



West  
Yorkshire  
Combined  
Authority

Tracy  
Brabin  
Mayor of  
West Yorkshire

# Evidence for economic strategy: summary

March 2024



# Summary (1/2)

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- In terms of productivity growth, West Yorkshire has underperformed the (already low) national average since the financial crisis. Therefore, the productivity gap has widened.
- Closing the productivity gap with the UK average would make West Yorkshire performing like most second-tier cities in other large international peers.
- The West Yorkshire economy is diversified: a strong manufacturing sector (mostly outside Leeds) and some knowledge based specialisms mostly in Leeds.
  - Manufacturing is quite productive within its specialisms (textiles, wood and paper products). The manufacturing gap comes from the lack of specific types of manufacturing (e.g. pharma or electronics)
  - Leeds' productivity below national average in its knowledge based specialisms. To close the productivity gap at the West Yorkshire level, these sectors are expected to be more productive than the national average.

## Summary (2/2)

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- Despite economic activity being geographically dispersed, commuting flows across districts are significant. Most of West Yorkshire is part of the same full-time travel to work area (2011, latest data)
- The economy faces an equilibrium of low investment and relatively low level of qualifications.
  - Low total investment. Includes low R&D, FDI and local transport investments;
  - Relative low skill base despite some evidence of demand for knowledge based services. Education attainment of the young may pose risks regarding the pipeline of talent in the future.
- There are factors that could be hindering investment, attraction of talent and economic activity. Connectivity may be limiting how the economic activity flows; housing affordability may be a risk to attract talent in the future; providing space so new firms can benefit from being in central Leeds.
- Closing the productivity gap likely to boost higher wages, so it does not lead to inclusive growth. To offset that, other areas need to be looked at:
  - **Make job opportunities available to most:** Connect people to opportunities, training and improve labour utilisation by providing care (childcare, health care and social care)
  - **Workplace conditions:** work with employers around living wage, flexibility, in work training, etc.
  - **Cost of living:** making housing affordable, energy efficient; improve cost of transport, childcare.

# Framework and model

Economic evidence

# Framework

## How the West Yorkshire economy performs

How it performs relative to the UK and international peers

How it expected to perform in the future



## Its economic structure

Sectoral specialisms

Economic geography



## Closing the productivity gap

Sectoral productivity differences

Investment and Labour



## Levers that can help boost productivity

Transport, housing and commercial space



## Closing productivity gap does not directly translate into inclusive growth

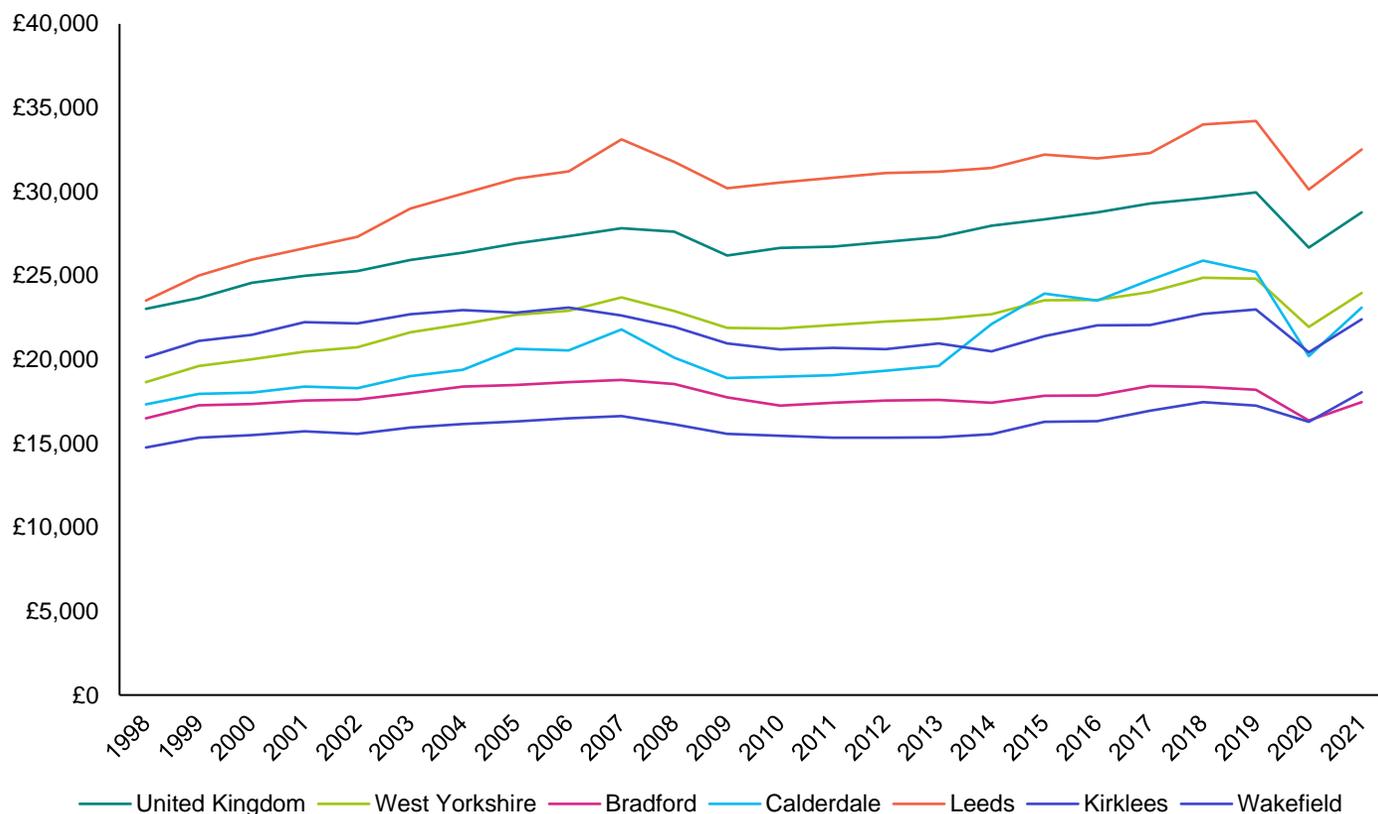
**Workplace conditions and access to jobs:** Living wage, in job training, etc.

**Cost of living:** Housing, energy consumption, transport, childcare, etc

# Overall economic performance

# Since 1998, most local authorities of West Yorkshire did not converge in terms of GVA per head. Calderdale performed particularly well

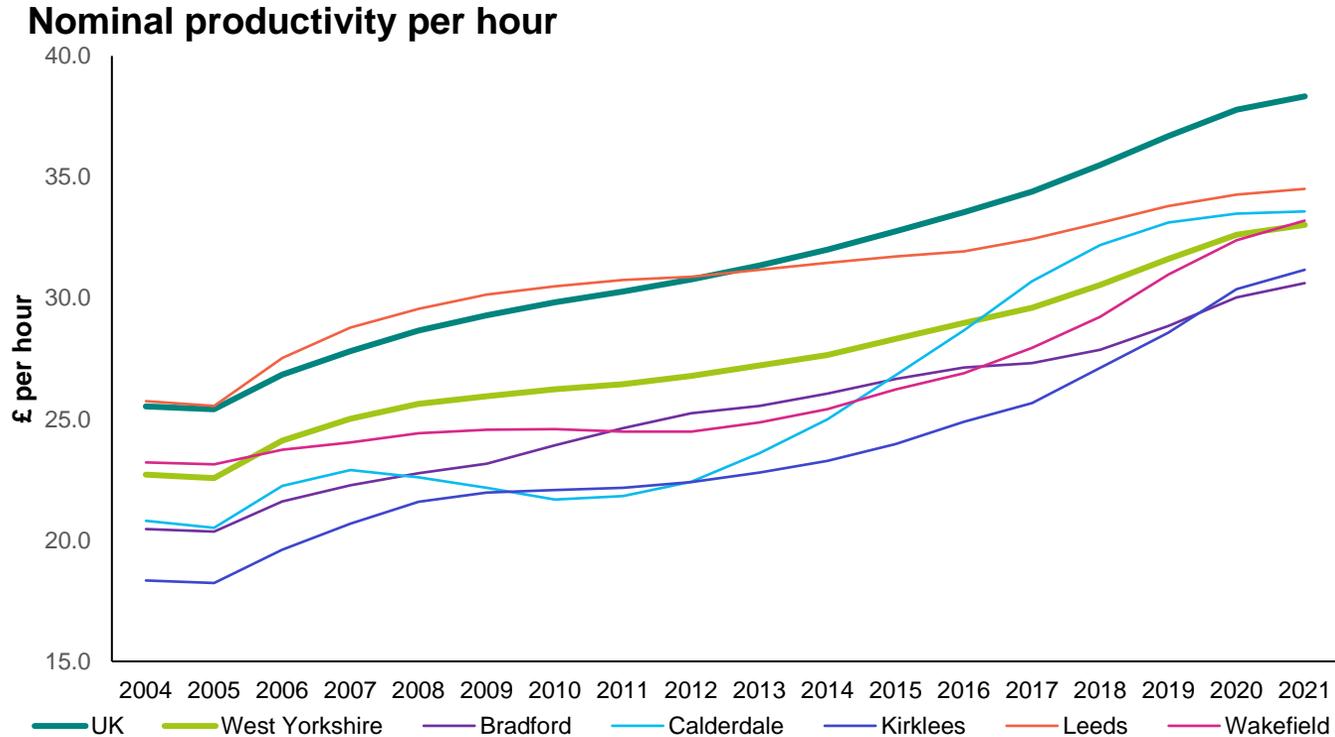
**Figure:** GVA per head (CVM prices, 2019), 1998-2021



- GVA per head in West Yorkshire is around 83% of the national average. Before the financial crisis, it reached 85% of the national average.
- In real terms, GVA per head rose by 1.1% a year, slightly above the national average at 0.9%. Since 2008, growth has been 0.3% a year, in line with the national average.
  - Since the financial crisis, GVA per head growth has been high in Calderdale (1% a year); followed by Kirklees (0.8% per year).
- Leeds is the area with the highest GVA per head, 13% per cent above the national average. However, its productivity levels are below the national average (next slide).
- Kirklees and Bradford have a GVA per head around 40% lower (at 2019 prices) than the national average.
  - Kirklees grew significantly above the national average since 2008.

# West Yorkshire economy diverged from national average

Figure: Current Price (smoothed) GVA per hour worked (£), 2004-2021



- West Yorkshire grew above the national average until 2008, mostly driven by Leeds.

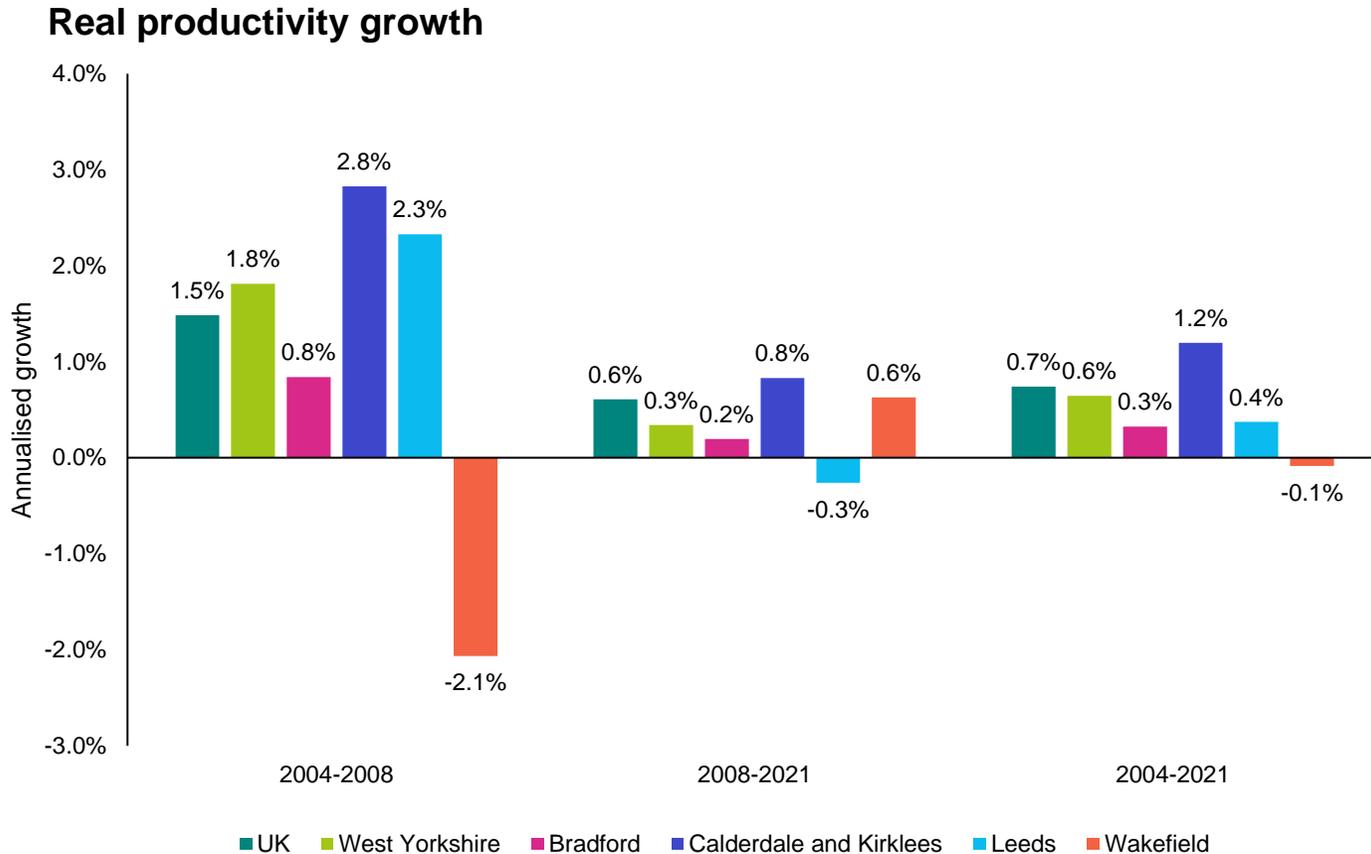
Since then, the region (including Leeds) has had a weaker performance than the national average.

The UK-West Yorkshire productivity gap (13.9% less productive in nominal terms) is estimated to account for **£9.7 billion in 2021 alone (around £4,100 per resident)**. Closing that gap would boost West Yorkshire living standards.

Source: ONS, Subregional productivity: labour productivity indices by UK ITL2 and ITL3 subregions.

# Real productivity growth below national average in West Yorkshire, with the exception of Calderdale & Kirklees

**Figure:** Chained Volume (unsmoothed) GVA per hour, 2004-2021



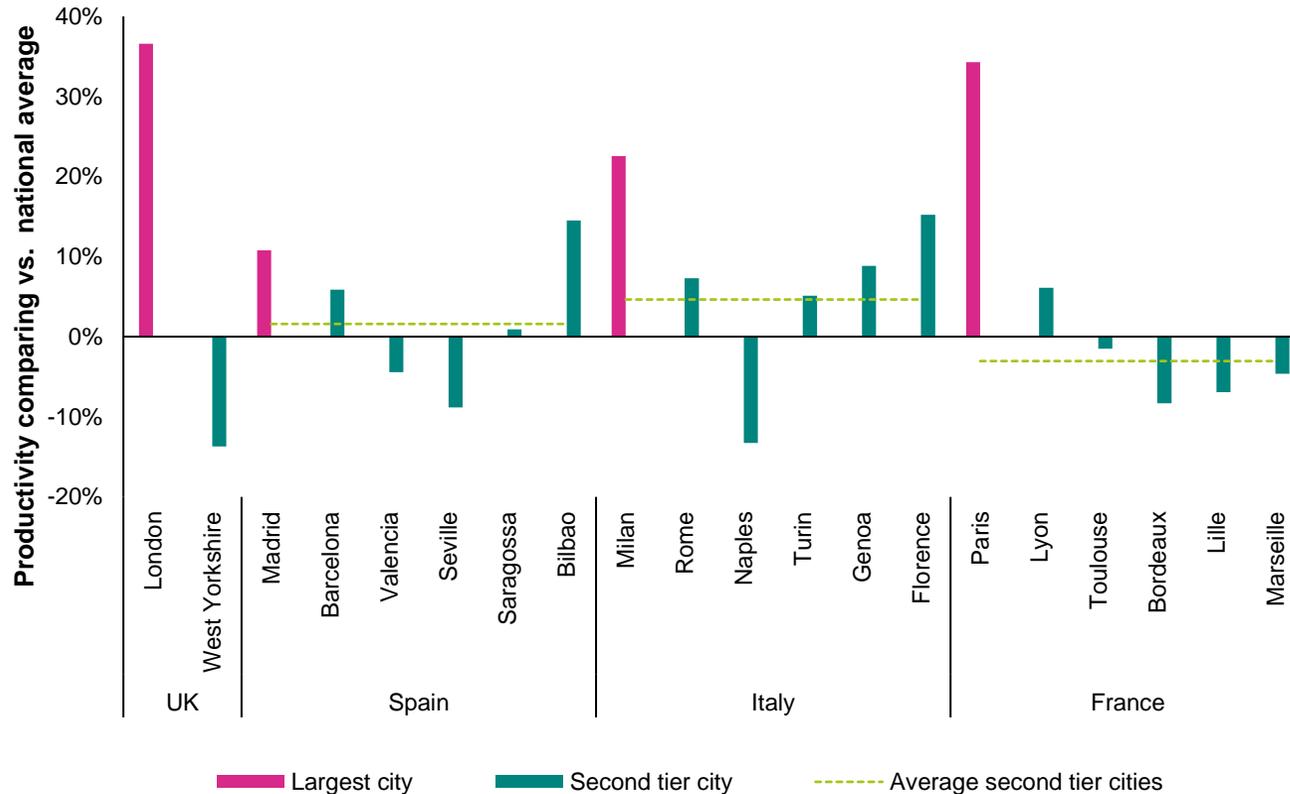
- West Yorkshire faced a larger productivity slowdown than the national average. Productivity growth since 2008 was 0.3% a year (and negative for Leeds).
- Wakefield had a relatively good performance since the financial crisis, in line with the national average. However, the previous period was characterised by a significant productivity decline.
- Calderdale & Kirklees are the only areas where productivity growth has been above national average, both before and after the financial crisis.

