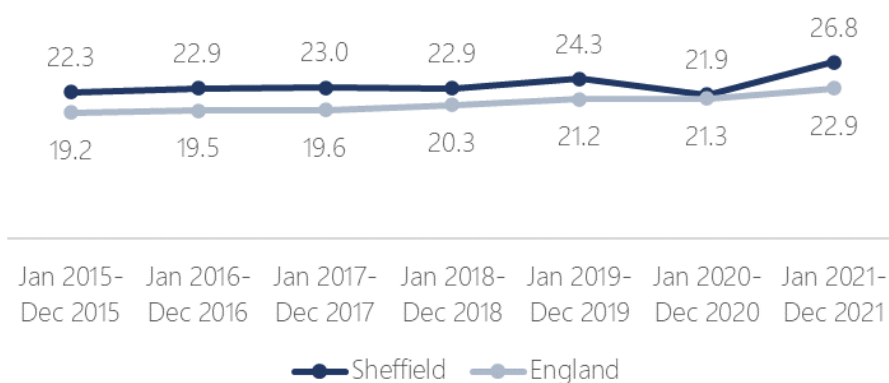


Figure 46: Rates of work-limiting disabilities. Source: ONS Annual Population Survey

Across Sheffield, 20,600 (or 5.3%) of the working-age residents claimed incapacity benefits, higher than the national rate of 4.4%. The unequal employment patterns reveal how those facing barriers to work

¹²³ <https://businessdisabilityforum.org.uk/media-centre/press-release/bdf-responds-government-announcement-1-million-disabled-people-in-work/>

¹²⁴ Work and Pensions Committee (2021). *Disability employment gap*. [Available here](#).

¹²⁵ Citizen’s Advice (2016). *Working with a health condition or disability*. [Available here](#).

are at risk of being economically left behind or excluded from the workplace. People with work-limiting disabilities (defined as Equality Act Core¹²⁶) may be at greater risk if they experience more barriers.

Table 22 below shows the percentage of unemployed people with work-limiting disabilities. Sheffield has remained consistently above the national average for several years, despite a significant drop to 4.2% in 2020. The percentage of unemployed people with such disabilities fell from 15.1% in 2015 to 9.4% in 2021, which is a positive step demonstrating that more people are finding that their disabilities are less likely to prevent them from accessing employment opportunities. Continued support in this area is required to educate employers and people with disabilities about the opportunities that may be available to the latter, even if they have a known disability.

The proportion of men unemployed as a result of a work-limiting disability is consistently higher than that of women across the time series used, although the percentage of men stating they are unable to work as a result of a disability reduced by 8.9% between 2015 and 2021. The figures for women have fluctuated over time, peaking at 13.2% in 2018. By 2020, the percentage of females unemployed as a result of a work-limiting disability had reduced to 8.4%, although this remained above the national average of 6.3%.

Amongst those with work-limiting disabilities in Sheffield, unemployment stands at 9.4%, above the national average of 7.5%. Although unemployment in Sheffield has displayed a positive trend, falling from 15.1% five years ago. The proportion of men that are unemployed as a result of a work limiting disability is consistently higher than women. The percentage of men stating that they are unable to work as a result of a disability has reduced from 19.8% to 10.9% between 2015 and 2021. For women the figures fluctuate, peaking at 13.2% in 2018 and reducing to 8.4% by 2021, compared to the national average of 6.3%. Figure 47 illustrates these differences.

Table 22: Percentage of unemployed population with work-limiting disabilities.

	Percentage of unemployed in Sheffield with work-limiting disabilities			Percentage of unemployed in England with work-limiting disabilities		
	All aged 16-64	Males aged 16-64	Females aged 16-64	All aged 16-64	Males aged 16-64	Females aged 16-64
Jan 2015-Dec 2015	15.1	19.8	11.0	10.0	11.1	9.1
Jan 2016-Dec 2016	11.4	19.1	5.2	8.9	9.9	8.0
Jan 2017-Dec 2017	8.8	10.8	7.5	8.2	9.5	7.1
Jan 2018-Dec 2018	12.7	12.0	13.2	8.3	9.6	7.3
Jan 2019-Dec 2019	9.3	9.7	9.0	7.0	8.3	5.9
Jan 2020-Dec 2020	4.2	!	6.1	7.9	9.4	6.7
Jan 2021-Dec 2021	9.4	10.9	8.4	7.5	9.0	6.3

Source: ONS Annual Population Survey 2022

¹²⁶ Those who have a long-term disability which substantially limits their day-to-day activities.

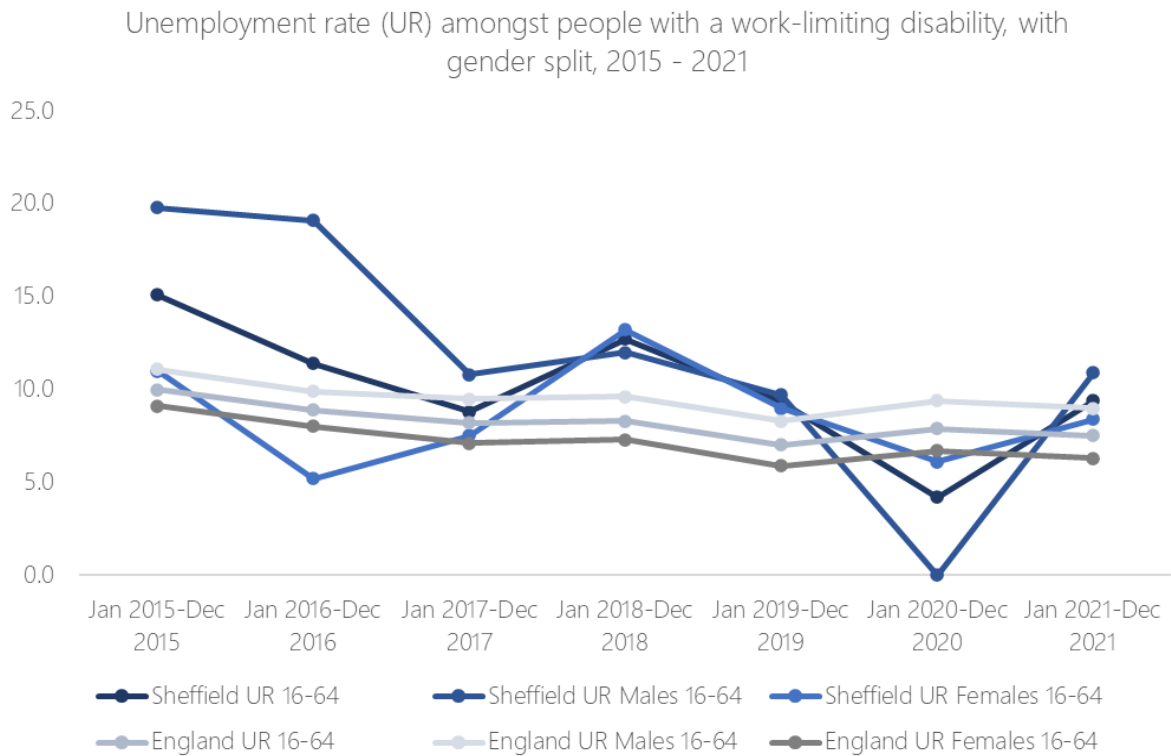


Figure 47: Unemployment rates amongst people with work-limiting disabilities. Source: ONS Annual Population Survey 2022

PAY INEQUALITIES WITHIN THE CITY ARE GROWING, INCLUDING THOSE RELATED TO GENDER.

The recent minimum wage rises have 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 benefit from an increased minimum wage. The young, women, people from ethnic minority communities, and people with disabilities are all at greater risk of low pay. Poorly 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 insecurity.¹²⁷ Due to the cost-of-living crisis, real household disposable incomes will reduce this year because the wage increases do not match inflation. Rising costs are impacting the poorest households the most. For example, since the energy price increase in April 2022, low-income households have been spending 18% of their income after housing costs on energy bills.¹²⁸ Research¹²⁹ indicates that the rise in inflation has impacted women more due to their low-paid roles and spending commitments, as well as the gendered expectations surrounding household shopping. Compared to men, women also spent more time on unpaid work (i.e. childcare) and less time on paid work during the pandemic, while being at a greater risk of job losses or furlough.

The gap between the lowest and highest earners living in Sheffield grew in absolute terms from 2017 to 2021, based on the weekly earnings shown in Table 23 below and the trends shown in Figure 48. In Sheffield, the 10% of residents earning the least have a gross weekly median pay of under £167.20, according to the ONS Annual Survey of Hours and Earnings. This represents an increase of £22.10 since

¹²⁷ Cominetti, N. et al. (2022). *Low Pay Britain 2022*. [Available here](#).

¹²⁸ Joseph Rowntree Foundation (2022). *Rising energy bills to 'devastate' poorest families*. [Available here](#).

¹²⁹ Living Wage Foundation (2022). *Low paid work and the cost-of-living crisis disproportionately affecting women*. [Available here](#).

2017. In contrast, the 10% of residents with the highest pay earn over £992.70 per week, an increase of £129.10 since 2017.

Table 23: Gross weekly warnings for Sheffield residents of working age.

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

Source: Annual Survey of Hours and Earnings (2021)

The pay differential between the lowest and highest 10% of earners grew from £718.50 in 2017 to £825.50 in 2021 (see Figure 48).

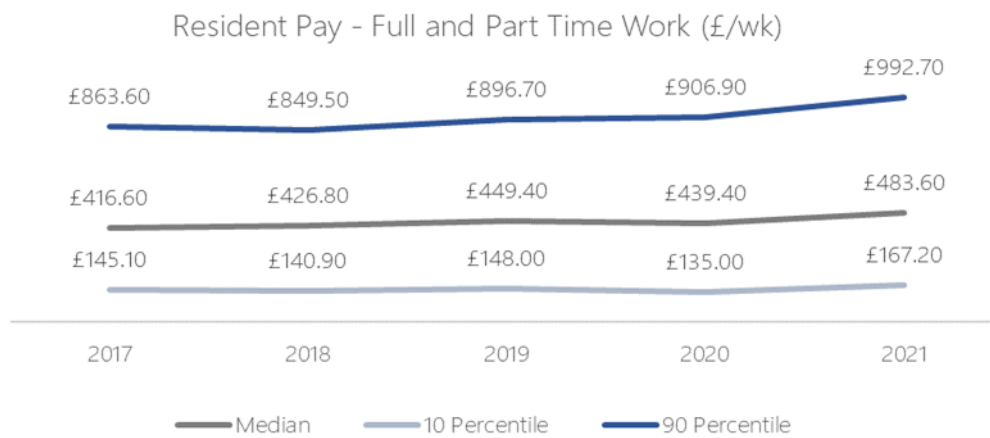


Figure 48: Gross weekly warnings for all Sheffield residents of working age (2017-2021). Source: ONS Annual Survey of Hours and Earnings (2021).

There are income inequalities between men and women, as shown in Figure 49. In terms of full- 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, with their wages rising to an average of £377.50. The pay differential between men and women also grew from £155.10 per week in 2017 to £195.70 in 2021.

Compared to the national average, more women in Sheffield earn below the living wage, with 35% of women working part-time in the city and 17% of those working full-time earning less than the living wage (whereas the national rates are 31.7% and 13.2%, respectively).

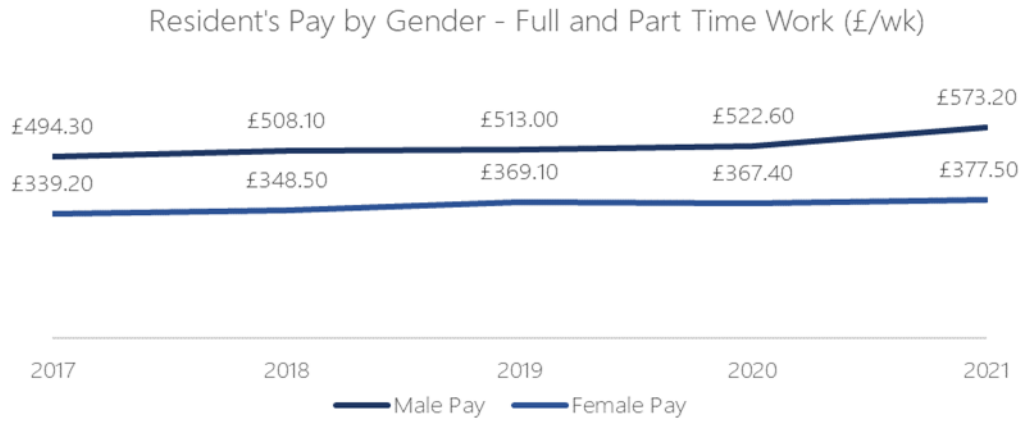


Figure 49: Median gross weekly pay (full- and part-time) by gender. Source: Annual Survey of Hours and Earnings (2021).

At £568.50, full-time workplace earnings in Sheffield were £27.90 below the Core City average in 2021 (see Figure 50). This gap between Sheffield's workplace earnings and the Core City average had grown from the £5.20 gap in 2018.

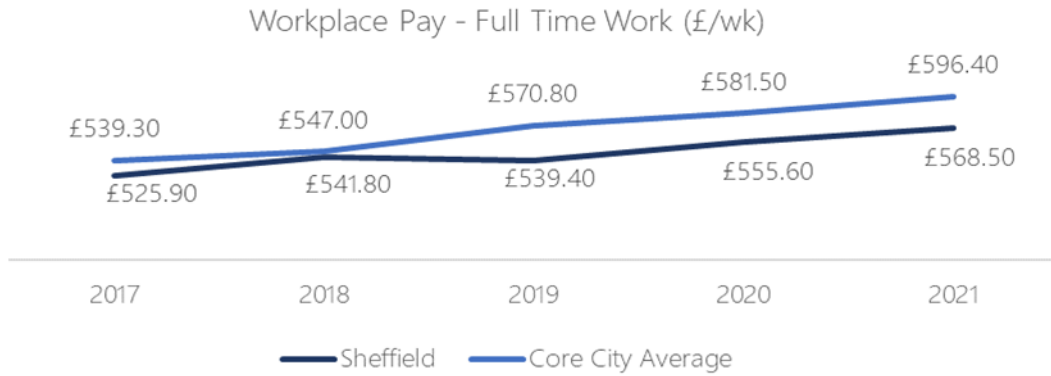


Figure 50: Median gross workplace weekly pay (full-time) in Sheffield and Core Cities, 2017-2021. Source: Annual Survey of Hours and Earnings (2021).

In 2021, earnings for Sheffield residents working full-time were £27.10 above the Core City average, a major reversal from 2020, when they were £10.10 below the Core City average (see Figure 51). This may indicate that an increasing number of high-earners were moving to live in Sheffield during the COVID-19 pandemic and the ensuing lockdown but they were not working in the city.

