

# **Growth Plan: Analysis and Workshop Summary**

**South Yorkshire Mayoral Combined  
Authority**

# Contents

*Executive Summary*

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*Growth, Incomes and Sectors*

---

*Tradeable Sectors and Jobs*

---

*Networks, R&D and Finance*

---

*Transport, Infrastructure,  
Environment and Land Use*

---

*Labour Market, Skills and Health*

---

*Deepdive: South Yorkshire  
Innovation*

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# Executive Summary

# Our Approach

Since July 2023, we have worked with SYMCA and the 4 LAs to understand the current evidence base.

We were asked a simple question: how we do get growth going in South Yorkshire?

Rather than new analysis, we were asked to primarily synthesise existing work and look at 3 MCA comparator areas in the North of England.

Productivity and changes in this over the long term are shown for the UK, SYMCA and the 3 comparators in the table.

Area	GVA per hour worked (2021)	Annual % change in GVA per hour worked (2004 – 2021)
UK Average	£38.95	0.6%
Liverpool City Region	£34.64	0.1%
Greater Manchester	£34.43	0.8%
West Yorkshire	£33.59	0.5%
South Yorkshire	£31.05	0.09%

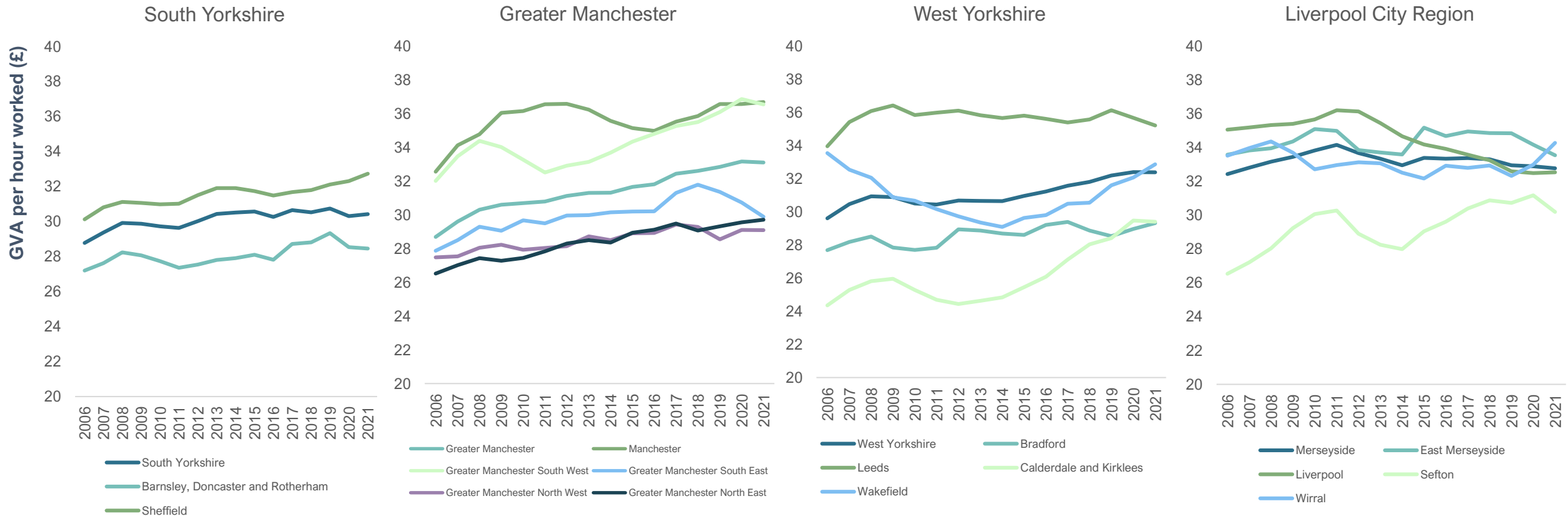
# Growth, Incomes and Sectors

Analysis of national data shows:

- Productivity differences within South Yorkshire are not as large as in comparator areas but productivity levels are low, particularly in Sheffield.
- GVA per job analysis indicates that the productivity challenge is a pan-sectoral issue.
- Disposable incomes are declining relative to the national average, with a particularly sharp decline in Sheffield.

# Productivity is equal but equally low...

The gap in GVA per hour worked between Barnsley, Doncaster and Rotherham and Sheffield is not as wide as between the other areas and their core cities. However, GVA per hour worked is low, of the four MCAs, South Yorkshire has the lowest GVA per hour worked.

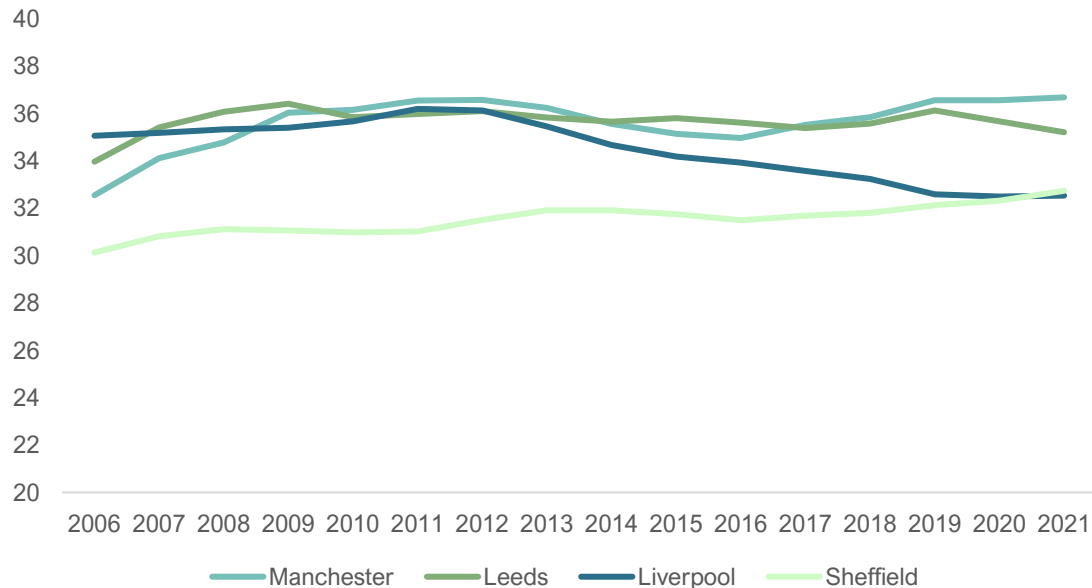


# South Yorkshire has low productivity, but Sheffield is a particular outlier compared to Leeds and Manchester?

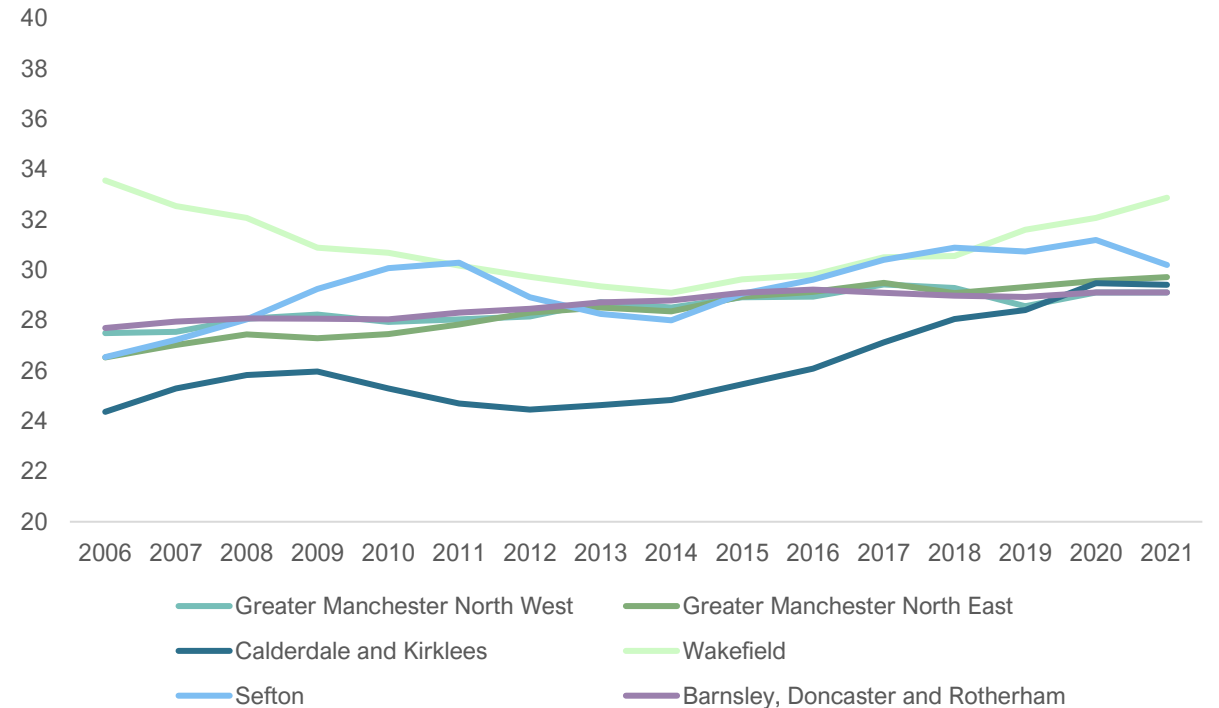
Of the four core cities, Sheffield had the lowest productivity until very recently, with a sharp decline in Liverpool seeing it fall behind.

There is less of a gap between Barnsley, Doncaster and Rotherham and parts of the other MCAS, though it was the lowest in 2010 and growth has been tepid.

Comparison of GVA/hour worked in core cities within MCA areas



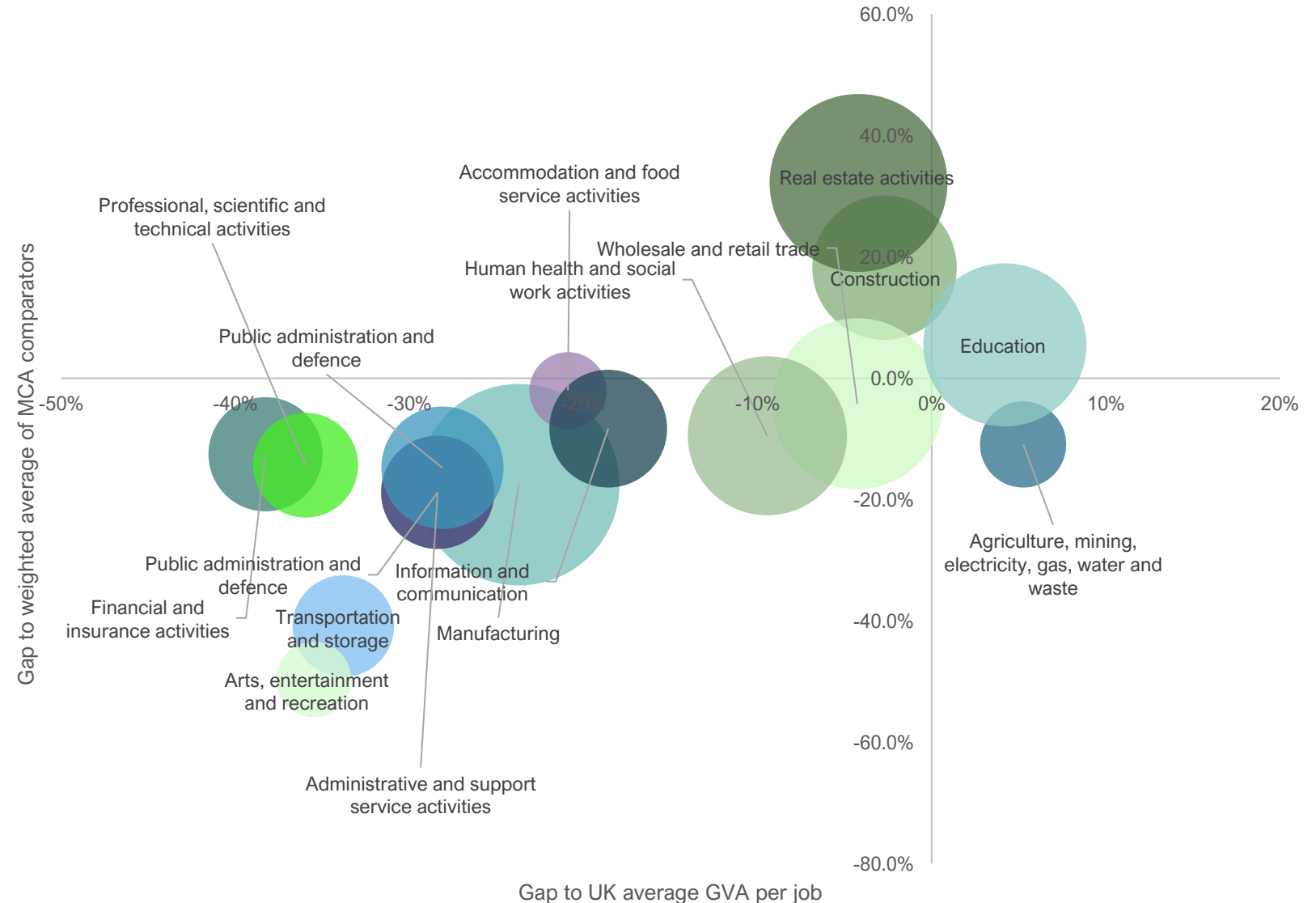
Comparison of GVA/hour worked in selected MCA areas



# Productivity is low across all sectors – even compared to city region comparators

GVA per job in South Yorkshire is below the national average in all broad sector areas except for Education and Agriculture while it lags a weighted average of MCA comparators in all sectors aside from Education, Construction and Real Estate Activities.

This indicates that the productivity challenge is a pan-sectoral one, driven by fundamentals which cut across the economy, rather than sector specific barriers or constraints.





## Productivity is low across all sectors – even compared to city region comparators

GVA per job in South Yorkshire is below the national average in all broad sector areas except for Education and Agriculture while it lags a weighted average of MCA comparators in all sectors aside from Education, Construction and Real Estate Activities.

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Broad Sector Group	SYMCA GVA (£M) (2021)	SYMCA GVA per job (2021)	GB GVA per job (2021)	SYMCA GVA per job growth (2016 - 2021)	SYMCA jobs (2021)	Gap to GB	% Gap to GB	GM GVA per job	WY GVA per job	LCR GVA per job	Weighted Average	Gap to GM/WY/LCR	% Gap
Manufacturing	4,109	£69,059	£90,520	13.6%	59,500	£21,462	-24%	£86,169	£70,598	£97,634	£81,174	£12,116	-17.5%
Real estate activities	3,199	£457,000	£477,039	-4.9%	7,000	£20,039	-4%	£285,281	£363,622	£295,071	£309,876	-£147,124	32.2%
Wholesale and retail trade; repair of motor vehicles	2,953	£37,380	£39,045	-3.2%	79,000	£1,666	-4%	£41,099	£39,931	£32,514	£38,950	£1,570	-4.2%
Education	2,694	£42,762	£41,037	-8.5%	63,000	-£1,725	4%	£41,248	£37,705	£43,722	£40,414	-£2,348	5.5%
Human health and social work activities	2,564	£27,570	£30,442	-20.6%	93,000	£2,872	-9%	£33,341	£28,621	£27,801	£30,184	£2,614	-9.5%
Construction	2,113	£78,259	£80,434	7.6%	27,000	£2,175	-3%	£59,307	£72,088	£63,492	£64,000	-£14,259	18.2%
Public administration and defence	1,516	£46,646	£64,878	-18.5%	32,500	£18,232	-28%	£51,472	£55,720	£54,167	£53,530	£6,884	-14.8%
Information and communication	1,405	£78,056	£95,862	68.3%	18,000	£17,806	-19%	£91,320	£70,296	£100,333	£84,531	£6,475	-8.3%
Financial and insurance activities	1,320	£97,778	£158,371	4.4%	13,500	£60,594	-38%	£106,897	£122,900	£92,650	£110,026	£12,249	-12.5%
Administrative and support service activities	1,297	£26,469	£36,958	-8.2%	49,000	£10,489	-28%	£35,076	£26,880	£30,959	£31,452	£4,983	-18.8%
Professional, scientific and technical activities	1,117	£34,906	£54,508	-4.2%	32,000	£19,602	-36%	£37,906	£44,438	£38,522	£39,909	£5,003	-14.3%
Transportation and storage	1,042	£26,718	£40,359	-32.0%	39,000	£13,641	-34%	£40,064	£37,600	£32,769	£37,629	£10,911	-40.8%
Agriculture, mining, electricity, gas, water and waste	754	£132,281	£125,668	37.3%	5,700	-£6,612	5%	£154,072	£137,983	£147,629	£146,704	£14,423	-10.9%
Accommodation and food service activities	601	£16,243	£20,533	-28.0%	37,000	£4,290	-21%	£16,021	£19,215	£14,385	£16,572	£329	-2.0%
Arts, entertainment and recreation	577	£26,227	£40,661	-24.0%	22,000	£14,434	-35%	£44,412	£34,159	£38,291	£39,250	£13,023	-49.7%

## Disposable household incomes are also weak

**Income per head has declined relative to national and comparator level, particularly in Sheffield.**

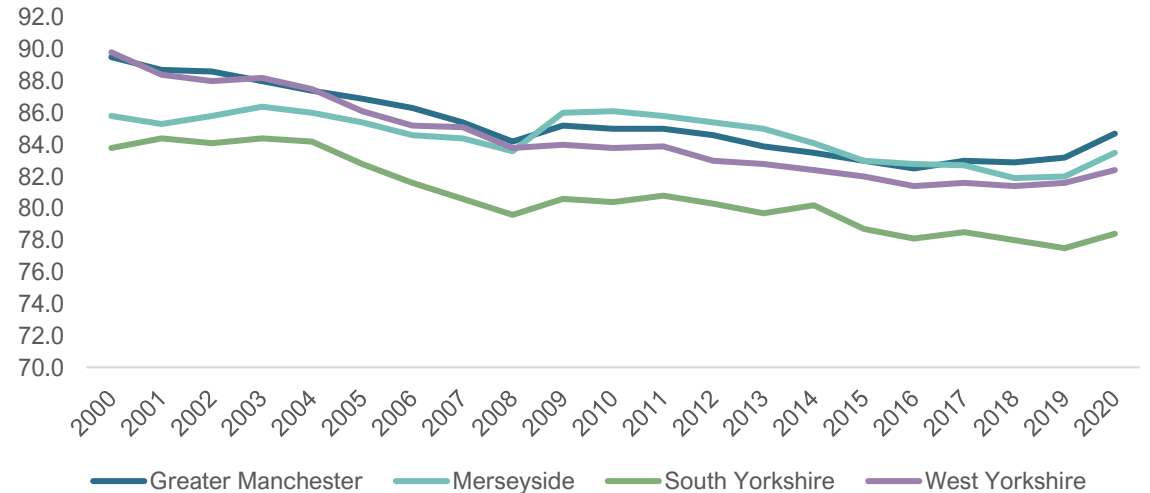
Gross disposable household income (GDHI) is an estimate of the income available after taxes and transfers. It is used to measure the “material welfare” of households.

In South Yorkshire, GDHI per head has declined relative to the national average. In 2020 GDHI in SY was 78.4%, a decline from 2000 when it was 83.8% of the national average.

A decline relative to the national level has also been seen in the comparator regions but since 2014 the gap between South Yorkshire and these places has been widening.

Within South Yorkshire the sharpest relative decline has occurred in Sheffield where GDHI per head in 2020 was three quarters of the UK average. Over the 20 year period Sheffield has moved from being the area with incomes closest to the UK average to the area with the largest gap.

**GDHI per head index (UK = 100)**

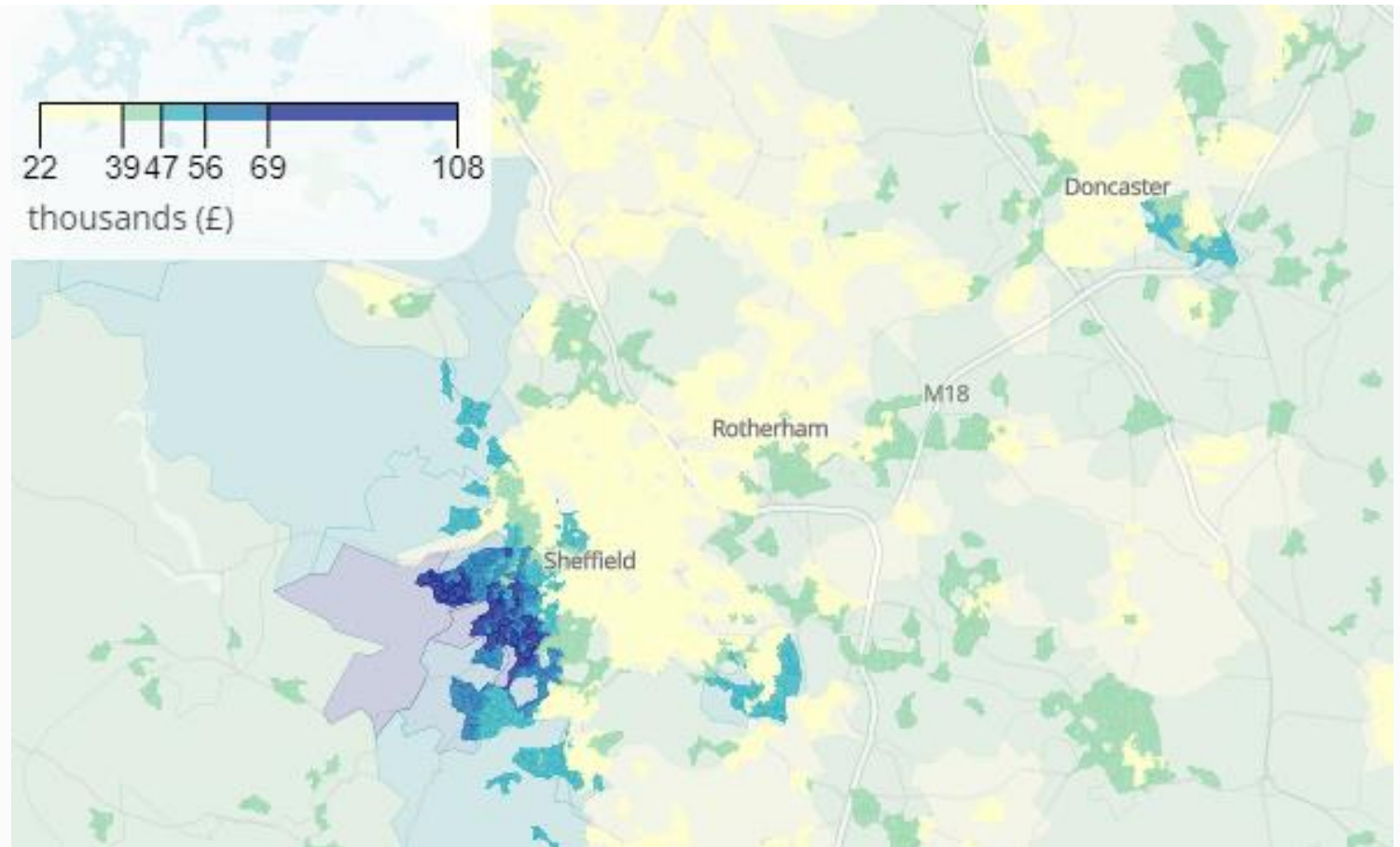


## There are clear geographic disparities in household incomes

This map highlights the total annual household income in each MSOA. Household incomes vary across South Yorkshire significantly.

The most affluent parts of South Yorkshire are to the West of Sheffield, where a large portion of households have a total income of over £69,000.

A large portion of households in South Yorkshire have total incomes between £22,000 to £37,000. Only a small number of neighbourhoods outside of Sheffield have a household income beyond £47,000.



# Tradable Sectors and Jobs

Tradeable sectors, producing goods and services which can be sold elsewhere, are critical drivers of economic growth.

This section looks at the geography of jobs in tradeable sectors in South Yorkshire and how these have evolved over the last several years.

The analysis shows growth in the corridor between Sheffield and Rotherham but some concerning declines in urban centres.

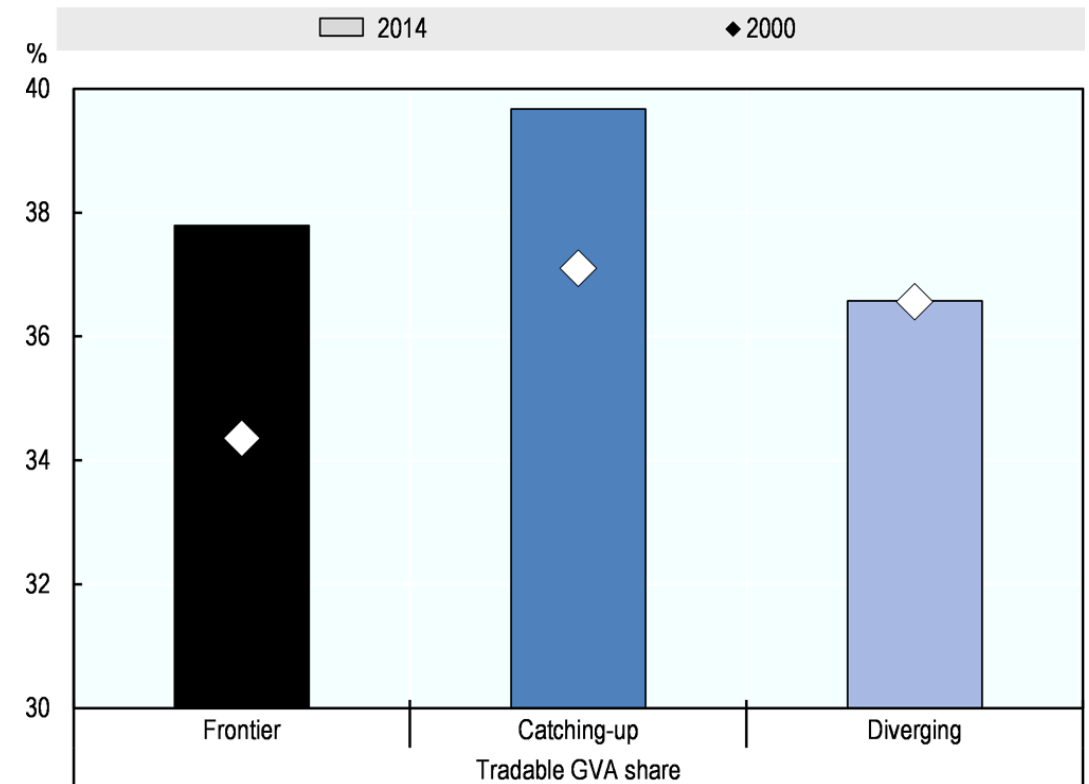
Sheffield is the only local authority which has seen the share of all jobs which are in tradeable sectors grow between 2015 and 2021.