Source: ONS, Subregional productivity: labour productivity indices by UK ITL2 and ITL3 subregions.  
 Note: Data not available at the Local Authority level, unlike nominal productivity.

# Comparisons with peer countries suggest that West Yorkshire should aim to reach UK's average productivity

**Figure:** Labour productivity, 2019 (GDP per worker in USD, constant prices, constant PPP, base year 2015)

## Main metropolitan areas , including national average

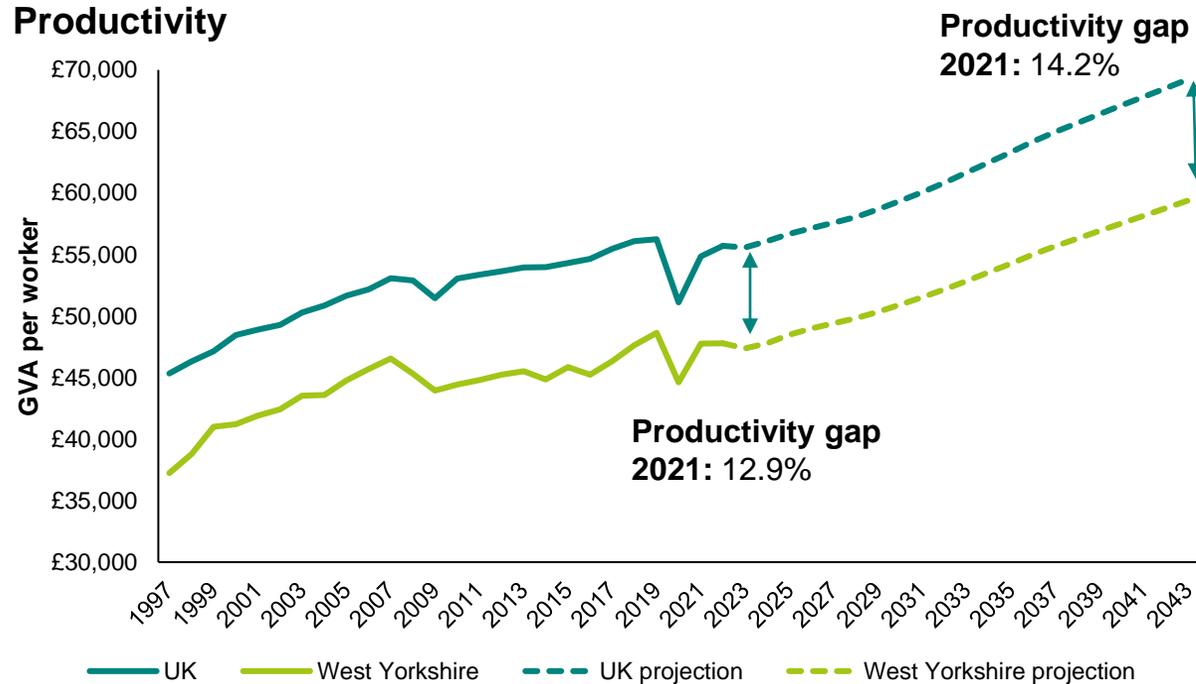


- West Yorkshire underperforms the national average, while second tier cities in other large countries tend to perform in line with the average.
- Not all metro areas overperform the national average, but only Naples underperforms (against the national average) as much as West Yorkshire.
- In absolute terms, West Yorkshire is the third least productive area analysed. Only ahead of Naples and Seville by 1.4% and 0.7%, respectively.
- This [feature](#) is common across the UK's largest cities outside London like Manchester, Glasgow and Birmingham.
- London's productivity relative to the national average is broadly in line with other countries.

Source: OECD, Metropolitan areas, GDP per worker. Leeds OECD's definition of metropolitan area being used for West Yorkshire. The second cities considered are the following. **Spain:** Barcelona, Valencia, Seville, Bilbao and Saragossa. **Italy:** Rome, Milan, Naples, Turin, Palermo, Genoa and Florence. **France:** Lyon, Toulouse, Strasbourg, Bordeaux, Nantes and Lille.

# The prize of convergence is enormous

Figure: GVA performance and projections, UK and West Yorkshire (1997-2043)



Source: Experian, West Yorkshire Combined Authority REM (2024 projections).  
Note: Productivity per worker calculated by the West Yorkshire Combined Authority (dividing GVA by Workforce jobs)

- Projections suggest the productivity gap will widen slightly in the next two decades.
- Closing the productivity gap by 2043, would mean productivity growing at 1.7% a year, instead of 1.0% projected. That would be significantly the 1.1% for the UK.
- **That would mean an economy £13bn larger (£9,800 per worker and £5,300 per person) than projected; and £36bn larger than today.**

# Summary

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- Productivity growth stagnated after the financial crisis, which means West Yorkshire has been diverging from the rest of the country. Projections shows this gap widening.
- West Yorkshire productivity is below the national average, while large cities in other countries tend to perform in line with the respective national average.
- Closing the productivity gap in the next decades would bring billions to the West Yorkshire economy and boost wages.

# Economic specialisms and economic geography

# West Yorkshire is a diversified economy: knowledge based service specialisms mostly in Leeds and manufacturing specialisms elsewhere

**Figure:** Industrial specialisms within West Yorkshire

Local Authority	Specialisms (based on jobs Location Quotients), 2021
Bradford	Textiles Machinery manufacturing Manufacturing of chemicals (detergents, soap and others)
Calderdale	Monetary intermediation Insurance Machinery manufacturing Furniture
Leeds	Office administrative and support activities Legal activities Activities auxiliary to financial services, except insurance and pension funding Head Office Activities
Wakefield	Logistics: transport and warehousing Textiles Glass Manufacturing
Kirklees	Furniture Textiles Chemicals. Pesticides and paints

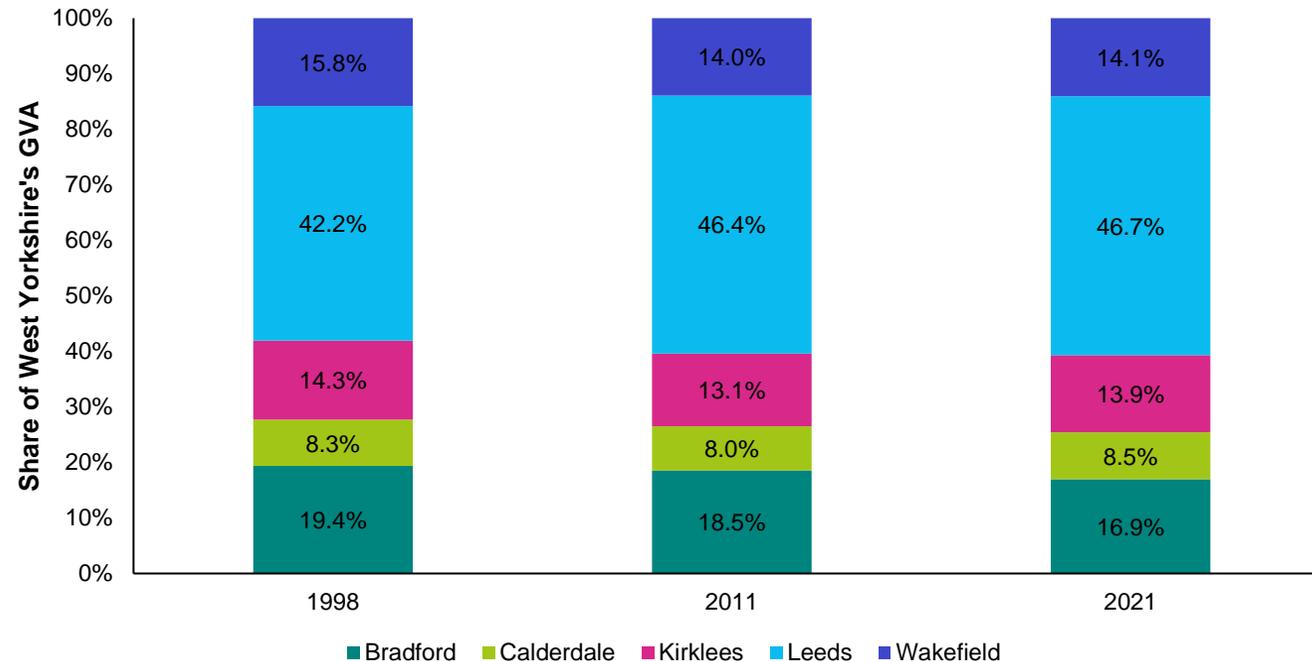
Source: NOMIS Note: The sectors selected are a combination of high Location coefficients and the employment share they represent.

- West Yorkshire has a strong manufacturing sector with more than **100,000 manufacturing jobs** - the highest number of manufacturing jobs per capita in a Combined Authority; and 13.4% of GVA.
- The manufacturing base is diverse both geographically (mostly outside Leeds) and sectorally (textile, furniture, chemicals and machinery).
- Across all Combined Authorities, West Yorkshire has the highest number of jobs in “Financial service activities” and “Computer programming, consultancy and related activities” (2021). Combined accounting for almost 50,000 jobs.
  - Around 22,000 jobs in financial services (44% of them in Leeds) and 26,000 in Computer programming, consultancy and related activities (76% of them in Leeds);
  - Mostly Leeds, but some in Calderdale. Some evidence that Bradford is becoming more relevant on this front.

# West Yorkshire's districts with a relatively stable economic contribution in the last decade

Figure: GVA composition by local authority, 1998-2021

## GVA composition by district

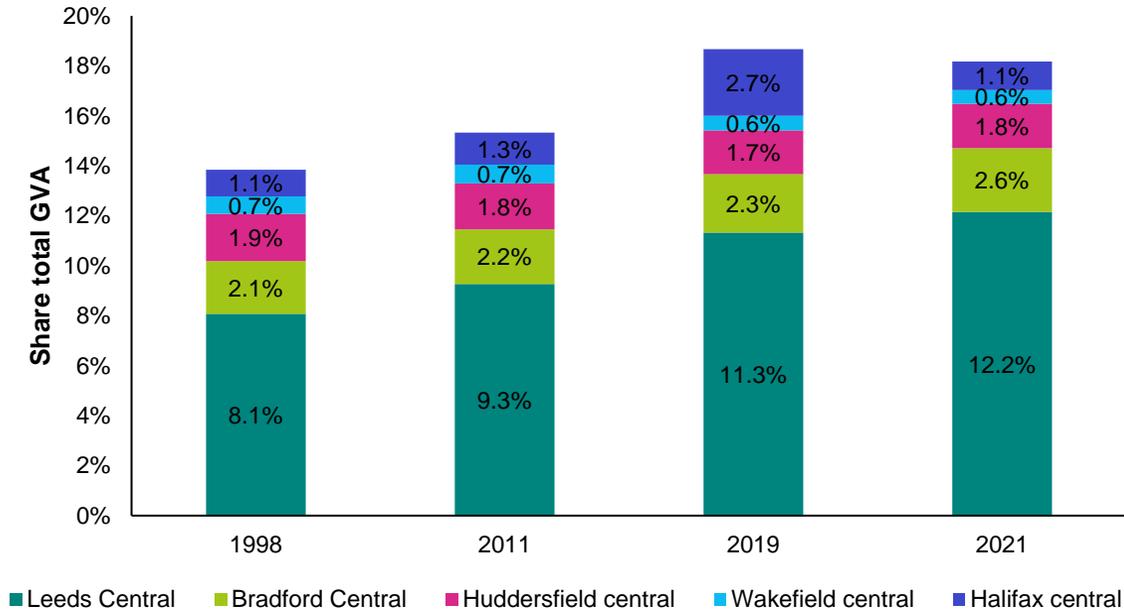


- In the last decade, Calderdale and Kirklees economies became larger in relative terms. That mostly represented a reversion from relative loss in the period between 1998 and 2011.
- Leeds economy has a similar contribution to West Yorkshire in 2021 when compared to 2011.

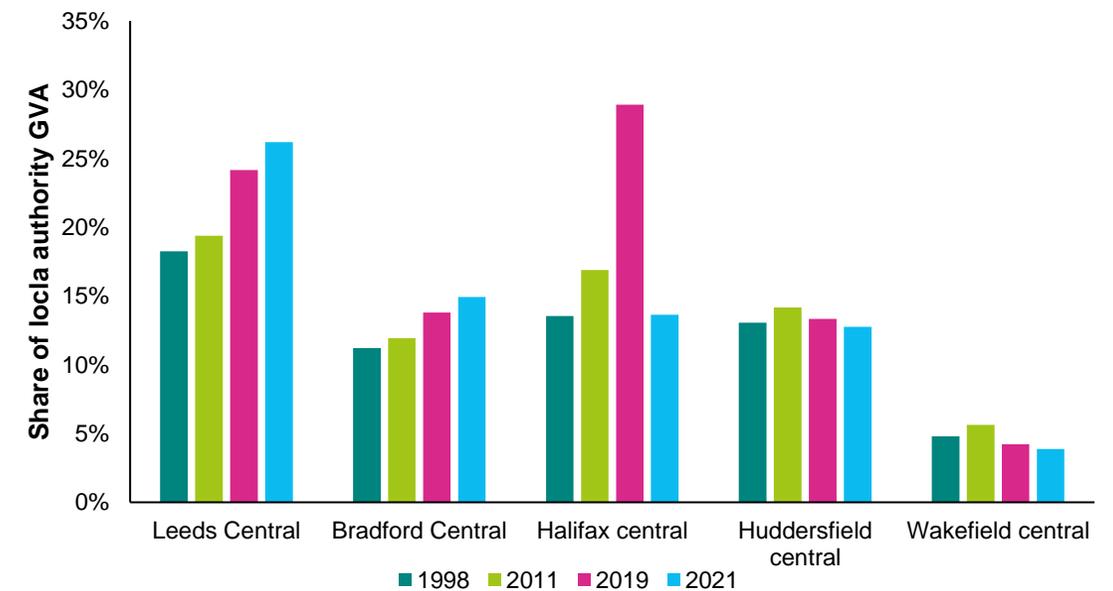
# That said, there has been some concentration in central areas. Mainly in Leeds

**Figure:** GVA composition by LSOA, estimated central areas, 1998-2019

**Central areas share of West Yorkshire Economy**



**Central area as share of local authority**



Source: ONS, UK small area gross value added (GVA) estimates.

Central areas defined as **Bradford:** Bradford 039A, Bradford 039B, Bradford 039C, Bradford 039E, Bradford 039G, Bradford 039H, Bradford 039I, Bradford 039J. **Halifax:** Calderdale 008E. **Huddersfield:** Kirklees 029D, Kirklees 039A, Kirklees 039C. **Leeds:** Leeds 111A, Leeds 111B, Leeds 111C, Leeds 111D, Leeds 111E. **Wakefield:** Wakefield 017D.

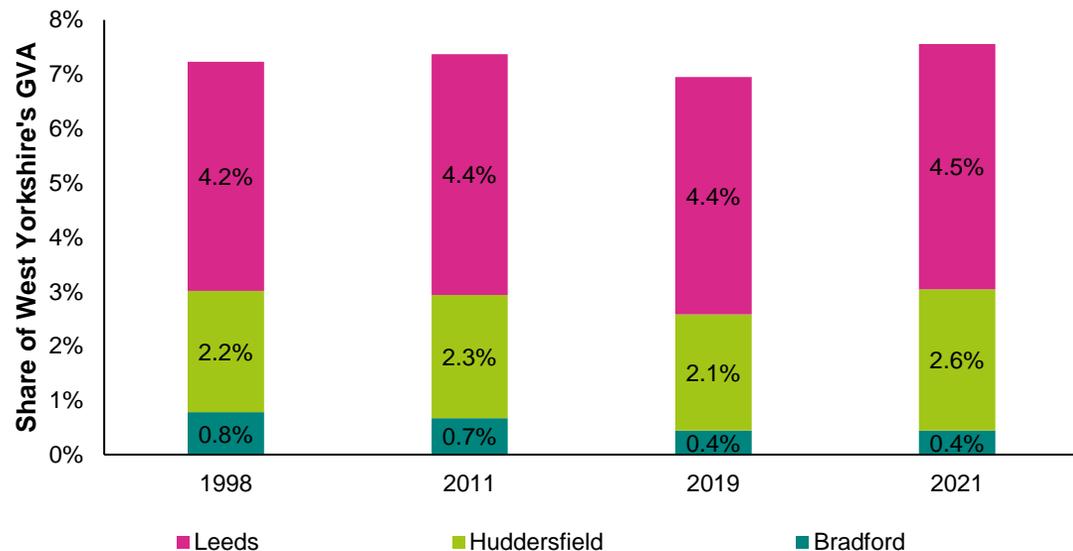
Note: Data from 2020 not presented due to temporary distortions caused by covid.

- In part, this has been driven by the growth in Leeds, the area of West Yorkshire mostly specialised in knowledge-based services, which typically benefit from concentration. Bradford - which is becoming somehow specialised in services - also seen its central area becoming more important.
- Calderdale had a very strong growth of its central area (Halifax) but sharply declined in 2021. The sharp contraction may be driven by local services (e.g. covid effects areas like the Piece Hall). In 2022, job data suggests this by showing a recovery with the number (and concentration) of jobs in central Halifax reaching higher levels than pre-covid.