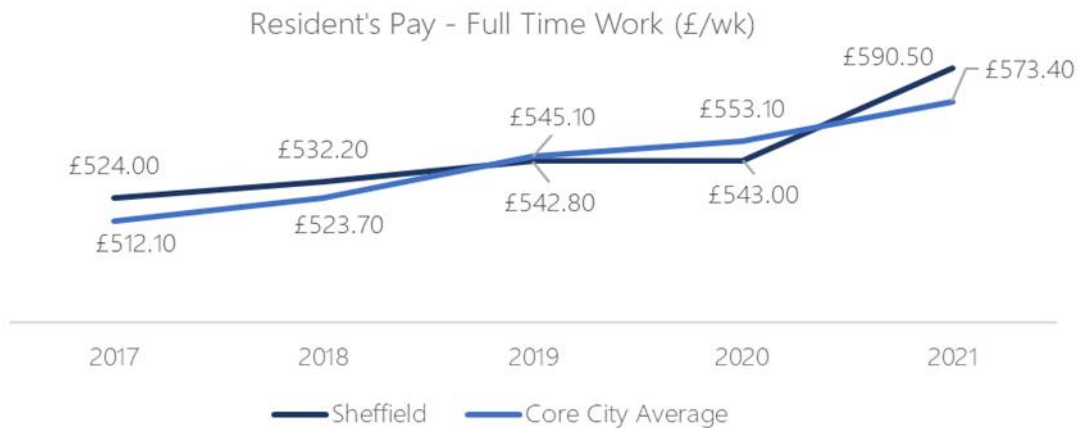


Figure 51: Median gross residence weekly pay (full-time) in Sheffield and Core Cities, 2017-2021. Source: Annual Survey of Hours and Earnings (2021).

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 Northern Health Science Alliance report¹³⁰ *'Health is Wealth'* highlights the strong influence of health on productivity and how improving health outcomes could reduce the productivity gap between the North and the rest of England. The report notes how reducing the scale of ill health leads to higher employment levels, lower economic inactivity, and a higher GVA per head. Measures of health include Life Expectancy, Healthy Life Expectancy and Years of Life Lost.

- **Life expectancy:** Life expectancy at birth is the average number of years that would be lived by babies born in a given time period if mortality levels at each age remain constant. Similarly, life expectancy at age 65 is the average number of remaining years of life that a man or woman aged 65 will have if mortality levels at each age over 65 remain constant.
- **Healthy life expectancy:** Healthy life expectancy at birth is an estimate of the average number of years that babies born in the current year would live in a state of 'good' general health if levels of mortality and good health at each age remain constant in the future. Similarly, healthy life expectancy at age 65 is the average number of remaining years in which a man or woman aged 65 will live in 'good general health' if levels of mortality and good health at each age beyond 65 remain constant in the future. The healthy life expectancy measure adds a 'quality of life' dimension to life expectancy estimates by dividing the latter measure into time spent in different states of health.
- **Years of Lost Life:** Years of life lost (YLL) is a measure of premature mortality that takes into account the frequency of deaths and the age at which death occurs. YLL is expressed per 100,000 population. YLL, which is calculated from the number of deaths multiplied by a global standard life expectancy at the age at which death occurs, determines how many years of life have been lost in comparison to the national average.

The key ONS physical health indicators use data on respiratory disease, coronary heart disease, circulatory disease, strokes, and cancer as indicators of public health; these conditions are interrelated with deprivation. Compared to the national average, Sheffield has higher rates of death from 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) as well as lost productivity. On economic grounds alone, this would justify prioritising health policies and interventions to prevent sudden unexpected deaths.

According to the most recent ONS Health Index, the analysis of specific health conditions shows that 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' (see Figure 52).¹³¹ Sheffield performs better across most of these health measures than the other Core Cities, demonstrating that the city is healthy by the standards of English cities.

¹³⁰ Bambra, Munford, Brown et al. (2018). *Health for Wealth: Building a Healthier Northern Powerhouse for UK Productivity*, Northern Health Sciences Alliance, Newcastle. [Available here.](#)

¹³¹ Higher values indicate better health. A score of 100+ indicates better health than the 2015 English average.

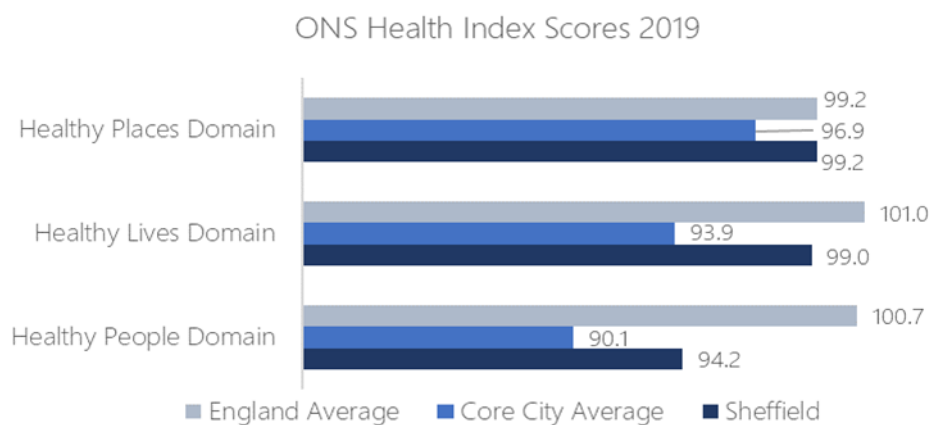


Figure 52: ONS Health Index (2019) for Sheffield, Core Cities, and England.

Table 24 shows that life expectancy at birth for both men and women in Sheffield is marginally below the national average. It has fallen over the past five years, while the national rate has remained fairly constant. Sheffield performs relatively well compared to the other Core Cities, having the highest male life expectancy at birth and the second-highest female life expectancy at birth, with Bristol ranked first.

Table 24: Life expectancy at birth, 2018-20.

	2018-20		Change since 2013-15	
	Female	Male	Female	Male
Sheffield	82.37	78.57	-0.16	-0.15
Birmingham	81.75	77.11	-0.18	0.01
Bristol	82.69	78.49	-0.03	0.05
Leeds	81.75	77.81	-0.36	-0.44
Liverpool	79.87	76.11	-0.54	-0.25
Manchester	79.86	75.45	0.06	-0.13
Newcastle	81.64	77.31	0.13	-0.45
Nottingham	81.02	76.58	-0.36	-0.19
England	83.14	79.40	0.03	-0.06

Source: Office for Health Improvement and Disparities. *Fingertips Public Health Profiles, 2022*

Although life expectancy at birth fell marginally in Sheffield over the five-year period of 2013-15 to 2018-20 for both men (-0.15 years) and women (-0.16), healthy life expectancy at birth rose over the same time period for both men (+3.53 years) and women (+4.41).

Healthy life expectancy (HLE) in Sheffield is comparable to the national average and the highest among the Core Cities. Sheffield's HLE at birth has also improved over the past five years, despite a marginal nationwide decline.

As shown in Table 25, the latest published data for 2018-2020 is separated by gender and does not provide a combined figure. HLE expectancy for women in Sheffield is 64.3, whereas the rate for men is 62.5. Healthy life expectancy for women is above the national average and the highest among the Core Cities. For men, healthy life expectancy is below the national average but the highest of the Core Cities.

In Sheffield, healthy life expectancy has risen since 2015-2017, with the city having the second-highest improvement amongst the Core Cities, behind Manchester. However, the latter still underperforms compared to the national average, compared to Sheffield and Leeds for men, and compared to Sheffield, Leeds, Bristol, Newcastle, and Birmingham for women.

Table 25: Healthy life expectancy at birth, 2018-20.

	2018-20		Change since 2013-15	
	Female	Male	Female	Male
Sheffield	64.29	62.54	4.41	3.53
Birmingham	60.23	59.17	0.90	0.79
Bristol	61.50	59.83	-2.94	0.01
Leeds	63.93	61.39	1.92	0.22
Liverpool	57.87	58.34	0.11	0.76
Manchester	59.70	61.24	4.09	5.67
Newcastle	60.71	60.84	-0.33	1.83
Nottingham	57.05	57.42	-0.21	0.73
England	63.87	63.14	-0.19	-0.24

Source: Office for Health Improvement and Disparities. *Fingertips Public Health Profiles, 2022*

However, overall life expectancy¹³² in Sheffield ranges from 75.0 for men and 77.8 for women in Burngreave Ward in the North East to 83.8 for men and 89.2 for women in Ecclesall Ward in the South East. In fact, there is an 8.8-year difference in life expectancy for men and an 11.4-year difference for women between areas considered more affluent and those deemed more deprived

The LACs have different HLE levels when a stricter definition of 'very good health' is used (the only data available at this geographic level). For 2017-20, the difference between the North East LAC and the South West LAC was 15 years for females and 14 years for males. Closing these gaps could affect the city's economic performance, increasing the percentage of the local population who are and healthy and able to continue working.

INEQUALITY IN MENTAL HEALTH IS CONTRIBUTING TO ECONOMIC INEQUALITY.

A survey by Sheffield Flourish¹³³ found that 60% of the participants reported a deterioration in their mental health during COVID-19, but most had not pursued support for this. The main concerns were isolation and fears for 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 poorer mental health. The main reasons for this were feelings of separation, anxiety, and isolation.¹³⁴ For people with existing mental health conditions, the pandemic has further damaged their mental health, heightening their anxiety, isolation, and concerns about the future.

Notably, those receiving social security were more likely to report worsening mental health during the pandemic and to have experienced poor mental health previously, thus reinforcing the existing health inequalities. Young people have also been disproportionately impacted, with 88% reporting that loneliness had damaged their mental health. Research among people with long-term mental health difficulties found that COVID-19 had removed vital forms of support and destabilised their recovery. The study noted how the pandemic could intensify the existing employment, education, and housing inequalities experienced by people with long-term mental health conditions. Thus, whilst COVID-19 has harmed the mental health of many, the most vulnerable have been the most severely affected, which

¹³² Healthy Life Expectancy is not available at LSOA or LAC level.

¹³³ Sheffield Flourish (2020). *Impact of COVID-19 on Mental Health and Wellbeing: Survey Results*. [Available here](#).

¹³⁴ British Association for Counselling and Psychotherapy (2021). *75% of people say their mental health has been impacted by the pandemic*. [Available here](#).

will likely cement pre-existing inequalities. Research is increasingly demonstrating the link between mental health and money issues, which have been exacerbated by the impacts of COVID-19. Research found that during COVID-19, people with mental illness were more likely to incur higher debts and be financially insecure. Of those with mental health difficulties, 35% used credit during the pandemic to pay for essentials such as food and heating. People with mental illness were three times more likely to miss a payment in a year than the general population. For example, 18% missed an energy payment, compared to the figure of 5% among those without mental illness.

Mental health and productivity are clearly linked,¹³⁵ so it is worrying that Sheffield has a Mental Health Index score of 57.2,¹³⁶ 14.6 points higher than the national score of 42.6. Of the Sheffield residents with depression, learning difficulties, mental health problems, or nervous disorders, 52.7% are economically inactive, compared to the inactivity rate of 35.9% among Sheffield's over-16 population.

People with mental health conditions report numerous barriers to employment. These include the discriminatory attitudes of employers, low expectations of health professionals, and ineffective models of supported employment.

Unemployment and mental health have a mutually causal link. Good mental health is a key influence on employability, finding a job, and remaining in that job, while people with mental health problems are far less likely to be in paid employment. Conversely, unemployment can have negative consequences on mental health as a result of financial hardship; insecurity and reduced future earnings potential; heightened stress; and reduced self-esteem leading to long-term physiological health effects like depression and anxiety. In addition, the social security system can have a negative impact on mental health through the claims process, work capability testing, and job search conditions.

In January 2021, 43% of unemployed people in the UK had poor mental health, a greater proportion than among people in employment (27%) and those on furlough (34%). Duration has been shown to exacerbate the health consequences of unemployment, in terms of mental health, life satisfaction, and physical health. Research suggests that youth unemployment and multiple spells of unemployment cause long-term mental health scarring during the course of one's life.

However, moving from unemployment into poor-quality work can adversely impact mental health, so increasing employment alone cannot be relied on to support improvements in the population's mental health. Employment programmes should be designed to support better mental health, with personalised interventions for people with mental health problems. There should be a focus on securing good-quality work, as well as skills training to address the underlying barriers to employment (such as low levels of qualifications).

Sheffield has a marginally higher prevalence of depression and serious mental illness than the national average, while this rate is average for the Core Cities in England. Economic inactivity and unemployment among those over 16 with depression, learning difficulties, mental health problems, or nervous disorders may have fallen in Sheffield over the past five years, but the rate remains high.

As of the year ending September 2021, 52.7% of those with depression, learning difficulties, mental health problems, or nervous disorders were economically inactive in Sheffield, compared to an inactivity rate of 35.9% across Sheffield's over-16 population as a whole. This was 4.7 percentage points higher than the national average and the third-highest rate amongst the Core Cities (see Figure 53).

¹³⁵ <https://mhpp.me/employers/research/>

¹³⁶ This score is calculated using NHS Digital data, with a higher score indicating a greater prevalence.

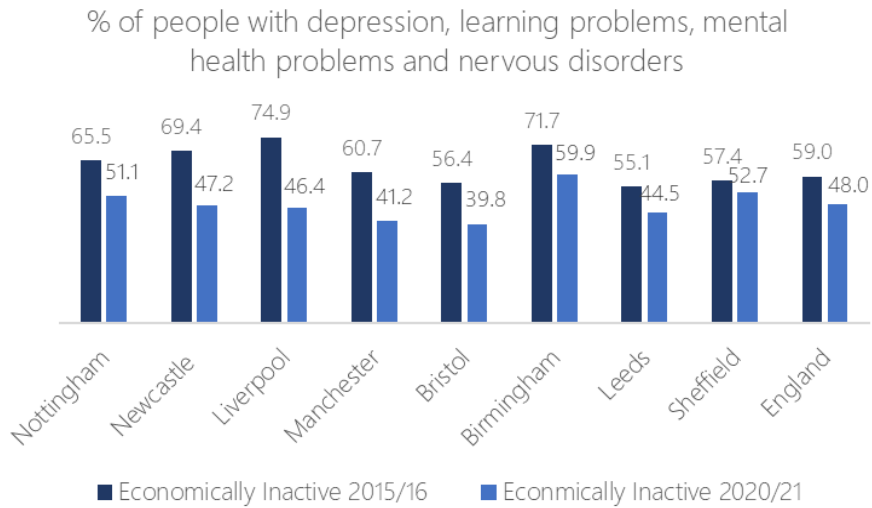


Figure 53: Economic inactivity of people with depression, learning problems, mental health problems, and nervous disorders. Source: ONS Annual Population Survey 2022

In addition, this group has a higher unemployment rate in Sheffield (6.5%) than across England (5.3%) but the third-lowest unemployment rate among the Core Cities (see Figure 54). Conversely, therefore, the group has the third-lowest employment rate (see Figure 55).