## Why do we care about tradeable sectors and jobs?

**Tradeable sectors are essential sources of growth and productivity improvements in any economy and comparative strength in tradeable sectors have been shown to be higher in regions that were catching up to a national frontier.**

Tradeable sectors, defined as those that produce goods and services that can be traded outside of the region, are the key to increasing productivity and generating growth. This is because growth and prices are not limited by conditions in the local market and are more likely to innovate as they are exposed to more competition.

OECD research on growth and closing regional differences found that regions who closed the gap\* to their national frontier (the most productive decile of ITL3 areas) between 2000 and 2014.



Source: Productivity and Jobs in a Globalised World. OECD, 2018

\* Defined as growing by at least 5 percentage points in 14 years more than their national frontier over the 2000-14 period

## The geography of jobs tradeable sectors in South Yorkshire

The majority of tradeable jobs in South Yorkshire are in Sheffield, as are most of the areas with the highest concentration of tradeable jobs.

49.2% of the 184,900 tradeable jobs in South Yorkshire in 2021 are based within Sheffield, a slight increase on the share that were in Sheffield in 2015 (47.4%).

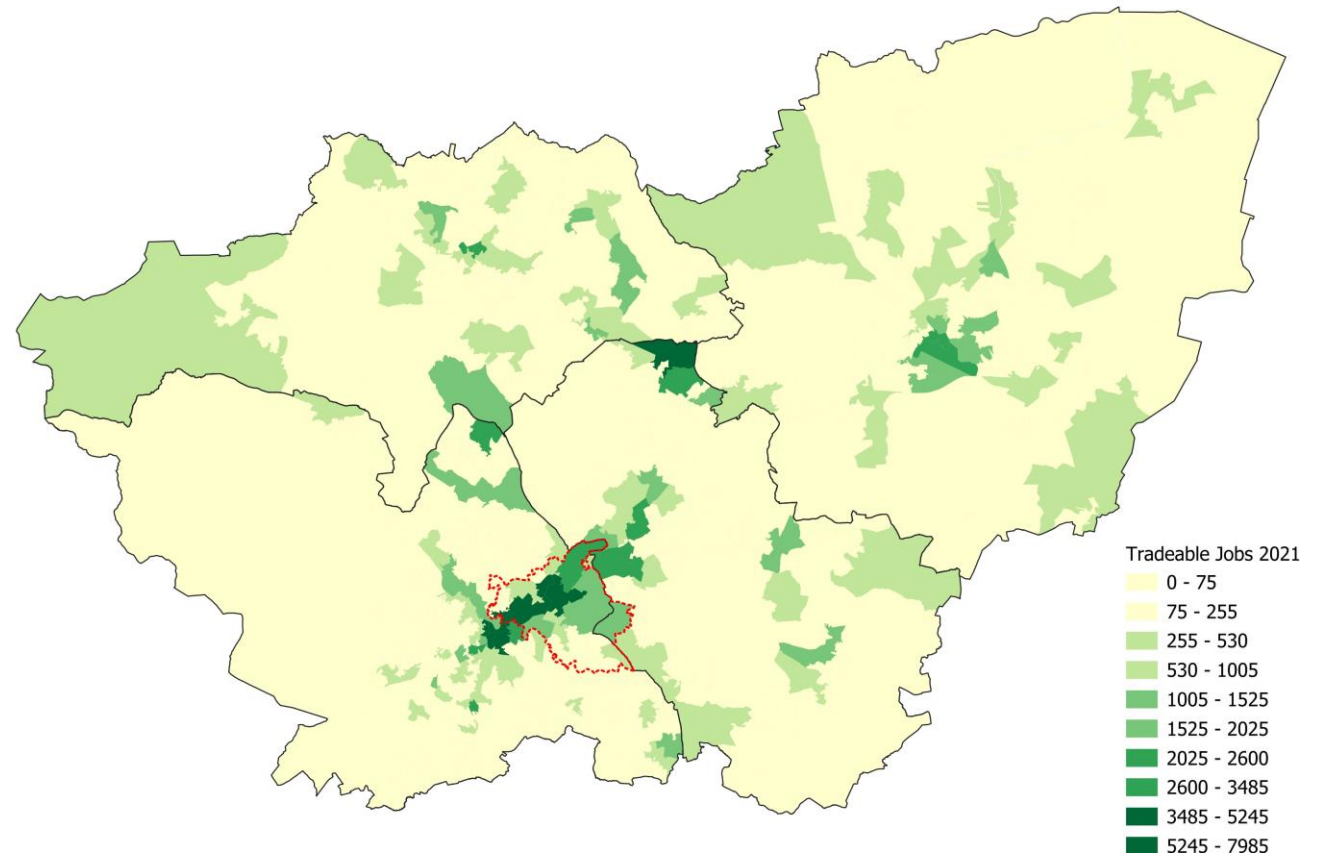
Overall, in 2021, 32% of jobs in South Yorkshire were in tradeable sectors, slightly lower than the national average over 35.6%.

The number of jobs increased 4.3% between 2015 to 2021, below the national increase of 5.9%.

The sectors included in the analysis of tradeable jobs are:

- Manufacturing
- Professional, Scientific and Technical
- Finance and Insurance
- Information and Communications
- Administration and Support Services
- Arts, Entertainment and Recreation

Tradeable Jobs





## Tradable sectors – Combined Authorities

The share of jobs that are tradeable in South Yorkshire lags the national average and some selected comparators, only with a higher share than Liverpool City Region. The change in tradeable jobs is also lagging comparators besides West Yorkshire as the gap widens from the Great Britain average.

South Yorkshire also demonstrates a lag in the total growth of jobs.

	Tradeable Jobs 2021	Total Jobs 2021	% of jobs which are tradeable	Change in tradeable jobs 2015 - 2021	% change in tradeable jobs 2015 - 2021	% change in jobs 2015 - 2021
South Yorkshire	184,000	577,000	31.9%	6,000	3.4%	5.0%
Greater Manchester	513,000	1,391,000	36.9%	69,000	15.5%	13.6%
Liverpool City Region	194,000	673,000	28.8%	14,500	8.1%	11.3%
West Yorkshire	403,000	1,084,500	37.2%	3,000	0.8%	5.5%
Great Britain	10,812,000	30,381,000	35.6%	607,000	5.9%	5.7%

Source: Metro Dynamics analysis of BRES data.

The sectors included in the analysis of tradeable jobs are: Manufacturing. Professional, Scientific and Technical. Finance and Insurance. Information and Communications Administration. Support Services Arts, Entertainment and Recreation.

## Tradable sectors by local authority

The evolution of tradeable jobs across the local authorities in South Yorkshire has been uneven over the last number of years, with growth above the national average in Barnsley and Sheffield but a decline in jobs in tradeable sectors in Rotherham.

Sheffield is the only local authority which has seen a growing share of total jobs in tradeable sectors, with growth in tradeable sectors exceeding the overall percentage change in the number of jobs.

	Tradeable Jobs 2021	Total Jobs 2021	% of jobs which are tradeable	Change in tradeable jobs 2015 - 2021	% change in tradeable jobs 2015 - 2021	% change in jobs 2015 - 2021
Barnsley	26,150	85,000	30.8%	2,150	9.0%	11.8%
Doncaster	34,250	128,000	26.8%	1,250	3.8%	5.8%
Rotherham	33,500	100,000	33.5%	-2,750	-7.6%	-1.0%
Sheffield	91,000	264,000	34.5%	7,000	8.3%	5.2%
Great Britain	10,812,000	30,381,000	35.6%	607,000	5.9%	5.7%

Source: Metro Dynamics analysis of BRES data.

The sectors included in the analysis of tradeable jobs are: Manufacturing. Professional, Scientific and Technical. Finance and Insurance. Information and Communications Administration. Support Services Arts, Entertainment and Recreation.



## Tradable sectors - Core Cities

Sheffield only very slightly lags the Great Britain average in the share of jobs that are tradeable. It does lag Manchester and Leeds but has a greater share of tradeable jobs than Liverpool.

While Sheffield is closing the gap than the Great Britain average in the share of tradeable jobs, the rate at which the share is growing does lag Manchester and Liverpool significantly. Sheffield also sees the slowest growth in total jobs.

	Tradeable Jobs 2021	Total Jobs 2021	% of jobs which are tradeable	Change in tradeable jobs 2015 - 2021	% change in tradeable jobs 2015 - 2021	% change in jobs 2015 - 2021
Sheffield	91,000	264,000	34.5%	7,000	8.3%	5.2%
Liverpool	77,500	269,500	28.8%	15,500	25.0%	16.4%
Manchester	163,500	416,000	39.3%	30,500	22.9%	18.9%
Leeds	197,000	471,000	41.8%	7,500	4.0%	8.9%
Great Britain	10,812,000	30,381,000	35.6%	607,000	5.9%	5.7%

Source: Metro Dynamics analysis of BRES data.

The sectors included in the analysis of tradeable jobs are: Manufacturing. Professional, Scientific and Technical. Finance and Insurance. Information and Communications Administration. Support Services Arts, Entertainment and Recreation.

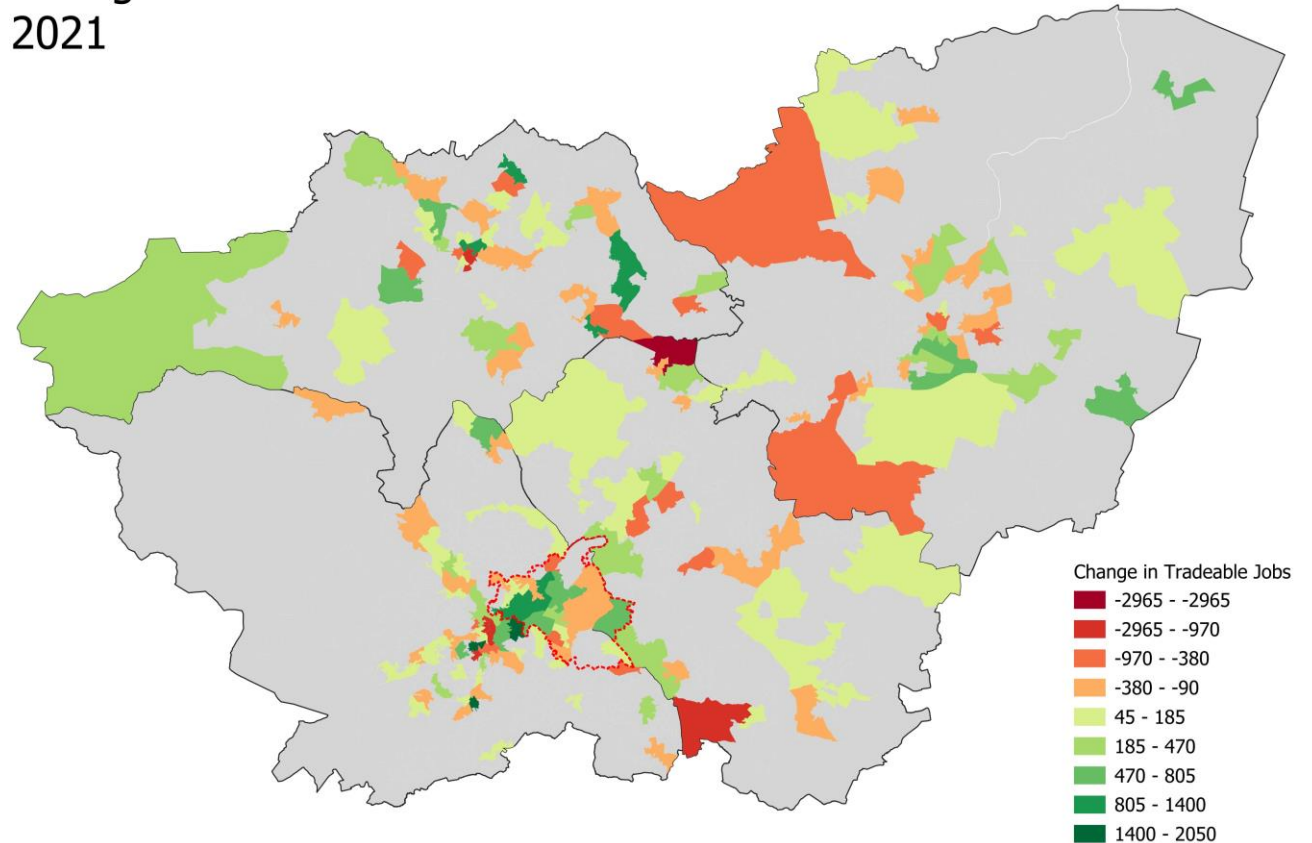
## Growth in Sheffield/Rotherham corridor - but issues in urban centres?

Overall, the number of tradeable jobs in South Yorkshire increased by 6080 between 2015 and 2021.

The change was uneven across South Yorkshire with strong overall growth in Sheffield and Barnsley, moderate growth in Doncaster and a decline in Rotherham.

Within local authorities there appears to have been a contraction in the number of tradeable jobs in parts of the urban centres, particularly in Sheffield city centre and in Barnsley town centre.

Change in Tradeable Jobs 2015 - 2021



## Change in Tradeable Jobs: detailed spatial analysis

**LSOA level analysis of the change in tradeable jobs per hectare showed growth in the Sheffield-Rotherham corridor but declines in parts of urban centres.**

To understand the dynamics of tradeable jobs in more detail we have looked at:

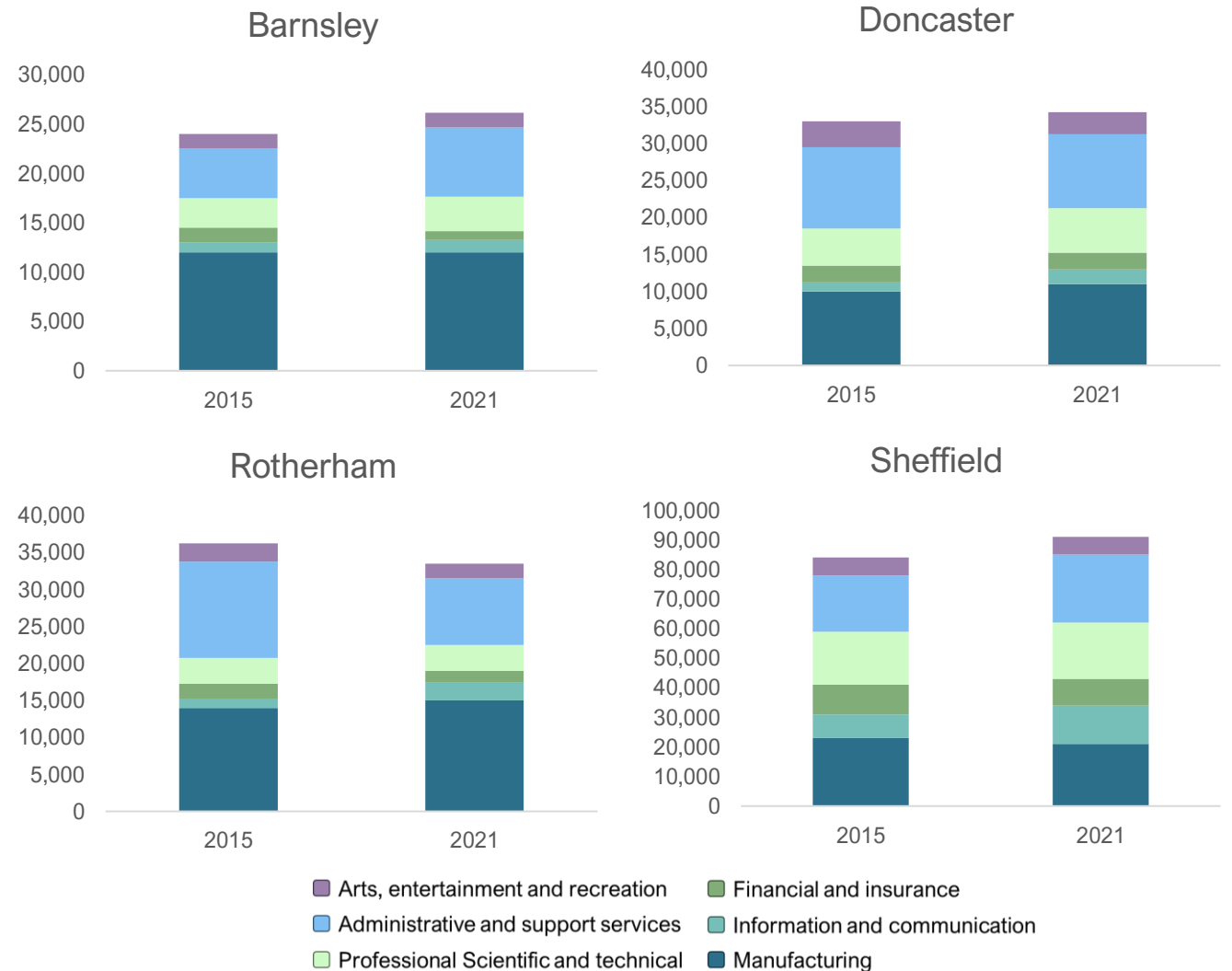
- The change in the number of tradeable jobs at the LSOA level
- The number employed by tradeable sector at the LA level
- The change in the number of jobs in each tradeable sector by LSOA

The LSOAs covered by AMID are indicated by a red border.

## Change in tradeable jobs by broad sector area

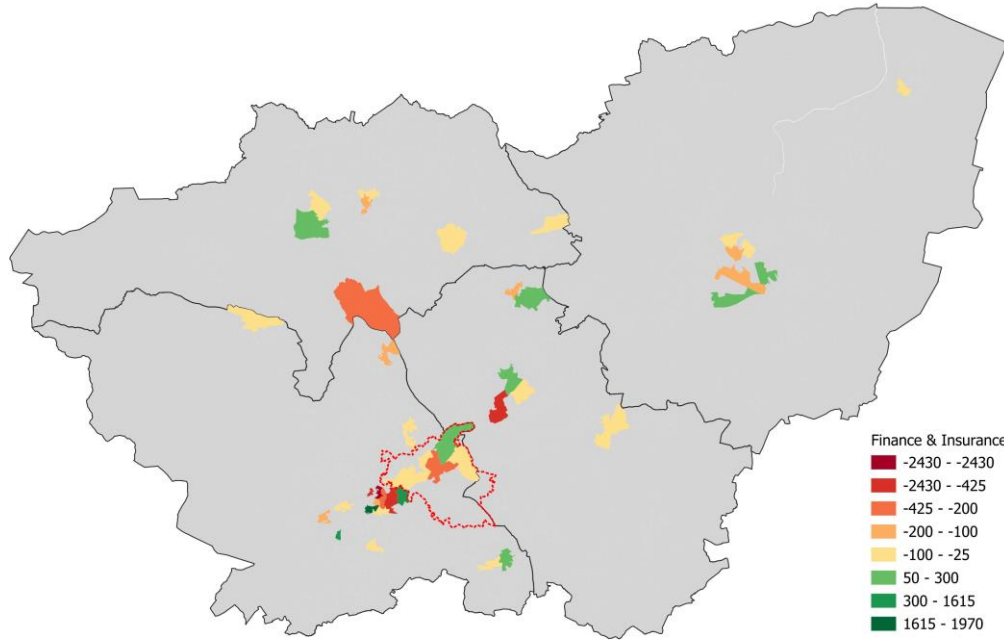
Looking at the sector composition shows that:

- The decline in Rotherham was mainly driven by a decline in admin and support services, employment in manufacturing and ICT increased.
- Sheffield saw manufacturing employment fall while there were increases in professional, scientific and technical activities as well as admin and support services
- Barnsley saw a rise in admin and support services and little change elsewhere
- In Doncaster employment in manufacturing, ICT and professional activities rose while admin and support services fell.



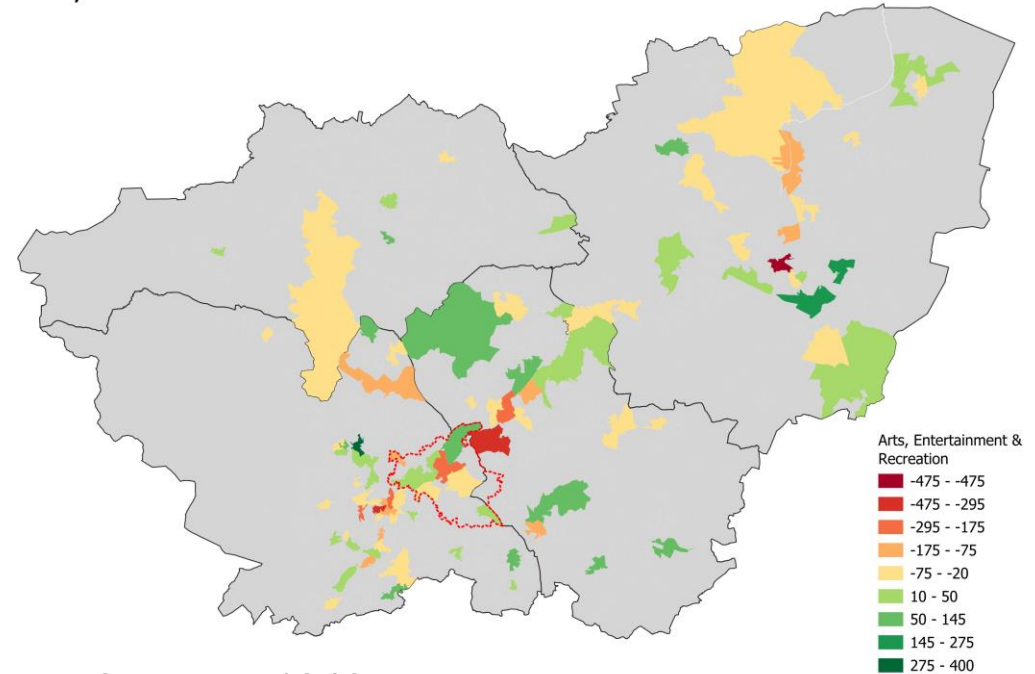
# Financial and cultural roles have declined, which is concerning

Finance & Insurance



Net Change: -1500

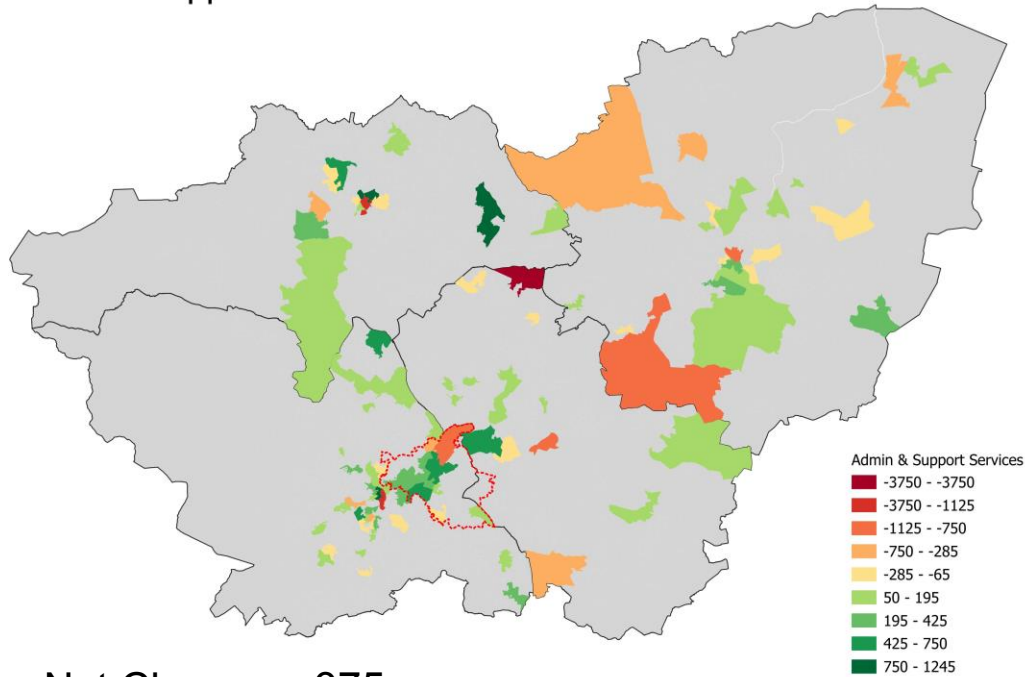
Arts, Entertainment & Recreation



Net Change: -1840

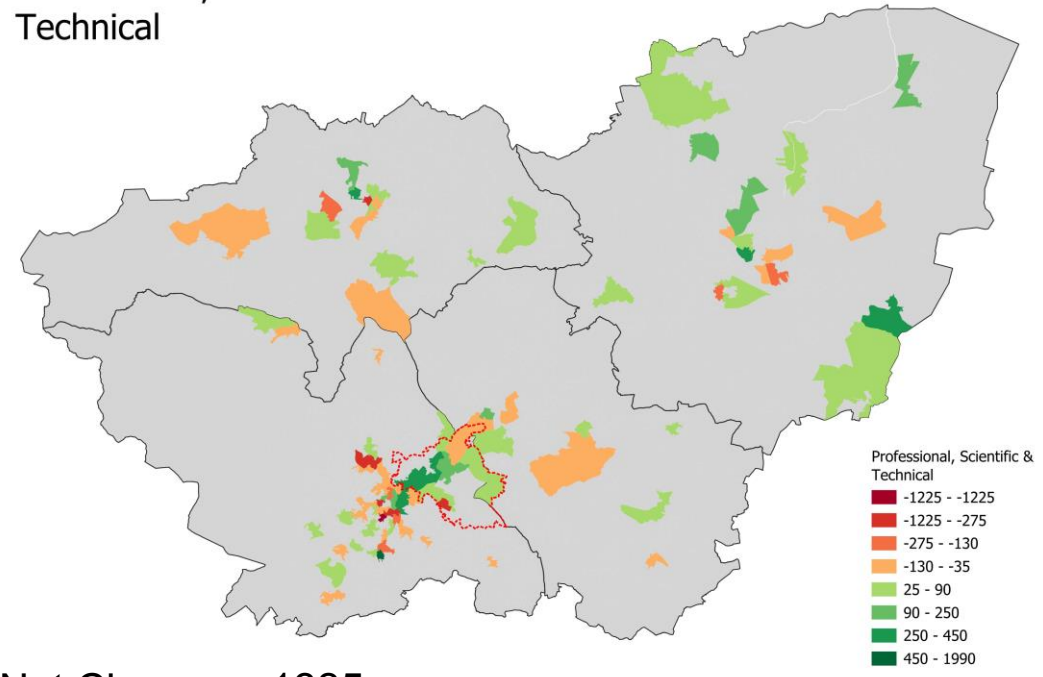
# Positively, there has been a clear growth in admin and support services and professional, scientific and technical jobs...