# Areas around universities broadly stable with Huddersfield becoming more important

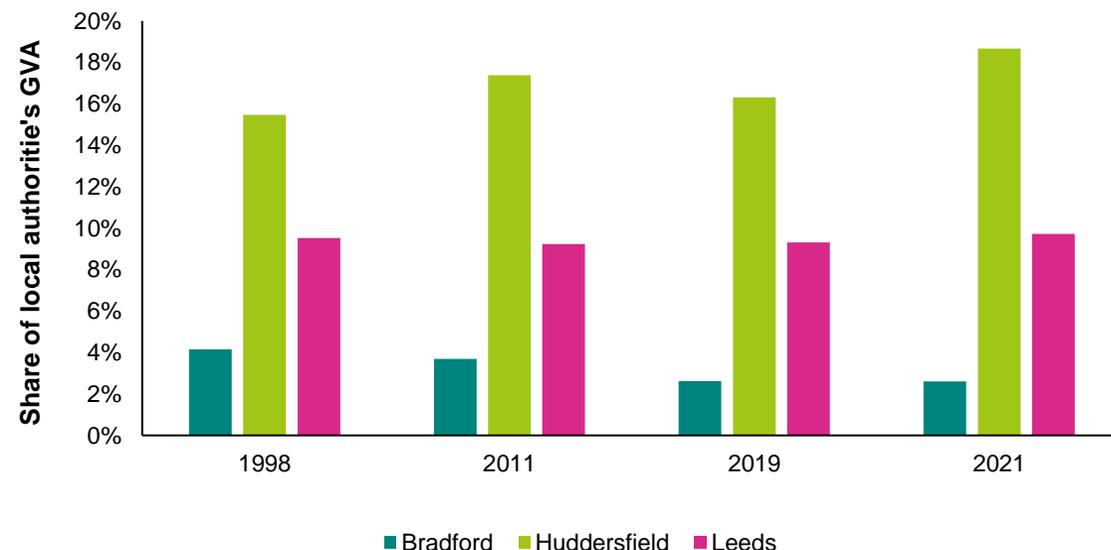
**Figure:** GVA around universities, share of West Yorkshire's, LSOA estimated central areas, 1998-2019

## Areas around Universities



**Figure:** GVA around universities, share of local authority, LSOA estimated central areas, 1998-2019

## Areas around Universities



Source: ONS, UK small area gross value added (GVA) estimates.

University areas defined as **Bradford**: Bradford 044A, Bradford 044B, Bradford 044C, Bradford 044D, Bradford 044E, Bradford 044F

. **Huddersfield**: Kirklees 042D, Kirklees 029D. **Leeds**: Leeds 021A, Leeds 063B, Leeds 063D, Leeds 063E, Leeds 111A.

- Areas around universities (not the universities) has been stable in the last two decades, around 7% of West Yorkshire economy.
- The area of Huddersfield University and surroundings have been growing significantly.

# West Yorkshire is truly polycentric and interconnected, not a combination of segregated labour markets

**Figure:** Commuting flows in West Yorkshire (2011 and 2021)

Group	Census 2011	2021 Pre-pandemic modelled estimates	Census 2021
Share of people working in WY living in the combined authority	89%	90%	91%
Share of WYCA workers who live in one WY LA and work in another	20%	37%	21%
<i>Of those, share that commute into Leeds</i> <i>(share of total commutes)</i>	42% (8%)	36% (13%)	36% (8%)

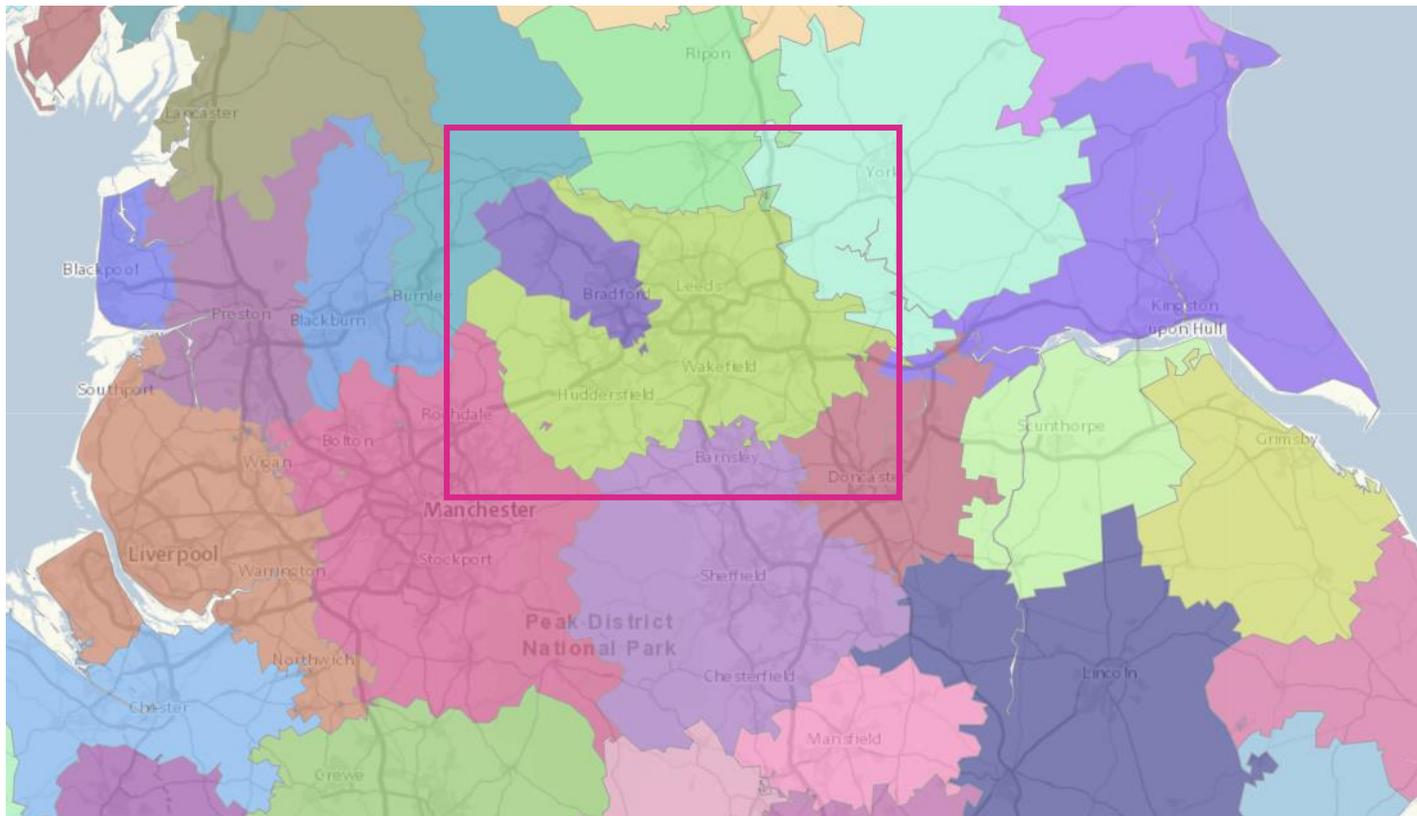
Source: ONS, Travel to work estimates using assumed pre-coronavirus travel behaviours, 2021. **Experimental data. Census 2011 origin and destination. Census 2021 origin and destination.**

**Note:** The data is a collection of multiple datasets, which includes modelled data, so it should be seen as ballpark figures and not as a precise metric of the current situation.

- West Yorkshire is a self-contained labour market. Therefore, the right geography for an economic strategy.
  - Around 90% of workers live in the Combined Authority.
- But workers do not necessarily live in the same local authority in which they work.
  - Around 20-37% of WYCA's residents work in another local authority in West Yorkshire.
  - These flows are not only driven by people going towards Leeds: less than half of those type of commutes and less than 15% of all commutes.
- The travel to work areas for full time workers, based on the 2011 census (latest available for this purpose), shows West Yorkshire divided into two areas: One containing most of Bradford and another with the rest of the Combined Authority.

# Interventions should contribute to the integration of the combined authority as a labour market

**Figure:** Alternative Travel to Work Areas, Full time employed (2011)



- Despite the census showing that there are plenty of flows between local authorities, analysis of Travel to Work Areas (2011) for full time workers suggest that Bradford's labour market is not as integrated into West Yorkshire as other areas.
- Other CA areas do not necessarily match their TTWA (GM and Wigan, or Doncaster and Sheffield) but difference in Bradford seems more significant.
- This is likely to be driven by a combination of factors like connectivity (road congestion and rail capacity) but also the level of skills of the workforce to benefit from longer commutes.
  - Those will be analysed in the next slides
- As TTWA have more than a decade, they have changed with the growing importance of Bradford city centre and other economic changes in West Yorkshire. That said, transport constraints around Bradford remain high.

# Summary

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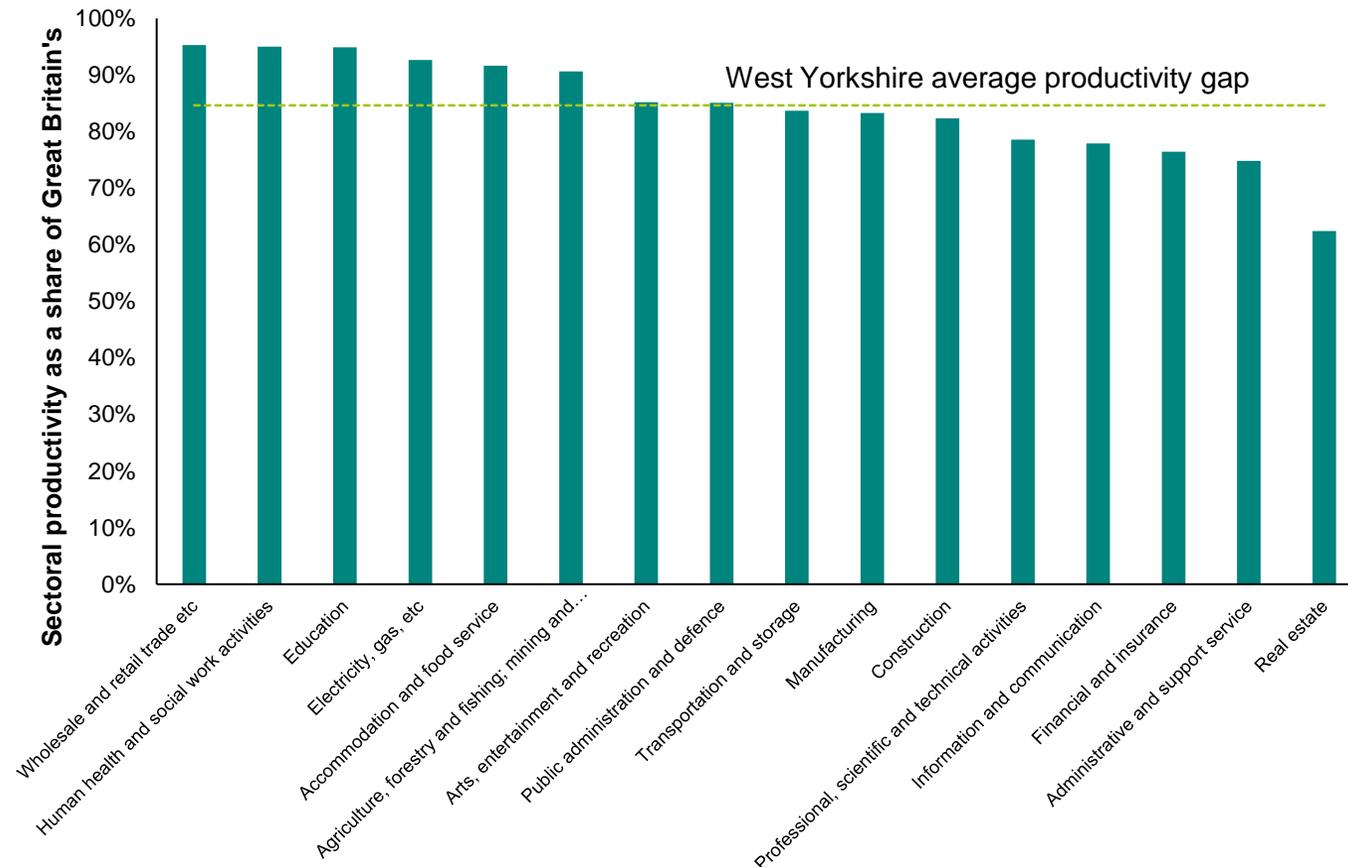
- Manufacturing remains an important part of the economy, mainly outside Leeds.
- Specialisms associated with knowledge-based economies are found mostly in Leeds, sectors like digital and finance. Bradford and Calderdale have some service specialisms.
- Because West Yorkshire is a self-contained labour market and people travel within it, these specialisms benefit more than their local area.
- Local authorities contribution to the economy has been relatively stable. That said, central areas, especially in Leeds, are becoming comparatively more important.

# Productivity gap by industry and firm type

# The productivity gap is mostly driven by sectors associated with tradeable activities

Figure: Productivity levels by industry at the ITL2 level, 2019

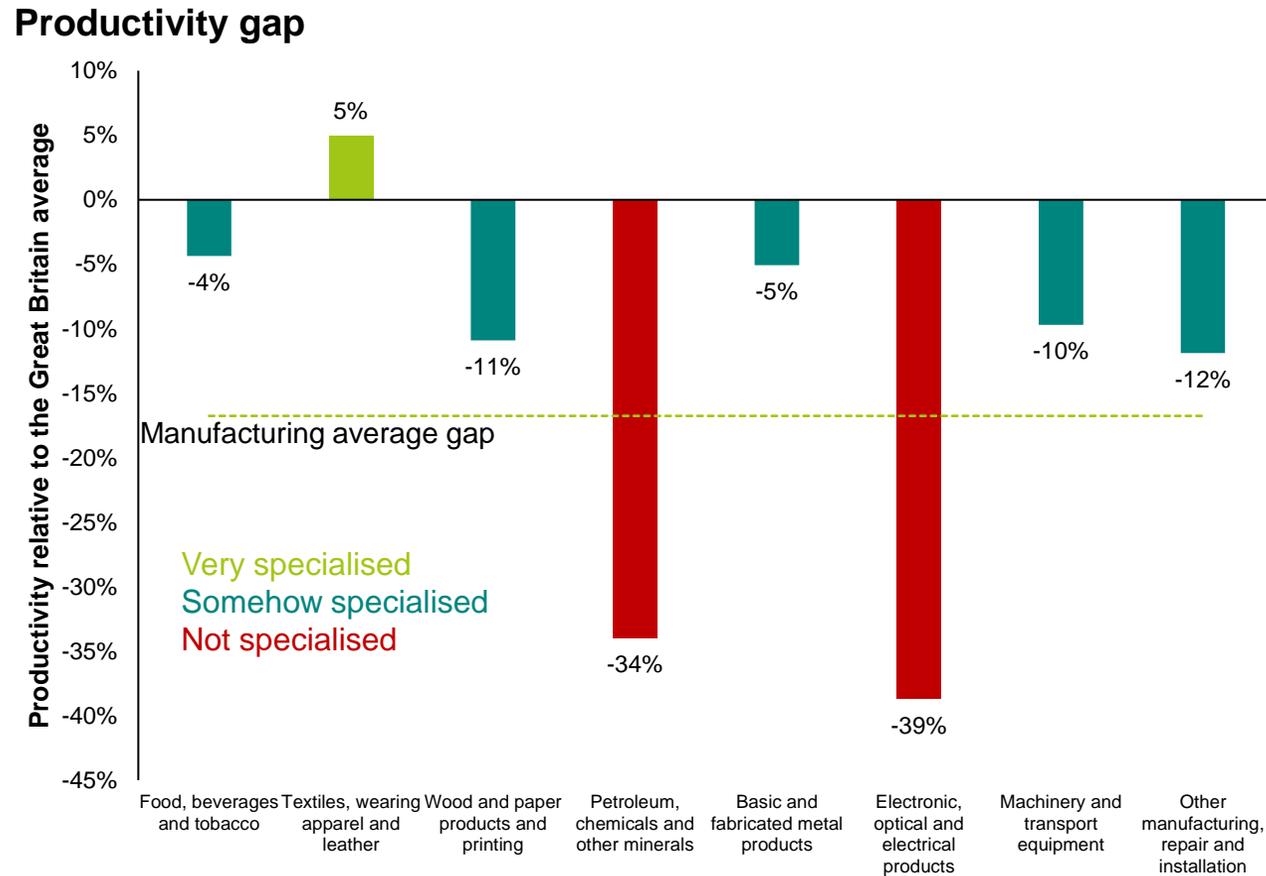
## West Yorkshire's relative productivity gap by sector



- The productivity gap is lower in local services (retail, hospitality) or government-related activities (education and public administration).
- Within local services, real estate is the exception. One explanation is that this sector indirectly captures the economic value from other activities.
- The productivity gap is mostly driven by **manufacturing** and some services associated with knowledge-based activities, such as **professional services** or **information & communication**. In line with existing [research](#).
  - Despite West Yorkshire's specialisms, overall manufacturing does have a significant productivity gap.