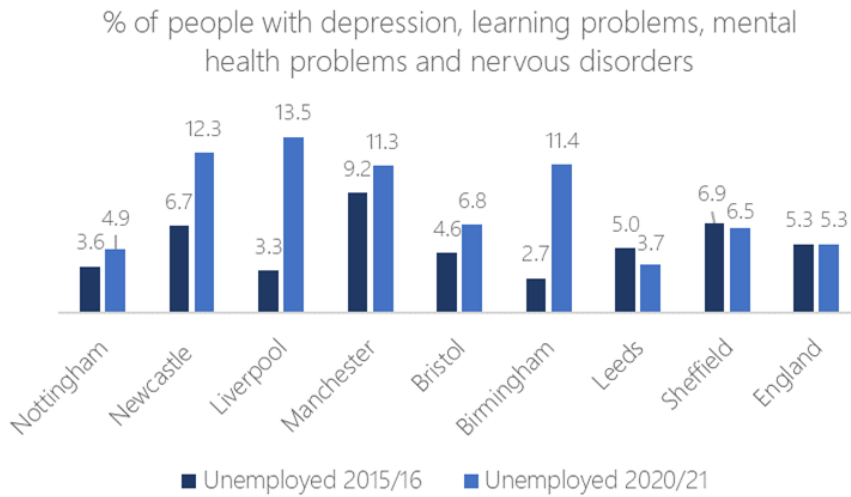


Figure 54: Unemployment of people with depression, learning problems, mental health problems, and nervous disorders. Source: ONS Annual Population Survey 2022

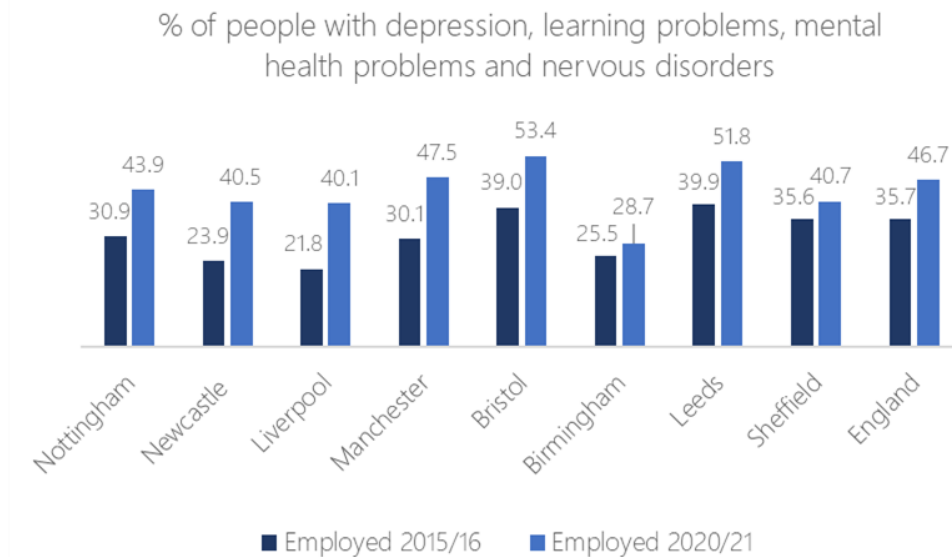


Figure 55: Employment of people with depression, learning problems, mental health problems, and nervous disorders. Source: ONS Annual Population Survey 2022

However, unemployment among this group is equal to the rate across Sheffield's over-16 population as a whole. Meanwhile, for the UK and the Core Cities, the unemployment rate among those with depression, learning difficulties, mental health problems, or nervous disorders is above the population-wide average.

Between 2012 and 2018,¹³⁷ the number of Employment and Support Allowance (ESA) claimants for mental and behavioural disorders more than doubled in Sheffield, with the rate per 1,000 of the working-age population rising from 15.4 to 34.8. This aligns with the national trend, although the rate in Sheffield of 34.8 per 1,000 working-age residents remains above the rate for England overall, 27.3 per 1,000.

Such issues have severe economic impacts since many people with mental illnesses (such as depression and anxiety) or learning difficulties either do not work or struggle with their employment attendance. To encourage more people from this group to access employment opportunities, employers and individuals must be supported so they can better understand such conditions and how to manage them so that the concept of work is neither overwhelming nor difficult.

In some parts of Sheffield, rates of depression are 40% higher than the national and Core 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 the averages for both Sheffield (12.0%) and overall England (11.7%).

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). Figure 56 shows that in Sheffield, the average happiness level 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.

A city's 'happiness' score provides a useful measure of resident wellbeing to supplement other measures (income and labour market outcomes, for instance). Between 2019/20 and 2020/21, there was a reduction in the number of Sheffield residents with positive levels of life satisfaction and happiness, as well as an increase in the number of residents experiencing anxiety, indicating the impact of COVID-19 on mental

¹³⁷ This is the best available data for ESA claimants due to the introduction of Universal Credit.

health and wellbeing. Happiness levels in Sheffield dropped relatively significantly during this time, further than the falls nationwide and in the Core Cities.

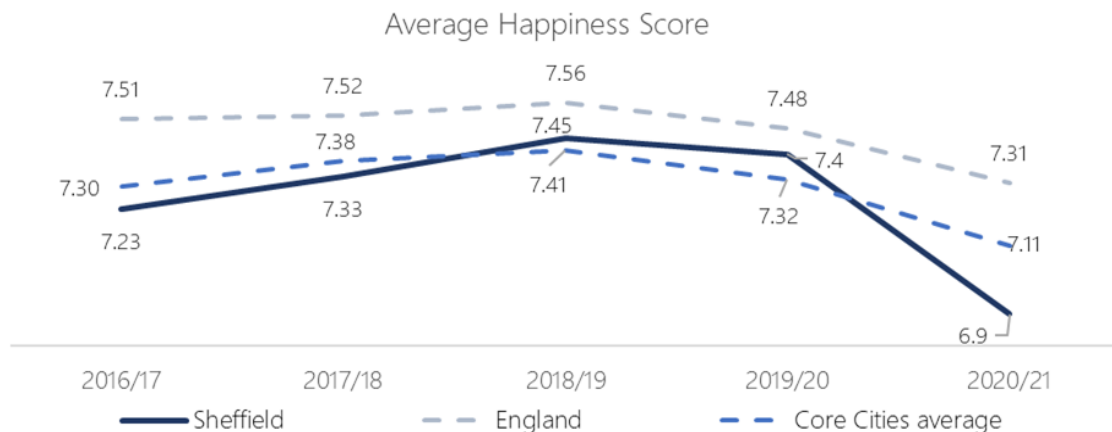


Figure 56: Average happiness score for Sheffield, Core Cities, and England. Source: ONS Personal Wellbeing in the UK (2021).

Examining the happiness scores in more detail, Table 26 highlights that average life satisfaction in Sheffield is consistently lower than the national average and the average amongst the Core Cities, whose average life satisfaction levels have all fallen over the last five years. However, Sheffield experienced one of the largest decreases (-0.46) between 2016/17 and 2020/21, comparable to those of Leeds (-0.46) and Bristol (-0.48).

Table 26: Life satisfaction ratings for Core Cities from 2016/17 to 2020/21. "Overall, how satisfied are you with your life nowadays? Where 0 is 'not at all satisfied' and 10 is 'completely satisfied'.

	2016/17	2017/18	2018/19	2019/20	2020/21	Variance between 16/17 and 20/21
ENGLAND	7.68	7.68	7.71	7.66	7.38	-0.3
Sheffield	7.59	7.48	7.73	7.63	7.13	-0.46
Newcastle	7.53	7.53	7.59	7.36	7.29	-0.24
Manchester	7.45	7.42	7.53	7.54	7.12	-0.33
Liverpool	7.37	7.52	7.5	7.48	7.11	-0.26
Leeds	7.74	7.71	7.76	7.55	7.28	-0.46
Nottingham	7.38	7.42	7.49	7.39	7.12	-0.26
Birmingham	7.59	7.55	7.69	7.47	7.2	-0.39
Bristol	7.63	7.52	7.53	7.49	7.15	-0.48

Source: ONS Headline estimates of personal wellbeing from the Annual Population Survey 2021

Average ratings for the feeling that life is worthwhile have decreased in all the Core Cities except Nottingham, which experienced a minor increase. Once again, Sheffield show paed the greatest drop between 2016/17 and 2020/21, with a -0.3 decrease in the feeling that life is worthwhile (see Table 27).

Across all the Core Cities, anxiety levels have increased, as shown in Table 28. The levels were decreasing until 2018/19 before sharply increasing in the following years, presumably as a result of the pandemic and the subsequent stresses caused to daily life. Birmingham has seen the largest increase in anxiety levels (0.71) of the Core Cities, with Nottingham, Sheffield, and Liverpool also experiencing high increases across this period.

Table 27: Worthwhile ratings for Core Cities between 2016/17 and 2020/21. 'Overall, to what extent do you feel the things you do in your life are worthwhile? Where 0 is 'not at all worthwhile' and 10 is 'completely worthwhile'.

	2016/17	2017/18	2018/19	2019/20	2020/21	Variance between 2016/17 and 2020/21
ENGLAND	7.86	7.88	7.88	7.86	7.71	-0.15
Sheffield	7.69	7.76	7.87	7.89	7.39	-0.3
Newcastle	7.63	7.64	7.73	7.57	7.63	0
Manchester	7.63	7.69	7.75	7.75	7.53	-0.1
Liverpool	7.73	7.76	7.72	7.76	7.44	-0.29
Leeds	7.88	7.99	7.93	7.72	7.71	-0.17
Nottingham	7.6	7.64	7.57	7.61	7.66	+0.06
Birmingham	7.78	7.73	7.72	7.71	7.7	-0.08
Bristol	7.65	7.58	7.64	7.66	7.47	-0.18

Source: ONS Headline estimates of personal wellbeing from the Annual Population Survey 2021

Table 28: Average anxiety rating across Core Cities between 2016/17 and 2020/21. 'Overall, how anxious did you feel yesterday? Where 0 is 'not at all anxious' and 10 is 'completely anxious'.

	2016/17	2017/18	2018/19	2019/20	2020/21	Variance between 2016/17 and 2020/21
ENGLAND	2.91	2.90	2.87	3.05	3.31	0.40
Sheffield	3.09	3.00	3.00	3.30	3.74	0.65
Newcastle	3.03	3.17	2.89	3.52	3.54	0.51
Manchester	3.37	2.85	3.01	3.04	3.52	0.15
Liverpool	3.00	2.94	2.81	3.20	3.65	0.65
Leeds	3.24	2.98	2.94	3.14	3.70	0.46
Nottingham	3.08	3.09	3.19	3.65	3.75	0.67
Birmingham	2.83	2.86	2.72	3.00	3.54	0.71
Bristol	3.21	3.12	3.41	3.21	3.61	0.40

Source: ONS Headline estimates of personal wellbeing from the Annual Population Survey 2021

FAIRER CITY SUMMARY AND POLICY IMPLICATIONS

To summarise:

- The pandemic has deepened pre-existing inequalities for key groups, including women and some ethnic minority communities.
- Hidden employment suggests that employers can do more to offer appropriate employment opportunities for people with disabilities and those facing mental health challenges (with post-pandemic working practices creating many new opportunities across many sectors), which would better enable individuals to seek such opportunities and thrive at work.
- The city's happiness levels appear to be worse than those of its peers and, moreover, to be declining. This is important because "happy people are more successful in multiple life domains, including marriage, friendship, income, work performance, and health".¹³⁸
- 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, producing more uneven outcomes and reducing social mobility. The evidence of increasing child poverty indicates the potential for this inequality to widen further.

¹³⁸ Accessed 11th May 2022 from Positive Psychology. Available [here](#).

- 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 that housing inequalities and affordability challenges could increase.

Examining the data, several potential policy implications could be introduced to address the various forms of inequality:

- A range of measures (thus, a multi-agency approach) is required to combat the disproportionate effects of COVID-19 on certain groups, including women, ethnic minorities, and those with special educational and neurodiverse needs (the Sheffield Neurodevelopment Transformation Programme started in June 2020, with the ambition to improve services and better meet the needs of children with neurological conditions). Better childcare and flexible working for parents, as well as equal pay and menopausal awareness for women, would help to ensure a more gender-equal recovery.¹³⁹ As more women go through menopause during their working lives, it is vital that employers encourage open discussions to ensure they obtain the appropriate support.
- 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. The voluntary and community sector can play a key role by identifying and delivering innovative and local solutions.
- Existing and new measures will be required to ensure that 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 outlined in the Sheffield Tackling Poverty Framework 2020-2030 to reduce the high incidence of deprivation in some local areas. Community wealth building can play a key role in tackling inequality and poverty through local solutions. This will ensure the wealth in a place continues to circulate and work for the community rather than leak away.
- Sheffield should continue to offer sufficient affordable housing for sale or rent to those whose needs are not met by the market. Features could include affordable housing for rent, starter homes, and affordable routes to home ownership.
- Sheffield partners such as the Council and Chambers could support employers to become living-wage employers, which would help to mitigate the effects of the cost-of-living crisis. For instance, the council and other major procurement organisations could help to promote social value objectives more systematically and effectively, while economic development officers could decline to support inward investors who proliferate poor conditions or low pay. The drivers of low pay in Sheffield and why this should be a major concern must be better understood.

¹³⁹ <https://www.kcl.ac.uk/giwl/research/essays-on-equality-covid-19-road-to-gender-equal-recovery-2021>



LIVEABLE CITY

ELHAM ISLAND MUSEUM

CRAFT DOOR

5) LIVEABLE CITY

The environmental quality and access to nature are important for Sheffield citizens' wellbeing and the city's economic health. Green infrastructure in Sheffield's rural and urban areas can help to protect people and businesses from the impacts of climate change. However, more must be done to enable and encourage people to travel sustainably and carbon-free on their everyday journeys. Poor housing quality and energy efficiency pose a risk to wellbeing, increase fuel poverty, and hamper the efforts to reduce GHG emissions.

Sheffield has a considerable volume of old urban housing with relatively poor energy efficiency levels and for which retrofitting is difficult. Meanwhile, in the more peripheral suburbs, sustainable transport options are more limited compared to those in the city centre. These represent significant challenges that must be addressed. In just transition, all residents need to be taken on the journey to net zero, with vulnerable/low-income residents requiring protection due to the associated costs. This means providing support to all residents who need it when they adopt cleaner transport and improve the efficiency and carbon footprint of their homes.

In terms of how people move around the city, the pandemic has resulted in people travelling less across the city as a whole. However, concentration of industrial activity in parts of the city Sheffield's economy means that road traffic volumes in some areas rose during the pandemic and have continued to do so, particularly in east Sheffield. Transport emissions contribute to concentrations of poor air quality in east Sheffield, primarily those communities already facing worse health outcomes.

Mirroring health and wellbeing inequality 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 existing health inequalities and health-related worklessness. Fuel poverty is more prevalent in the North East and East LACs, primarily due to economic poverty, although the East LAC also has the highest proportion of homes with poor energy efficiency.

Sheffield is rightly proud of its extensive greenspace, which is said to comprise the highest proportion in terms of area of any city in the world. In addition to this, Sheffield's 4.5 million trees mean there are more trees per person than in any other European city. Access to greenspace can provide a resource that helps to address wellbeing and mental health challenges. Therefore management, maintenance and enhancing of green infrastructure in a way that increases its benefits is important. Similarly, improvements to the green infrastructure in the city centre, as well as the natural flood defences and carbon capture in the Peak District, provide important allies against climate change, protecting homes and businesses while reducing the city's carbon footprint.