Admin & Support Services



Net Change: +975

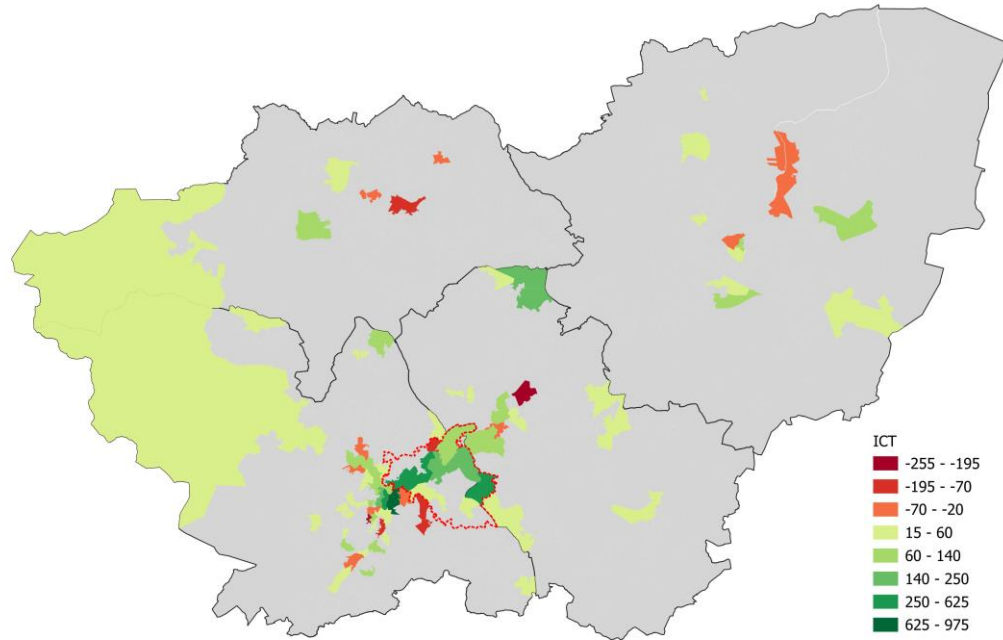
Professional, Scientific & Technical



Net Change: +1385

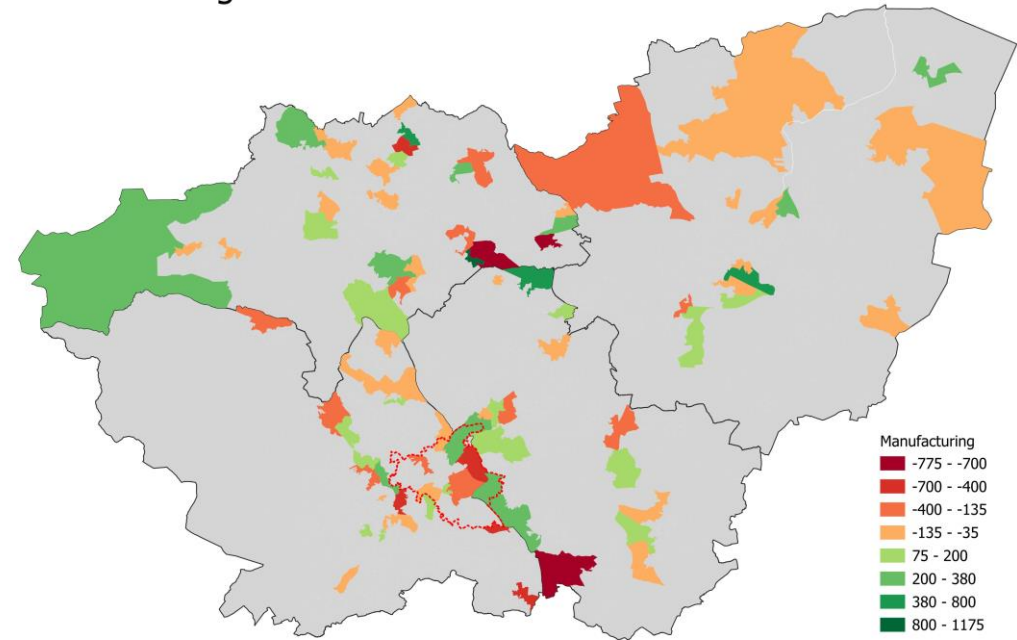
# As well as growth in ICT and manufacturing

ICT



Net Change: +6390

Manufacturing



Net Change: + 670

# Networks, R&D and Finance

South Yorkshire has a low business density and each of the local authorities are ranked low on Economic Complexity.

Unlike other core cities, Sheffield does not specialise in sectors which are more specialised and does not rank highly in an Economic Complexity index as a result.

Levels of capital investment and expenditure on R&D are low while early-stage seed funding makes up a lower share of deals in South Yorkshire.

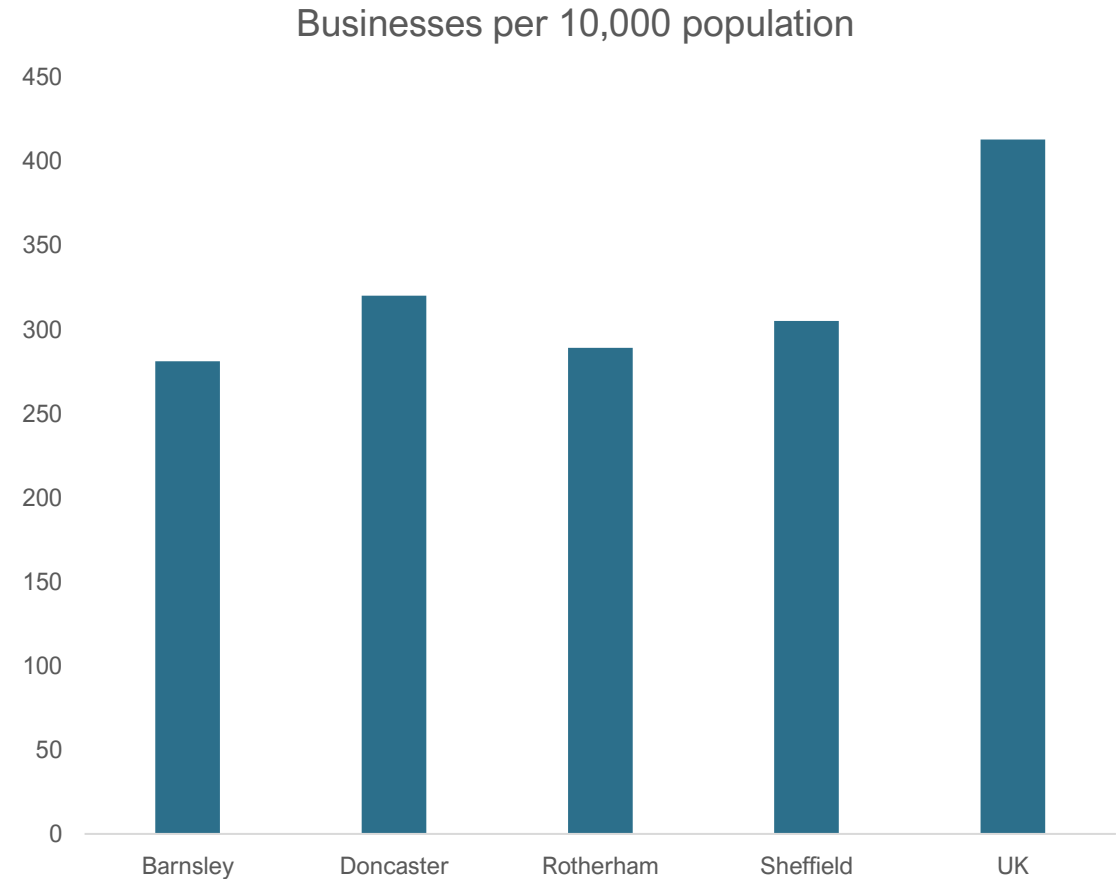


## Business density is low compared to the national average.

The four South Yorkshire local authorities have a considerably lower business density (measured as business per 10,000 people) than the national average.

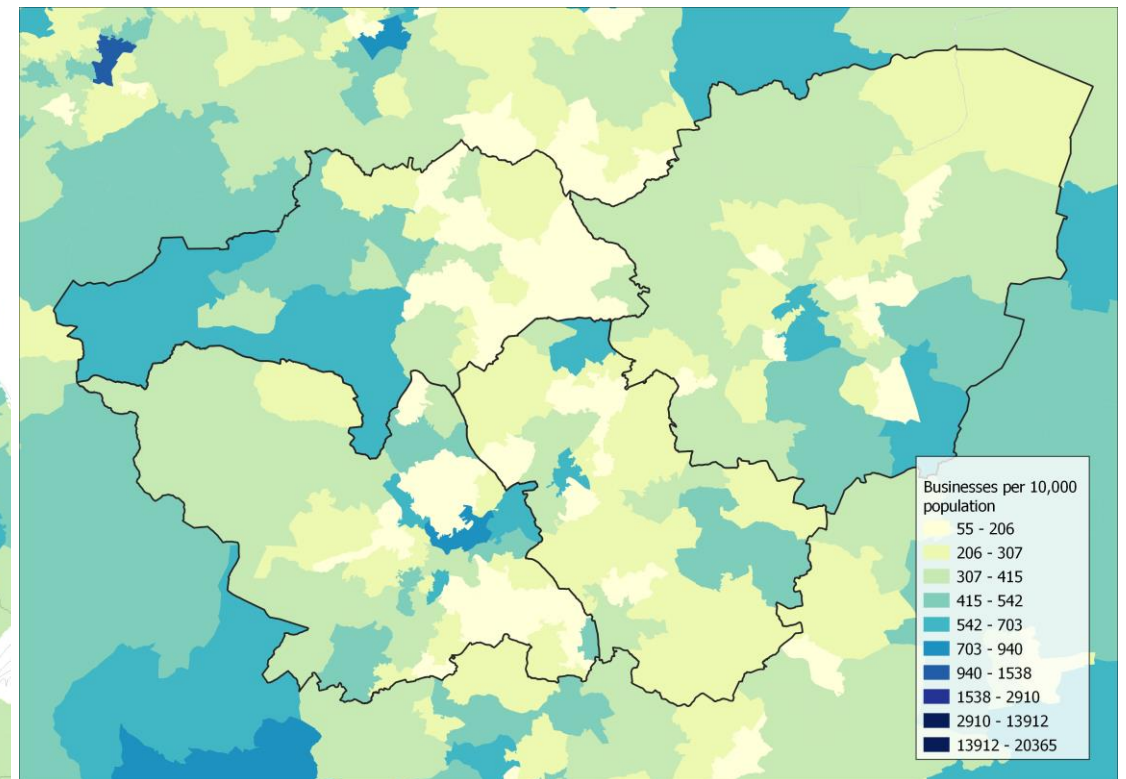
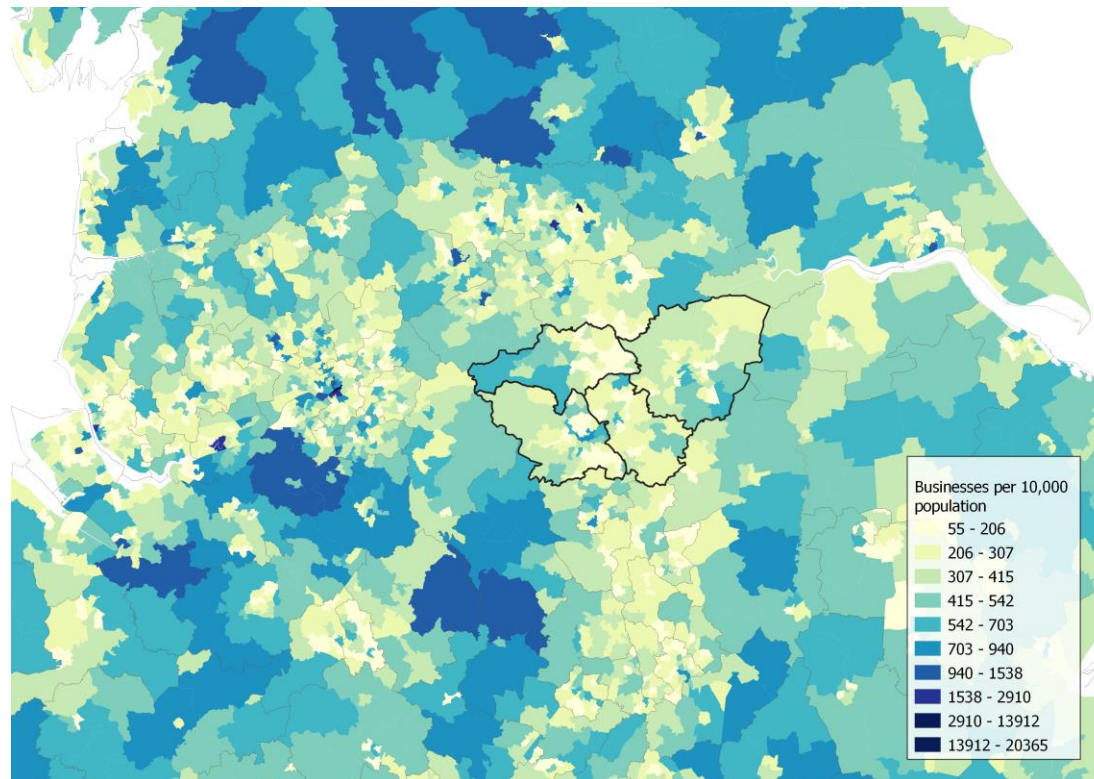
Doncaster, with the highest business density in South Yorkshire is 23% below the UK average and would, if it reached the UK level, have an additional 2800 businesses.

Sheffield would, in the same case, have an additional 5900 businesses.



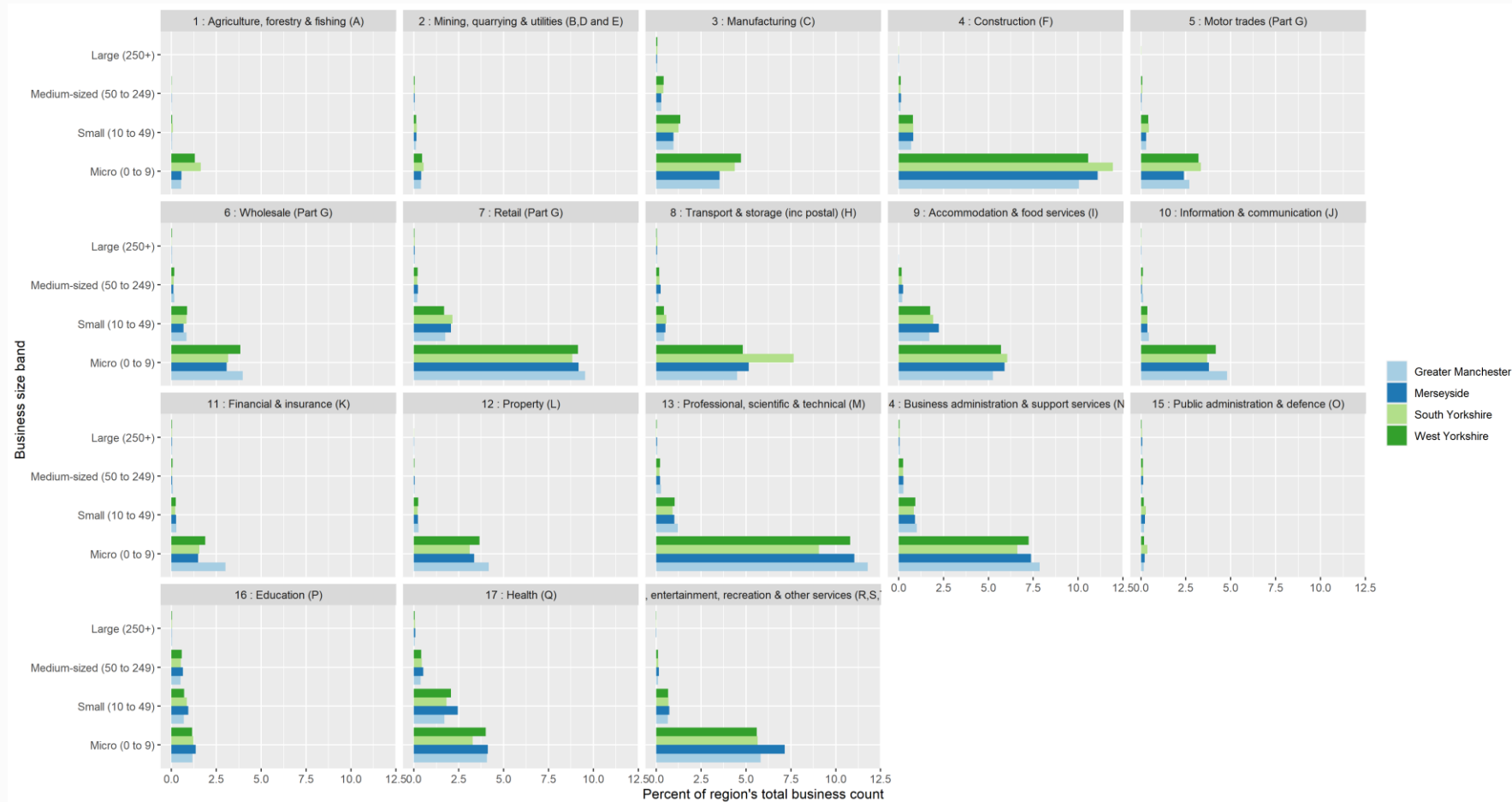
## Sheffield city centre does not have the same level of intense activity as other cities in the North

The maps below show business density (measured as businesses per 10,000 population) by LSOA. These show that South Yorkshire does not have the same areas of high density that are found in the comparator MCAs and across the North.

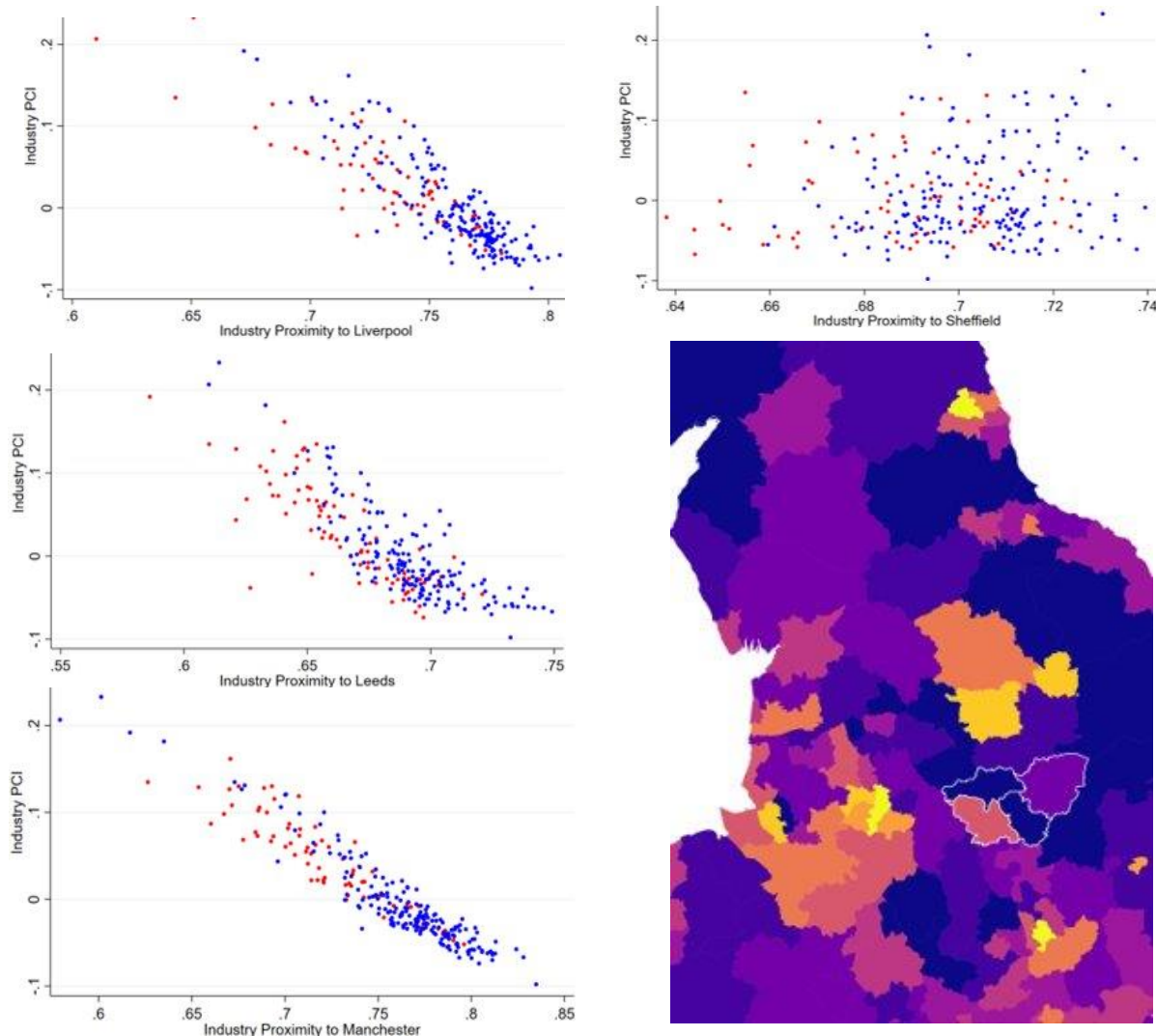


# South Yorkshire is not an outlier for business sizes – comparators are also dominated by SMEs

The graphs below represent business counts by size for different industries in each of the four comparators. South Yorkshire has a high share of micro firms for manufacturing, construction and transport & storage, but fewer micro firms in professional, scientific & technical, business administration & support services, and health.



## South Yorkshire is not as economically complex as its comparators



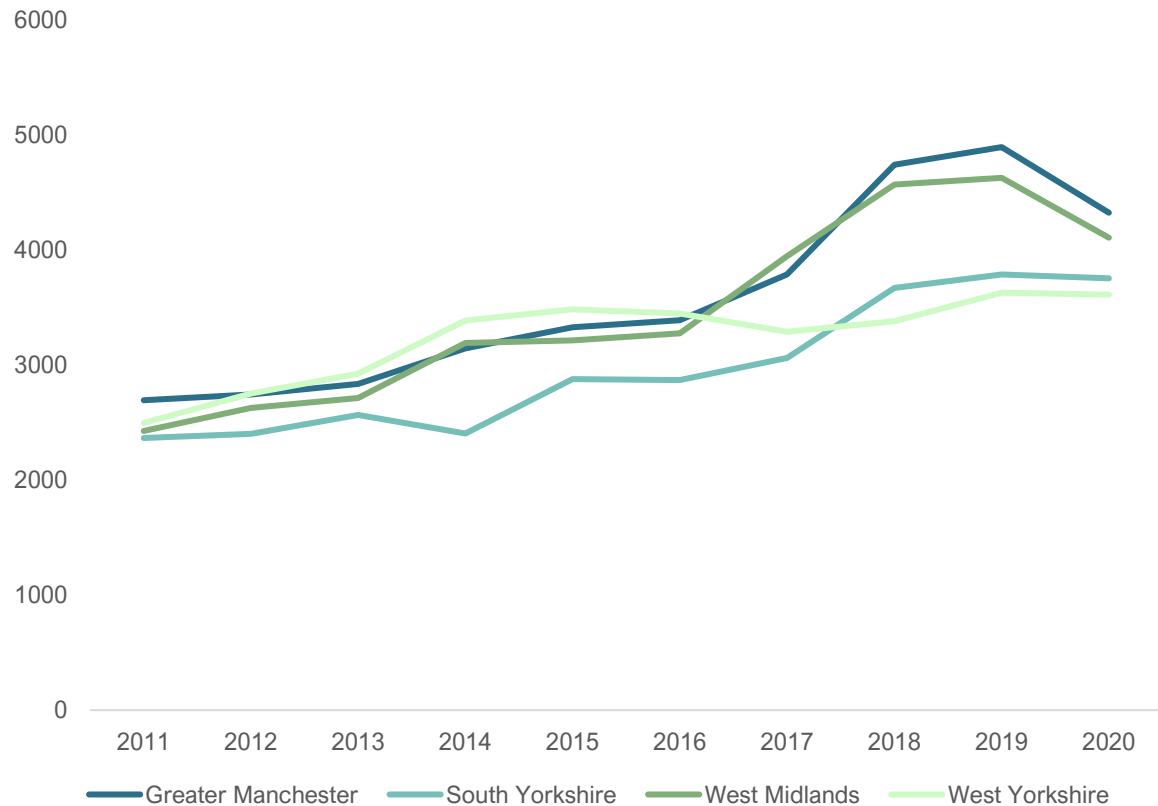
- Economic Complexity (EC) analysis looks at the relative specialisation in different geographically concentrated sectors of different places.
- It finds that Sheffield in particular is not a typical 'core city'.
- These tend to focus on specialised sectors such as finance and professional services which can be seen here for Leeds, Liverpool, Manchester, Newcastle and Nottingham.
- The relative underperformance of South Yorkshire and Sheffield in particular needs to be addressed.
- Opportunities have been identified for financial services, creative arts and broadcasting.