# Closing the productivity gap: manufacturing. Likely to require new specialisms

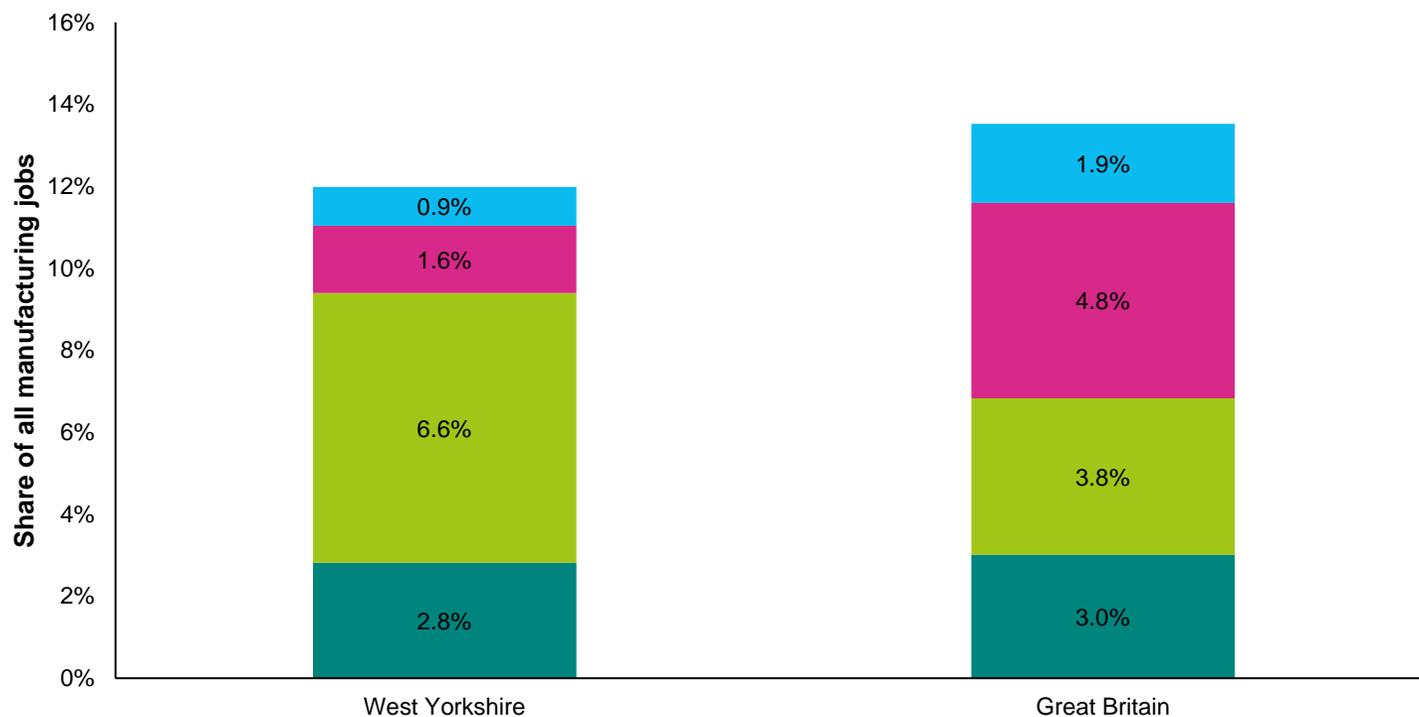
**Figure:** Manufacturing productivity by ITL3 and industry, West Yorkshire 2019



- Manufacturing productivity in West Yorkshire is relatively high in industries with a specialism such as textiles or food manufacturing.
  - 5% more productive in textiles and in food manufacturing only 4% less productive.
- The main productivity differences are in sectors **in which West Yorkshire is not very specialised**.
  - For example, West Yorkshire electronics (electric lighting equipment) are very different from the type of specialism in the rest of the country (electronic components). The same for chemicals (agrochemicals in West Yorkshire vs. pharma and petroleum in the UK).
- Closing the **productivity gap will require new manufacturing-related specialisms**. Closing the gap in industries like “wood and paper products”, or widening the productivity advantage in textiles, seems unlikely to fully close the manufacturing gap.

# There are differences in job composition in chemicals and electronics between West Yorkshire and Great Britain

**Figure:** Job composition of some types of manufacturing, share of all manufacturing jobs in West Yorkshire and Great Britain (2022)

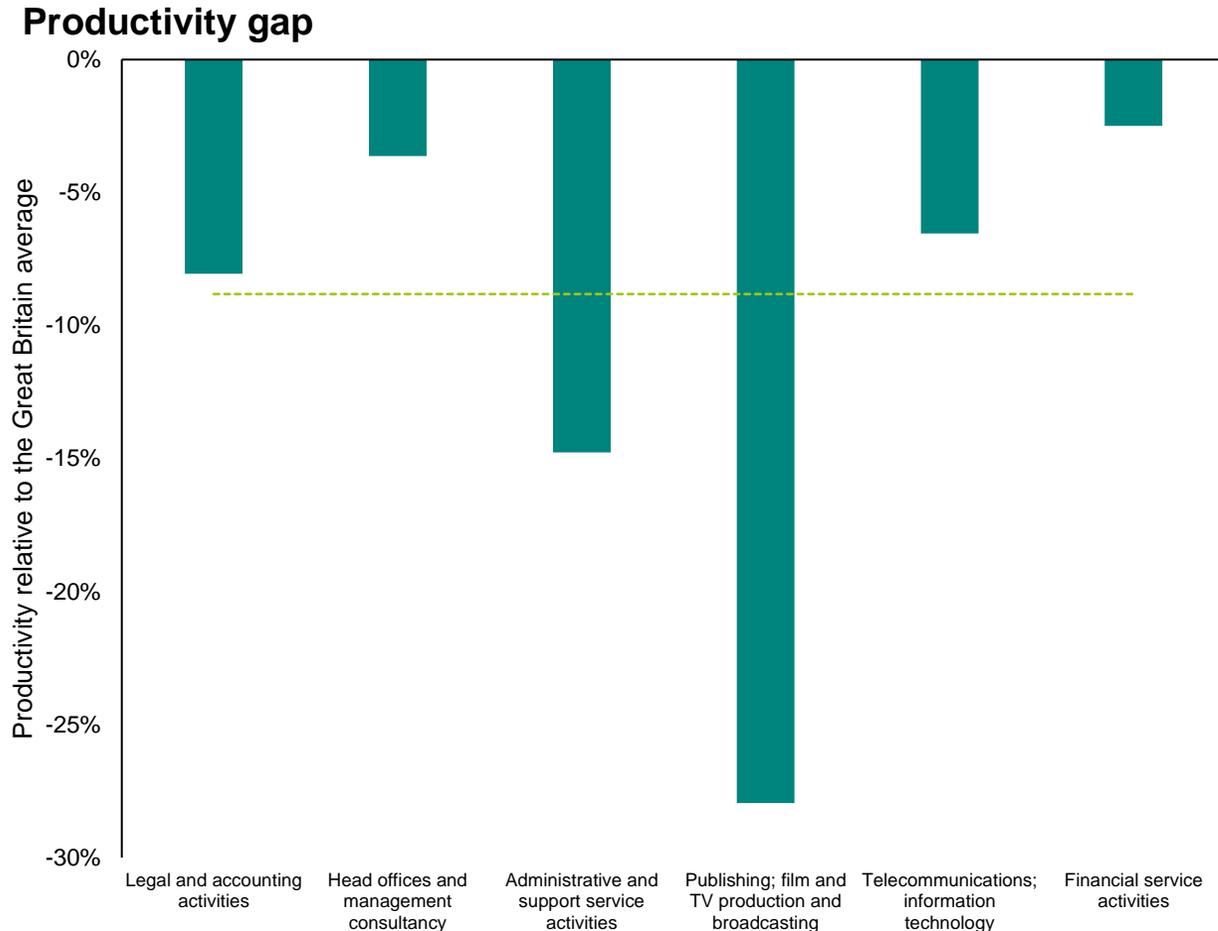


■ Basic pharmaceutical products and pharmaceutical preparations ■ Computer, electronic and optical products  
■ Chemicals and chemical products ■ Electrical equipment

- West Yorkshire underperforms in terms of its share of jobs in pharmaceuticals and computer and electronic manufacturing. Those sectors, due to complexity, are expected to be quite productive.
- These compositional changes drive the productivity gap previously showed.
- Meanwhile, West Yorkshire is specialised in areas like detergents and agrochemicals that are not as productive.

# Closing the productivity gap in knowledge-based services requires a deepening of existing specialisms in Leeds

**Figure:** Selected services productivity in each Leeds is specialised, 2019

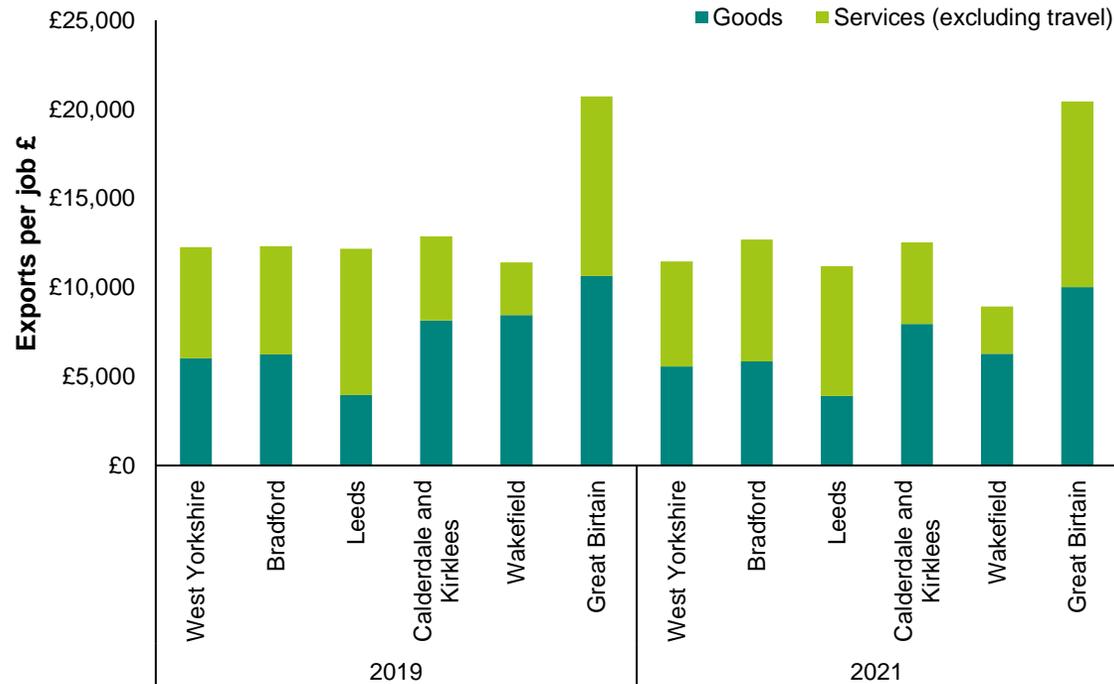


- Leeds is the local authority in West Yorkshire mostly specialised in tradeable knowledge-based services
  - The activities where the productivity gap is the highest
- That said, even Leeds underperforms in terms of productivity in its specialisms. Closing the productivity gap requires making those sectors more productive.
  - This means a combination of attracting new businesses in these sectors and making existing firms more productive.
- In order to close the West Yorkshire's productivity gap with the national average, Leeds' (most productive part of West Yorkshire) specialisms should be expected outperform the national average.

# West Yorkshire exports less than average, a strong and productive tradeable sector expect to boost exports of both goods and services

**Figure:** Exports of goods and services (excluding travel) per job ITL3 (2019 and 2021)

## Exports of goods and services (excluding travel)



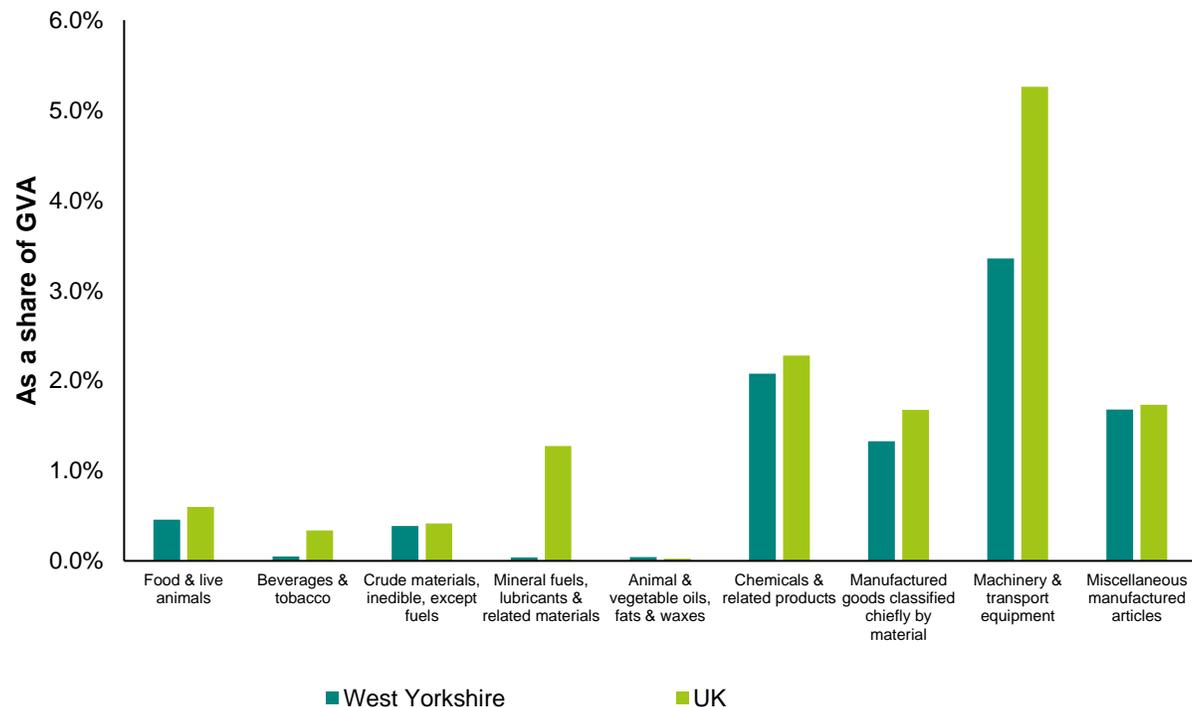
Source: ONS, International exports of services from subnational areas of the UK. ONS, International exports of goods from subnational areas of the UK. ONS, Business Register and Employment Survey.

- West Yorkshire exports per job are around 50-60% of the national average.
  - Exports as a share of GVA also below the national average for all areas analysed.
- The goods-service composition in West Yorkshire is similar to the Great Britain average, with significant differences within the Combined Authority.
- Leeds and Bradford export more services (excluding travel) than goods, which highlights the different economic structures within the Combined Authority. Meanwhile Wakefield and Calderdale & Kirklees exports more goods than services.

# West Yorkshire exports are relatively low even within its specialisms like chemicals or transport equipment

**Figure:** Exports of goods by type as a share of GVA, West Yorkshire and UK (2021)

## Export of goods



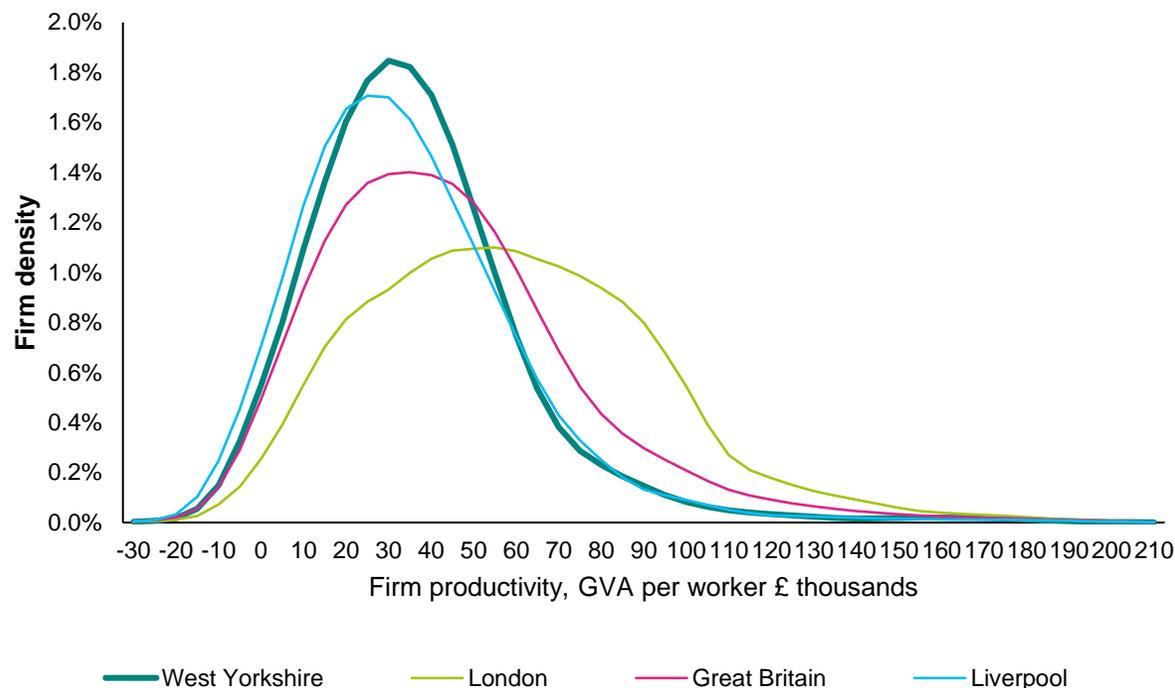
- Even in areas that West Yorkshire is quite specialised, like chemicals, its weight relative to overall GVA is lower than the national average. For Chemicals it was not the case in 2019.

Source: Treasury, Regional Trade in Goods Statistics disaggregated by smaller geographical areas. ONS, Regional gross value added (balanced) by industry: all ITL regions 1998 to 2021.

# Closing productivity gap requires more firms at the high productivity level

**Figure:** Distribution of firms by productivity levels, by city region 2014

## Productivity distribution



- The productivity underperformance is driven by a low concentration of highly productive companies, with GVA per worker at £90,000 or above.
- Existing research [shows](#) that productivity differences are not driven by local services such as recreation, hospitality and retail.
- As wages are typically higher in productive firms, closing the productivity gap has important implications towards inclusive growth.