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, which may subsequently exacerbate fuel poverty. Poverty, housing, and health have a circular relationship.

Housing is becoming less affordable in Sheffield, but housing affordability remains a relative strength compared to the situation in England and the Core Cities. Despite this strength, if housing costs continue to rise without addressing poverty and economic inequality then relative poverty may increase and inequalities widen.

The housing affordability ratio for Sheffield has been increasing year-on-year since 2016, as illustrated in Figure 57 below. The ratio typically corresponds to the national trend for wage increases to be followed by higher residential property values. Significant increments occurred between 2016 and 2017 and between 2020 and 2021, the latter linked to the fewer housing transactions that were completed during COVID-19 restrictions as people were unable to go and view houses. This led to a massive increase in house sales once restrictions had been lifted, causing an uplift in prices and thus a widening gap between earnings and house affordability.

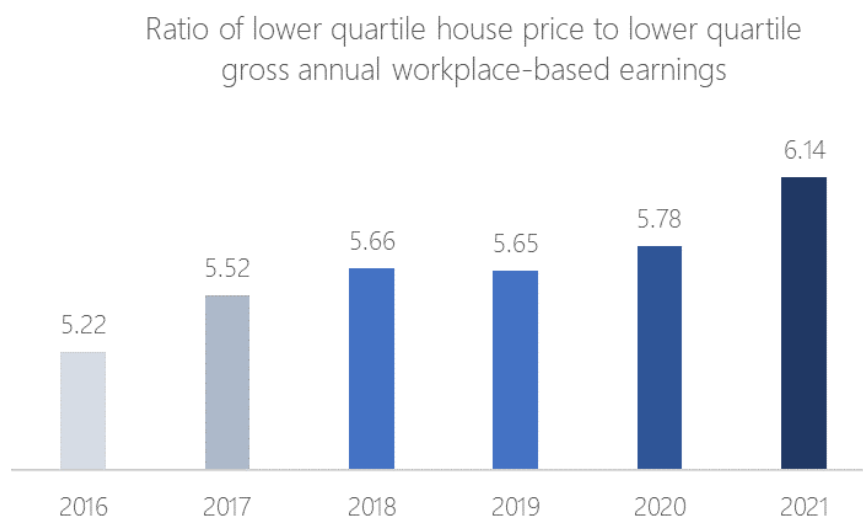


Figure 57: Housing affordability ratio for Sheffield, 2016-2021. Source: ONS ratio of house price to workplace-based earnings 2021

Figure 58 below shows that since 2016, housing has become less affordable in Sheffield, with the ratio of median house prices to median earnings increasing by 0.92 (18%) to 6.1. However, using this measure, housing remains significantly more affordable than the national average of 9.05, which is skewed by high house prices in London and the South East. The national average after removing London and South East is 8.04.

The gap in housing affordability compared to the national average is driven mainly by lower house prices rather than lower incomes. However, as in many cities, higher and less affordable prices in parts of Sheffield means housing is a continued driver of inequality. In 2021, the average house price paid in Sheffield was £182,000, compared to £285,000 nationally. A real positive for Sheffield, this can be used to attract and retain workers in the city, who will be able to afford better-quality housing for their budget.

Housing Affordability Ratio, 2021
 Source: ONS ratio of house price to residence-based earnings

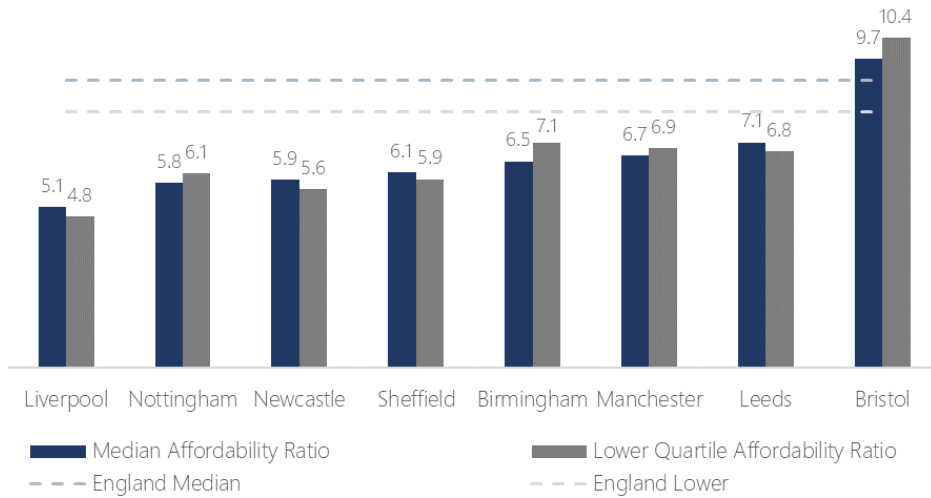
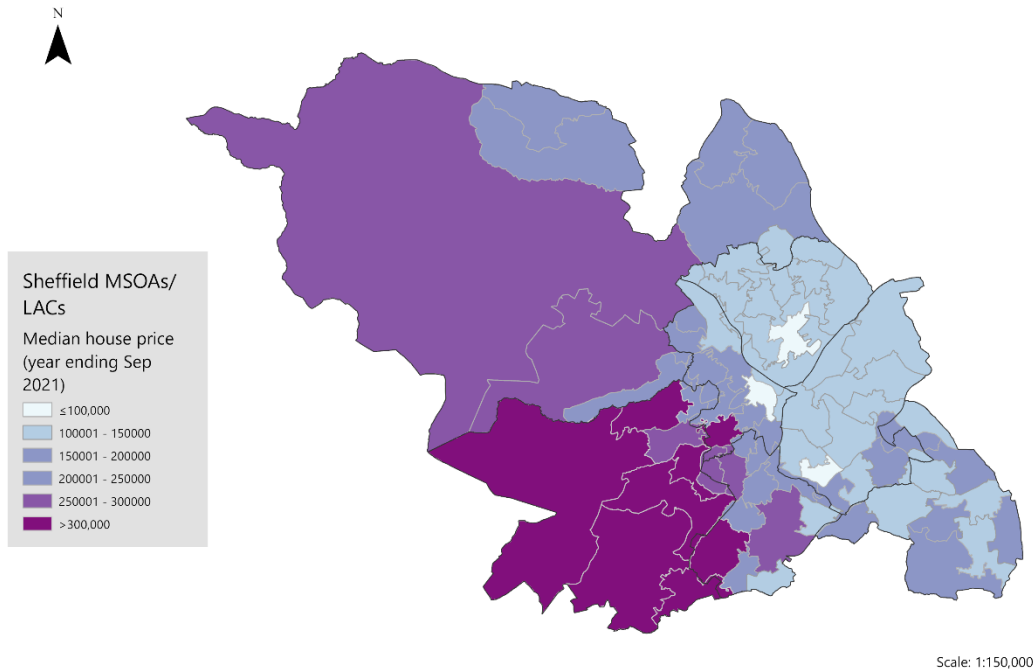


Figure 58: Housing affordability ratio for Sheffield and Core Cities, 2021.¹⁴⁰

The following maps display, firstly, the median house prices for the year ending September 2021 and, secondly, the IMD housing affordability indicator for 2019 for Sheffield at the MSOA and LSOA levels. As Map 10 shows, the highest house prices are located in the west of Sheffield, particularly in the South West LAC, with median prices there exceeding £300,000. The lowest house prices (as low as £83,000) can be found closer to the city centre, in the Central, North East, and East LACs.

Map 10: Median house prices by MSOA and LAC.

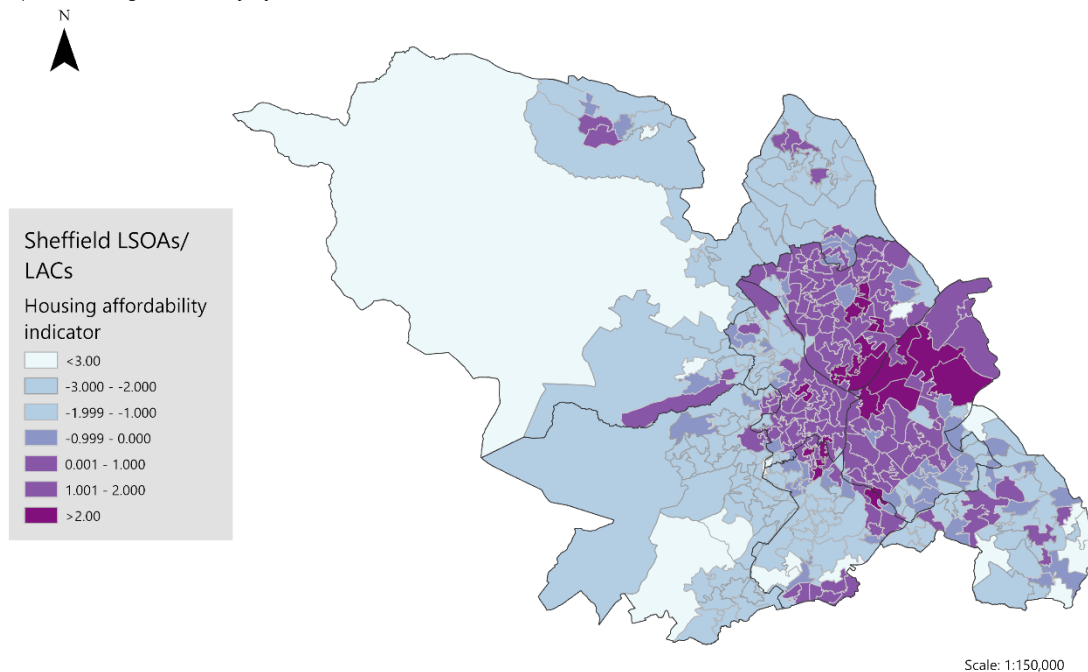


Median House Prices by MSOA and LAC. Source: ONS House Price Statistics for Small Areas (HPSSAs). Contains National Statistics data licensed under the Open Government Licence v.3.0 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown copyright and database right 2022.

¹⁴⁰ Lower-quartile affordability refers to the ratio between house prices and the lowest 25% of incomes.

This pattern is somewhat mirrored in the IMD housing affordability index, which measures the inability to afford to enter either owner-occupation or the private rental market. Map 11 shows that households less able to enter the private property market are concentrated in areas with lower median housing prices in the North East and East LACs.

Map 11: Housing affordability by LSOA and LAC.

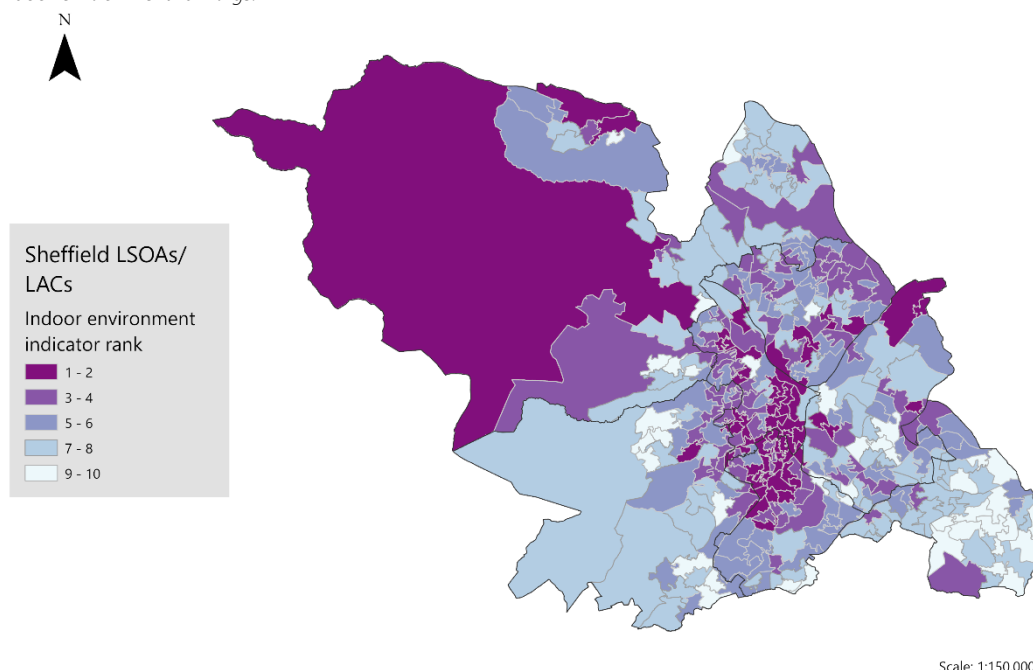


Housing Affordability indicator by LSOA and LAC. Source: Gov.uk [English indices of deprivation 2019](#). Contains National Statistics data licensed under the Open Government Licence v.3.0 © Crown copyright and database right 2022. Contains Ordnance Survey data © Crown copyright and database right 2022.

'Indoor environment' is a combined housing quality indicator that measures homes in poor condition and those without central heating. A score of '1' means that an LSOA is in the most deprived 10% of 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 character of homes in the north of the city. Overall, 24 of Sheffield's 345 LSOAs fell into the most deprived 10% of LSOAs in the country. Map 12 shows the rankings of Sheffield's LSOAs.

Map 12: Indoor environment rankings.



Indoor Environment indicator rankings by LSOA and LAC. Source: Gov.uk [English indices of deprivation 2019](#). 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.

ENERGY EFFICIENCY AND FUEL POVERTY

GHG emissions from homes ('domestic emissions') contribute to 35% (741.9 kt CO₂e) of Sheffield's emissions. Over three-quarters (78%) of domestic emissions come from gas appliances, which are primarily used for heating. Electricity contributes 21% and other fuels 2%.

The energy efficiency of the housing stock is not equal across the city which, combined with rising energy bills, affects poorer households more. Homes in the east, centre, and south of Sheffield have the lowest prevalence of loft insulation, while a higher proportion of homes in these areas have an EPC rating of E or lower. The least energy-efficient homes are not only harder to decarbonise but leave lower-earning residents more exposed to fuel poverty, as indicated in the maps presented earlier in this report. This demonstrates 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 and Industrial Strategy, fuel poverty in Sheffield increased at a faster rate than the national average between 2014 and 2019. Whilst a smaller proportion of households are in fuel poverty than the Core City average, the rate is still considerably above the national level. More than one in six households (17.3%, or nearly 43,000) are in fuel poverty.

Figure 59 shows that Sheffield is performing better than the other Core Cities, where 18.2% of households experience fuel poverty, but worse than the England average of 13.4%. The overall picture is unequal across Sheffield, with 25% of households in the North East LAC facing this challenge.