Local Authority	EC Rank (of 363)
Sheffield	171
Doncaster	261
Rotherham	343
Barnsley	358

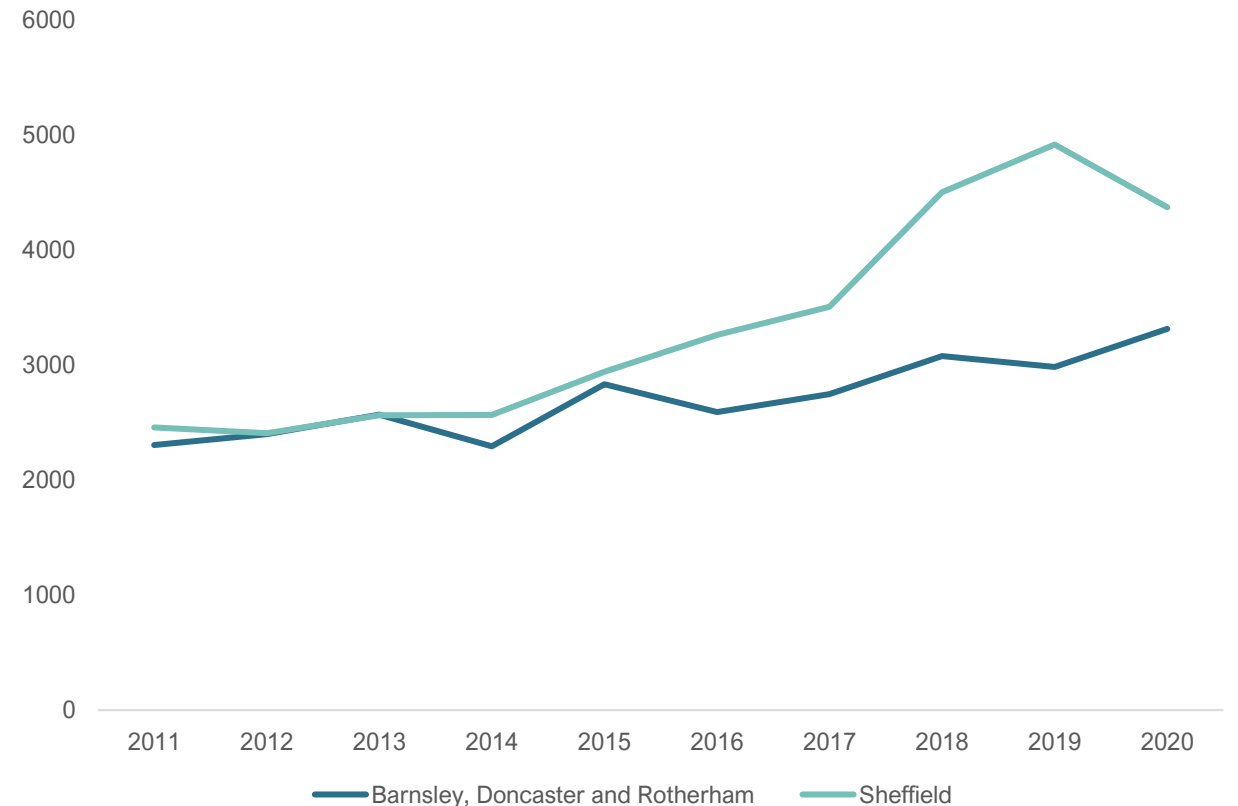
# Investment in fixed capital assets is lower than comparators

If GFCF per capita in South Yorkshire was the same as in Greater Manchester this would have seen an additional £800m invested in capital in 2020.

Gross Fixed Capital Formation (per capita)

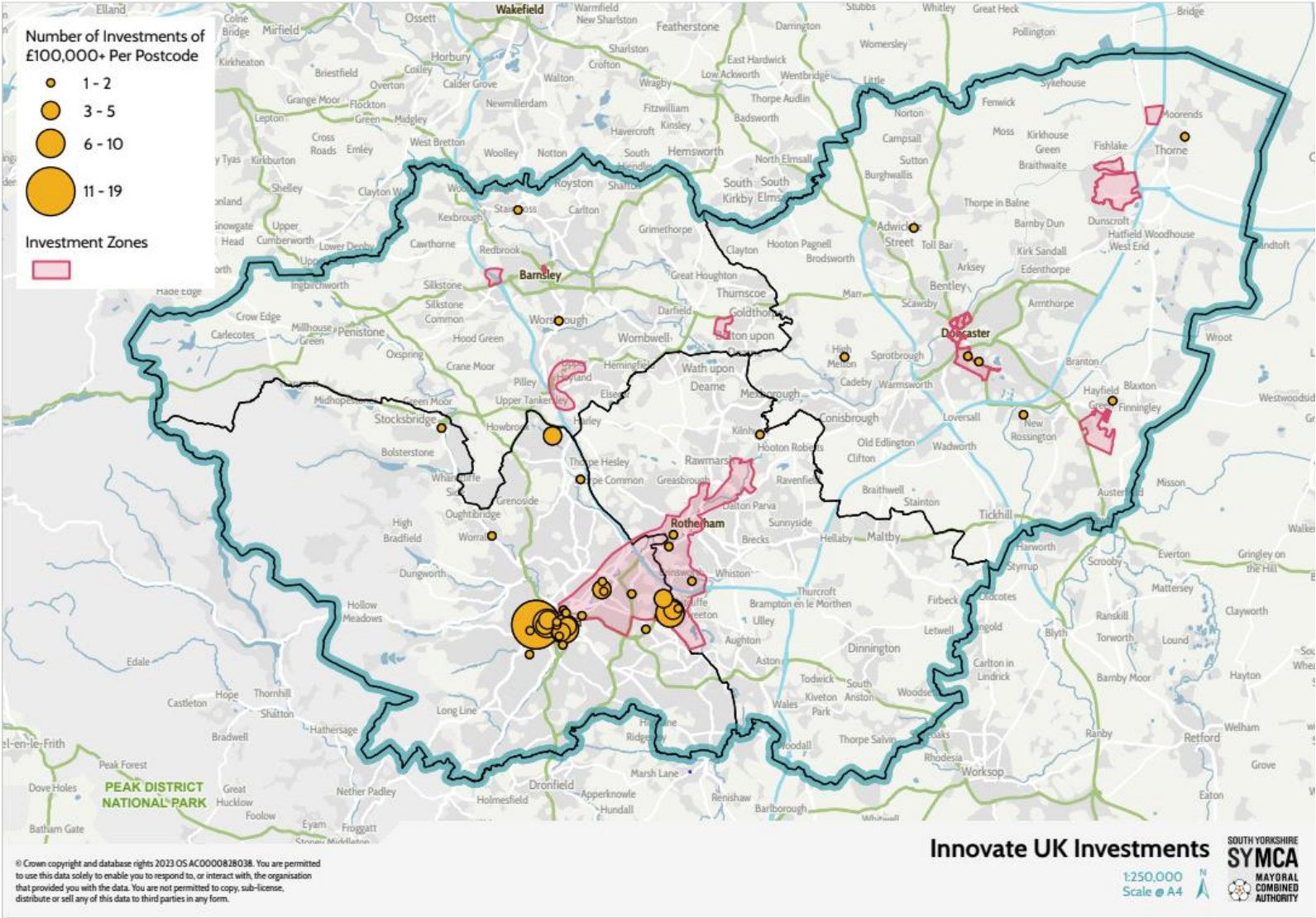


GFCF (per capita)





# Highest share of Innovate UK investments centered around the Sheffield-Rotherham corridor

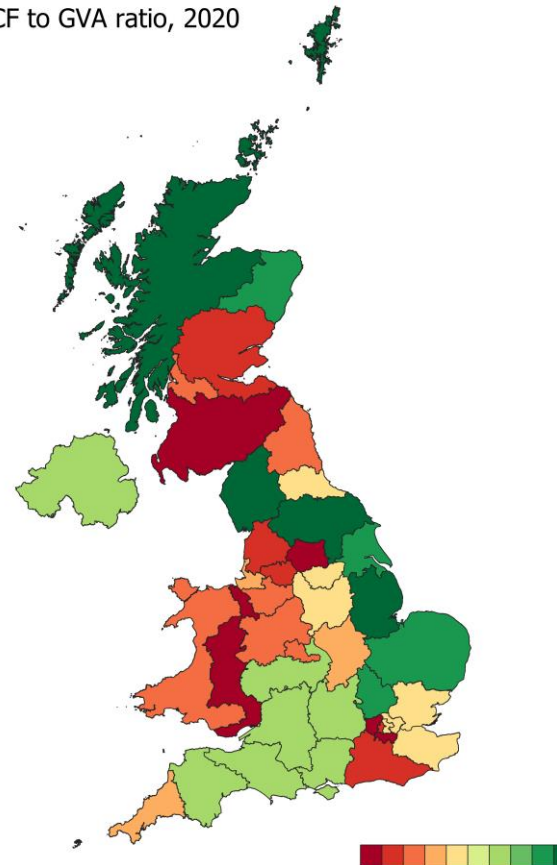


## But SYMCA not a significant outlier nationally

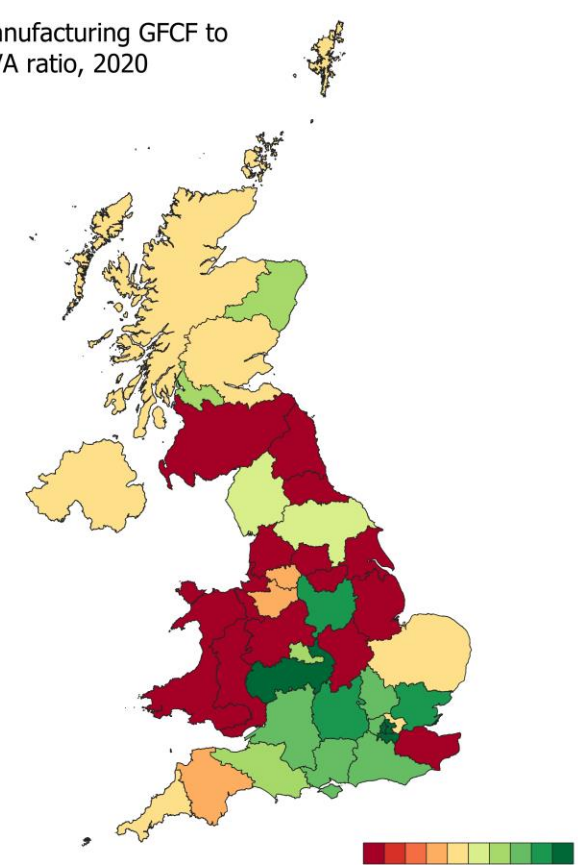
Looking at the ratio of total GFCF to GVA in 2020 South Yorkshire is not a major outlier, falling in the 6<sup>th</sup> highest decile. However, given its productivity performance a higher level of investment relative to other places maybe desirable to close the gap.

For Manufacturing, it is in the lowest decile for GRFC as a ratio of GVA and this is the result of lower investment than other places, rather than higher GVA.

GFCF to GVA ratio, 2020



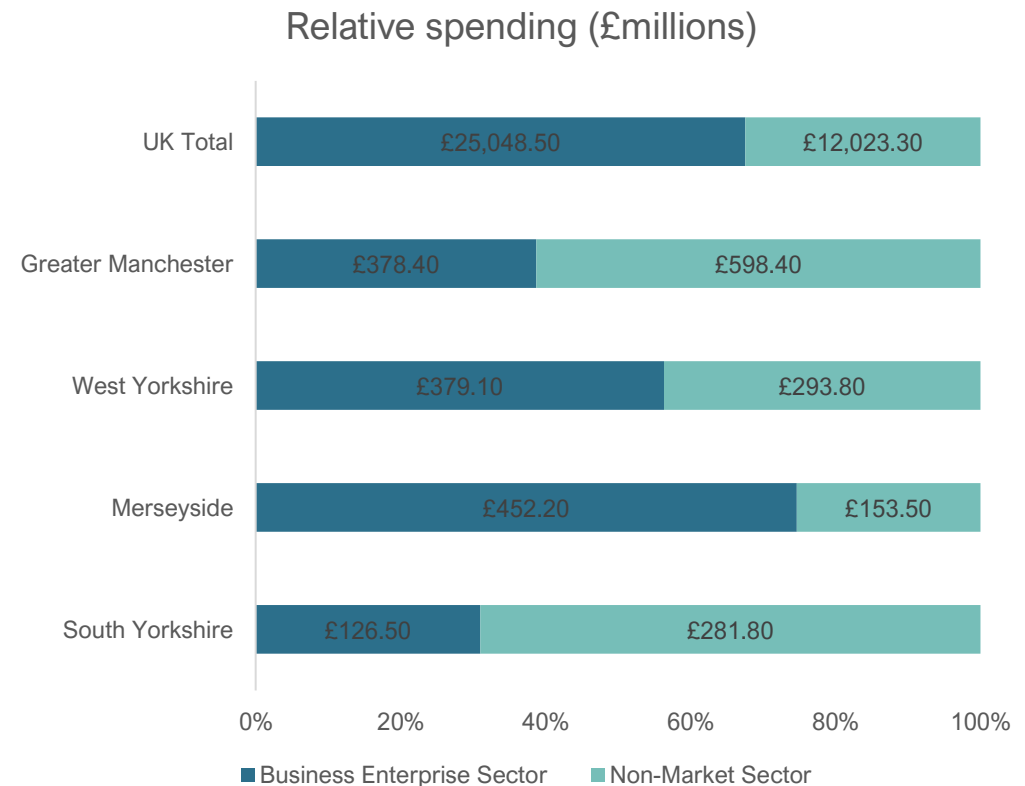
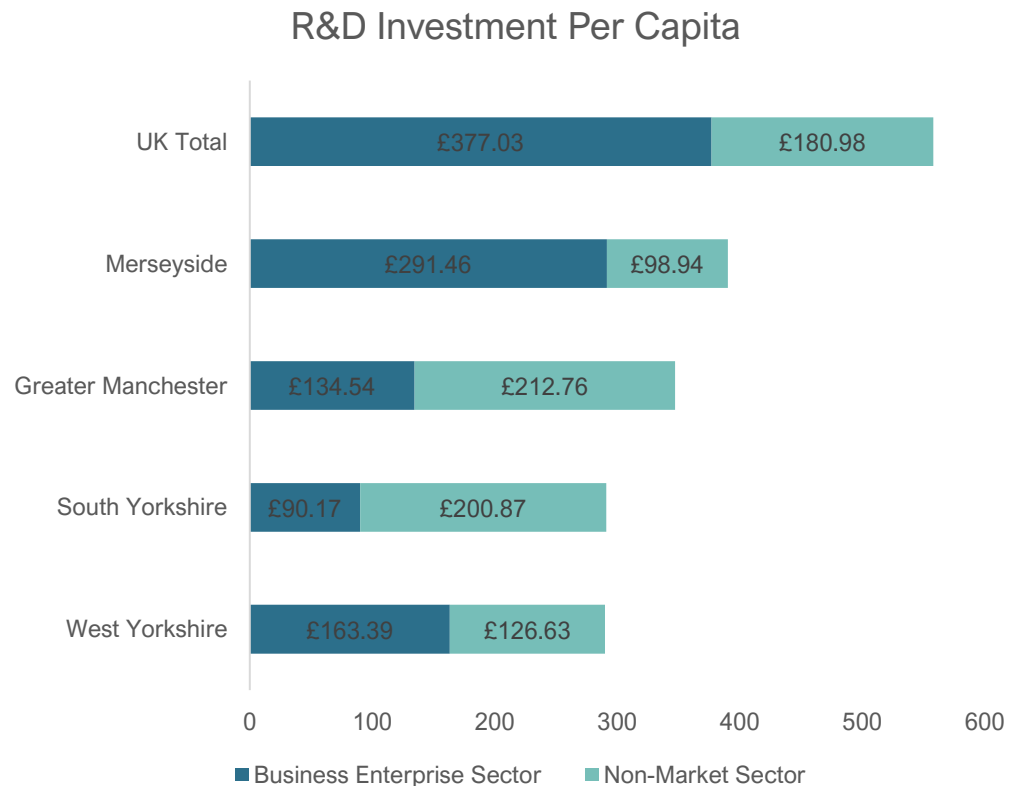
Manufacturing GFCF to GVA ratio, 2020



## R&D is weak, particularly in the private sector

Total R&D spending per capita is low in South Yorkshire, £277 below the UK average. Also notable is the degree to which it is dominated non-market sectors. Businesses accounted for just over 30% of spending on R&D in 2018 compared to 68% nationally.

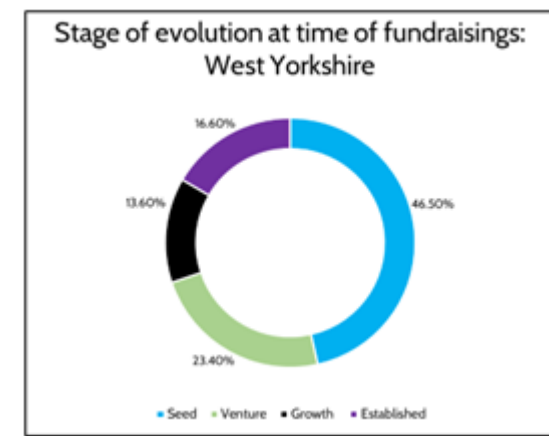
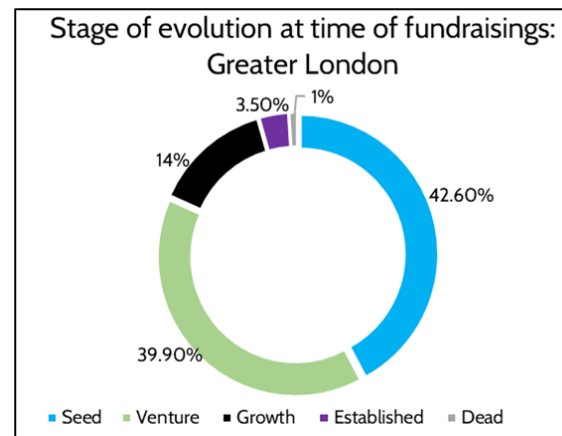
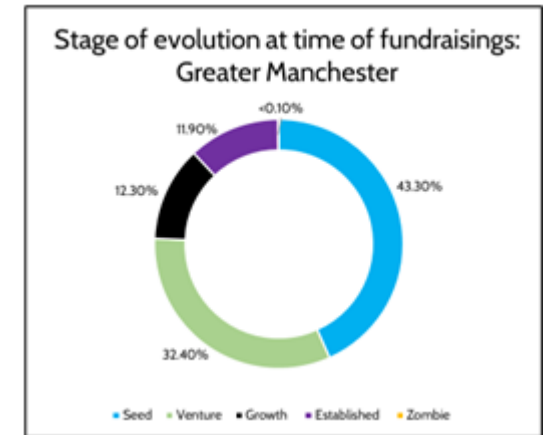
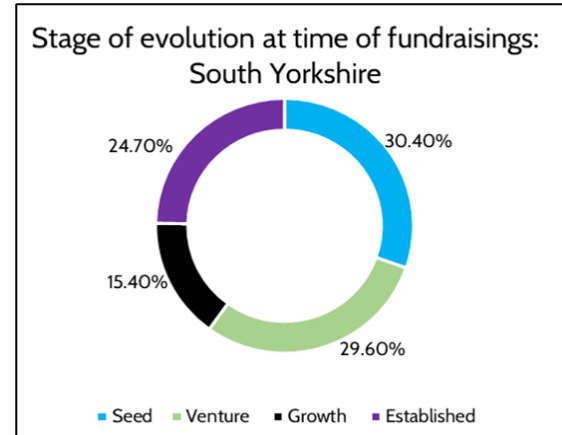
If the leverage rate of private spend by public spend was the same as in Greater Manchester, where non-market sectors also make up a large share of R&D this would amount to an additional £50m, if it reached the level in West Yorkshire this would result in an additional £200m in private R&D.





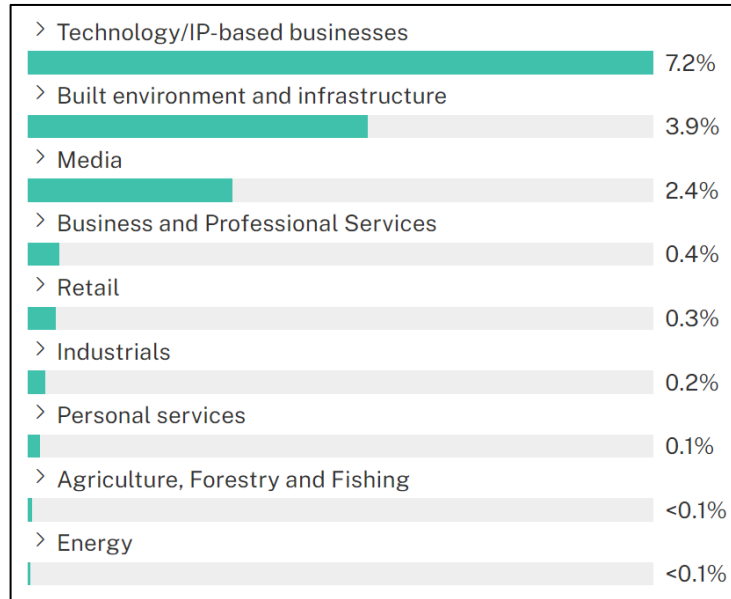
# Is lower business density driven by access to finance or low investment opportunities?

- Greater Manchester businesses fundraised 3.3 times more capital per head than South Yorkshire ones in the last five years.
- South Yorkshire businesses are less likely to raise funding at the 'seed' stage rather than at subsequent stages compared to GM and WY comparators.
- This may have long term implications as early-stage finance rounds are opportunities for businesses to bring in expertise and mentorship which help them to grow
- Is this because access to finance is difficult or is this because there are insufficient investible ideas?

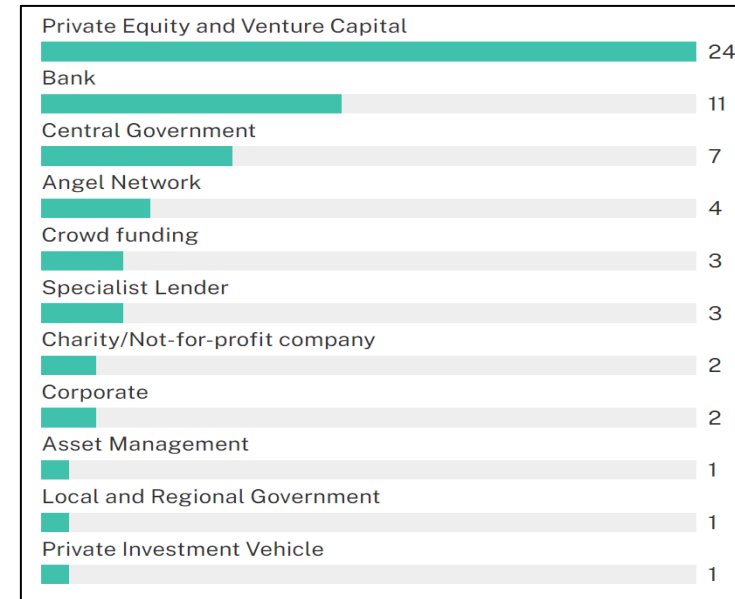


# The technology sector receives a strong share of funding in South Yorkshire

Sector breakdown (01.01.18- 01.01.23)



Fund Type (01.01.18- 01.01.23)



- The main type of funding received by SYMCA businesses is Private Equity and Venture Capital. The overall trend is similar to both Greater Manchester and Greater London. The sector breakdown is similar too.
- Northern Gritstone is the top funder for businesses in South Yorkshire, while NPIF Equity finance funds the largest number of businesses.
- Doncaster businesses received the lowest amount of equity investment and accelerator attendance in SYMCA.

# Transport, Infrastructure, Environment and Land Use

Whilst a large share of the population can commute to urban centres, there are still significant pockets of land disconnected. Sheffield's transport connectivity also lags core city comparators.

Housing is generally more affordable in South Yorkshire, compared with other city regions, but there are big disparities between Sheffield and the other boroughs.

CO2 emissions are falling in line with the national average. There are disparities in South Yorkshire in CO2 consumption, particularly between urban and rural areas.

## Transport and Land Use

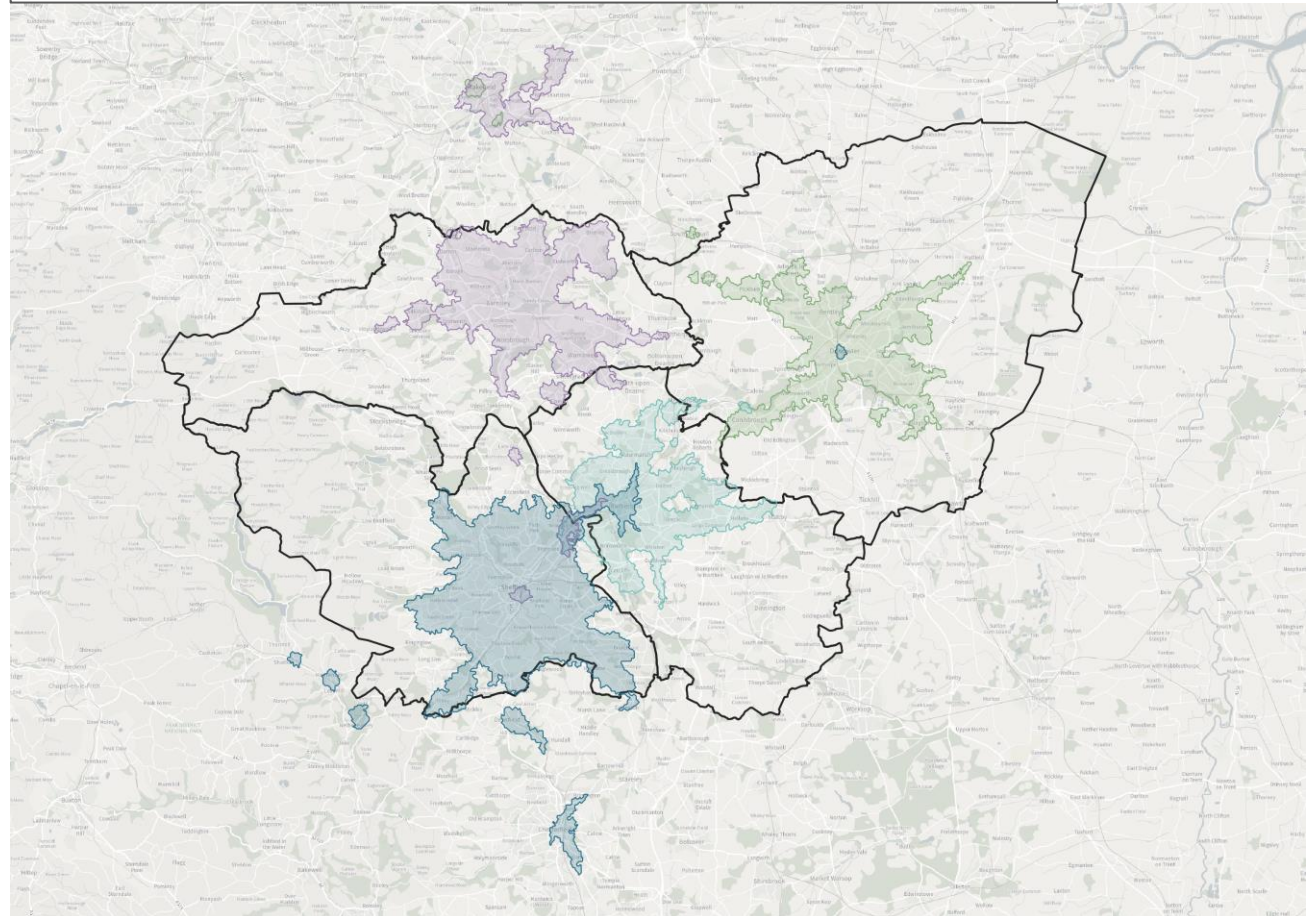
- Transport: an obvious limiting factor compared to other areas
- Land Use: affordability is good, denser Sheffield not leading to similar growth to Manchester – need to investigate office/commercial space and costs?
- Policy options?
  - SYCA spatial strategy with land use and integrated bus/tram system (including new stops/lines), denser Sheffield city centre (residents and employment space)
  - CRSTS: Total budget of £570m of which £30m on Gateway East (DSA), £38m on Tram rolling stock, £35m on Tram infrastructure renewals with additional projects supporting roads maintenance, buses and new station at Waverley. Are these right priorities/what about second five year settlement?