# Wage growth from closing productivity gap likely to be skewed towards the top of the distribution

**Figure:** Workplace median pay, full time workers in West Yorkshire and UK, 2019-2022

## Differences by wage distribution



- The same way the productivity gap is driven by the lack of high performing firms, a similar trend is observed in wages, with the largest gap at the top of the distribution.
- The wage differences between West Yorkshire and the national average are **mostly driven by lack of highly paid jobs.**
- Under certain circumstances, closing this gap could lead to issues around housing affordability.
- This highlights the importance of **aiming for inclusive growth.**

# Summary

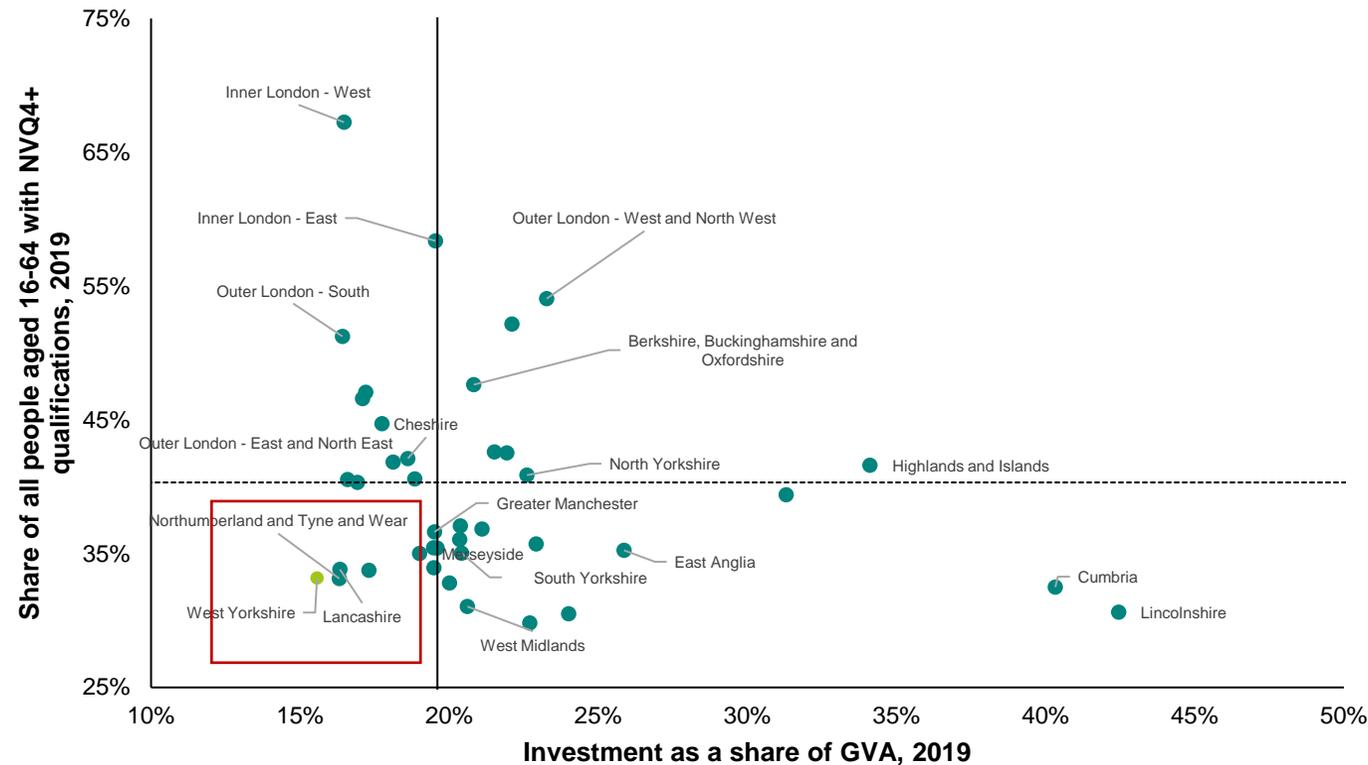
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- The productivity gap is driven by tradeable sectors like manufacturing and professional services.
- Manufacturing gap is not driven by West Yorkshire's specialisms (like textiles or furniture) but the lack of a large complex manufacturing activities.
- Leeds has several knowledge-based service specialisms but they still do underperform the national average. Improving those sectors, by making existing firms more efficient and attracting new firms is fundamental.
- West Yorkshire economy exports significantly less than the national average, even in types of goods that West Yorkshire is specialised.
- Closing the productivity gap would disproportionately boost wages at the top.

# Main productivity drivers: labour and capital

# West Yorkshire has a combination of low investment intensity and not a particularly large share of workers with level 4 qualifications

**Figure:** Productivity per hour and share of all people aged 16-64 with NVQ4+ qualifications by ITL2 (2019)



- In terms of investment and skills, West Yorkshire underperforms the national average.
- Investment as a share of GVA is estimated to be the lowest among all ITL2. A common feature across all local authorities.
- Below the national average in terms of working age population with level 4 qualification of above. Particularly low for Bradford and Wakefield. Only Leeds perform in line with the national average.
- Closing the productivity gap likely to involve an increase in both components.
- Today, closing the investment gap (public and private) would require **£2.6bn a year**. Closing the skills gap would require around **100,000 additional graduates, which would require new graduates from elsewhere (either new residents or commuters from other areas)**
  - Doubling the HE retention, could bring around **6,000 additional graduates a year**.
  - Attracting West Yorkshire's back: doubling the number of graduates with a WYCA domicile working in the area would bring around **2,100 additional graduates a year**.
  - Increasing the HE pipeline from residents, by increasing HE progression to 50% (assume all extra graduates will stay in WYCA) would increase the number of graduates by around **2,000 additional graduates a year**.

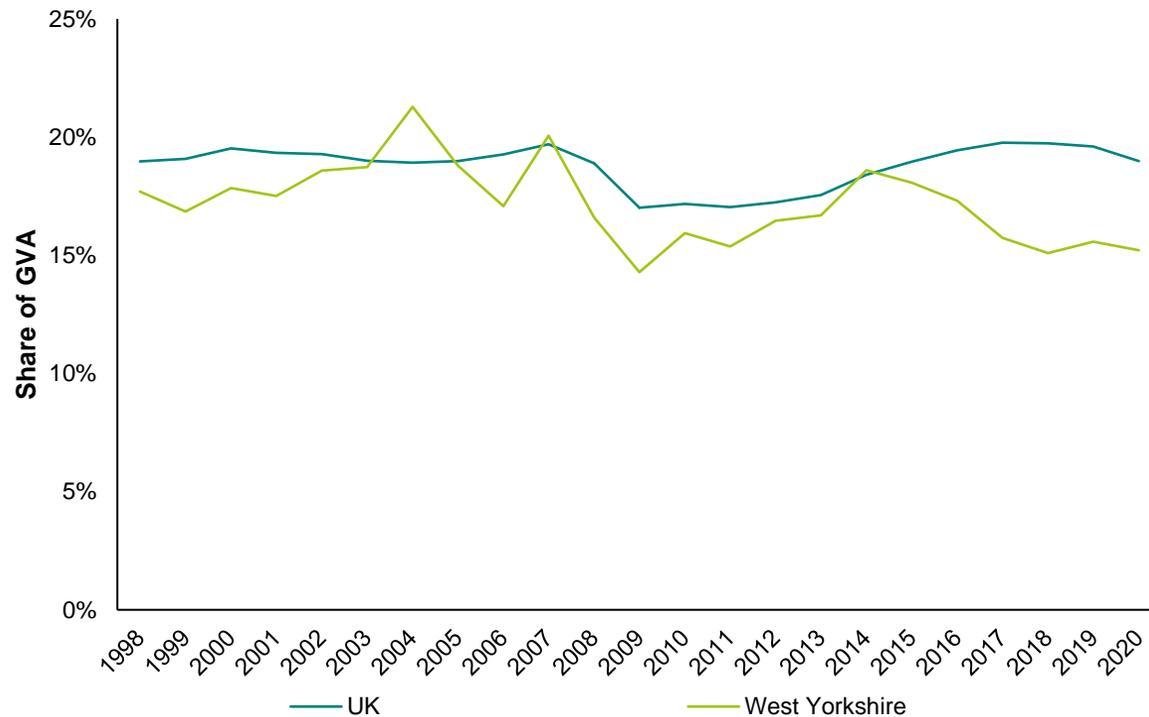
Source: ONS, NOMIS annual population survey. ONS, Subregional productivity: labour productivity indices by UK ITL2 and ITL3 subregions. ONS, Experimental regional gross fixed capital formation (GFCF) estimates by asset type: 1997 to 2020. ONS, GVA at ITL2, current price estimates: 1998 to 2020. West Yorkshire Combined Authority calculations.

# Investment performance and types of investment

# West Yorkshire's investment diverging from UK average specially since 2013

Figure: Investment at the subnational by ITL2 (1998-2020)

## Gross Fixed Capital Formation share of GVA

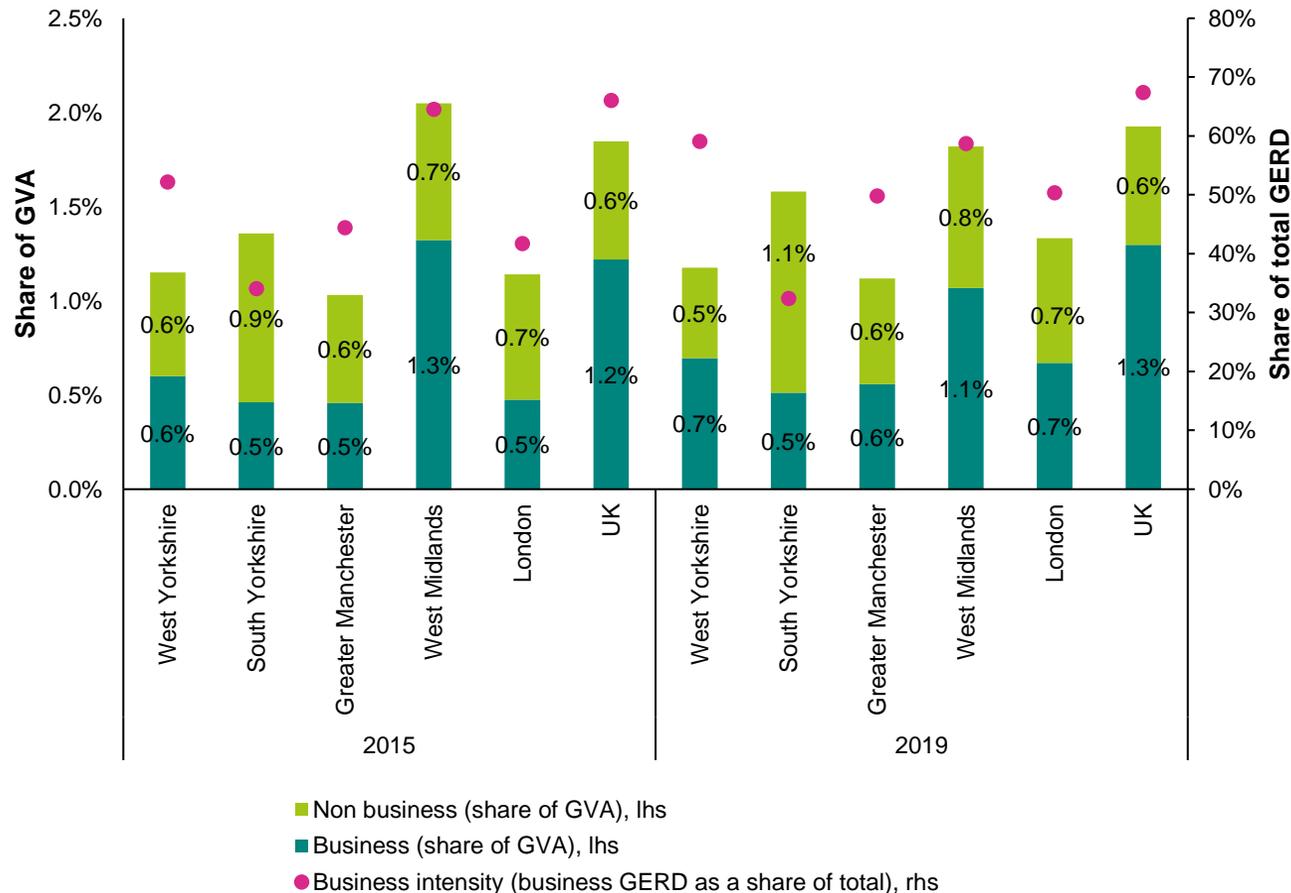


Source: ONS, Experimental regional gross fixed capital formation (GFCF) estimates by asset type: 1997 to 2020. ONS, GVA at ITL2, current price estimates: 1998 to 2020.

- Lower investment than the national average (which is **lower** than its peers), diverging especially since 2013. **It is around this time that West Yorkshire's productivity diverges from the national average.**
- This is a common feature across all local authorities.
- Asset composition (buildings, ICT, intangibles, etc) in West Yorkshire similar to national average.
- Investment underperformance in almost all industries.
- **Research** suggests that after the financial crisis, international markets started perceiving the areas outside the south as riskier (added premium). This mechanism could be behind the decline in investment in West Yorkshire.

# West Yorkshire's R&D expenditure is lower than average in both business and non-business spending. However, it has a relatively high business intensity

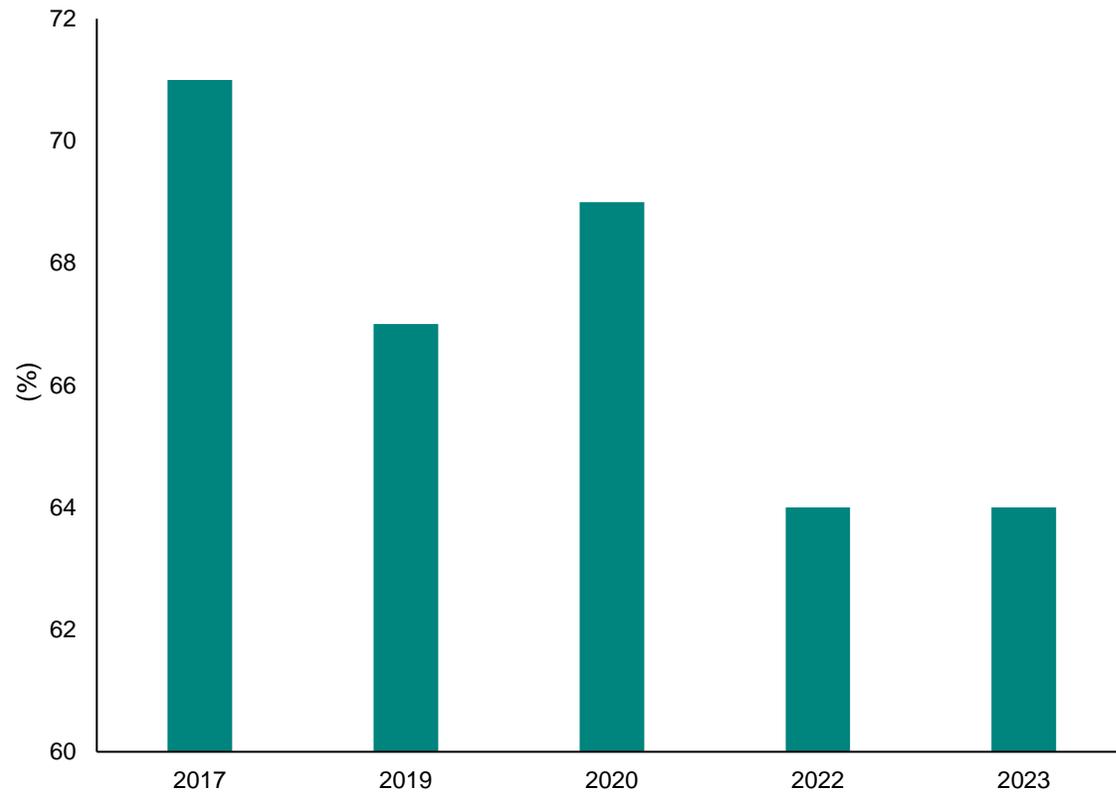
**Figure:** Gross Domestic Expenditure on Research and Development (GERD) composition by ITL2 (2015 & 2019)



- Relatively low Research and Investment: below the national average, London, West Midlands and South Yorkshire.
- But has a greater business R&D intensity (business GERD as a share of total GERD) than other large cities like London, Greater Manchester and South Yorkshire.
  - 59% of West Yorkshire R&D comes from businesses in 2019. Against 50% in Greater Manchester and London; 32% in South Yorkshire.
- Between 2015 and 2019, West Yorkshire had a decline in non-business R&D (as a share of GVA), unlike other large cities.
  - Non-business composed by universities, government and third sectors.
- Despite that decline, business R&D rose marginally in West Yorkshire.
- As non-business R&D tends to **crowd in** business GERD the recent increase in business GERD could be seen as a signal of being an attractive place for business innovation, despite the not so strong non-business investment.

# Firms reporting innovation had a marginal decline, R&D mostly done with other firms but role of universities gradually rising

**Figure:** *Proportion of West Yorkshire businesses engaged in innovation activities*

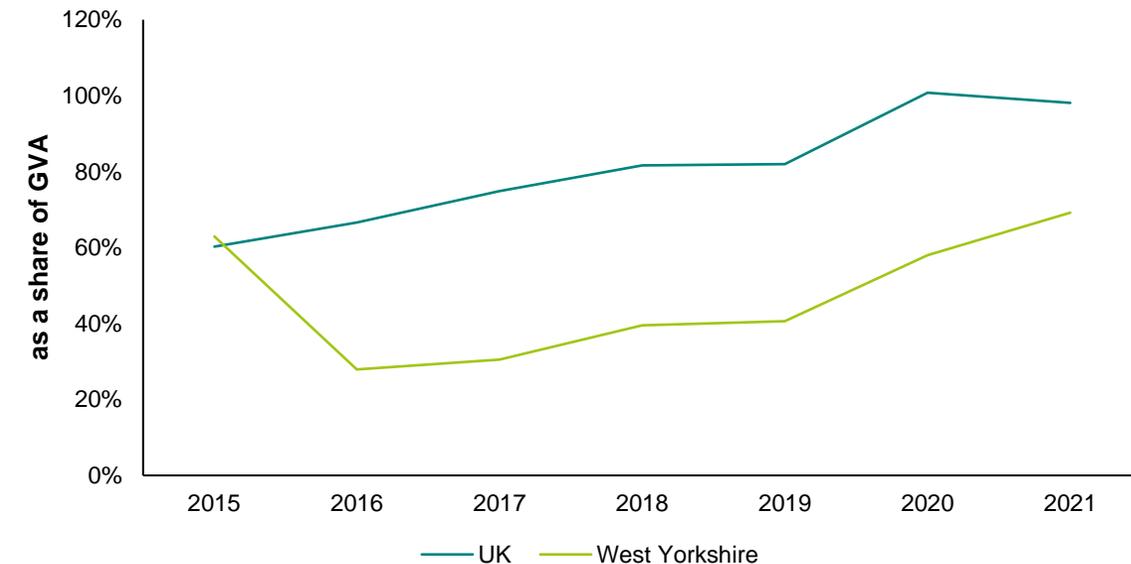


Source: Business Survey. Note: The survey was not collected in 2018 and 2021.