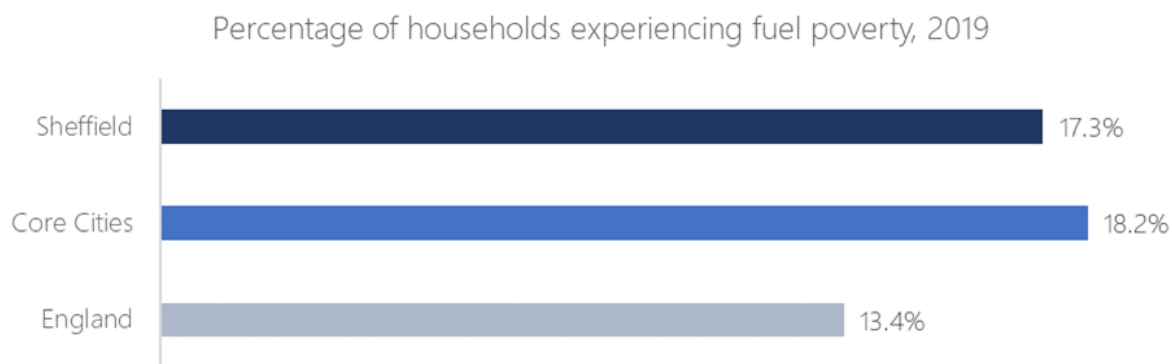


Figure 59: Fuel poverty rates in Sheffield, Core Cities, and England. Source: BEIS (2019).

Coinciding with a lower rate of fuel poverty in Sheffield, the latest BEIS data suggests that the average annual energy use per domestic property is higher than in the other Core Cities. Figure 60 compares the average annual energy use per property between 2017 and 2021.

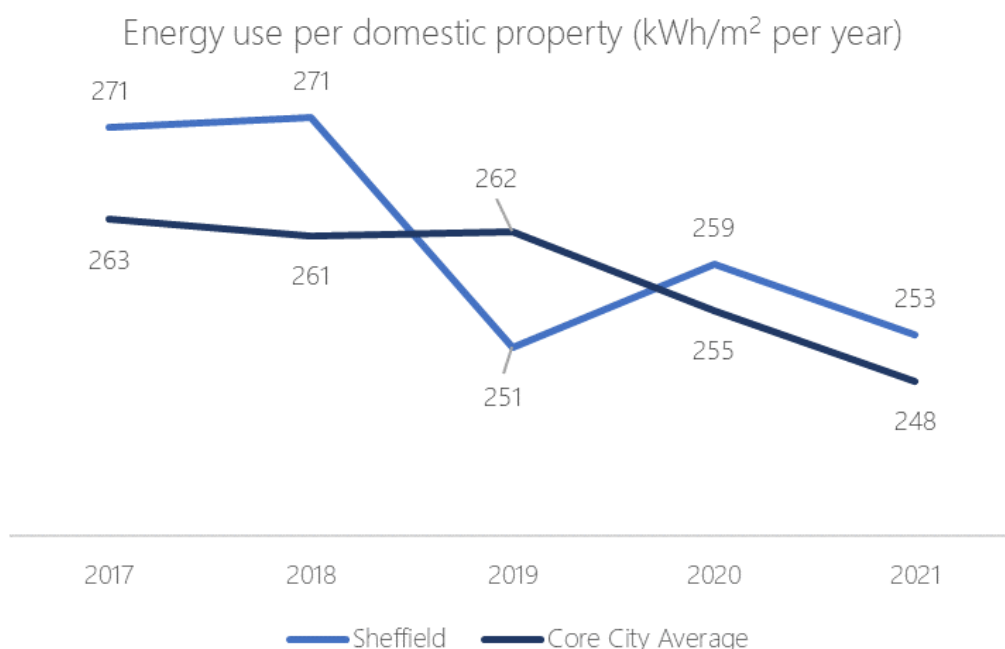


Figure 60: Energy use per domestic property. Source: BEIS.

In Sheffield, average consumption is now higher than in the Core Cities. Therefore, it is unsurprising that carbon emissions per property are also higher in Sheffield than in the Core Cities, as shown in Figure 61 on the following page.

Sheffield’s above-average energy use can be partly explained by the characteristics of the houses. All domestic properties in the country have an energy performance certificate (EPC), which gives the property an energy efficiency rating from A (most efficient) to G (least efficient).

The UK Government is proposing a new regulation that all rental properties will need a minimum EPC rating of C or above by 2025, which will require significant efforts by local authorities and property owners.

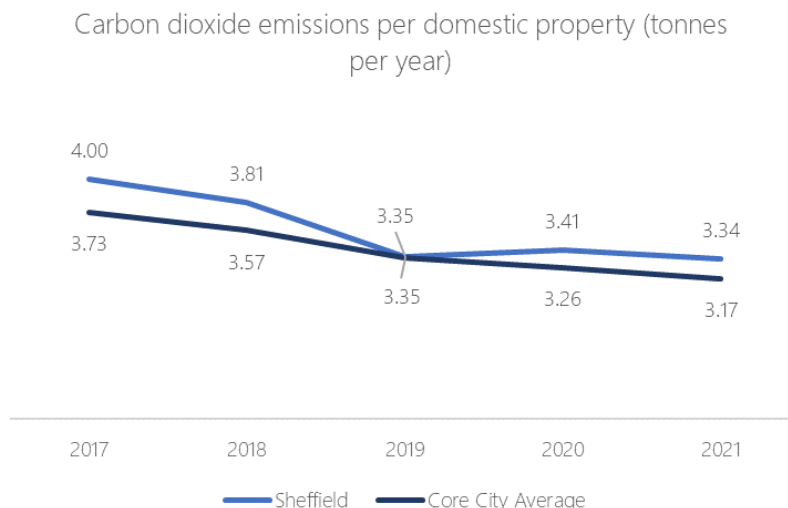


Figure 61: Carbon dioxide emissions per domestic property. Source: BEIS.

BEIS data records the EPC status of homes which require a certificate, as well as updates when properties are sold or transferred. Examining the data for Q1 2022, Figure 62 shows the distribution of homes in Sheffield across each EPC band and compared to the Core Cities as a whole.¹⁴¹ Of all domestic properties in Sheffield, 49% have an EPC rating of C or better (A to C), compared to 55.5% in the Core Cities overall. The majority of Sheffield homes have an EPC rating of D or worse, demonstrating the challenges of reducing domestic carbon emissions and improving the quality of homes in an affordable way.

Percentage of homes in each EPC band (Q1 2022)

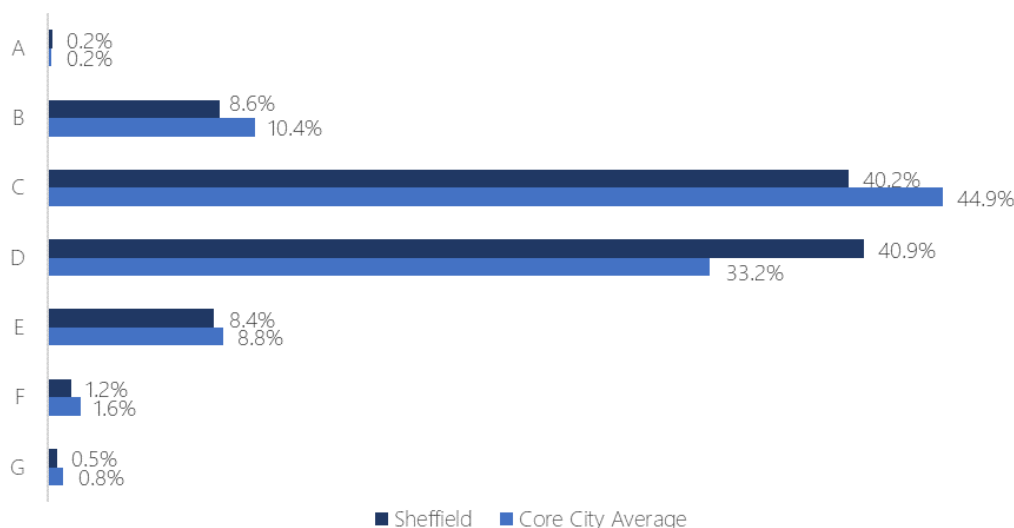
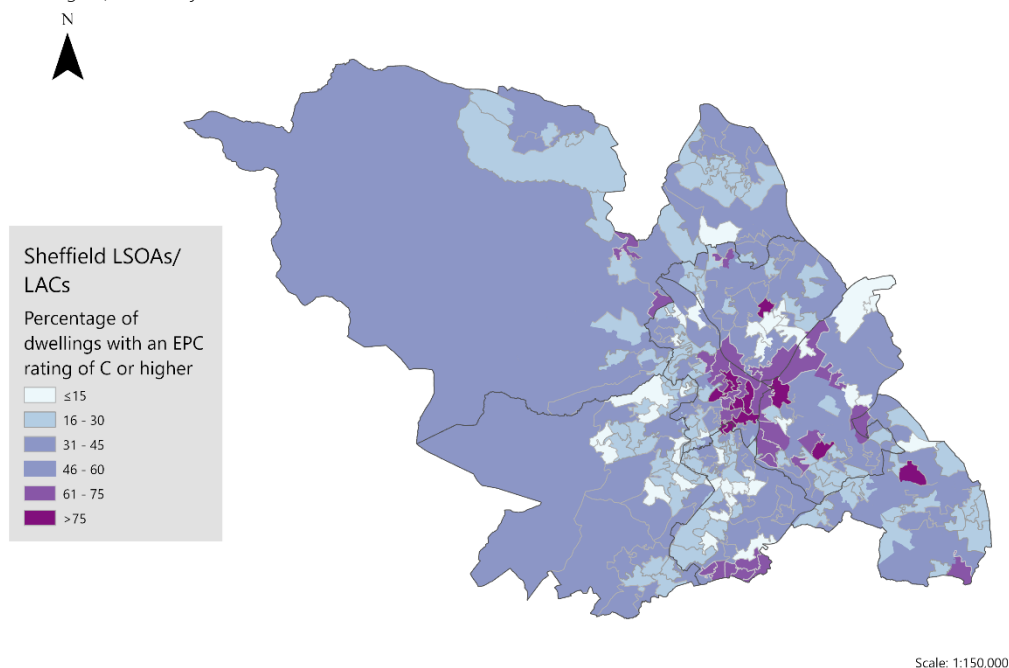


Figure 62: Proportion of Core City and Sheffield domestic property stock in each EPC category. Source: Energy Performance of Buildings (EPB) Register for England and Wales, Energy Performance of Buildings Certificates (EPC) in England and Wales from 2008 to 2022 (Published 28th April 2022).

¹⁴¹ Note: The EPC register does not hold data for every domestic building. Buildings only require an EPC when they are sold, let, or constructed. Therefore, these statistics should not be interpreted as a true representation of the whole of the building stock but viewed as part of a wider package involving the Government’s provision of information on the energy efficiency of buildings.

Map 13 shows that areas in the city centre have the highest rates of properties with an EPC rating of C or higher.

Map 13: EPC ratings of homes by LSOA.



Credits: Contains National Statistics data licensed under the Open Government Licence v.3.0 Crown copyright and database right 2022. Contains Ordnance Survey data. Source: Energy Performance of Buildings (EPB) Register for England and Wales, Energy Performance of Buildings Certificates (EPC) in England and Wales from 2008 to 2022 (Published 28th April 2022).

GREENSPACE

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

The multi-faceted nature of the city's greenspace provides health and wellbeing benefits;¹⁴² delivers climate change mitigation and adaptation, including reduced flood risk; helps support biodiversity; and provides opportunities for local sustainable food production and energy generation. Every £1 spent on park maintenance in Sheffield creates a benefit of £34 from saved health costs, with residents being the main beneficiaries.¹⁴³ Access to greenspace varies across places and demographic groups; for example, women and people with disabilities may find such areas less accessible. Analysis of public greenspace in Sheffield found that those in deprived areas had better access to greenspace; however, this was not high-quality so the potential health benefits could not be realised.¹⁴⁴

The Peak District's Moors for the Future Partnership is part of the Great North Bog initiative, and Sheffield's location in the heart of the Northern Forest demonstrates the national importance of the city's

¹⁴² World Health Organisation (2016). *Urban Green Space and Health: Intervention Impacts and Effectiveness*.

¹⁴³ Public Health England (2020). *Improving Access to Green space*. [Available here](#).

¹⁴⁴ Mears M., et al. (2020). *Understanding the socioeconomic equity of publicly accessible greenspace distribution: The example of Sheffield, UK*. [Available here](#).

greenspace to climate change mitigation and adaptation and habitat restoration, in addition to local benefits.

As well as the benefits it brings to people, greenspace 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 £25 million in flood risk reduction since the 2007 floods to protect over 500 businesses and 350 homes. Further schemes worth £15 million are to be delivered to protect an additional 100 homes and over 150 businesses. Between now and 2027, further investment worth more than £50 million is planned for the Sheaf, Porter, and Blackburn Brook to protect 750 homes and over 500 businesses.

The Connected by Water Action Plan is the culmination of cooperation between partners since the devastating floods of November 2019, the objectives of which are to reduce flood risk and build climate resilience so that communities can live, work, and thrive in South Yorkshire while confronted with a changing climate. This plan includes over 100 projects to better protect over 17,000 homes and businesses, as well as regionally significant infrastructure across South Yorkshire.¹⁴⁵

The Centre for Thriving Place's 2021 Thriving Cities Index score for Sheffield's green infrastructure ranked the city in second place amongst the Core Cities, as shown in Figure 63 below.

In this context, 'green infrastructure' is defined by the Town and Country Planning Association as a network of multi-functional green spaces and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities. This includes parks, open spaces, playing fields, woodlands, street trees, allotments, private gardens, green roofs, green walls, sustainable drainage systems (SuDS), and soils.¹⁴⁶

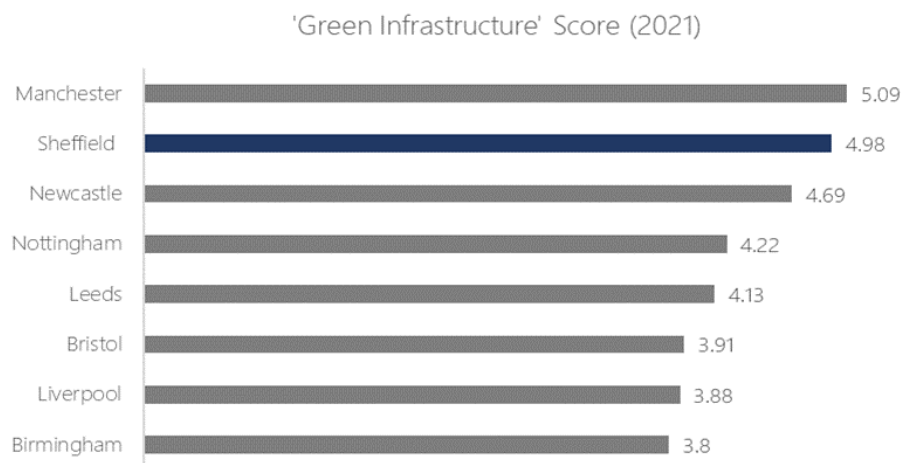


Figure 63: Thriving Cities Index 2021 'Green Infrastructure' Score.