## Transport Connectivity is not great in SY; Sheffield compares badly to comparators

An estimated 1,315,000 live within 45 mins of one of the four centres – comparing well to the 1.4m population of South Yorkshire

But some areas of SY have poor connectivity including parts of all 4 boroughs

### 45 minute public transport journey to centre



Centre	Estimated pop within 45m PT
Sheffield	618,000
Barnsley	355,000
Doncaster	266,000
Rotherham	214,000



## Transport Connectivity for Sheffield does not compare well to comparators

Approximately 620,000 people live within 45 minutes of Sheffield City Centre by public transport, just over half the equivalent number for Manchester and below Leeds and Liverpool.

City	Estimated pop within 45m PT
Manchester	1,205,000
Leeds	1,007,000
Liverpool	935,000
Sheffield	620,000

Source: Census 2021

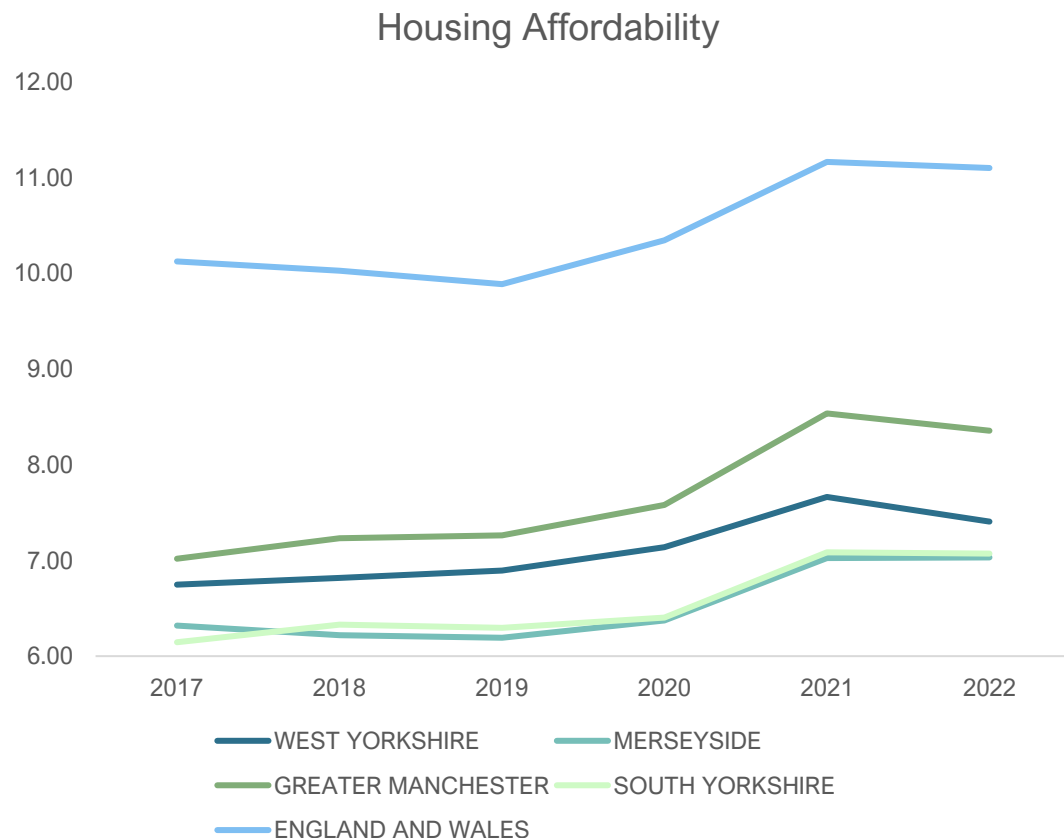
### 45 minute public transport journey to city centre



Source: Travel Time API

# South Yorkshire is affordable compared to national average and comparators

Housing Affordability is calculated by the average house prices, divided by the median annual earnings, demonstrating the number of years it would take to afford the cost of a house. The larger the value means the less affordable a house is.



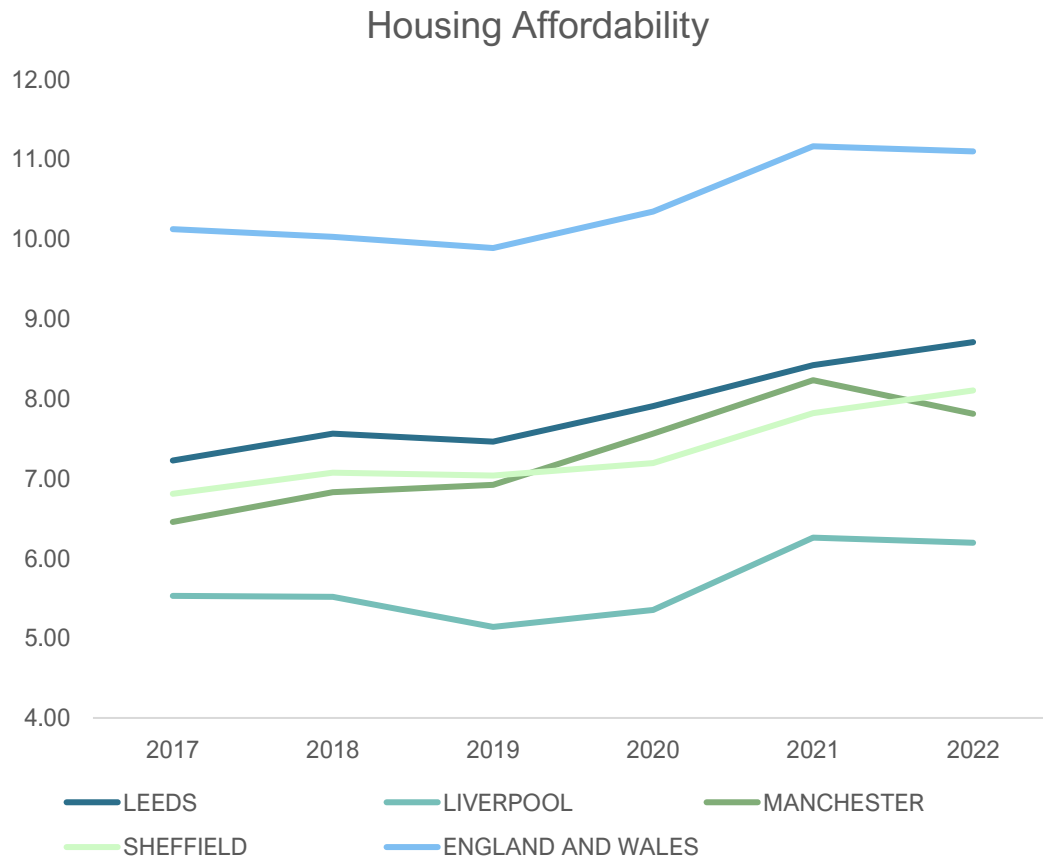
Five-year change (2017-2022)

	House Price	Income	Affordability
WEST YORKSHIRE	26%	15%	10%
MERSEYSIDE	30%	17%	11%
GREATER MANCHESTER	35%	14%	19%
SOUTH YORKSHIRE	28%	12%	15%
ENGLAND AND WALES	25%	14%	10%

- In 2022, it would take an average of seven years of earnings to buy a house in South Yorkshire. This is less time than England and Wales (~11.1 years), Greater Manchester (~8.4 years) and West Yorkshire (~7.4 years) deeming South Yorkshire to have better housing affordability than its comparators.
- However, houses in South Yorkshire are now 15% less affordable than they were in 2017.
  - This is a sharper decline in housing affordability than each of South Yorkshire’s comparators except Greater Manchester.

## Sheffield has similar affordability to Manchester and Leeds

Housing Affordability is calculated by the average house prices, divided by the median annual earnings, demonstrating the number of years it would take to afford the cost of a house. The larger the value means the less affordable a house is.



### Five-year change (2017-2022)

	House Price	Income	Affordability
LEEDS	31%	9%	21%
LIVERPOOL	34%	19%	12%
MANCHESTER	38%	14%	21%
SHEFFIELD	33%	12%	19%
ENGLAND AND WALES	25%	14%	10%

- Amongst the core cities, Sheffield’s housing affordability is in line with Manchester and Leeds.
  - This implies that there is a greater difference in housing affordability between the core city in South Yorkshire and the additional local authorities, when compared with other city regions.
- Each core city is also closing the gap with the national average in terms of housing affordability.



# Barnsley, Doncaster and Rotherham are even more affordable

Housing Affordability is calculated by the average house prices, divided by the median annual earnings, demonstrating the number of years it would take to afford the cost of a house. The larger the value means the less affordable a house is.



### Five-year change (2017-2022)

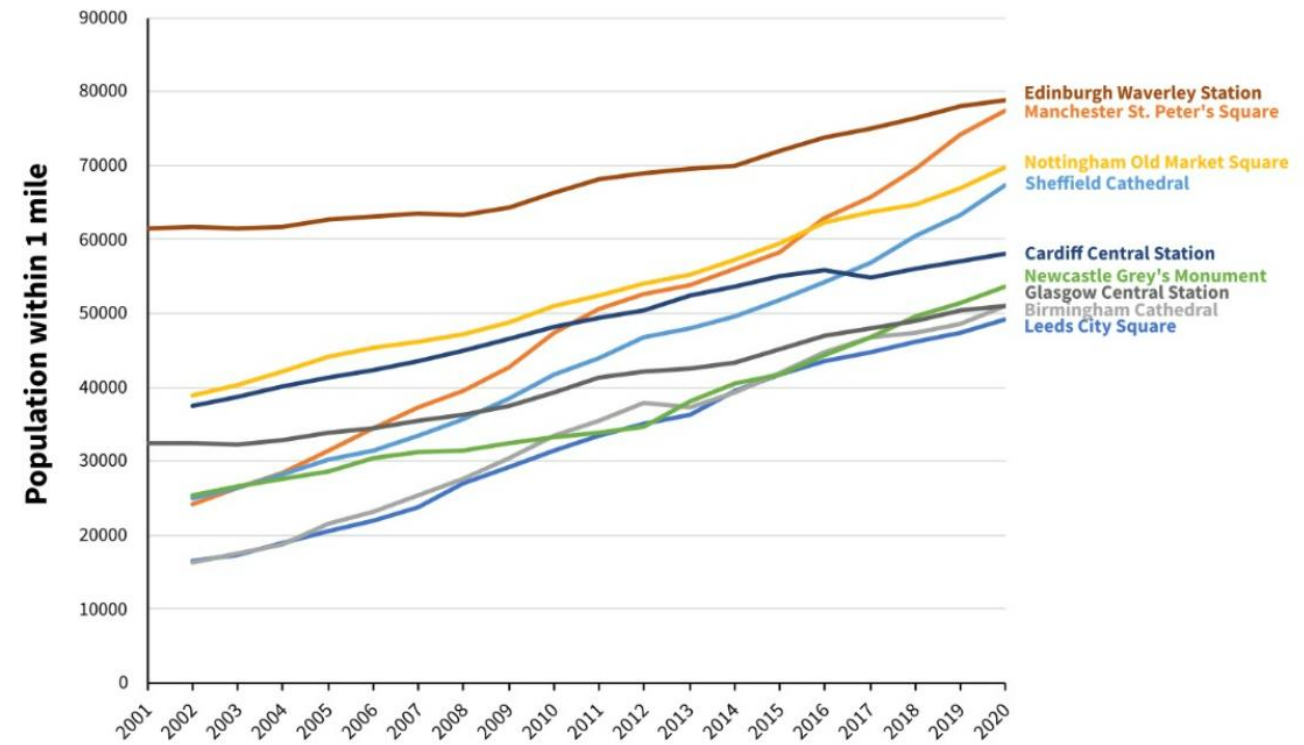
	House Price	Income	Affordability
<b>BARNSELY</b>	28%	12%	14%
<b>DONCASTER</b>	22%	15%	6%
<b>ROTHERHAM</b>	31%	11%	18%
<b>SHEFFIELD</b>	33%	12%	19%

- This graph demonstrates the difference between Sheffield and other South Yorkshire local authorities for housing affordability. The local authorities drive the housing affordability average in South Yorkshire.
- Housing Affordability is declining in each local authority, but slightly less so in Doncaster, due to higher income growth and a lower rise in house prices compared to other local authorities.

## Sheffield has gained population in its centre at a fast rate

- In Manchester this has been associated with significant growth in city centre jobs and productivity
- Sheffield has not seen the same effect – why?
- We also want to investigate the availability and costs of office space.

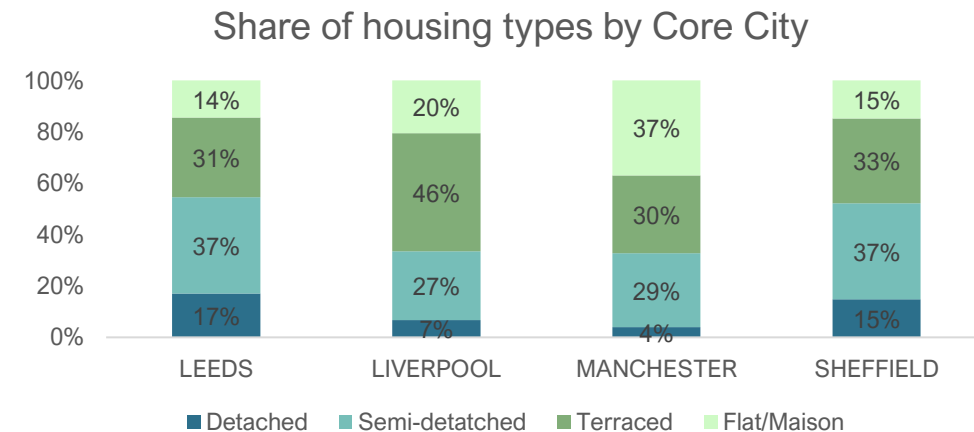
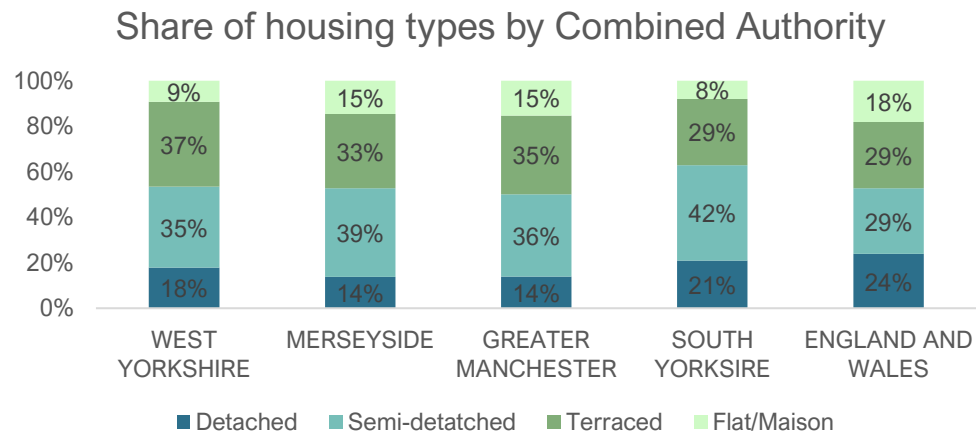
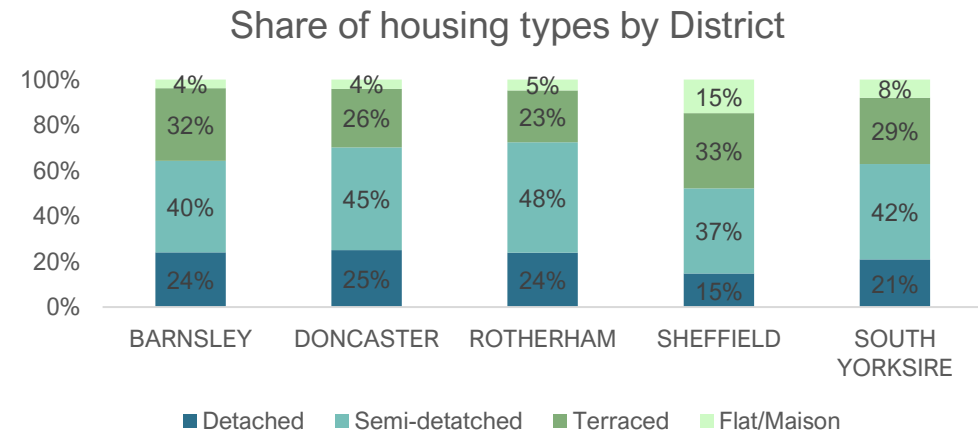
Great Britain's city centres have become far denser



Source: Tom Forth

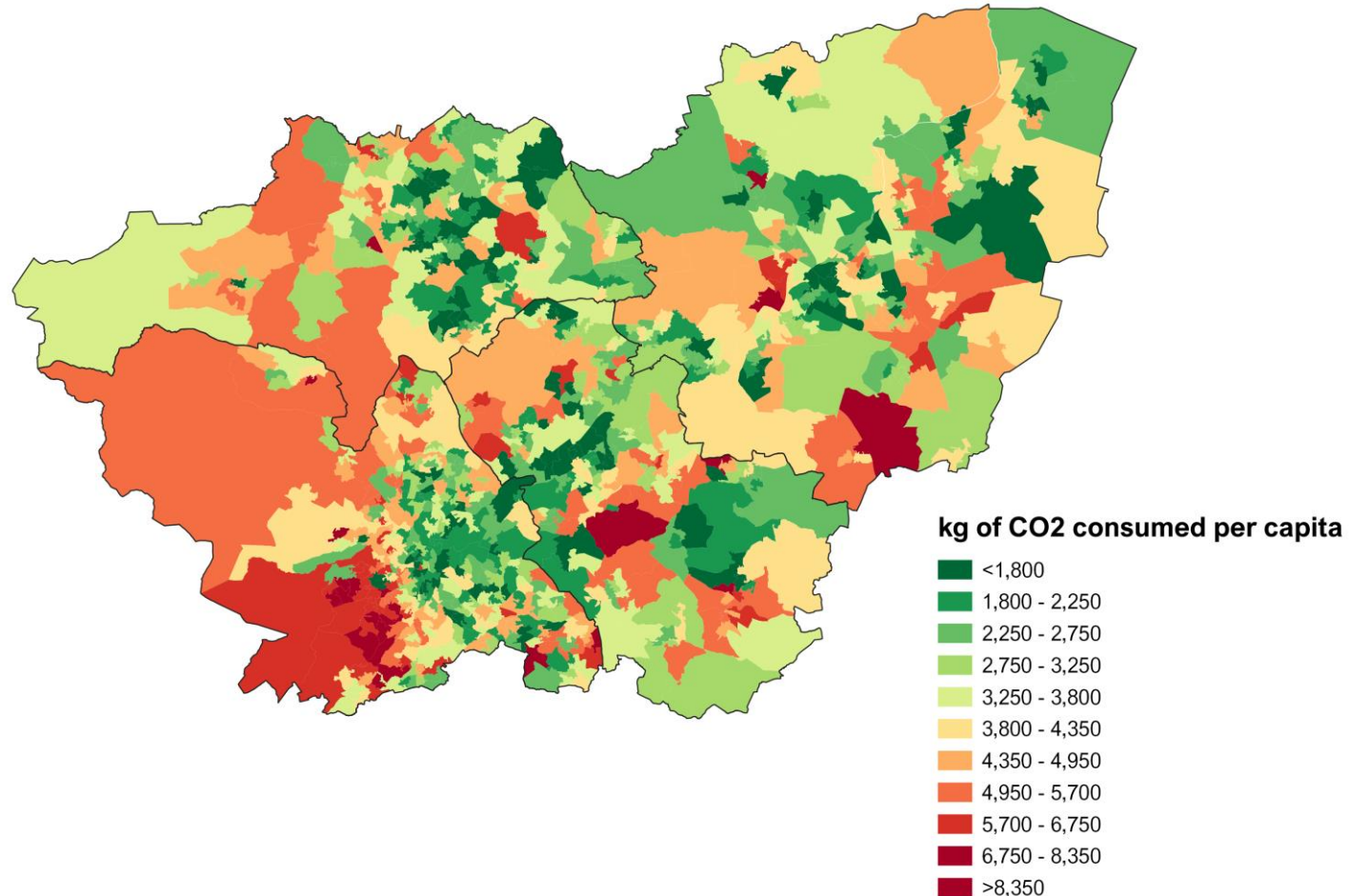
## Not a clear difference in broad types of housing?

- South Yorkshire has more detached housing and fewer flats than comparators.
- Within SYMCA, Sheffield is an outlier with a higher share of terraced housing and flats.
- However, compared to other core cities Sheffield is quite similar to Leeds - with Manchester and Liverpool being outliers in terms of higher share of flats and much lower shares of detached housing – some of which is driven by different administrative boundaries.



## Per capita CO2 consumption is greater in rural areas

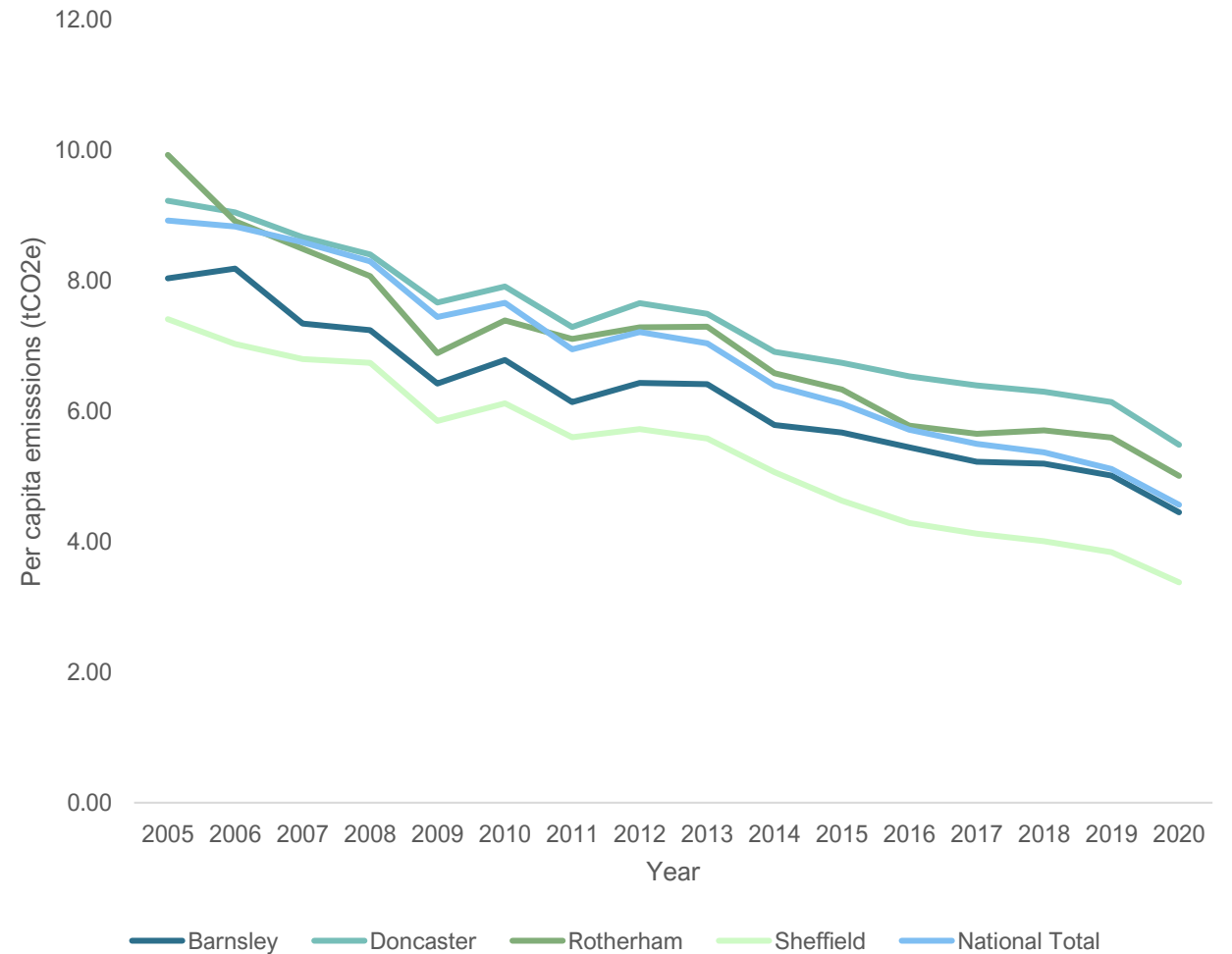
- More densely populated areas in South Yorkshire are seen to have less kg of CO2 consumed per capita than more sparsely populated rural areas.
  - Particularly, the Sheffield-Rotherham corridor and the town centers of Barnsley and Doncaster.
- The areas that see the greatest volumes of CO2 emissions in South Yorkshire are in rural areas and in certain pockets between urban centers.
  - Areas around the Peak District have particularly high CO2 emissions per capita



## Per capita CO2 emissions is falling in each local authority

The general trend shows that throughout South Yorkshire, CO2 emissions per capita are declining. All the local authority areas are showing a decline ranging from 40% in Doncaster to 55% in Sheffield.