- Business survey shows that around 65% firms report taking any kind of innovation.
  - This number has been falling gradually, it was 71% in 2017.
  - Innovation is particularly high for medium and large firms (91%)
  - Relative stable across local authorities, with Wakefield having lower innovation (56%), followed by Bradford (60%).
- And 40% report those innovations involve the introduction of new technologies. And only 22% report participating in R&D.
- Most companies report undertaking innovation/R&D with business networks (72%) and a smaller fraction with universities (29%).
  - Improvement as Universities only accounted for 17% in 2019.
- There are 17% of firms that report barriers to innovate, which are typically financial (finance costs, 67%; innovation costs too high, 62%).

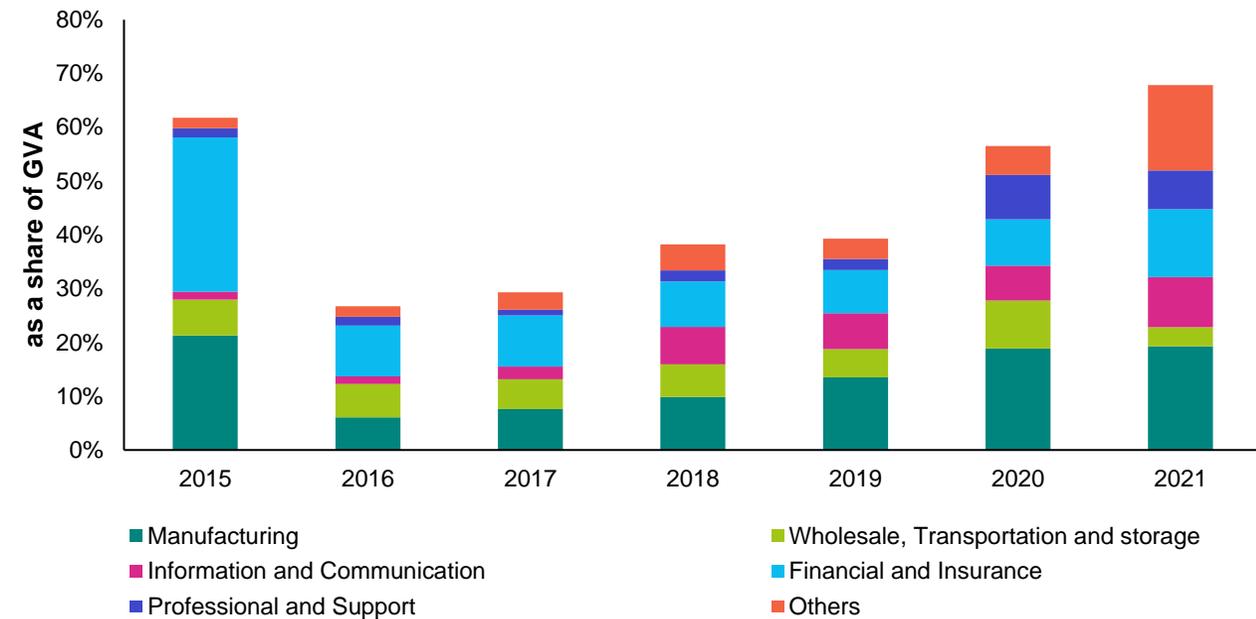
# FDI diverged from national average in 2016, followed by a partial recovery since then

**Figure:** FDI international investment position in the UK and West Yorkshire held by foreign companies (inward) as share of GVA (2015-2021)



Source: ONS, Foreign direct investment involving UK companies by UK country and region, (directional): inward.

**Figure:** FDI international investment position in the West Yorkshire held by foreign companies (inward) as share of GVA by industry (2015-2021)



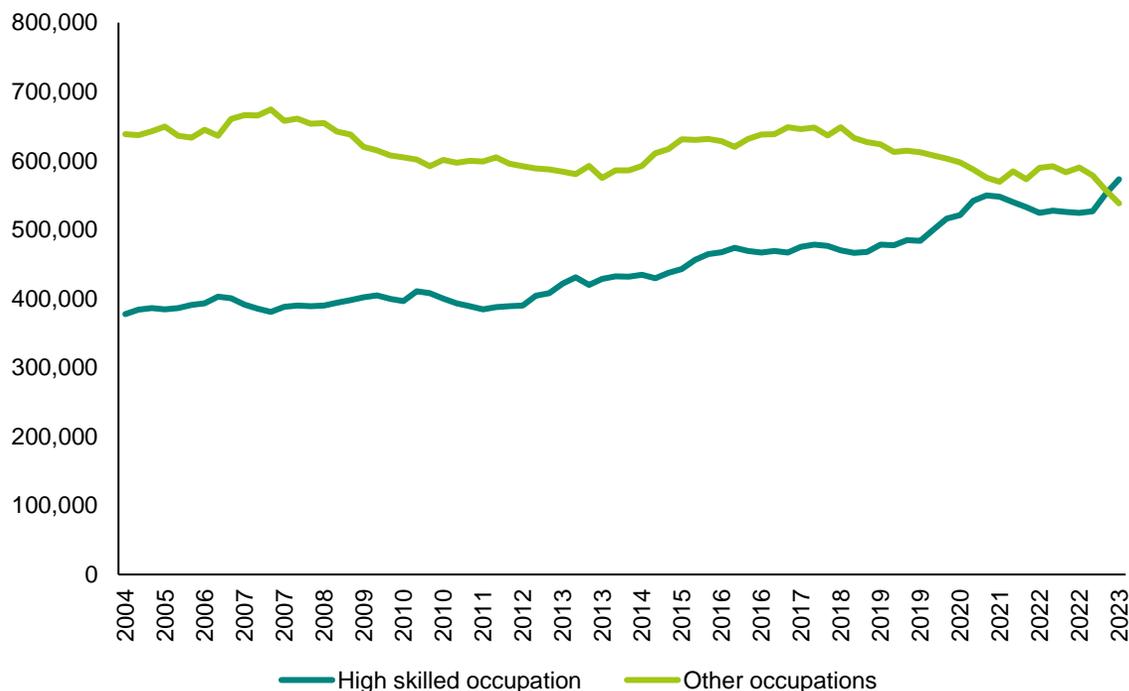
Source: ONS, Foreign direct investment involving UK companies by UK country and region, (directional): inward.

- FDI international investment position in the UK held by foreign companies diverged from the national average in recent years. The decline was driven by financial and insurance.

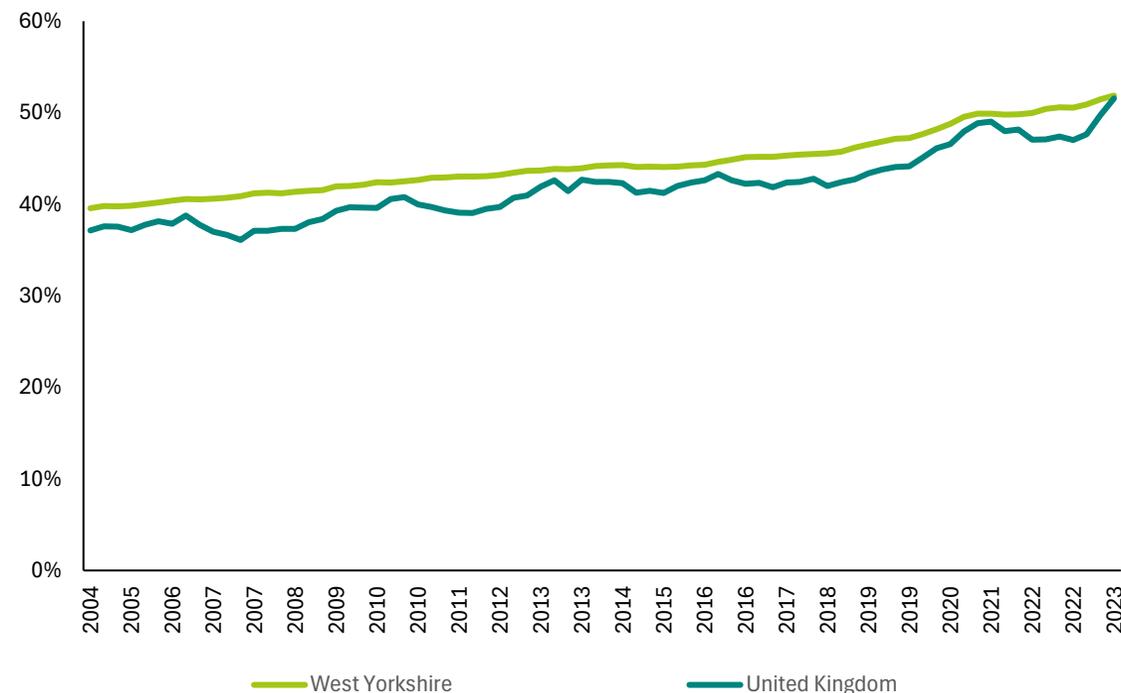
# Labour and skills

# Despite weak productivity growth in the last decade, there has been a shift towards occupations classified as skilled

**Figure:** Jobs by occupation type, 2004-2023



**Figure:** High skilled occupations as a share of total jobs, West Yorkshire and United Kingdom, 2004-2023



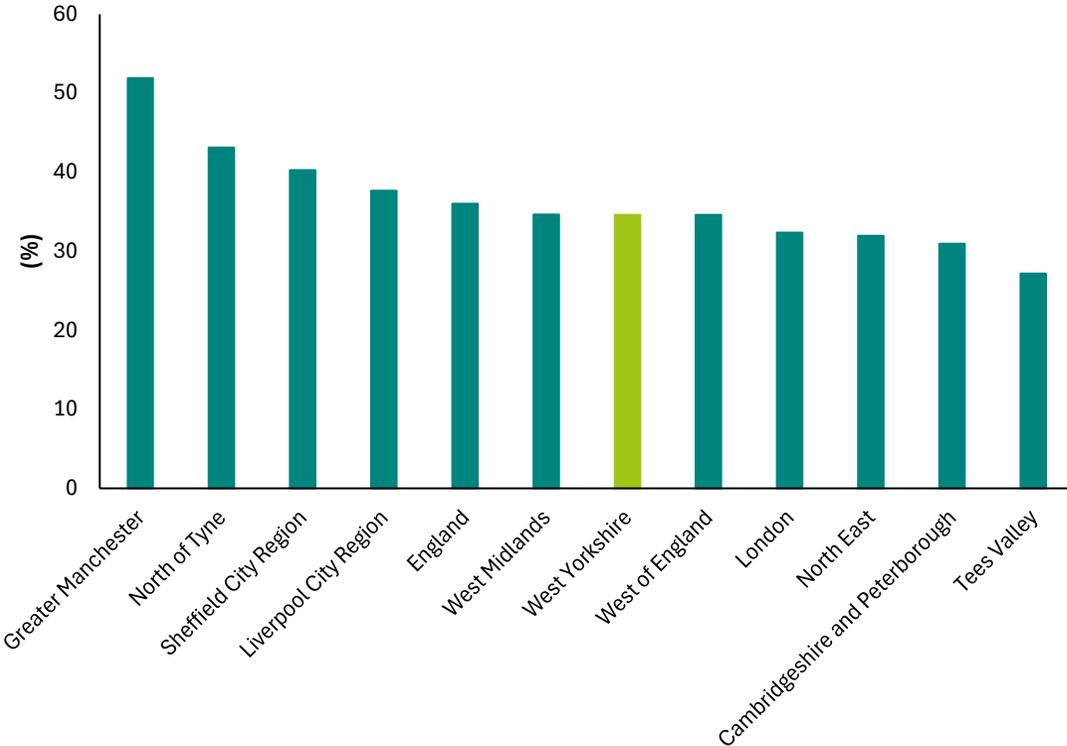
Source: Annual Population Survey, workplace employment.

Note: High skilled defined by “managers”, “professionals” and “associated professionals”, based on SOC2010 groups (codes 1 to 3).

- The economy is increasing its need for higher skills, which suggests that the lower than average skill base is not simply a reflection of low demand for those skills.
- Those types of occupations grew by 52% since 2004, and now they account for more than half of the jobs, converging with the national average.

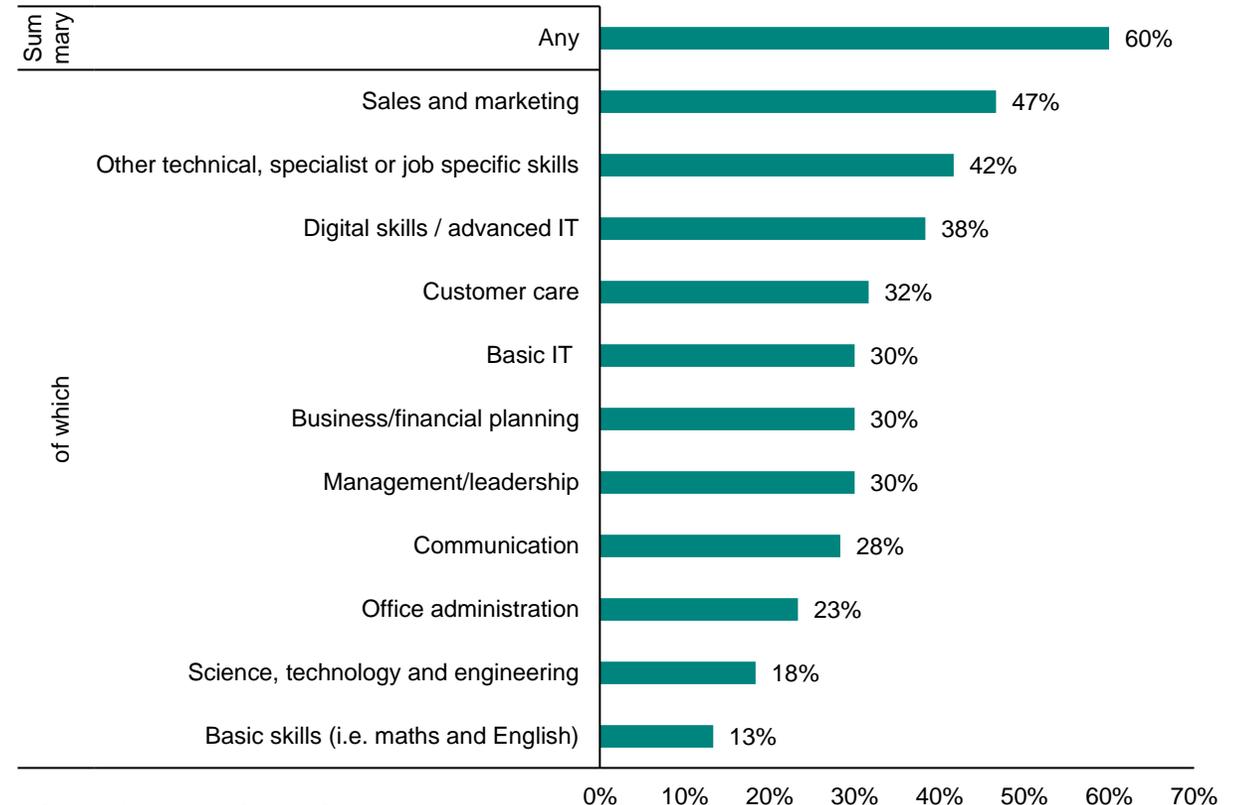
# Shortages suggests that the skill base is likely to be constraining the economy today

**Figure:** Share of skill shortage vacancies as a share of all vacancies, by Mayoral authority area, 2022



Source: Employer Skills Survey, 2022

**Figure:** Which of the following skills need improving during the next 12 months to meet your business/organization's needs?

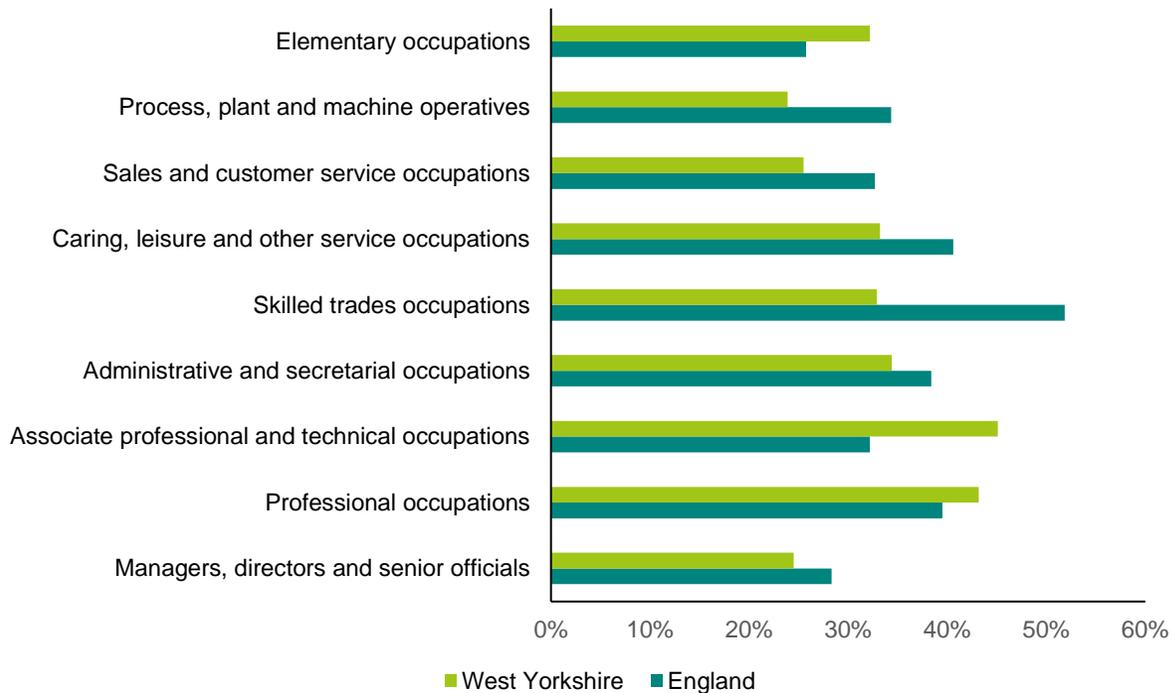


Source: West Yorkshire Business Survey, 2023.