Sheffield's communities benefit from the city's high-quality greenspace. The 15 Green Flag award-winning spaces in the city comprise nearly 20% of all Green Flag awards in the Yorkshire and Humber region. Meanwhile, Figure 64 shows that the Centre for Thriving Place's 2021 Thriving Cities Index scores ranked Sheffield's local environment more highly than that of any other Core City. Access to this high-

¹⁴⁵ <https://southyorkshire-ca.gov.uk/Connected-by-water>

¹⁴⁶ <https://tcpa.org.uk/what-is-green-infrastructure/>

quality greenspace and the natural environment may represent a resource that helps to address the wellbeing and mental health challenges described earlier in this report.¹⁴⁷

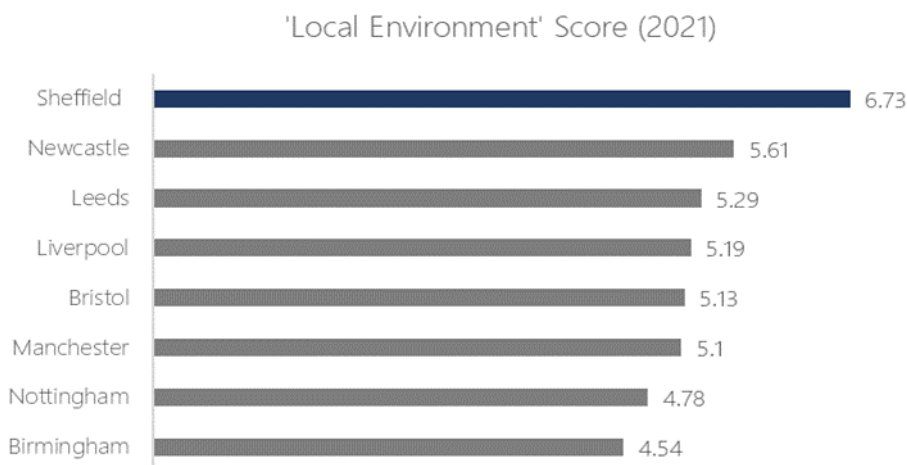


Figure 64: Thriving Cities Index 2021 'Local Environment' Score.

The extent of greenspace in Sheffield explains why the University of Southampton/NatWest '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.

In terms of public greenspace, Sheffield has 191 m² per person, far more greenspace per person than any other Core City. The Core Cities combined average is 47 m², as shown in Figure 65 below.

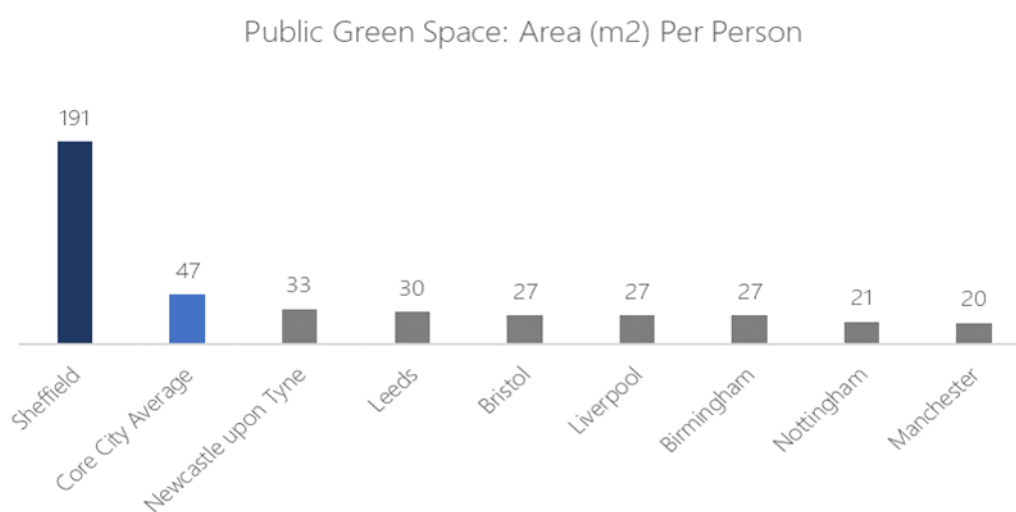


Figure 65: Area (m²) of greenspace per person in Core Cities. Source: ONS Access to public greenspace

However, focusing more closely on the distances between where people live and a park, public garden, or playing field reveals that Sheffield residents live an average of 316 m away. Figure 66 shows this is just above the Core City average of 277 m and the fifth-greatest distance amongst the Core Cities.

¹⁴⁷ Birch J, Rishbeth C, Payne SR. (2020). *Nature doesn't judge you - how urban nature supports young people's mental health and wellbeing in a diverse UK city*. Health & Place

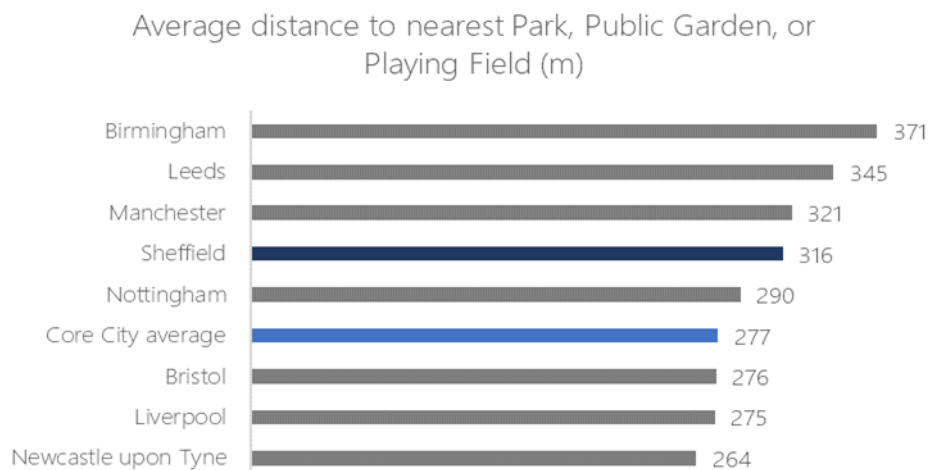


Figure 66: Average distance to nearest park, public garden, or playing field. Source: ONS Access to public greenspace.

In terms of private outdoor space, Figure 67 shows that 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 216 m², the third-highest among the Core Cities.

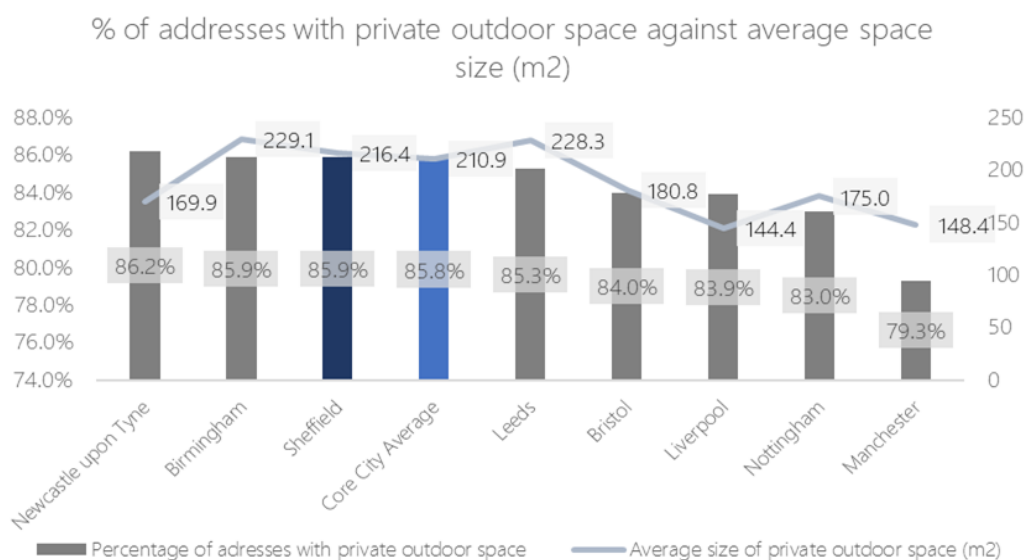


Figure 67: Proportion of addresses with private outdoor space and average size of outdoor space. Source: ONS Access to public greenspace.

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.

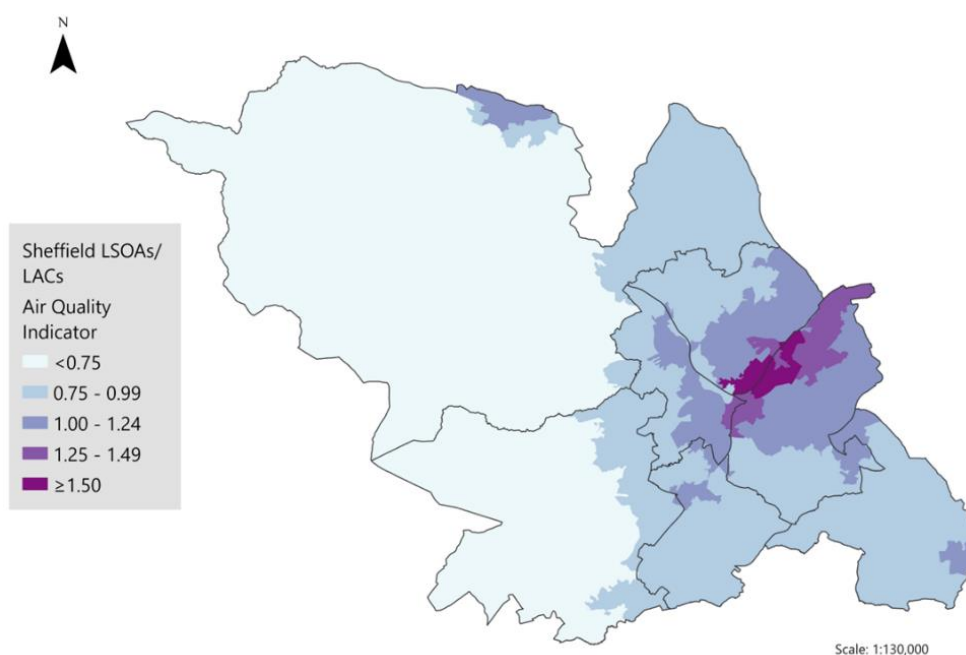
Transport is responsible for 643 kt CO₂e (30%) of Sheffield’s greenhouse gas (GHG) emissions. This includes 77 kt CO₂e from motorways and diesel railways, which are hard to address locally and require national policy action.

Road traffic volumes have increased in some areas outside the city centre during the pandemic as more people choose to drive rather than use public transport, although car journeys remain below the levels of 2019. Transport Interchange data indicates that passenger numbers are still 20% lower than before COVID-19.

Sheffield has six air quality monitoring sites, distributed 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 Egbert to the south-west, Fir Vale to the north of the city centre, and Tinsley to the north-east. Tinsley experienced a 50% increase in average air pollution particulate matter (PM2.5) between 2020-21 and 2021-22.

Worsening air quality towards the east of the city will compound inequalities, as shown in the IMD air quality deprivation index. Map 14 shows that LSOAs in the east of the city already have higher levels of air quality deprivation. Sheffield's air quality regularly exceeds the legal limits, affecting most severely the young, the old, and those with pre-existing heart or lung conditions. It can reduce life expectancy by nine years, and 500 premature deaths occur each year due to poor air quality.

Map 14: Air quality indicators by LAC. Source: Index of Multiple Deprivation (2019).



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

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 the 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. Meanwhile, the South East, East, and North East are below the national average.

However, the Propensity to Cycle Tool¹⁴⁸ has suggested the potential for a significant shift towards cycling for cross-city commutes, especially using electric bikes (e-bikes). The analysis used in the tool suggests that the propensity for South Yorkshire commuters to use e-bikes could see up to 23% of trips to work utilising this mode of transport. In Sheffield, this would be reflected in over 44,000 more people cycling and over 23,000 fewer people driving.

¹⁴⁸ Lovelace et al. (2017) and/or Goodman et al. (2019). More information [here](#)

The Propensity to Cycle Tool also models the prospective cycling levels if the UK showed the same propensity to cycle as the Netherlands. Adjusting for hilliness and topography, an estimated 15% of commuting trips would be made by bike in South Yorkshire. In Sheffield, this would equate to over 23,000 more people cycling and over 11,000 fewer people driving.

The charts below outline the time taken in minutes for people living in Sheffield’s LACs to travel to the nearest employment site (one with 500 to 4,999 jobs), as well as to the nearest town centre, primary school, food shop, GP, and hospital. This demonstrates that journey times are not a significant barrier to realising the city’s propensity to use bicycles or e-bikes.

Residents in the North LAC have relatively longer travel times to an employment site than elsewhere in Sheffield. The average travel time by bike to an employment site is ten minutes or less in all LACs apart from the North (13 minutes). However, the latest data shows that only 2% of commutes are made by bike (see Figure 68).

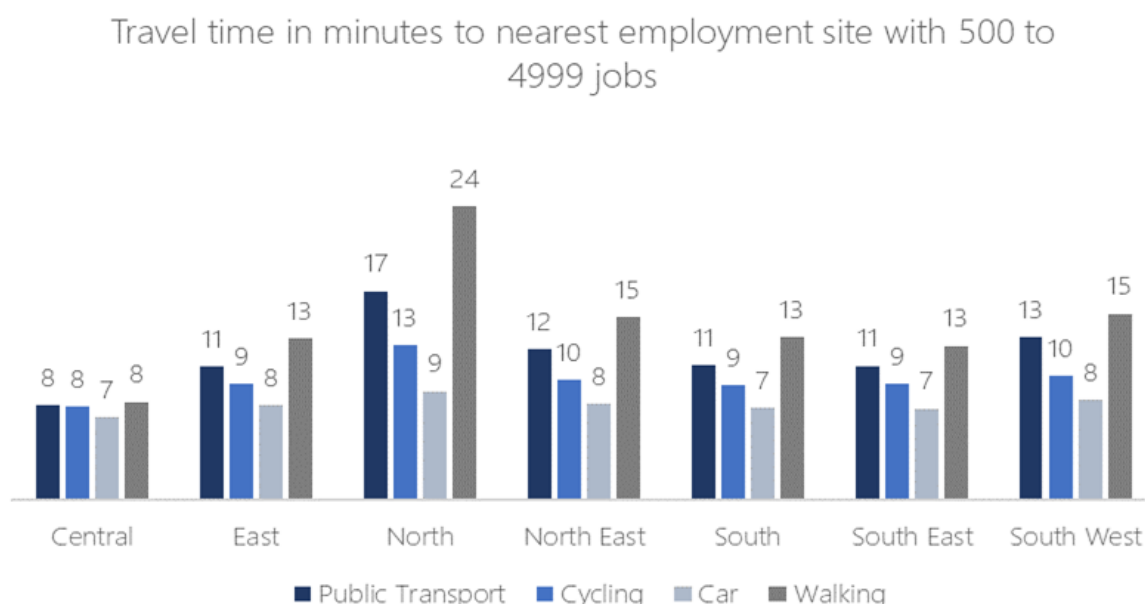


Figure 68: Travel time to employment sites. Source: DfT Journey Times 2019: Destination datasets

In terms of travel to town centres, the North LAC again has the highest average travel time, especially for walking. The South East and South West LACs also require average walking times of 40 minutes or more (see Figure 69), so travelling on foot to town centres is unlikely. This highlights the importance of other modes of transport.