The amount that CO2 emissions have declined per capita is greater in Sheffield and Rotherham than the national total. Whereas the rate at which Doncaster and Barnsley has reduced CO2 emissions across the 15 years was slower than the national average.



# Labour Market, Skills and Health

South Yorkshire is not an outlier in labour market indicators against comparators. Employment of ethnic minorities is particularly low, driven by Sheffield and Doncaster. Qualification attainment is greater in Sheffield than the other boroughs.

There is a rural-urban divide of wages in South Yorkshire, but average earnings across the combined authority is closing the gap with the national average.

The healthy life expectancy lags other combined authorities and a significant share of economic inactivity can be attributed to long-term illness.

Skills attainment slightly lags comparators and businesses have reported difficulty in hiring for high-skilled jobs.

## Labour Market, Skills and Health

Labour Market: Not an outlier in terms of core indicators, skills challenges for firms but being under utilised/not enough demand? Draw on Sheffield Hallam work? Anyone we should speak to on tech talent?

Health: lower HLE expectancy than comparators.

Policy options?

- Target AEB/skills funding on gaps (e.g. Skills Bank)
- No general 'inactivity' issue compared to comparators but clear ethnic disparities
- HLE gap - SYMCA one of few areas to be co-terminous with an ICS – what can be done to integrate health/skills policy?



## SYMCA not a particular outlier with comparators but some disparities

South Yorkshire has more unemployment than Liverpool City Region and West Yorkshire. The employment rate of ethnic minorities is particularly low. South Yorkshire also lags in the share of workers achieving qualifications at the NVQ4+ level.

	South Yorkshire		Greater Manchester		Liverpool City Region		West Yorkshire		United Kingdom	
	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)
Employment rate - aged 16-64	73.3	2%	72.4	1%	73.7	5%	73.4	0%	75.5	1%
Unemployment rate - aged 16-64	4.7	-23%	5.0	0%	3.1	-38%	3.6	-25%	3.6	-20%
% who are economically inactive - aged 16-64	23.0	-3%	23.8	-2%	24.0	-9%	23.9	3%	21.7	0%
% of economically inactive long-term sick	31%	14%	27%	7%	35%	9%	25%	19%	26%	17%
Employment rate females - aged 16-64	70.1	4%	68.9	2%	71.6	9%	69.1	3%	72.2	3%
aged 16-64 employment rate - ethnic minority	55.7	3%	60.6	3%	65.0	6%	64.8	16%	69.3	7%
% with NVQ4+ - aged 16-64 (2021)	37	18%	39	13%	39	24%	38	29%	43.5	14%
% with NVQ2+ - aged 16-64 (2021)	77	6%	76	6%	78	11%	75	11%	78.1	5%
% with no qualifications (NVQ) - aged 16-64 (2021)	7.0	-25%	8.3	-15%	7.9	-35%	8.5	-23%	6.8	-18%

## There are clear disparities across South Yorkshire

Barnsley, Doncaster and Rotherham each perform well in employment and unemployment rates relative to the South Yorkshire average. However, there is a disparity between the three local authorities and Sheffield in terms of skills and qualifications at both the NVQ2+ and NVQ4+ levels.

	Barnsley		Doncaster		Rotherham		Sheffield		South Yorkshire	
	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)
Employment rate - aged 16-64	74.0	5%	74.0	2%	73.2	-1%	72.8	3%	73.3	2%
Unemployment rate - aged 16-64	2.7	-51%	3.4	-49%	2.5	-49%	7.0	8%	4.7	-23%
% who are economically inactive - aged 16-64	23.9	-4%	23.4	6%	24.9	11%	21.7	-11%	23.0	-3%
% of economically inactive long-term sick	34%	10%	27%	-18%	32%	20%	33%	34%	31%	14%
Employment rate females - aged 16-64	68.6	6%	71.8	3%	74.5	9%	68.0	1%	70.1	4%
aged 16-64 employment rate - ethnic minority	68.0	9%	53.9	-18%	82.8	32%	50.7	1%	55.7	3%
% with NVQ4+ - aged 16-64 (2021)	31.2	16%	27.2	10%	31.9	27%	45.1	18%	37	18%
% with NVQ2+ - aged 16-64 (2021)	73.4	6%	73.6	4%	72.9	13%	80.9	3%	77	6%
% with no qualifications (NVQ) - aged 16-64 (2021)	9.3	-13%	9.4	19%	8.3	-29%	4.2	-49%	7.0	-25%

ONS, annual population survey

## Manchester has clearly worse labour market indicators than Sheffield – showing importance of regional links?

Sheffield is a stand out in the share of workers achieving a qualification at the NVQ2+ level when compared with other core cities. However, Sheffield has a relatively high unemployment rate and low employment amongst ethnic minorities.

	Leeds		Liverpool		Manchester		Sheffield	
	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)	Variable (%)	5yr change (%)
Employment rate - aged 16-64	77.3	1%	70.0	4%	67.8	1%	72.8	3%
Unemployment rate - aged 16-64	2.5	-43%	2.7	-54%	6.0	-5%	7.0	8%
% who are economically inactive - aged 16-64	20.7	5%	28.1	-2%	27.9	0%	21.7	-11%
% of economically inactive long-term sick	20%	16%	36%	15%	26%	17%	33%	34%
Employment rate females - aged 16-64	73.5	3%	66.5	8%	63.4	-1%	68.0	1%
aged 16-64 employment rate - ethnic minority	69.0	10%	63.3	17%	55.0	-2%	50.7	1%
% with NVQ4+ - aged 16-64 (2021)	46.2	37%	44.1	26%	45.1	16%	45.1	18%
% with NVQ2+ - aged 16-64 (2021)	79.1	9%	78.8	16%	71.7	-3%	80.9	3%
% with no qualifications (NVQ) - aged 16-64 (2021)	6.5	-31%	7.9	-50%	10.4	-3%	4.2	-49%

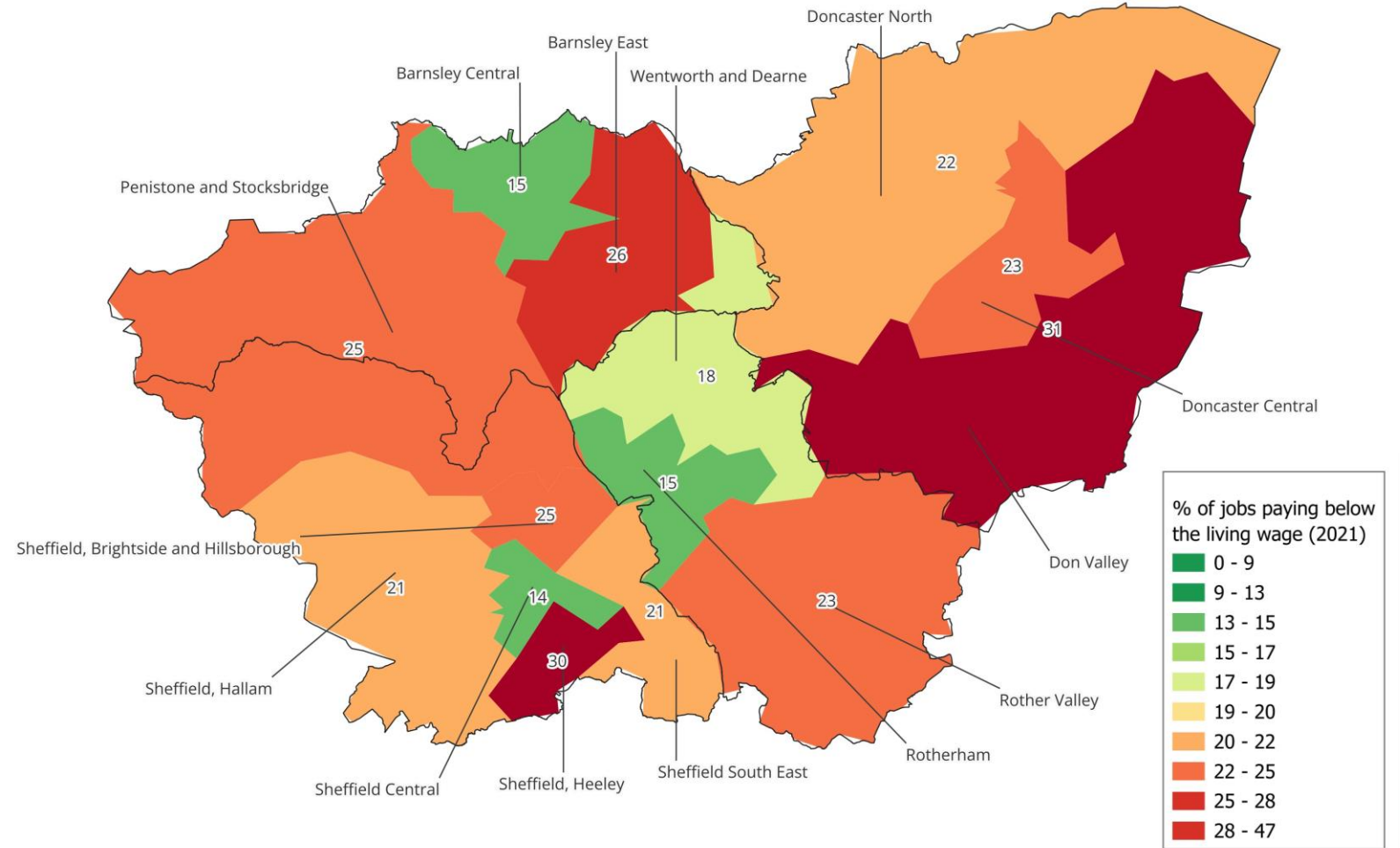
ONS, annual population survey

## There are clear geographic disparities in wages

There is no singular stand out local authority in terms of the share of jobs paying below the living wage. There is variation across each local authority.

Generally urban centres have a lower share of jobs paying below the living wage such as in Sheffield, Barnsley and Rotherham.

The areas which had the largest share of jobs paying below the living wage were Don Valley (31%), Sheffield, Heeley (30%), and Barnsley East (26%) respectively.

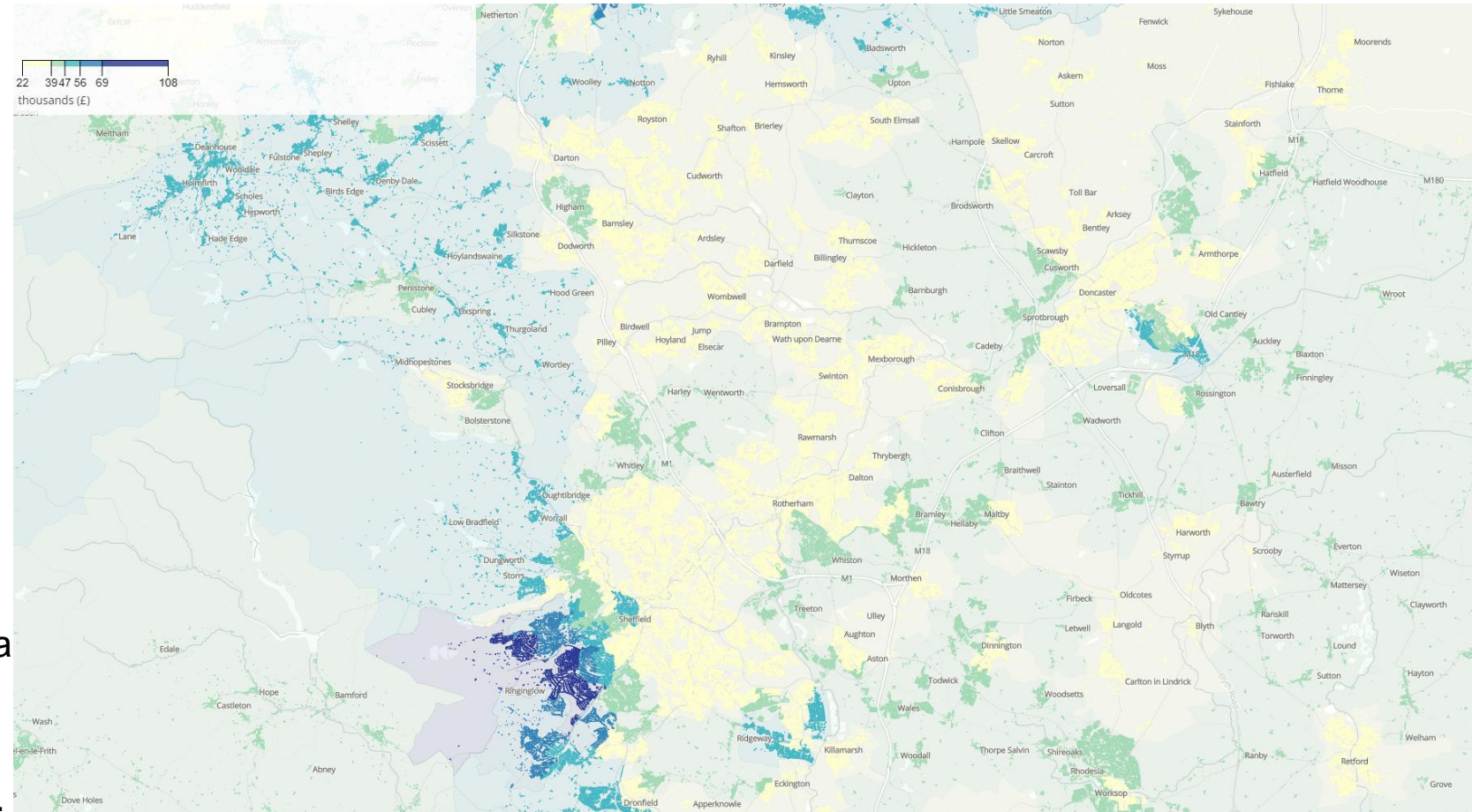


## There are clear geographic disparities in household incomes

This map highlights the total annual household income in each MSOA. Household incomes vary across South Yorkshire significantly.

The most affluent parts of South Yorkshire are to the West of Sheffield, where a large portion of households have a total income of over £69,000.

A large portion of households in South Yorkshire have total incomes between £22,000 to £37,000. Only a small number of neighbourhoods outside of Sheffield have a household income beyond £47,000.





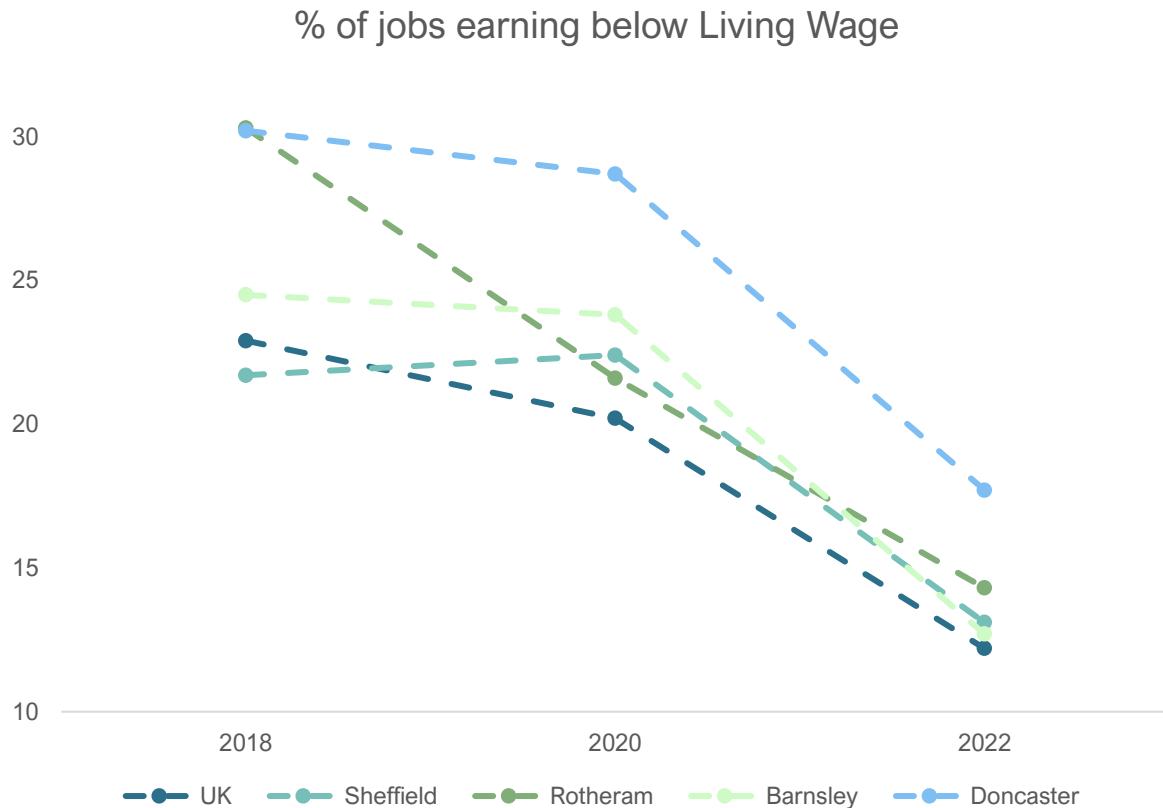
## Median annual earnings have narrowed the gap to the national level.

The below chart shows that the gap to UK annual earnings in 2022 was lower in South Yorkshire local authorities than in selected comparators in other combined authorities and the gap has narrowed slightly between 2017 and 2022.



# A higher share of jobs pay below the Real Living Wage but this has decreased markedly between 2020 and 2022.

The share of jobs earning below living wage has decreased in each city region and South Yorkshire local authority. Rotherham had the largest decline as the share of jobs in 2022 was less than half of 2018. South Yorkshire is also closing the gap with the national average since 2020.

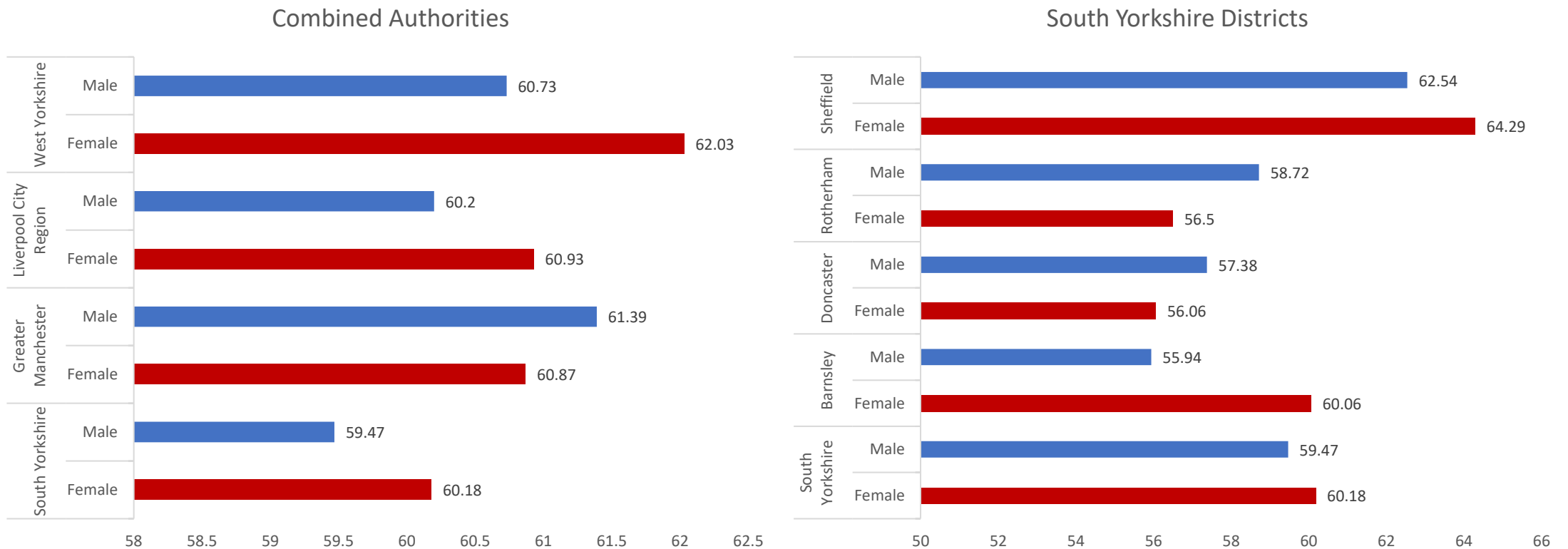




## South Yorkshire has lower Healthy Life Expectancy than comparators

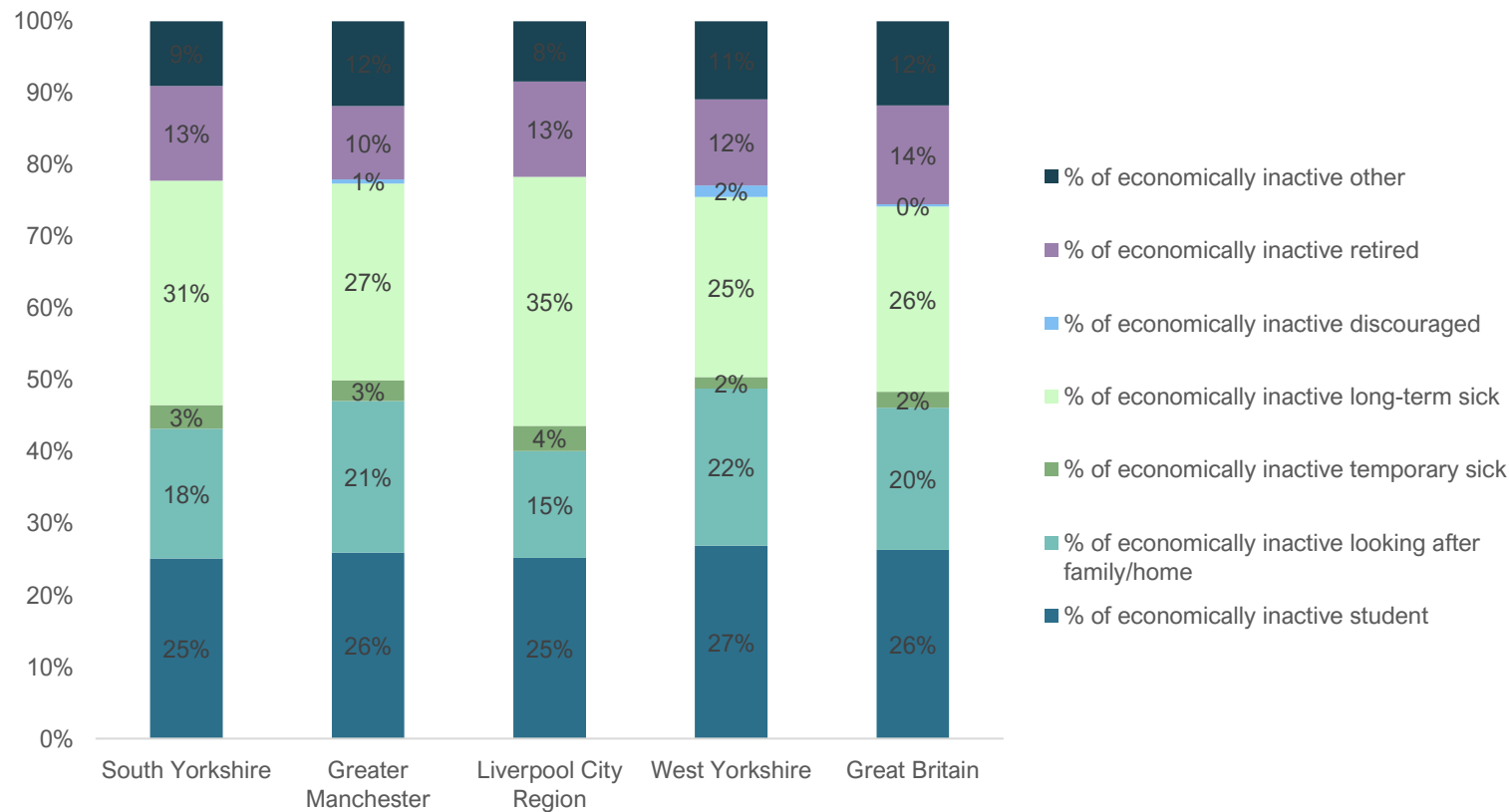
There are also large inequalities within South Yorkshire, HLE at birth for women is over 8 years higher in Sheffield than in Doncaster.

Rotherham and Doncaster stand out with men having a higher HLE than women, in opposition to the typical pattern nationally and indeed globally.