- Skills shortages are in line with the national average. That said, According to the West Yorkshire Business survey, 2023 was the year where skills gaps are at their highest level since the survey began. Several of those skills, like advanced IT, associated with industries where West Yorkshire presents a productivity gap.
- In the latest West Yorkshire Business Survey (2023), “availability of skilled labour” was the second barrier to growth in the next 3 months, around 13% of all respondents. Higher than in previous surveys.

# Shortages suggests that the skill base is likely to be constraining the economy today

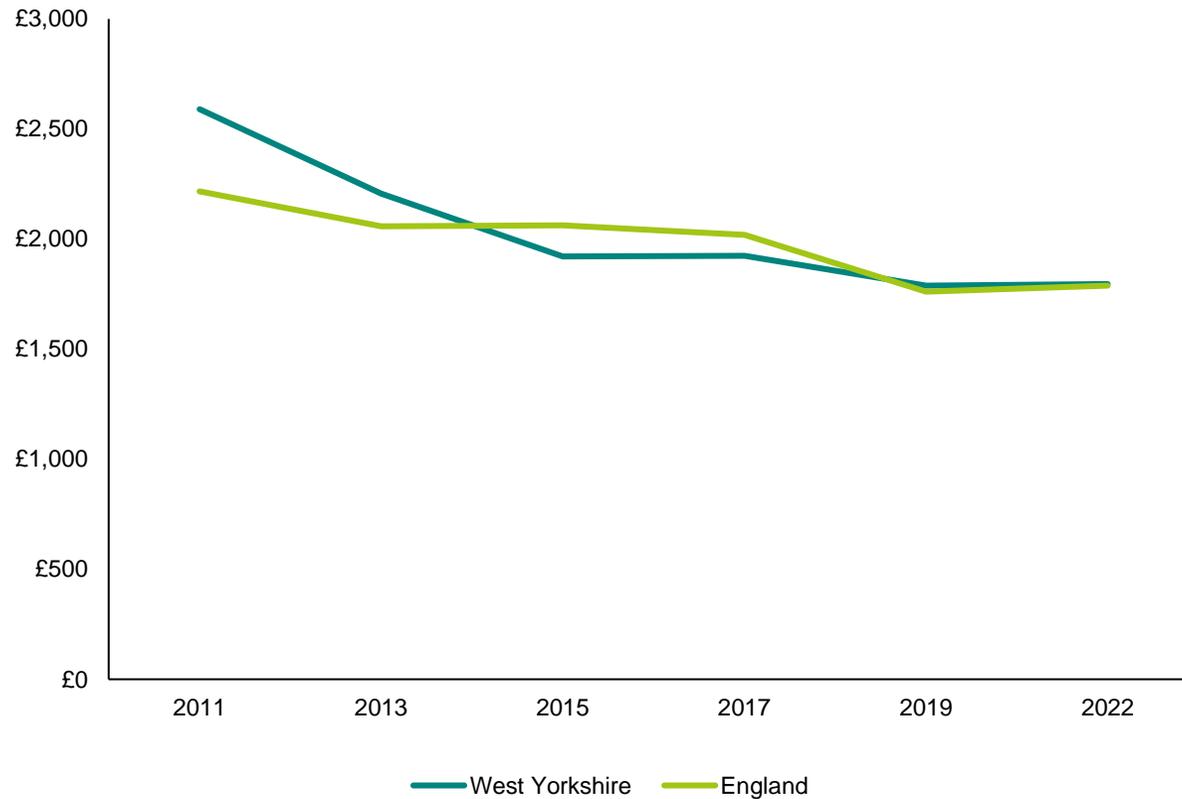
**Figure:** Skill shortage vacancies as a share of total vacancies, by occupation major group



- Relative to occupations, compared to England, occupations shortages are more acute for professional and associated professionals.
- Research [shows](#) that lack of labour with STEM skills may be limiting the UK economic performance, especially outside the South of England.

# Despite the need for skilled workers, the estimated employer investment in training has also fallen over the last decade

**Figure:** Trend in estimated employer investment in training per employee, West Yorkshire



- A decade ago, training per job in West Yorkshire was £373 higher (13%) per employee than the national average.
- Since then, training spending fell by £795, by one third.

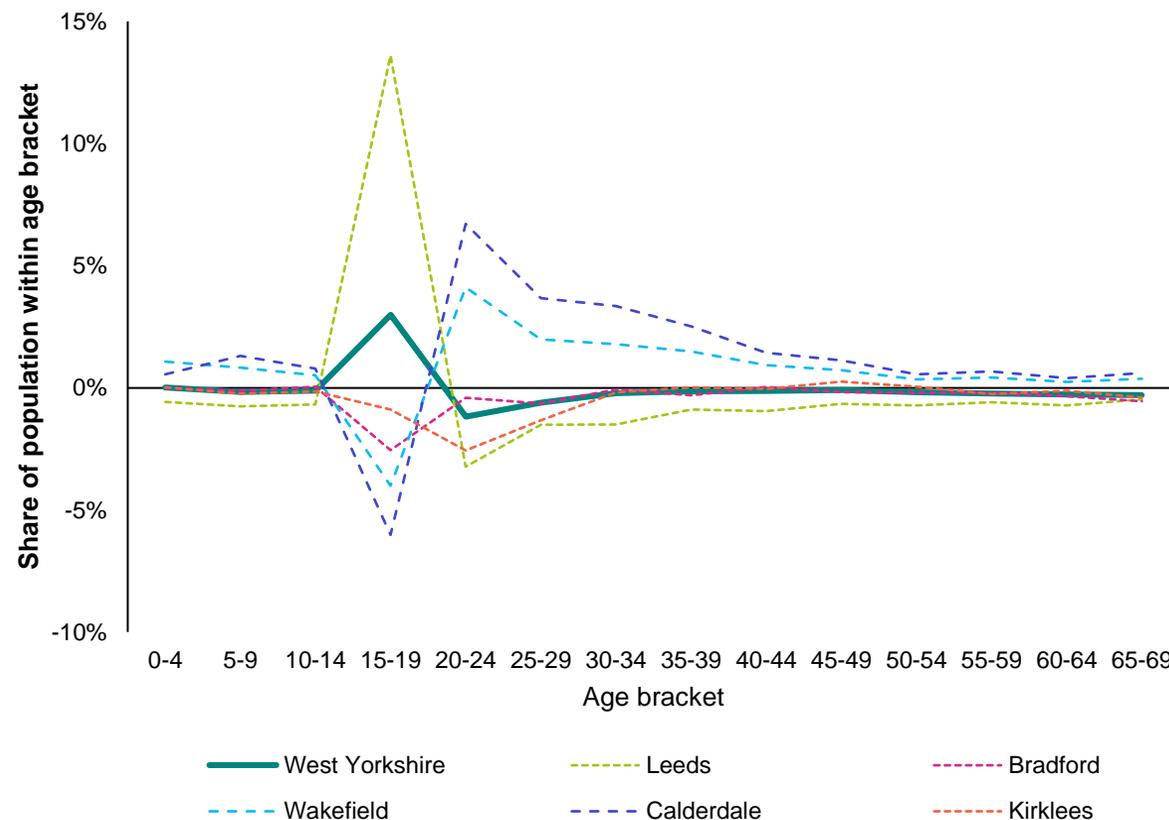
# Retaining graduates and attracting people from elsewhere could be ways of increasing the talent pool

**Figure:** Share of graduates in employment retained in MCA area and ITL region at 15 months, by location of institution (2020/21)



Note: UK domiciled leavers from WY institutions in employment after 15 minutes. Excludes overseas destinations and not known destination.  
Source: Graduate Outcomes Survey 2020/21.

**Figure:** Internal migration by age bracket (2019)



Source: ONS, Internal migration: by local authority and region, five-year age group and sex. ONS, Population estimates - local authority based by single year of age.

# Summary

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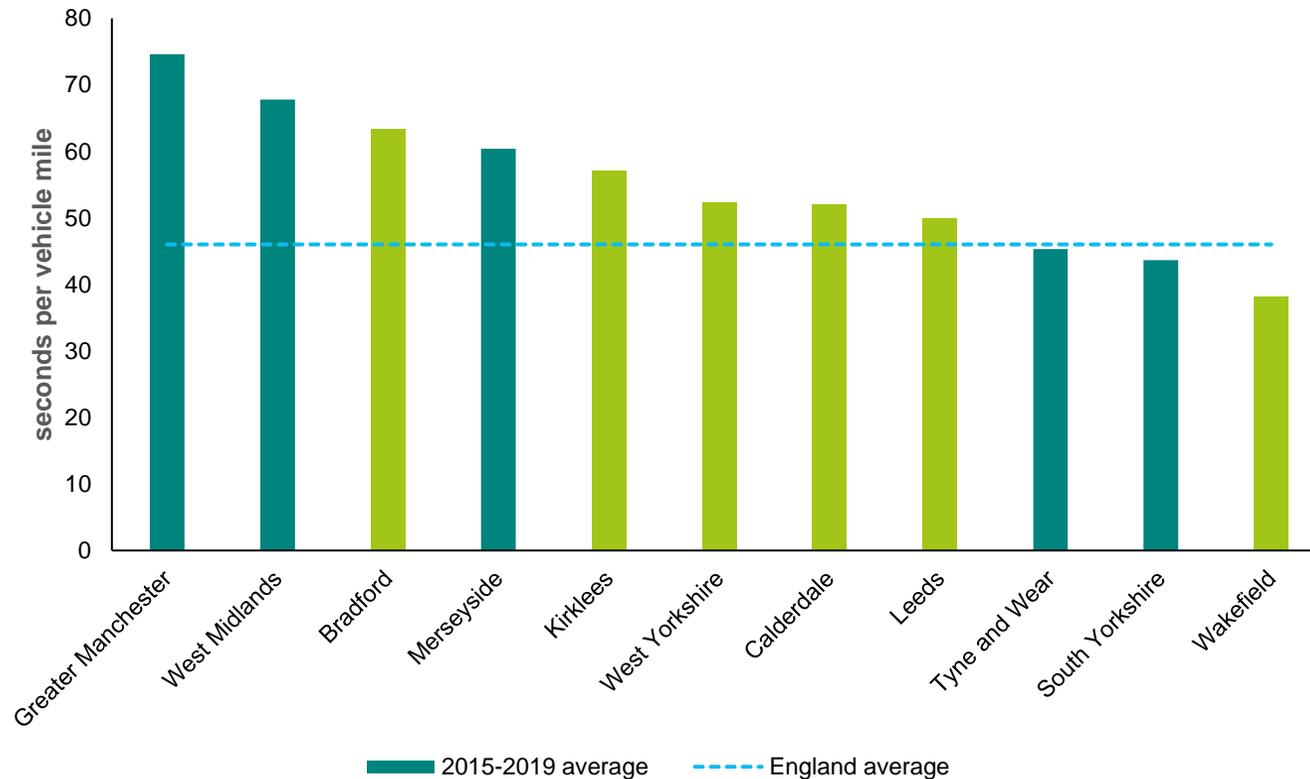
- West Yorkshire is in a low investment and relatively low skills equilibrium.
- Reaching a graduates share in line with the national average would require around 100,000 additional graduates than today.
  - This could be achieved with improving higher education participation of West Yorkshire residents; raising graduate retention; and attract new graduates from elsewhere.
- Despite a reported difficulties finding the necessary skills in the economy, West Yorkshire businesses have been investing less in training.
- Relatively low investment is seen in several fronts: tangible investments (includes residential and commercial space); research and development (mainly non-private component).

# The role of connectivity in the economy

# Connectivity is constraining West Yorkshire's economic activity. Roads are congested, which naturally affects connectivity negatively

**Figure:** Average delay on locally managed A roads, seconds per vehicle mile (2015-2019 average)

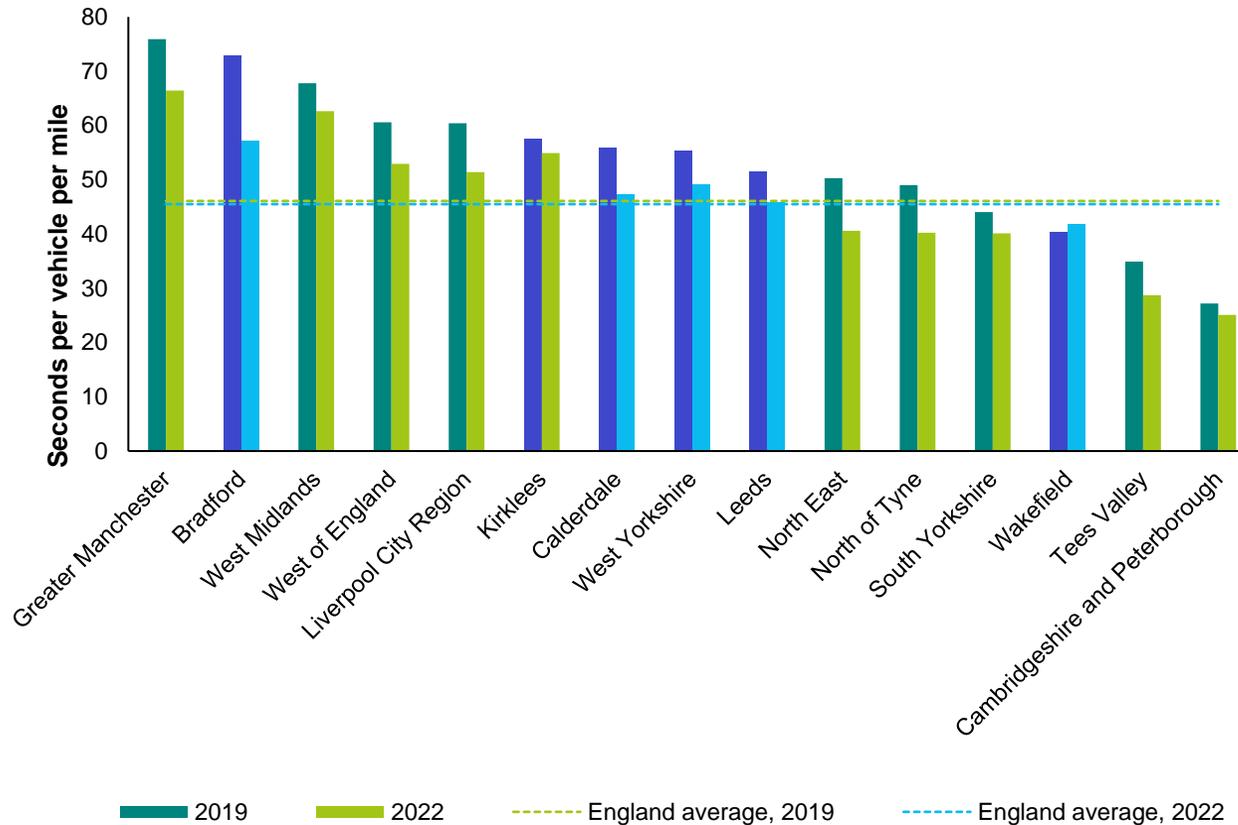
Average delay on locally managed 'A' roads



- Just like other combined authorities, average [commuting times](#) have been increasing overtime. This can be driven by factors like i) more congestion, or ii) workers living further away from their jobs.
- West Yorkshire's congestion, in locally managed A roads, is relatively high, above national average, but lower than some other metropolitan areas.
  - **Congestion particularly high in Bradford**, this could be one of the reasons behind the local authority being a speared [travel to work area](#) for full time workers (2011 census).

# Post-pandemic congestion fell but still above national average

**Figure:** Average delay on A roads, seconds per vehicle 2019 and 2022

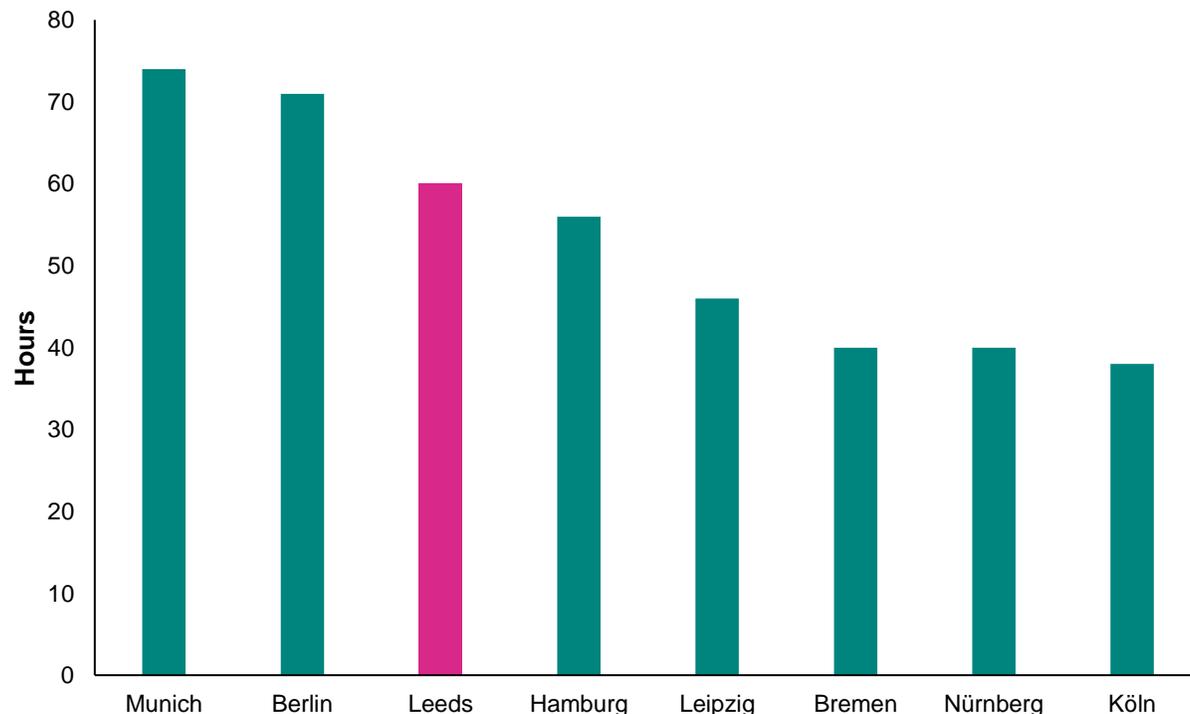


- Post-pandemic congestion fell but still above the national average.
- The relatively sharp reduction of congestion can be driven by factors like weaker than average economic growth. Despite not having the data at the West Yorkshire level, regional (Yorkshire and the Humber) shows slower growth than the national average.