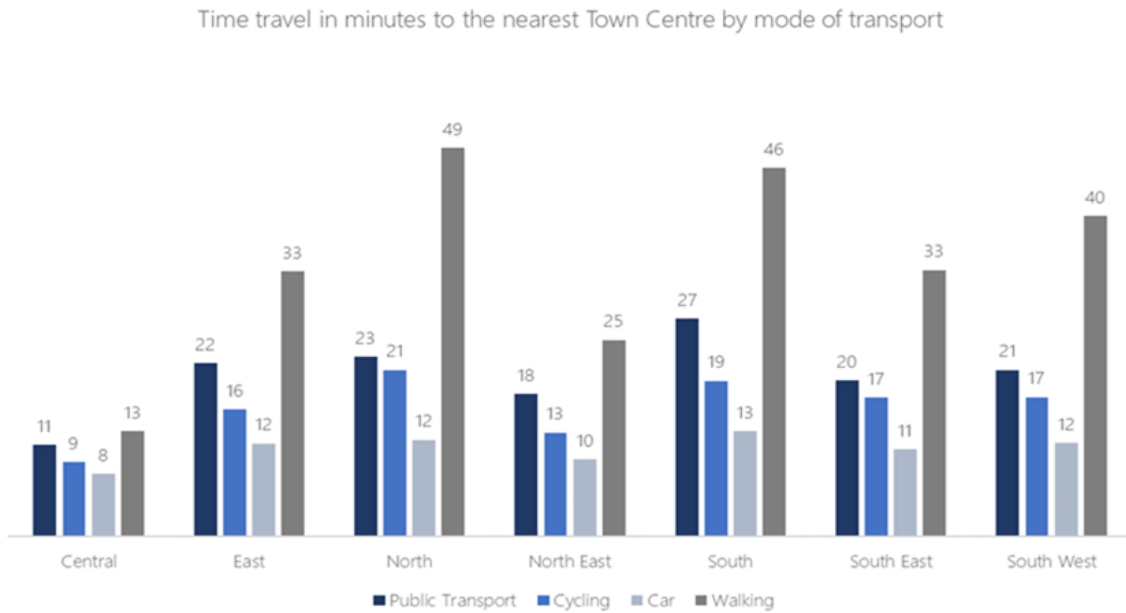


Figure 69: Travel time to town centres. Source: DfT Journey Times 2019: Destination datasets

There is little difference between the travel times using any mode of transport from each LAC to reach the nearest primary school (see Figure 70) or food shop (see Figure 71), increasing the likelihood of people switching to other modes in the future if the right infrastructure has been established.

The steering group for this study raised the importance of active travel, introducing an objective that walking and cycling should be the preferred modes of travel for short journeys in and around Sheffield. Choosing active ways of travelling from place to place can increase physical activity levels and improve physical and mental wellbeing. Prioritising active travel may also reduce the over-reliance on motorised transport, contributing to better air quality and fewer road injuries.¹⁴⁹

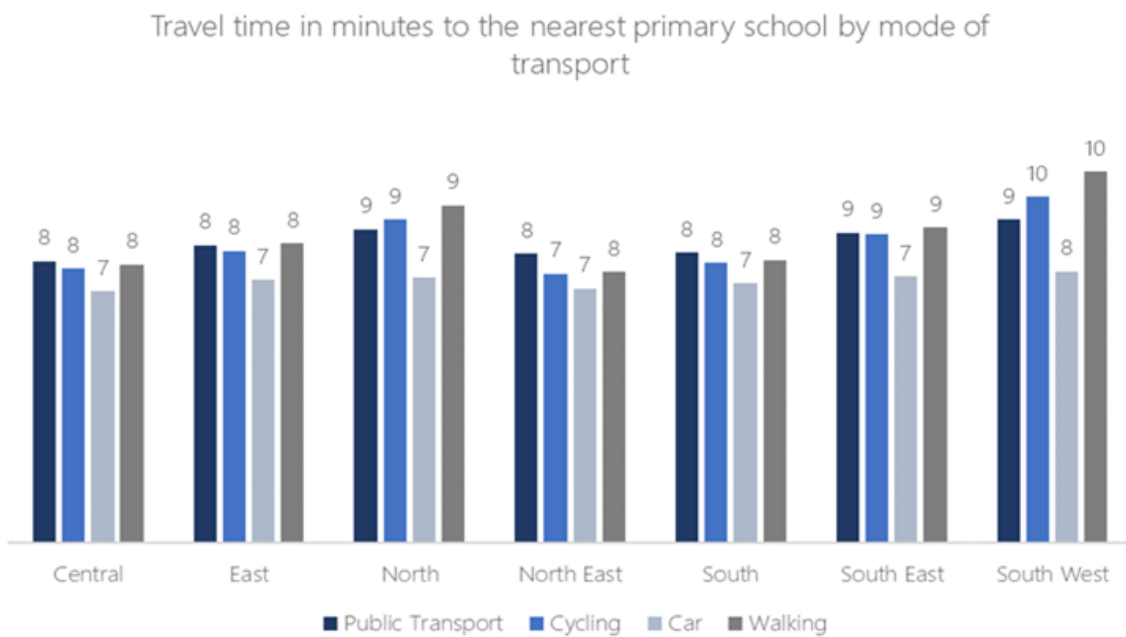


Figure 70: Travel time to nearest primary school. Source: DfT Journey Times 2019: Destination datasets.

¹⁴⁹ <https://www.movemoresheffield.com/active-travel>

Travel time in minutes to nearest food store by mode of transport

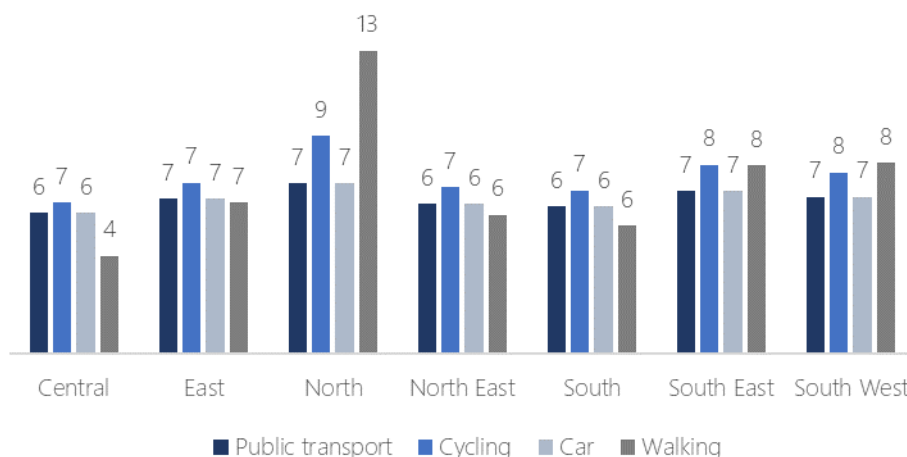


Figure 71: Travel time to nearest food store. Source: DfT Journey Times 2019: Destination datasets

Travel times to medical services using different modes of transport follow a similar pattern to those needed to reach other destinations, with the average walking time from any LAC to a GP surgery being less than 15 minutes (see Figure 72). As may be expected, journey times to hospitals are more varied (see Figure 73) as these facilities are more sparsely distributed. However, as the latter are major employers, staff commutes to hospitals are influenced by the lengthy journeys involved if the car is not used as a mode of transport from some LACs.

Travel time in minutes to nearest GP by mode of transport

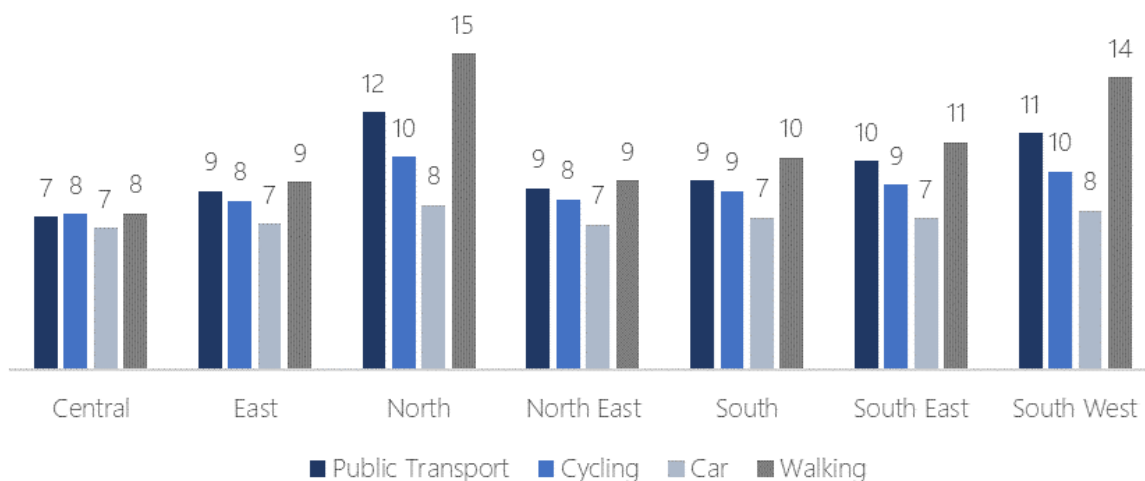


Figure 72: Travel time to GP. Source: DfT Journey Times 2019: Destination datasets

Travel time in minutes to nearest hospital by mode of transport

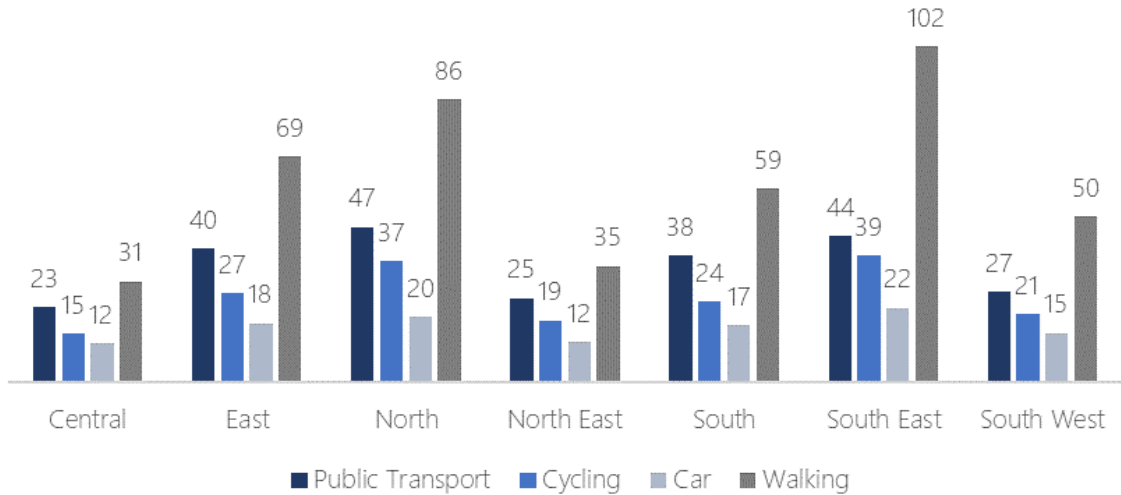


Figure 73: Travel time to nearest hospital. Source: DfT Journey Times 2019: Destination datasets

In terms of public transport alternatives to car use, bus operators have reported that bus reliability for non-frequent services in the city has improved over the last ten years but has and has been above the national average since 2014 (see Figure 74).

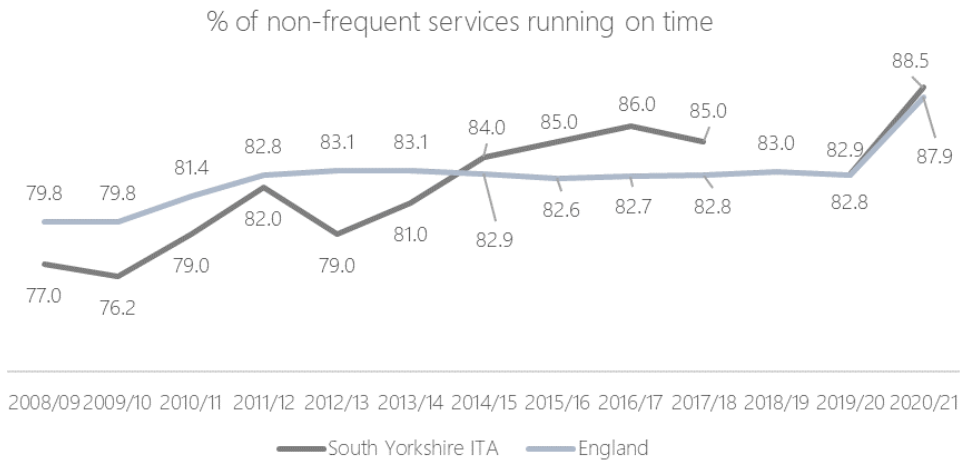


Figure 74: Non-frequent bus reliability (DfT operator reported. SYITA data missing from 2017-2019). Source: DfT Bus reliability and punctuality 2021

In terms of ownership and use, the car will remain 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, while all new cars and vans will 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, with price parity between EV and ICE vehicles expected

from 2027.¹⁵⁰ As well as price, the availability of sufficient EV charging infrastructure is essential, especially for those without private off-street parking.

The proportion of vehicles classified as Ultra-Low-Emission Vehicles (ULEV) and the number of charging points in Sheffield are both increasing but remain below the Core City average.

According to the most recently available data (2020), the proportion of Sheffield’s vehicles classified as ultra-low-emission (ULEV) was 0.04% percentage points below the Core City average. This represents a significant improvement from 2019, when the city was 0.3% percentage points below the Core City average (see Figure 75).

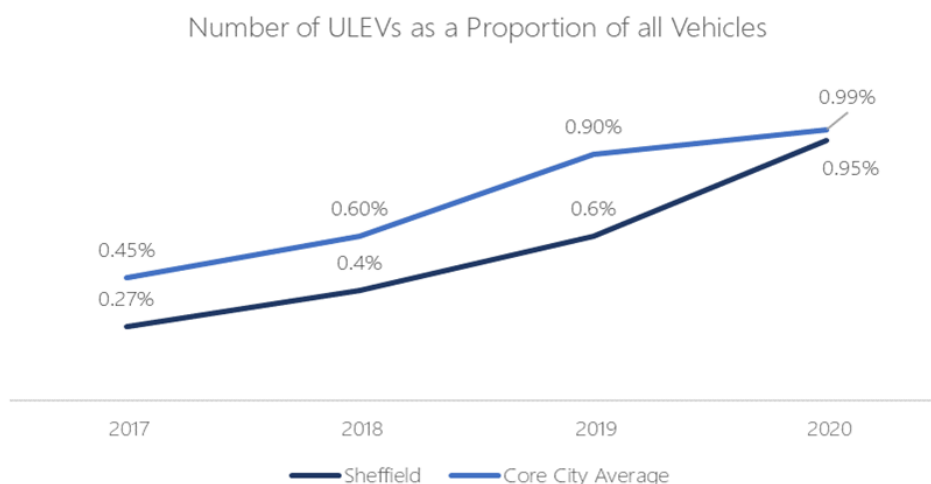


Figure 75: ULEVs as a proportion of all registered vehicles. Source: Department for Transport Vehicle Licensing Statistics

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 additional 14.3 points per 100,000 Sheffield residents, it is still 10 charging points lower than the Core City average (see Figure 76).