# Long-term illness is a driver of economic inactivity in South Yorkshire

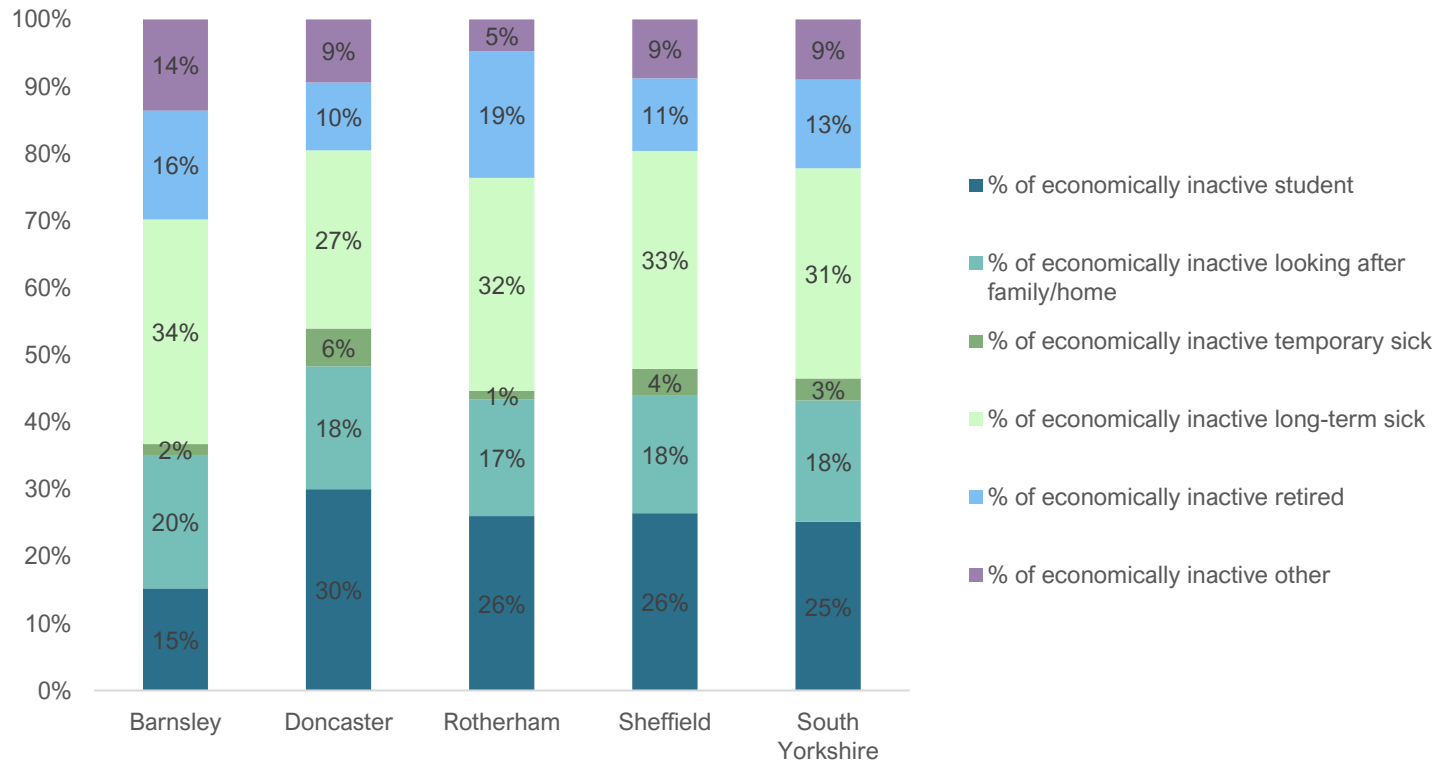
The graph below outlines the reasonings for economic inactivity, for each combined authority and Great Britain in 2022.



The top reasoning for economic inactivity in South Yorkshire is attributed to long-term sickness. 5% more people in South Yorkshire provided that as their reasoning for economic inactivity than the Great Britain average. South Yorkshire has a higher share than both West Yorkshire and Greater Manchester, but less than Liverpool City Region. South Yorkshire also has a larger share of temporary sickness as a reason for economic inactivity than the GB average

## Long-term illness is a problem across each local authority

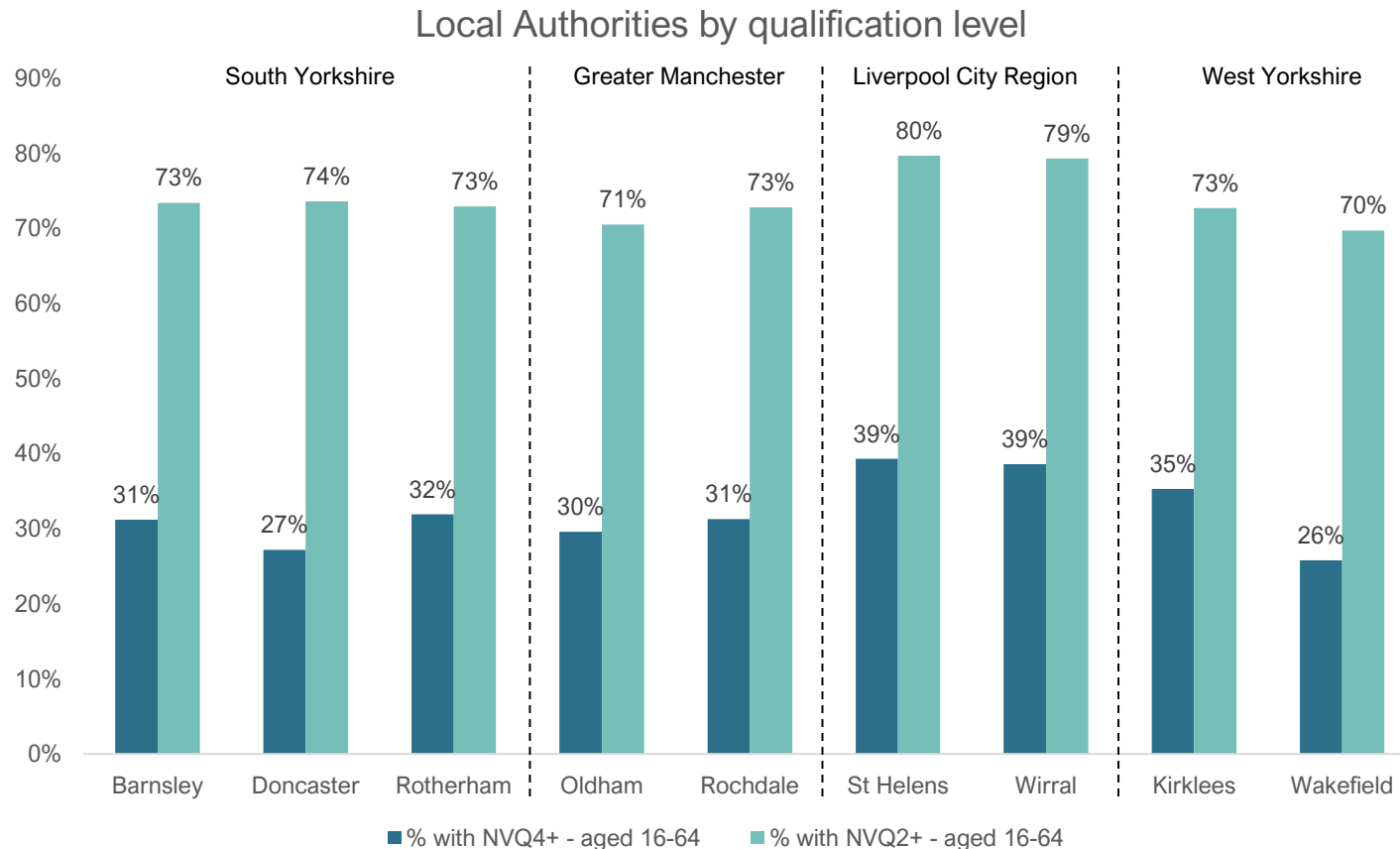
The graph below outlines the reasoning for economic inactivity in each local authority within SYMCA in 2022, highlighting some of the disparities across South Yorkshire.



- This graph shows that all four local authorities in SYMCA have a greater share of economic inactivity being attributed to long-term sickness than the Great Britain average (26%).
  - Barnsley, Rotherham and Sheffield each had a greater share of long-term sickness than the South Yorkshire average.
- Barnsley and Rotherham have a large share of people who are retired as a reasoning for economic inactivity, compared to other local authorities and the South Yorkshire average.
- Students also generally make up a large share of economic inactivity in the region, especially in Doncaster, but only a small share in Barnsley.

## Local Authorities in South Yorkshire are behind Liverpool City Region, but ahead of Greater Manchester and West Yorkshire in skills

The graph below shows the share of those within working age (aged 16-64) who have attained qualifications at the NVQ2+ and NVQ4+ levels in 2021. The graph highlights the non-Sheffield local authorities and select local authorities in comparator city regions.



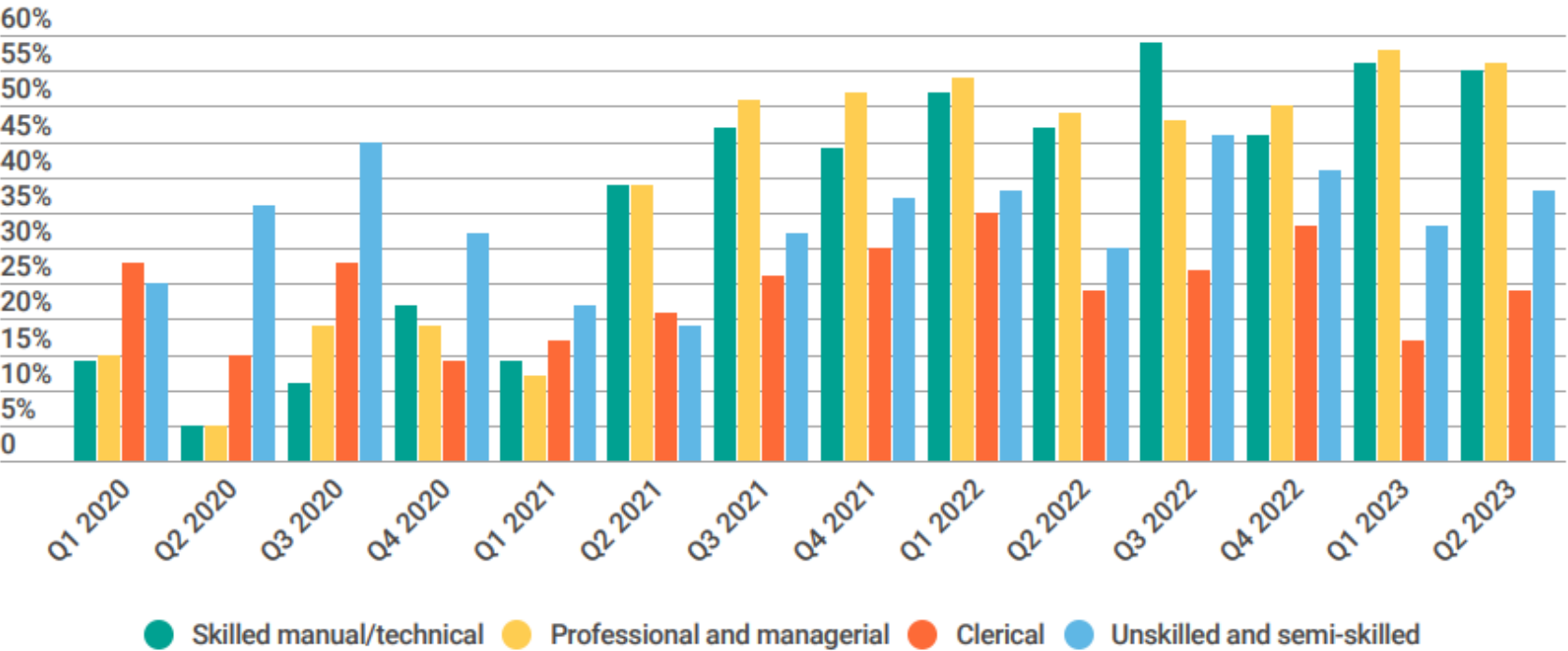
- Generally, local authorities in South Yorkshire do not stand out in terms of NVQ2+ attainment at around 73%. This is a larger share than the highlighted local authorities in Greater Manchester and West Yorkshire. The highlighted local authorities in Liverpool City Region saw a share of people achieving NVQ2+ qualifications closer to 80%.
- While more than 30% of the working age population in Barnsley and Rotherham achieved an NVQ4+ qualification, Doncaster does lag slightly at 27%, only ahead of Wakefield in West Yorkshire, suggesting more encouragement is needed to enter further education.
- Liverpool City Region and Kirklees in West Yorkshire performs better than local authorities in South Yorkshire in NVQ4+ attainment.

# Businesses are reporting most significant challenges in hiring skilled and professional staff

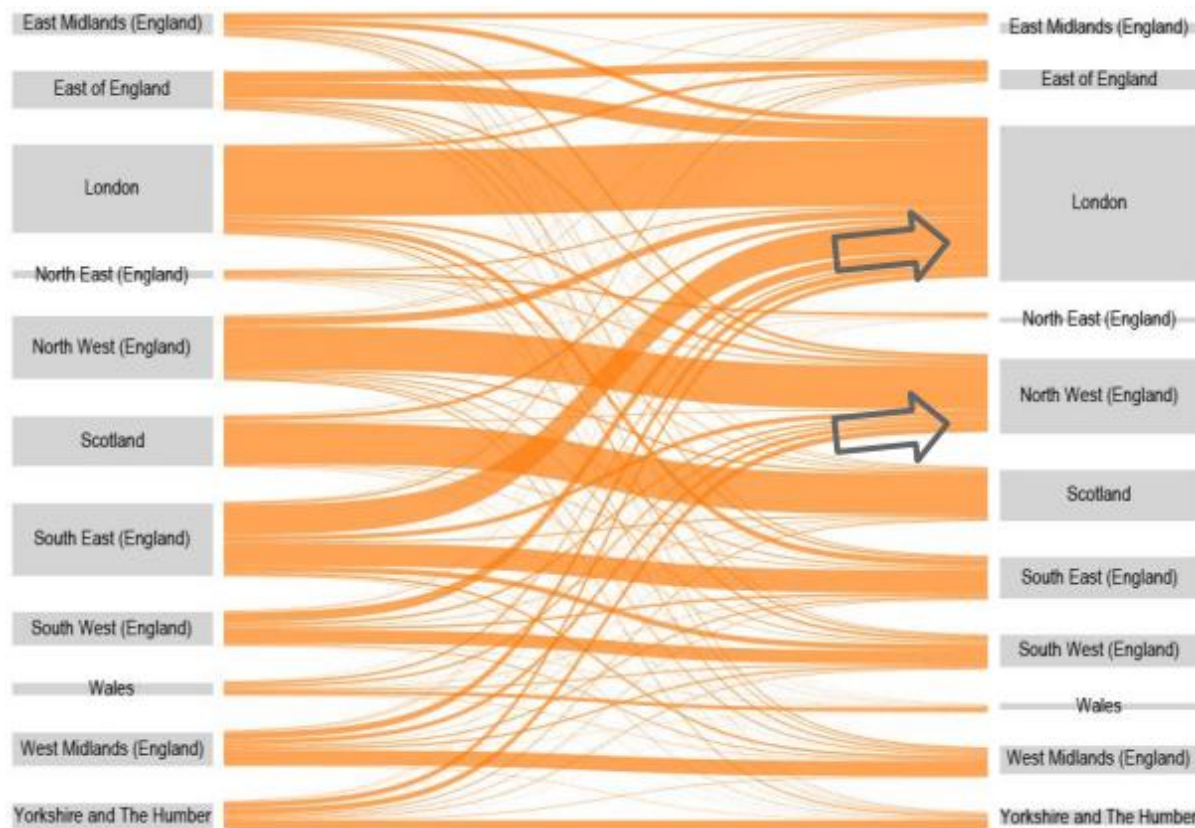
The chart on the right shows the roles which businesses have reported that they had difficulty recruiting in the 3 months preceding the survey.

More businesses reported challenges hiring for skilled and professional roles than did so in Q2 2022 (which itself saw an increase from Q2 2021).

In the last 3 months businesses have had difficulty in recruiting:



# Graduate flows are an issue – with anecdotal evidence suggesting a lack of local talent pathways



Data in this area is poor

But it is clear that Yorkshire & Humber is losing graduates of top 50 universities to other areas – need to do more to get people to return, be retained or attracted to SY.

According to data from the University of Sheffield, 26% of graduates (806 of 3071) in the 2019/20 cohort were employed in South Yorkshire following graduation. Of this, the top employers were in the public sector, such as the university, the NHS or Sheffield City Council.

# Deepdive: South Yorkshire Innovation

This section sets out an overview of the innovation ecosystem in South Yorkshire . Increasing innovation in the area will require identification of the major barriers that currently exist. This is intended to provide a framework to begin to think about these barriers as well as a rapid analysis across different components of the ecosystem to act as a starting point.



## Summary

Domain	Potential Priorities
Knowledge Engine	<ul style="list-style-type: none"> <li>- Ensuring universities and multi-national businesses are linked to local supply chains and networks</li> <li>- Identifying ways that existing businesses can be connected into the knowledge engines.</li> </ul>
Finance and IP	<ul style="list-style-type: none"> <li>- Need to develop professional services and know how to be able to attract capital/ investment.</li> <li>- Professional services to support intellectual property protection are also important ecosystem elements.</li> <li>- Balance of developing local capacity and buying it in.</li> <li>- Access to follow on-capital for Northern Gritstone businesses and start ups to allow them to scale (could be important for retention).</li> <li>- What can be done to prepare start-ups and spin-offs to raise investment from other financial centres. Less exposure to investors in their local ecosystem can put businesses at a disadvantage, less understanding of the expectations.</li> </ul>
Physical Space	<ul style="list-style-type: none"> <li>- Ensure the right spaces exist in urban centres, and Sheffield in particular, for a growing spin-out and start up ecosystem (professional services included)</li> <li>- Grow on space is a barrier for firms in many parts of the country (e.g. Oxford, Brighton, Edinburgh, Reading). Could this be an opportunity for South Yorkshire given industrial space – as a place for businesses to grow if can get the supporting ecosystem and office-space around it right.</li> </ul>
Capability Development Programmes	<ul style="list-style-type: none"> <li>- Accelerator and other support programmes for tech and deep tech start-ups</li> <li>- Consider links to both local development programmes and accessing wider regional and/or national support where more efficient, can help build wider networks</li> </ul>
Networks and Linkages	<ul style="list-style-type: none"> <li>- Development of formal governance for innovation in South Yorkshire, consider links to business board, and spatial priorities (e.g. AMID)</li> <li>- Encourage development of informal links and networks across South Yorkshire e.g. Chamber of Commerce, Events etc.</li> </ul>

## An ecosystem approach to understanding barriers to innovation

**Looking at the wider ecosystem allows us to understand the barriers to innovation and as an approach it is well aligned with the approach taken to date and the broader goals of this work.**

Growing innovation in a place requires the right conditions for new ideas to germinate and grow and for interactions which expose existing firms to new ideas and opportunities take place.

Taking an ecosystem approach is a way to understand whether these conditions are in place and which of the necessary components for a successful ecosystem are potential areas of weakness.

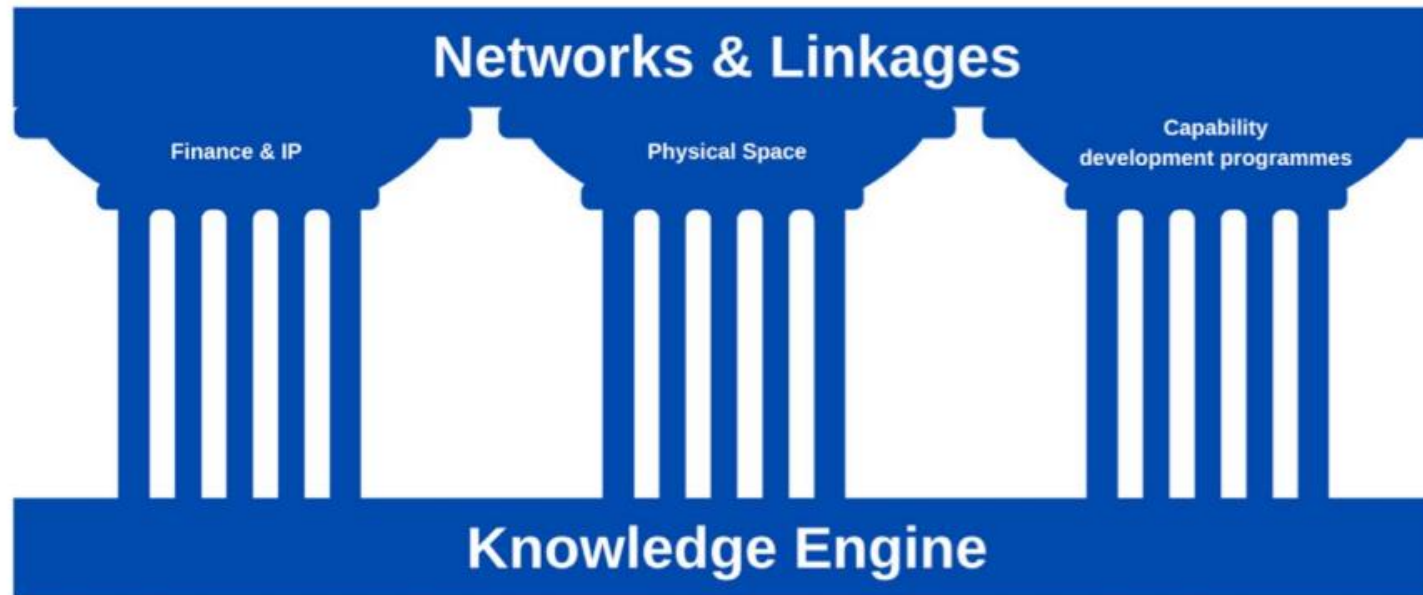
Taking this approach for South Yorkshire:

- Is consistent with the wider analytical approach which has looked to identify the main constraints on growth
- Consistent with an emphasis on inclusive growth across geography and sectors, developing the sub-regional innovation ecosystem will benefit businesses across South Yorkshire.
- Is a useful way to interrogate the rationale for AMID. If the objective is for AMID to be a key anchor for SY's innovation ecosystem then understanding the ecosystem strengths and weaknesses can help to guide the future development.

## What is needed for a strong innovation ecosystem?

This model was developed for the Cambridgeshire and Peterborough Independent Economic Review\*. It outlines what clusters of innovation need to grow, how they can be supported and how an ecosystem should be unique to each place.

FIGURE 11. THE CPIER INNOVATION MODEL



The pillars making up the CPIER model are all necessary conditions but are not individually sufficient: a successful innovation ecosystem requires all of these be present.

## Knowledge Engine

### Where are the knowledge engines in South Yorkshire?

Positioned at the base of the model, supporting the three pillars of innovation, is the knowledge engine. Innovation ecosystems need knowledge engines that drive development, acting as fuel or power for innovation at the heart of an innovation district. This is usually a leading organisation, whether a public institution, a business, or a university.

The role can also be filled by other public institutions or by large anchor businesses. The key requirement for an organisation to be an engine for a place is for it to be anchored in the area, embedded into local heritage, talent pools, businesses and capitalising on local activities that will provide the basis for further innovation.

South Yorkshire has a number of key anchor assets which can play the Knowledge Engine role:

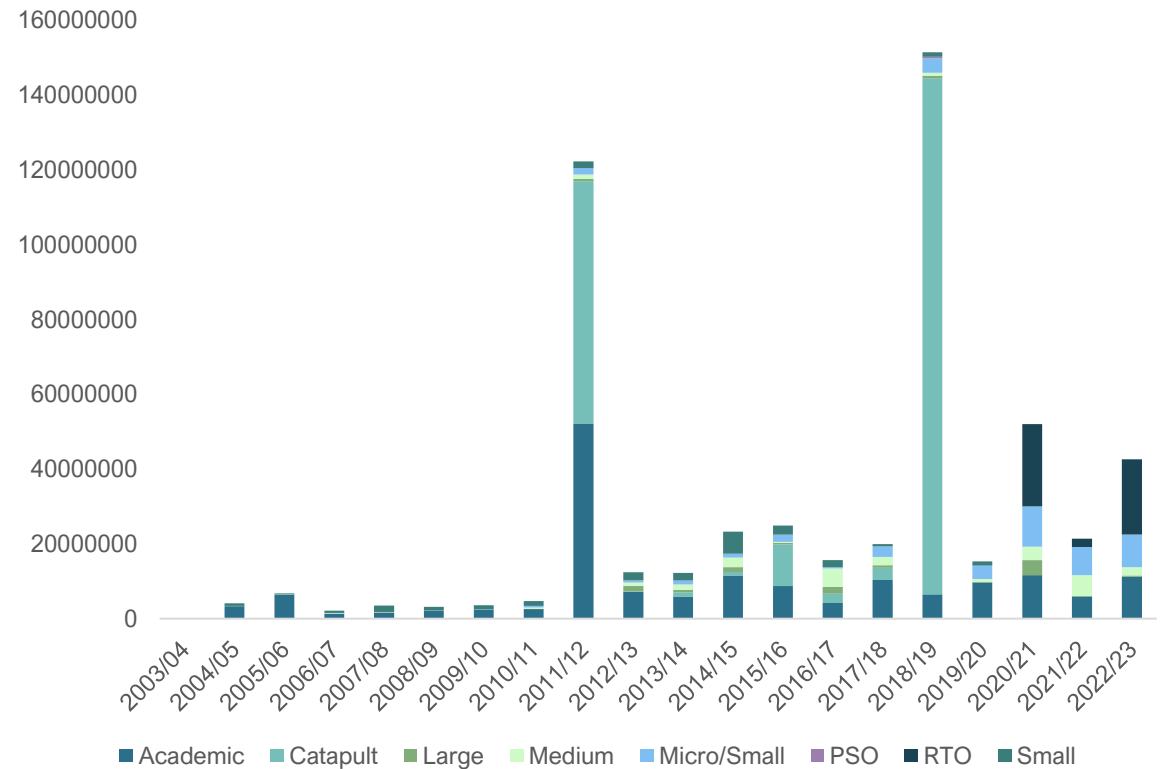
- Universities
- AMRC & NAMRC
- Businesses in receipt of large IUK grants: McLaren (ASCEND), Mobile Power limited, Magtec, Libertine FPE, Maher Ltd, Rinri Therapeutics

# Research Funding

Organisations in South Yorkshire have a strong record of winning Innovate UK funding, a finding which holds true even when core catapult funding is omitted. Comparatively, it receives slightly less Research Council funding .

	IUK funding 2018/19 – 2022/23	IUK Funding 2018/19 – 2022/23 per capita	Research Council spend per capita (2019/20)	Research Council spend per capita (2020/21)
South Yorkshire	£283,422,102	£206	£51	£52
Greater Manchester	£120,942,425	£42	£60	£56
West Yorkshire	£117,585,191	£50	£41	£49
Liverpool City Region	£85,984,209	£55	£60	£61

IUK funding to South Yorkshire by recipient type



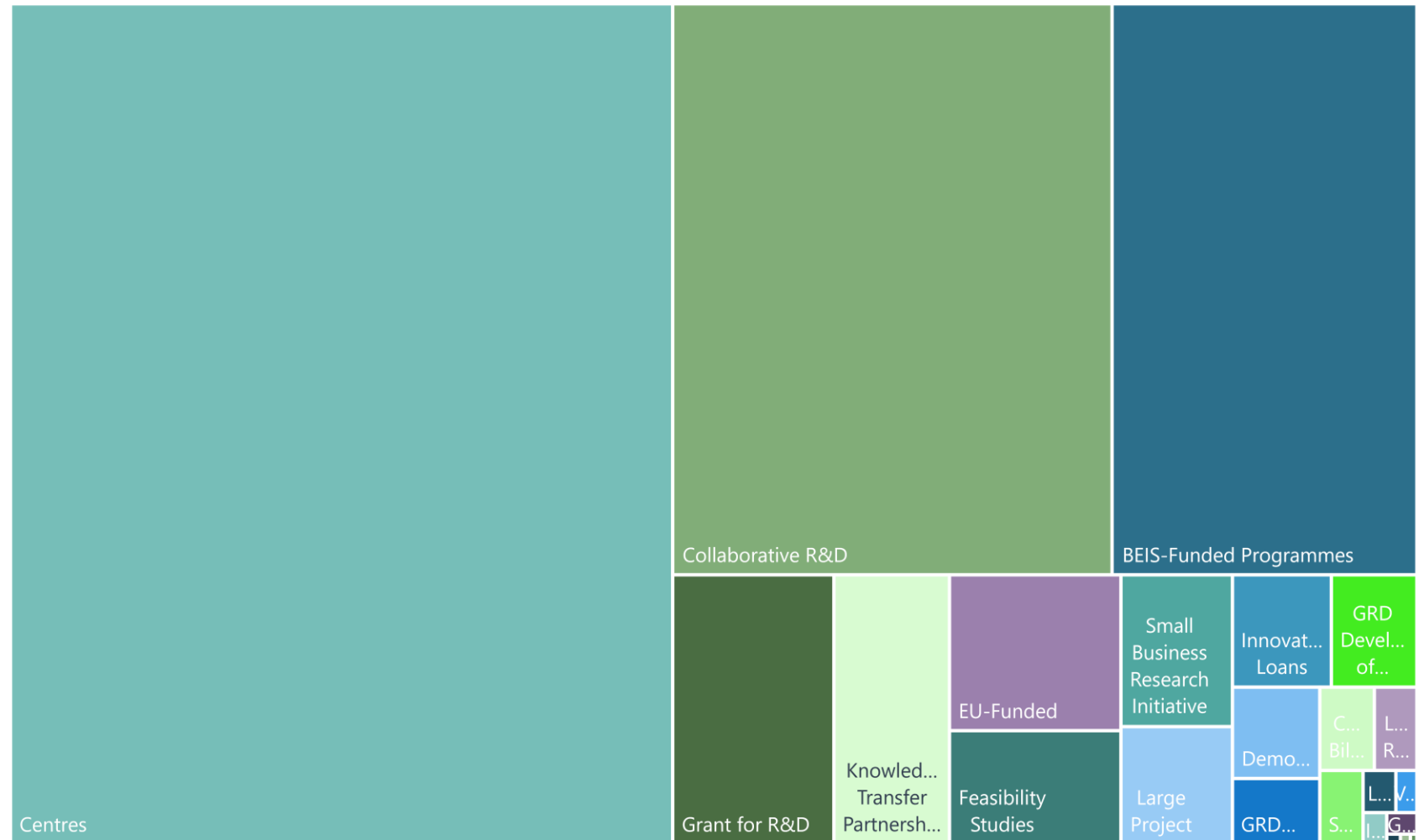
# IUK grants by project type

**KTP funding grants data suggests less business-led R&D is taking place in SY**

Highlights the importance of the catapults (classed by IUK as Centres) in terms of R&I money flowing into SY.

**GM has received twice as much KTP money as SY since 2005/06.** KTPs are designed to deliver business led innovation, solving a strategic innovation challenge for a business partner. They are partnerships between a business of any size and a registered knowledge base or qualified graduate.

Total IUK funding: 2002/03 – 2022/23



- BEIS-Funded Programmes
- Centres
- Collaborative R&D
- CR&D Bilateral
- Demonstrator
- EU-Funded
- Fast Track
- Feasibility Studies
- Grant for R&D
- GRD Development of Prototype
- GRD Proof of Concept
- GRD Proof of Market
- Innovation Loans
- Investment Accelerator
- Knowledge Transfer Network
- Knowledge Transfer Partnership
- Large Project
- Legacy RDA Collaborative R&D
- Legacy RDA Grant for R&D

# University Research Strengths: REF2021

University of Sheffield's highest rated research strengths are in scientific and technical domains, with several areas of research excellence receiving high impact scores, including Engineering.

## Overall Score: University of Sheffield

Unit of assessment name	4*	3*	2*	1*
Physics	65	35	0	0
Architecture, Built Environment and Planning	64	31	4	1
Biological Sciences	61	37	2	0
Computer Science and Informatics	60	39	1	0
Engineering	57	39	4	0
Education	54	32	12	2
Allied Health Professions, Dentistry, Nursing and Pharmacy	53	43	4	0

## Impact Score: University of Sheffield

Unit of assessment name	4*	3*	2*	1*
Education	100	0	0	0
Mathematical Sciences	87.5	12.5	0	0
Public Health, Health Services and Primary Care	83.3	16.7	0	0
Architecture, Built Environment and Planning	83.3	16.7	0	0
Physics	83.3	16.7	0	0
Clinical Medicine	81.3	18.7	0	0
Engineering	77.3	18.2	4.5	0

## Overall Score: Sheffield Hallam

Unit of assessment name	4*	3*	2*	1*
Art and Design: History, Practice and Theory	46	44	9	1
English Language and Literature	42	35	23	0
Communication, Cultural and Media Studies, Library and Information Management	35	44	18	3
Sport and Exercise Sciences, Leisure and Tourism	31	57	12	0
Architecture, Built Environment and Planning	29	57	11	3
Education	26	53	18	3
Allied Health Professions, Dentistry, Nursing and Pharmacy	21	35	38	4

## Impact Score: Sheffield Hallam

Unit of assessment name	4*	3*	2*	1*
Allied Health Professions, Dentistry, Nursing and Pharmacy	66.7	0	33.3	0
Psychology, Psychiatry and Neuroscience	50	50	0	0
Biological Sciences	0	50	50	0
Computer Science and Informatics	0	66.7	33.3	0
Engineering	25	37.5	37.5	0
Architecture, Built Environment and Planning	62.5	37.5	0	0
Business and Management Studies	33.3	33.4	16.6	16.7



# Commercialisation of research

**Sheffield performs well on the volume of spin offs created but these businesses are smaller than the national average.**

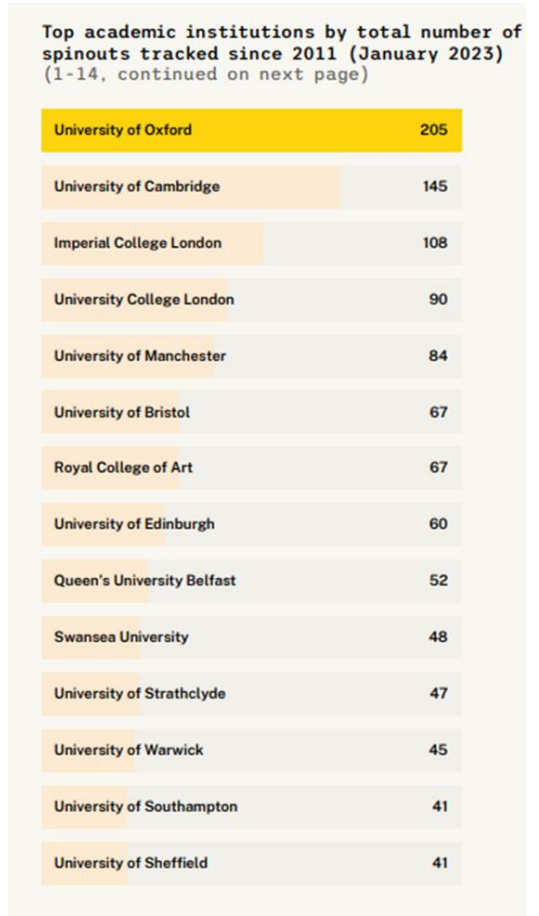
According to Beahurst research the University of Sheffield is 14<sup>th</sup> in the UK for number of spin offs.

Looking at HESA’s estimated turnover and external investment data and taking the average per active spin off in the most recent year available we see that spin-offs from SY perform well versus comparators but are far below the national average.

HESA data also shows that Sheffield does comparatively poorly on Licencing (granting businesses permission to use IP held by the university).

	Licenses per 1000 students	Active spin-offs per 1000 students	Average spin-off turnover	Average external investment in spin-offs
Sheffield	44.47	0.67	£555,171	£360,000
Manchester	183.62	0.75	£263,789	£420,967
Leeds	23.82	0.46	£1,699,640	£57,940
Liverpool	9.99	0.37	£280,043	£103,652
England	110.02	0.72	£6,168,421	£2,834,912

Source: HESA



Spotlight on spinouts 2023. Beahurst.

## Finance and IP

**The wider region has a low share of national equity deals based on its business population and the deals made are smaller on average.**

Developing the ideas being generated by universities and individuals requires capital. Without the right resources innovative ideas cannot be realised into commercial opportunities and economic growth for the sub-region. A successful innovation ecosystem requires a range of sources of capital to support businesses at different stages of their journey. Sources of capital should be available not only to new start-ups and spin-offs as they progress through stages of growth but also to established businesses to enable them to innovate and improve productivity.

Along with finance a key area is Intellectual Property. An ecosystem needs to have the right support in place so that start-up and spin-outs can protect their intellectual property. For spin-off in particular the question of IP ownership and equity shares is an active area of debate which has been highlighted by the government. An independent spin-out review is underway with a key question of whether universities discourage spin-offs through high equity demands or by refusing to grant/licence IP. Research by Beauhurst finds the University of Sheffield tends to take a 15%-20% equity stake in spin-offs which is in line with good practise nationally.

British Business Bank regional data shows Yorkshire and the Humber receiving a low number of equity deals and volume of funding, with a lower average deal size. 7% of UK SMEs are in Yorkshire and the Humber but in 2020-21 FY: 3% of equity deals, 2% of EIS funds and 3% of SEIS funds.

BBB reports also find that over 40% of businesses in Yorkshire who have received investment are more than two hours away from the office of their investor. For the UK (excluding London) this is 18%. Lack of proximity to investors can affect business ability to raise investment as business leaders with less exposure are less aware of investor requirements and expectations.

## Physical Space

**Businesses and entrepreneurs need space to work and grow and spaces that bring about clustering of businesses and entrepreneurs and the melding together of different sectors and disciplines are an important part of accelerating innovation.**

South Yorkshire has less office space per capita and a lower share of this space is high-quality.

Of the 4 MCAs looked at it has the largest amount of industrial space per capita and has had the largest amount of industrial space constructed in the last several years.

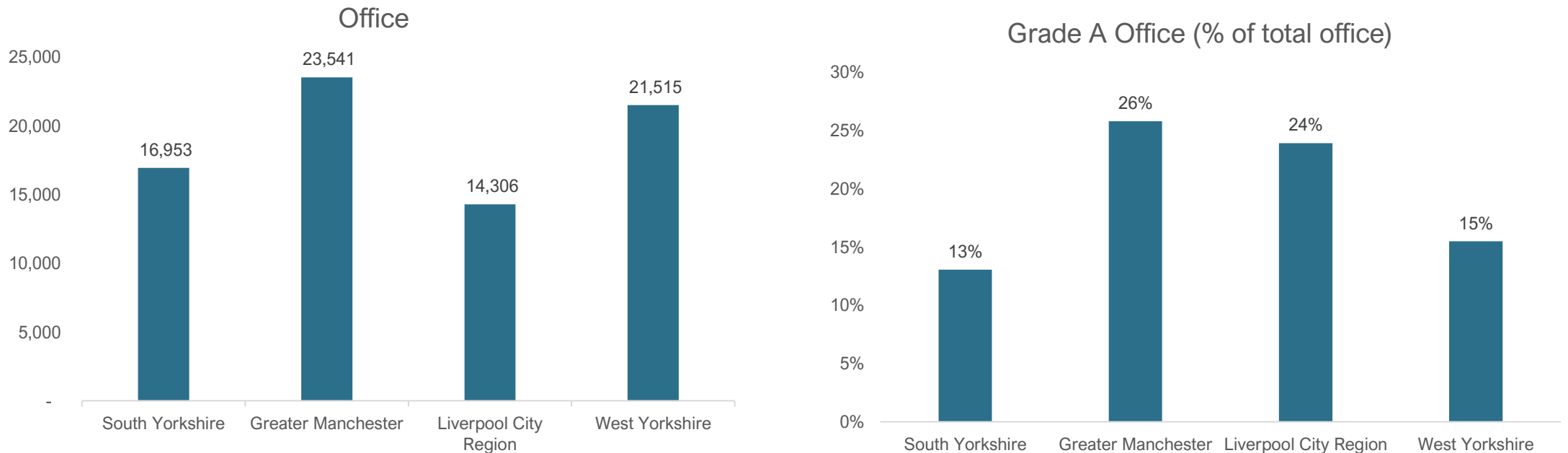
As well as general office and industrial space the availability of tailored space for nascent and growing businesses is important. Dedicated incubator spaces are important ecosystem assets. A 2019 BEIS paper\* found that start-ups that have access to incubators, accelerators or co-working spaces are more likely to survive and grow than those that are not part of a formal programme.

### Incubation Spaces in SY:

- Kollider (Sheffield)
- Sheffield Technology Parks
- Launchpad
- AWRC Wellbeing accelerator
- Hallam i-Lab
- Entrepreneurial Spark
- Barnsley DMC
- The Business Village, Barnsley
- A-ten

## South Yorkshire lags in Grade A office space

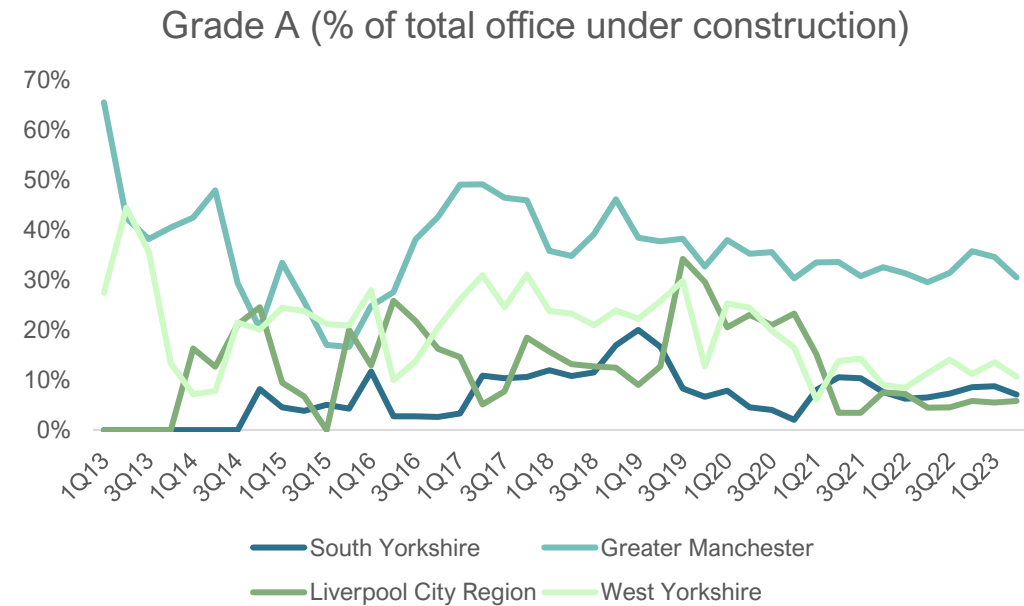
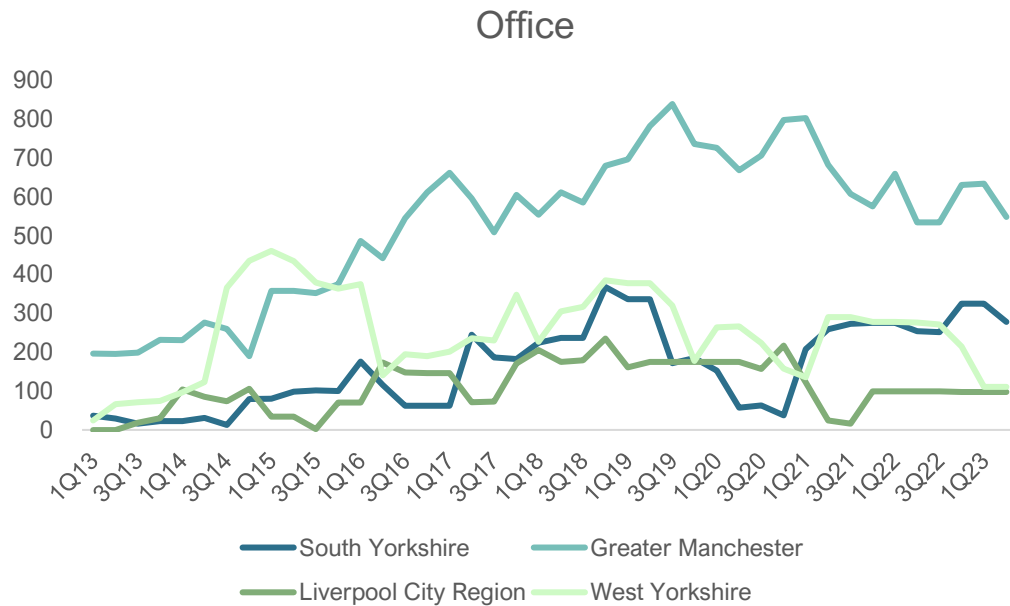
The amount of office space per every 1,000 people in South Yorkshire is less than that of Greater Manchester and West Yorkshire, only ahead of Liverpool City Region. The share of offices that have a rating of four or five stars is only 13% in South Yorkshire, this is less than each of the other comparators, demonstrating a gap of Grade A office space. In absolute terms, Liverpool City Region has more grade A office space despite a smaller total stock.



Graphs represent inventory per square foot for every 1,000 people, taken from CoStar. The Grade A Office space is the equivalent of a property rating of 4/5 stars on CoStar.

## South Yorkshire also lags in the construction of Grade A offices

South Yorkshire has seen the amount of office space under construction grow slightly across the ten years from a small base to over 200 square foot the last two years. South Yorkshire continues to have the least amount of grade A office space under construction, when compared to the other combined authorities.



Graphs represent the volume of space under construction per square foot for every 1,000 people, taken from CoStar. The Grade A Office space is the equivalent of a property rating of 4/5 stars on CoStar.

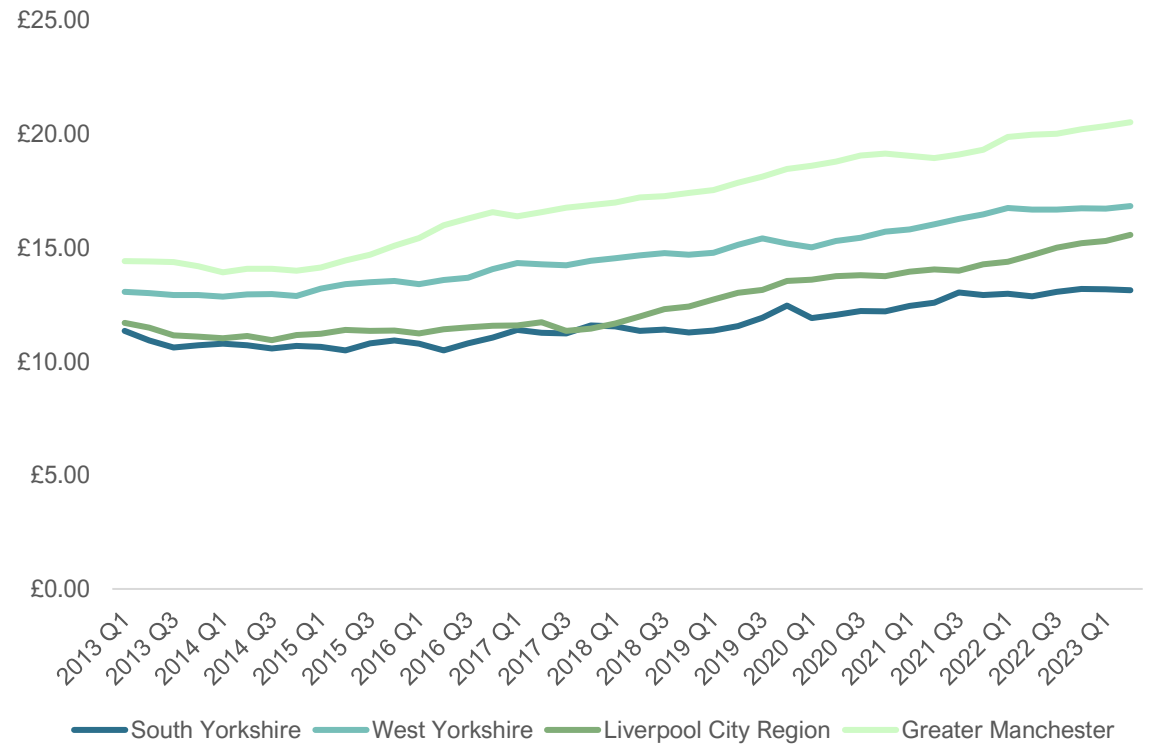
# Office Vacancy Rates & Rents

South Yorkshire has the lowest market rent for office space of the four Cas while vacancy rates have consistently been comparatively low over the last 10 years,

Office Vacancy Rates

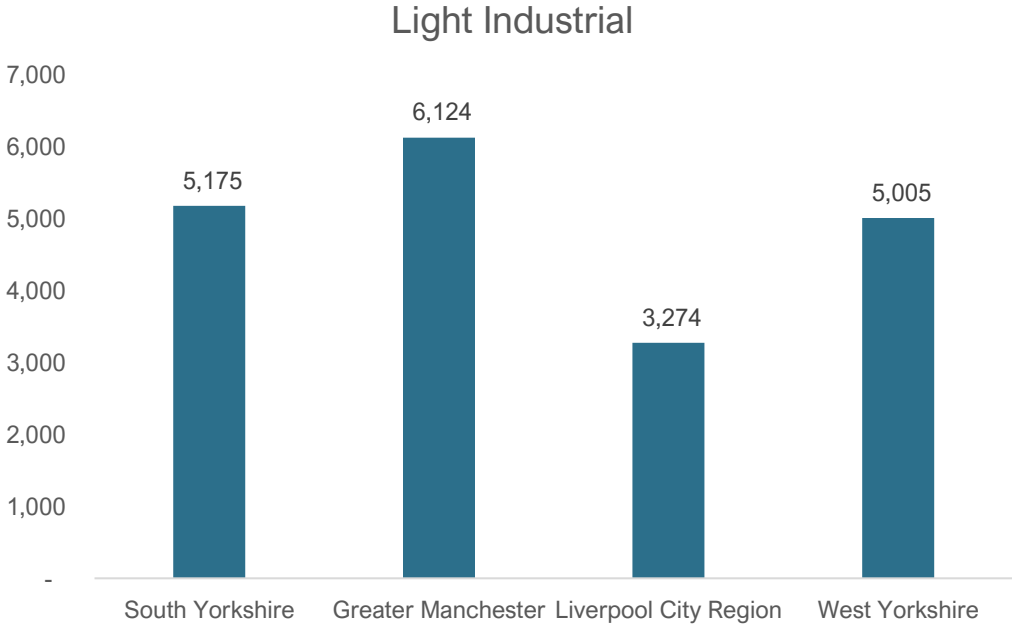


Market rent per square foot



# South Yorkshire has a strong industrial base

South Yorkshire has the most industrial space per 1,000 persons compared to the other combined authorities. South Yorkshire also has the highest share of grade A industrial space according to CoStar. South Yorkshire has 5,175 square foot of industrial space per 1,000 persons, which makes it the highest amongst the other combined authorities besides Manchester.



Graphs represent inventory per square foot for every 1,000 people, taken from CoStar.



# South Yorkshire continues to have a strong industrial space pipeline

South Yorkshire has the most industrial space per 1,000 persons under construction, averaging 1,425 square foot per 1,000 persons. This volume has also continued to grow across the period and pull away from the other combined authorities. South Yorkshire has more light industrial space under construction, average 16 square foot per 1,000 persons across the ten-year period.



Graphs represent the volume of space under construction per square foot for every 1,000 people, taken from CoStar.

## Capability development programmes

**A strong university talent pipeline with a high share of STEM students at undergraduate and postgraduate level. While there are numerous business support programmes the majority are general support.**

The pipeline of STEM graduates is strong at the undergraduate and postgraduate level.

Retention is difficult to assess due to lack of publicly available data. A 2018 paper about the *Sheffield City Region Future Leaders' Project* stated that retention immediately after graduation is above average but a higher average number of graduates leave two to three years post-graduation.

Of the 4 MCAs South Yorkshire has the highest % aged 20-24 with NVQ4+ and the lowest share aged 25-29 year.

South Yorkshire has a mixture of **general business support** and **targeted accelerators** including:

- Transform SY\*
- Barnsley DMC
- RiDO
- UoS Entrepreneurship
- Launchpad (Business Sheffield)
- Barclays Eagle Labs
- Business Doncaster

\* Previously ERDF funded, not currently in operation.

**% of students enrolled in STEM courses**



## Networks and Linkages

**A low percentage of businesses in South Yorkshire report that they are collaborating within a wider business group.**

South Yorkshire is the second highest rated subregion in the UK for the number of innovation active businesses (however data on R&D spend suggests that the volume of R&D undertaken is not high). The table below shows that SY businesses are active in product and process innovation but less innovative in terms of strategy/marketing and collaborating within business groups (linked legal entities) than UK averages or comparators.

International Territorial Level 2 (ITL2) geographic boundaries	Innovation active (percentage of businesses)	Product innovator (percentage of businesses)	Process innovator (percentage of businesses)	Strategic & marketing (percentage of businesses)	Performing Internal R&D (percentage of businesses)	Collaborating within business group (percentage of businesses)	New to market goods and services as a percentage of turnover
United Kingdom	44.9	20.5	16.2	34.1	16.0	51.5	7.8
<b>South Yorkshire</b>	<b>57.5</b>	<b>35.9</b>	<b>21.3</b>	<b>22.7</b>	<b>22.3</b>	<b>41.9</b>	<b>8.5</b>
Greater Manchester	45.8	25.1	12.9	35.2	19.8	46.8	7.2
Merseyside	45.2	23.2	15.7	35.7	17.9	35.1	4.2
West Yorkshire	42.5	26.1	17.9	27.7	23.3	44.9	11.6

At Metro Dynamics, we **care** about places, our clients, and our colleagues.

We are an **independent** organisation, **curious** about our work, and **collaborative** in our approach. We strive to **make a difference** in all that we do.

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