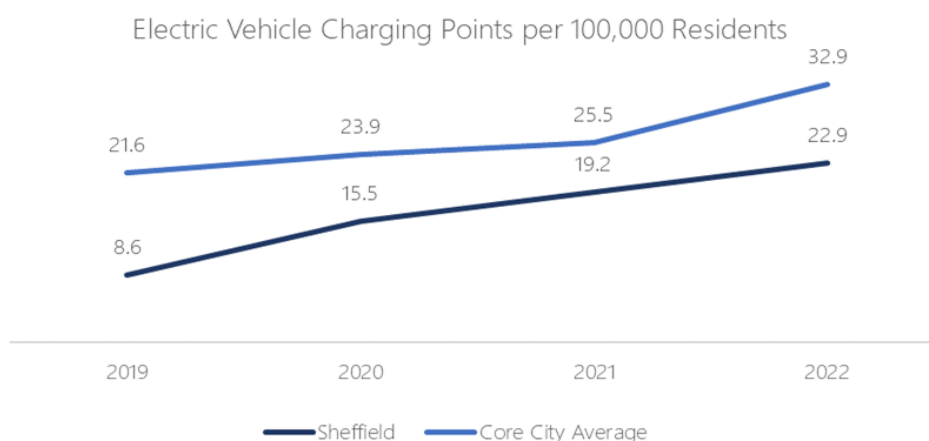


Figure 76: Electric vehicle charging points per 100,000 residents. Source: Department for Transport Electric vehicle charging device statistics: April 2022.

¹⁵⁰ <https://www.transportenvironment.org/discover/evs-will-be-cheaper-than-petrol-cars-in-all-segments-by-2027-bnef-analysis-finds/>

COVID-19 HAS CHANGED HOW AND WHY PEOPLE TRAVEL, WHICH WILL AFFECT EFFORTS TO REDUCE CARBON EMISSIONS AND IMPROVE AIR QUALITY.

Around the world, governmental and public responses to COVID-19 have changed the ways people travel. From Auckland to London and 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 indicate a fundamental shift in work patterns, is as apparent in Sheffield as it is in cities worldwide.

In South Yorkshire,¹⁵¹ bus patronage was declining 6% per year from 2016/17 to 2019/20, compared with a nationwide fall of 3%. The impacts of COVID-19 and the subsequent restrictions and behavioural changes saw patronage in South Yorkshire decline by 64% from 2019/20 to 2020/21 (see Figure 77), compared with a nationwide drop of 61%.

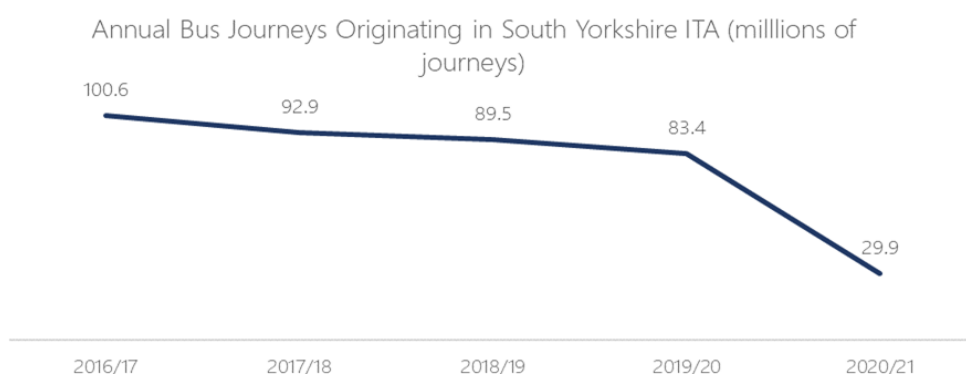


Figure 77: Bus patronage in South Yorkshire ITA. Source: DfT Local bus passenger journeys

In terms of bus passenger journeys per head of population, South Yorkshire has the second-lowest rate of the Core Cities and was experiencing the largest annual decline before COVID-19 (see Table 29). During the first year of the pandemic, trips per head fell at similar levels across all the Core Cities.

Table 29: Bus passenger journeys per head of population.

Local Authority/ ITA	2020/21 Journeys per head of population	Average annual change from 2016/17 to 2019/20	Change from 2019/20 to 2020/21
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%

Source: DfT Local bus passenger journeys

¹⁵¹ South Yorkshire ITA.

Looking at SuperTram usage, Sheffield has experienced a similar fall in the number of journeys to the drops affecting other transit systems in the Core City regions; however, the fall in passenger miles has been noticeably higher (see Table 30).

Table 30: 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%

Source: DfT Light rail and tram statistics (LRT)

Similar declines in railway station entries and exits across Sheffield have been identified during the same period (see Table 31).

Table 31: 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%
Chapelton (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%

Source: Office of Rail and Road Passenger rail usage

People's reasons for travelling are also changing. The Google Community Mobility Reports estimate how travel volumes for different purposes have changed during the COVID-19 pandemic, compared to a pre-pandemic baseline.

Figure 78 shows the monthly average changes in journey volumes in Sheffield for different modes, up to March 2022 and compared to before the pandemic. This data presents the number of journeys undertaken using different modes but does not indicate unique visits or lengths of stay. Travel to workplaces has recovered to its highest rate since February 2020 but remains at over 20% below the pre-pandemic rate, which suggests a long-lasting switch to remote or hybrid working. Journeys to transit changes, as evident in the data, are at similarly low levels compared to baseline. This indicates that fewer people are travelling in and out of Sheffield, including for work and to town centres, with retail and recreation journeys remaining 10% lower. However, the data shows that people are capitalising on Sheffield's greenspace, with the number of journeys to parks significantly higher than before the pandemic.

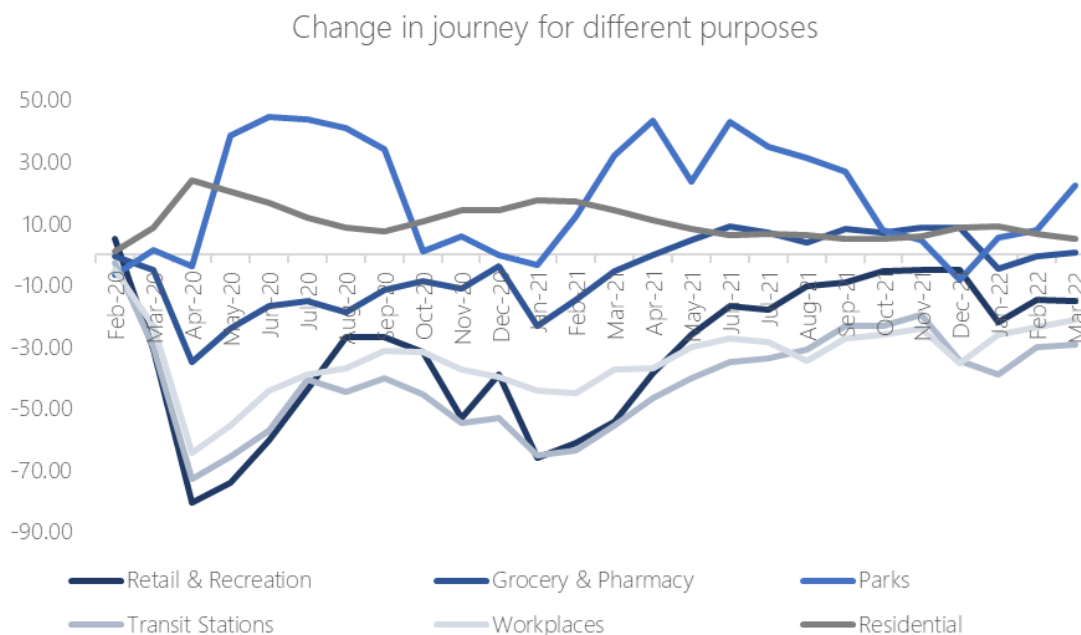


Figure 78: Journeys by purpose compared to pre-COVID-19 baseline (baseline = 0). Source: Community Mobility Reports accessed March 2022.

LIVEABLE CITY SUMMARY AND POLICY IMPLICATIONS

To summarise:

- The health and economic costs of air pollution are substantial. Premature mortality is a persistent health risk and a barrier to productivity. Air quality is worse in areas already more deprived.
- Short average walking and cycling journeys to employment sites and schools should facilitate the switch away from car use. Public transport journey times are surprisingly long, especially when accessing town centres, and car and bike journeys are often quicker.
- Active travel will benefit communities in numerous ways as it is linked to safer and more pleasant streets, better air quality, lower carbon emissions, lower noise pollution, and reduced congestion, all of which are priorities for Sheffield.
- More than one in six households in the city (43,000) are in fuel poverty, and Sheffield’s homes have poorer energy efficiency and higher energy consumption than those of the other Core Cities, emphasising the need for retrofit support.
- Excellent access to high-quality greenspace and the natural environment should help to improve wellbeing. Similarly, the green infrastructure in the city centre, as well as the natural flood defences and carbon capture in the Peak District, provide important allies against climate change, protecting homes and businesses while reducing the city’s carbon footprint.
- The quality of the greenspace and overall lived environment should be harnessed to attract businesses and workers to the city.

A potential policy implication is that emissions must be cut even more extensively to meet the zero-carbon target by 2030. This will require:

- Continued measures to address air pollution, including introducing the proposed Clean Air Zone and supporting electric vehicles for journeys that must involve driving.
- Climate change to be addressed through continued partnerships across the city and the region. For instance, the South Yorkshire Flood Catchment Plan has been developed by a South Yorkshire alliance of organisations, including the South Yorkshire Mayoral Combined Authority, the Environment Agency, the four local authorities, and Yorkshire Water, who have been working

to not only deliver flood risk management schemes on the ground, but also plan future catchment-wide measures that will meet the challenges of climate change.

- A clear roadmap establishing the annual requirements that must be achieved:
 - 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.
- Active travel to not be regarded as merely a means of reducing transport emissions. Instead, it should also be viewed as a public health benefit. Interventions to enable and encourage active travel, such as the Outdoor City, will increase physical activity and improve health and wellbeing. Sheffield must become a place where active travel is an easy and safe option for everyone, regardless of their age, ability, or where they live, work, learn, visit, and play.
- The Grey to Green scheme to be successful and its expansion to be continued, in conjunction with the use of natural ecosystem assets like the Peak District and peatlands to reduce flood risk and capture air quality.

These measures will need to be considered on a South Yorkshire-wide scale, especially flood risk management, active travel networks, and retrofit programmes. The South Yorkshire Sustainability Centre and its partners have a role to play in this.

6) KEY MESSAGES

This chapter draws together the key messages and policy implications from each section of the evidence base. Sheffield is losing ground to the other Core Cities in terms of economic performance whilst inequality in the city remains unacceptably high. Creating an inclusive, sustainable, and healthy economy needs joined-up action. The City Strategy should recognise the interrelations between each theme in this evidence base and design different ways to build on Sheffield's unique characteristics and strengths.

Several of the key messages presented below cover long-standing and systemic challenges, and the Sheffield City Partnership will have to consider a range of actions when developing the City Strategy.

- If Sheffield cannot maintain and improve its economic position relative to other areas, the issues will become more challenging to tackle as everyone will have fewer opportunities. Sheffield is creating neither enough businesses nor the right jobs to match the qualifications and requirements of the workforce.
- The life expectancy and health inequalities are current threats to the future wellbeing of the city's residents and workforce, and these gaps have become entrenched. This could impact the long-term health and educational attainment of younger residents, which would likely have a tangible long-term effect on the city.
- Health and wellbeing inequalities are also constraining certain communities' access to suitable opportunities, whilst economic inequality is having negative health impacts.
- The city has made progress in reducing the emissions created by business and household energy use in Sheffield. However, the pace of change must accelerate if the city is to meet its ambitious net-zero target by 2030 while delivering 'just transition' across Sheffield's economy and communities.
- Sheffield has the benefit of natural green infrastructure, which should be enhanced and restored to support climate mitigation and adaptation. Urban greenspace, trees, and urban green infrastructure development also benefit the city's population and economy
- A longer-term and place-based approach to inclusive and green growth and a wellbeing economy should increase the focus on the key causes of inequality at earlier life stages. For example, investing in understanding and addressing the factors behind the growing inequality in education outcomes would prevent life-long inequalities and ensure that Sheffield's future economic growth is inclusive.
- Community wealth building offers an opportunity for a more people-centred approach to local economic development that redirects wealth, control, and benefits back into the local economy and to local people. Wealth will be kept circulating and working for the community rather than leaking away.
- The opportunity for newly devolved local powers from Whitehall offer a potentially powerful mix for change. This "provides the impetus for a move away from business-as-usual models of economic growth".¹⁵² However, the City Partnership need to consider whether devolved powers and funding are sufficient for the region to deliver the interventions needed and if not, make the case to be granted these.

¹⁵² Dixon & Tewdwr-Jones (2022). *Urban Futures, Planning for City Foresight and City Visions*. Pg 228.

CONSIDERATIONS FOR POLICY

The potential economic policy implications emerging from the data are that interventions are needed to make sure Sheffield's growing sectors provide inclusive jobs that benefit the whole city. This means concerted effort to address long-standing economic, social and health inequalities within the city is required. Measures to tackle poverty (including fuel poverty) and support good mental health are needed, as are actions aimed at mitigating the effects of the cost-of-living crisis and the legacy of Covid-19. These might include increasing the number of living-wage employers and expanding housing affordability actions. Public-sector investments could also be used to achieve better health and wellbeing and sustainability outcomes in the city.

When considering Sheffield's future health, resilience, and prosperity, it is important to ensure that the city's future growth is built on a strong social foundation that supports all its residents and communities while being delivered on a sustainable basis and accommodating the local and global ecological and environmental challenges.

Various far-reaching carbon reduction policy implications could be introduced to ensure that emissions are cut to meet the required zero-carbon target by 2030. These might range from tackling air pollution to decarbonisation in energy, transport, industry, businesses, and the built environment (commercial and domestic). Active travel will reduce transport emissions while improving 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 life cycle of green jobs.

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

However, a focus on traditional economic policy and strategy is unlikely to solve the challenges facing the city. Sheffield City Partnership will have to consider a range of actions when developing the City Strategy. This should include considering a new approach to economic policy, such as Wellbeing Economy principles or new devolution asks so that South Yorkshire has the delivery powers and funding needed.

One unintended finding of this study is that a lack of data is hindering a deeper understanding of issues at a granular level. This includes information at a highly localised level or about very small demographic groups. There is a lack of data on the indirect carbon emissions of the city's supply chains and consumption. Similarly, the way in which economic data classifies industrial sectors poses challenges when assessing Sheffield's level of preparation for the future economy, with the city's industries and markets neither well defined nor well represented in the current official statistics. Action by partners to create a bespoke local data collection process would help to bridge these gaps.

KADA Research
Sheffield, UK.
(In association with
Local Economy Matters)

T: + 44 (0) 1142 679185
M: + 44 (0) 7714 136463
E: karl.dalgleish@kadaresearch.co.uk
W: www.kadaresearch.co.uk

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