# International comparisons shows that post-pandemic road congestion is relatively high

Figure: Delay per Driver, Leeds and German cities (2022)

Delay per Driver, 2022



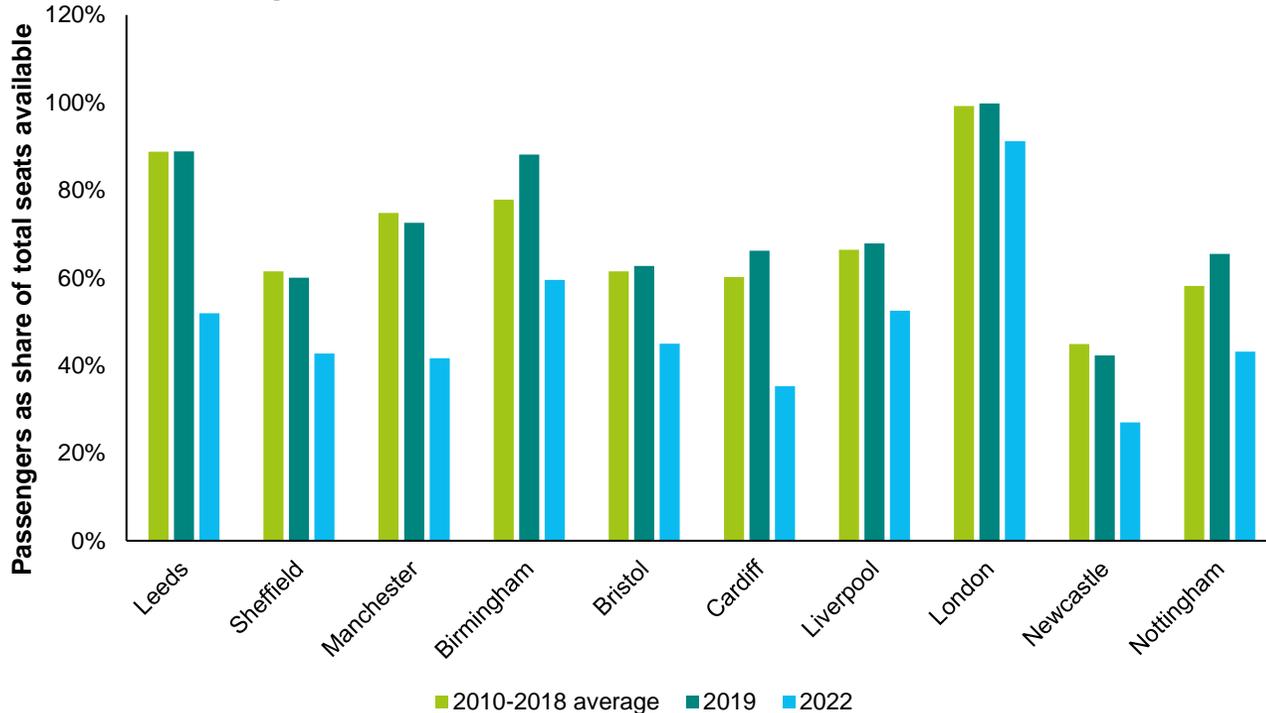
Source: INRIX.

- While the most recent data could suggest that road capacity is appropriate for a post-pandemic world, car flows are expected to rise with increasing economic activity, especially if the productivity gap is expected to be closed.
- For example, according to INRIX, in 2022, drivers lost on average 60 hours in traffic, which had an estimated cost of £530 per driver. Only two cities in Germany had more congestion (Berlin and Munich).
- Also, congestion in Leeds is much higher than several international peers previously analysed (more productive second tier cities) like Barcelona, Lille, Toulouse, Florence and others.
- That said, there are still some more congested cities in Europe. Rome, Palermo, Bucharest, Lyon and Nice are some examples.

# Connectivity. Before the pandemic, Leeds central was operating close to full capacity

**Figure:** AM peak rail arrivals (07:00 to 09:59), passengers as share of seats in main stations (2010-2022)

**Rail use at AM peak arrivals**

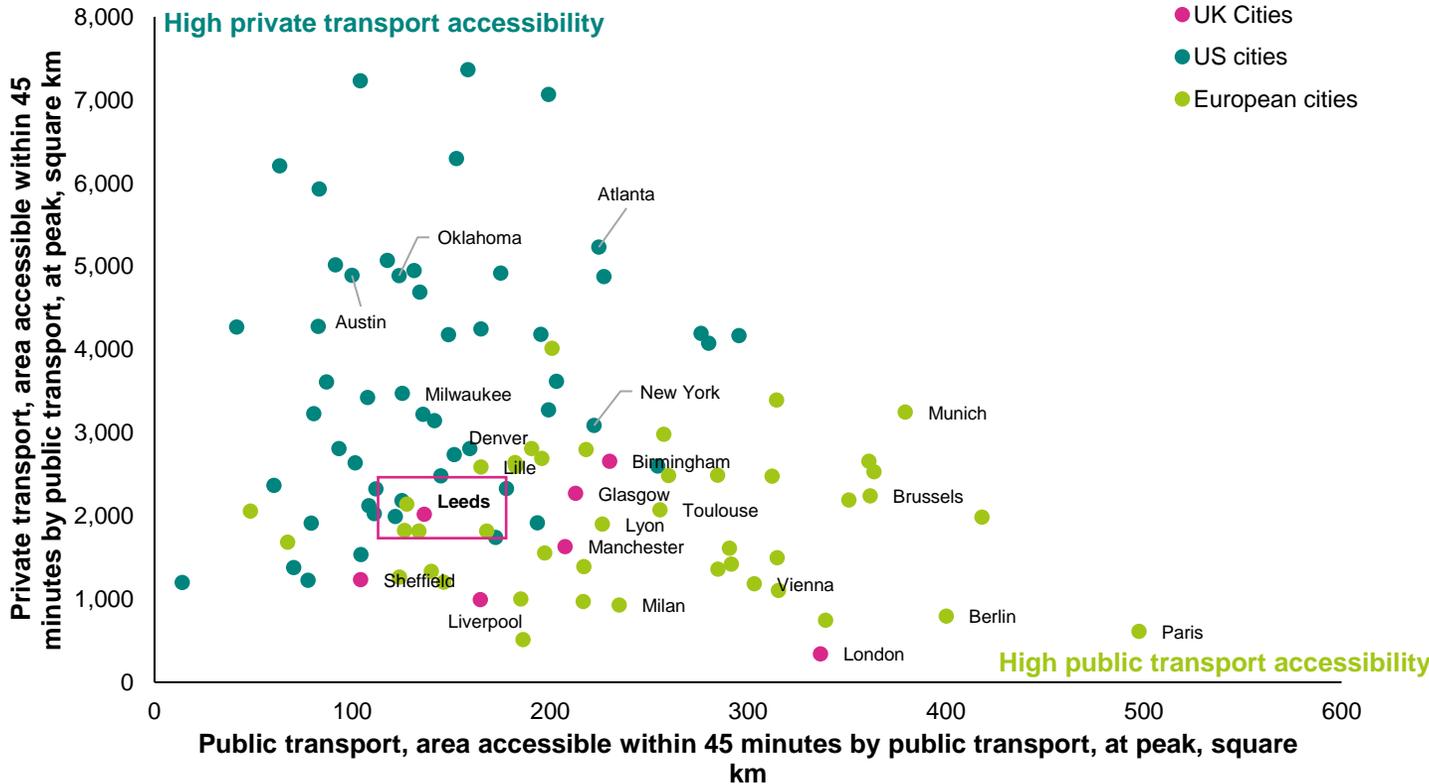


Source: DfT, Rail passenger numbers and crowding on weekdays (RAI02).  
Note: Central station in all cities except London, which it includes

- Pre-pandemic rail use at peak shows that Leeds Central, the main economic hub of West Yorkshire, was around fully capacity. Somewhere between 84% and 98%.
  - Similar findings at PM departures.
- From the cities analysed, Leeds peak rail use was only behind London.
- These constraints likely to contribute to increase of [commuting times](#) in West Yorkshire, compared with a decade ago.
- Furthermore, this highlights the limitations around intercity connectivity, which is also important to drive growth, as flagged by [Transport for the North](#).
- The lack of rail capacity shows that unless public transport capacity is expanded, changes within density (identified in the [2040 Mass Transit Strategy](#)) are limited.

# Comparisons with national and international peers highlight this constraints by showing a low connectivity equilibrium in both public and private transport

**Figure:** Transport accessibility at peak by both public and private transport, US and European cities (2022)



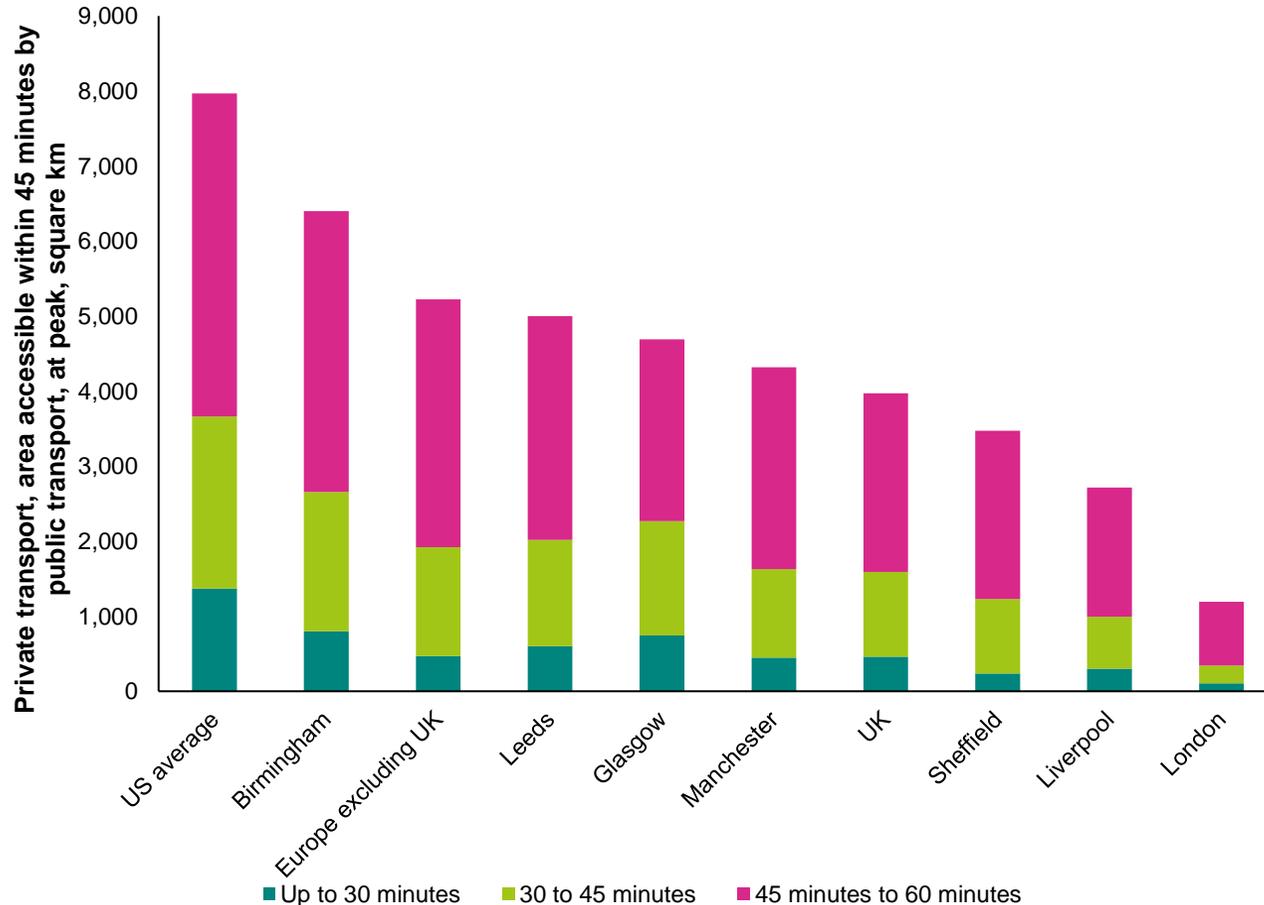
- Accessibility to the West Yorkshire’s main economic hub (Leeds central) is low for both public and private transport.
  - It measures Leeds central connectivity (only data available) but the access areas go beyond Leeds’ boundaries.
- US cities typically have high private transport access and low public transport access. Western European cities the opposite relationship.
- British cities have low in both metrics, Leeds is particularly low for public transport accessibility.
  - Second lowest of the cities analysed, ahead of Sheffield.

Source: Conwell, Eckert, and Mobarak (2022).

Notes: These estimates are calculated from Google Maps, using a start time of Wednesday 8:30am to reach the central business district of each city. The authors include the 109 largest American and European cities.

# Car accessibility is similar or better to other UK large cities and the European average

**Figure:** Private transport accessibility at peak, US and European cities (2022)



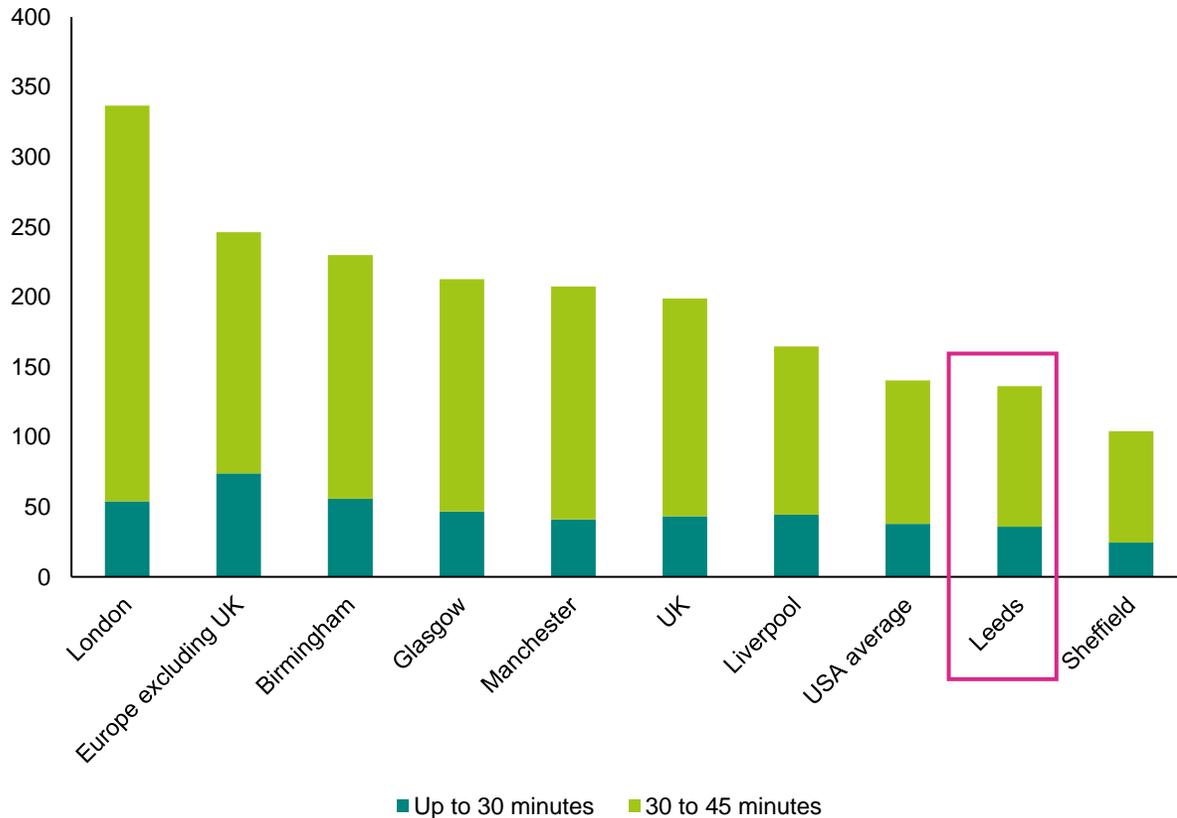
- Within 45 minutes, accessibility by car is higher (in square kms) than in European cities.
- From the other six British cities, only Birmingham persistently outperforms.

Source: Conwell, Eckert, and Mobarak (2022).

Notes: These estimates are calculated from Google Maps, using a start time of Wednesday 8:30am to reach the central business district of each city. The authors include the 109 largest American and European cities.

# Low public transport accessibility within 45 minutes but room for improvements

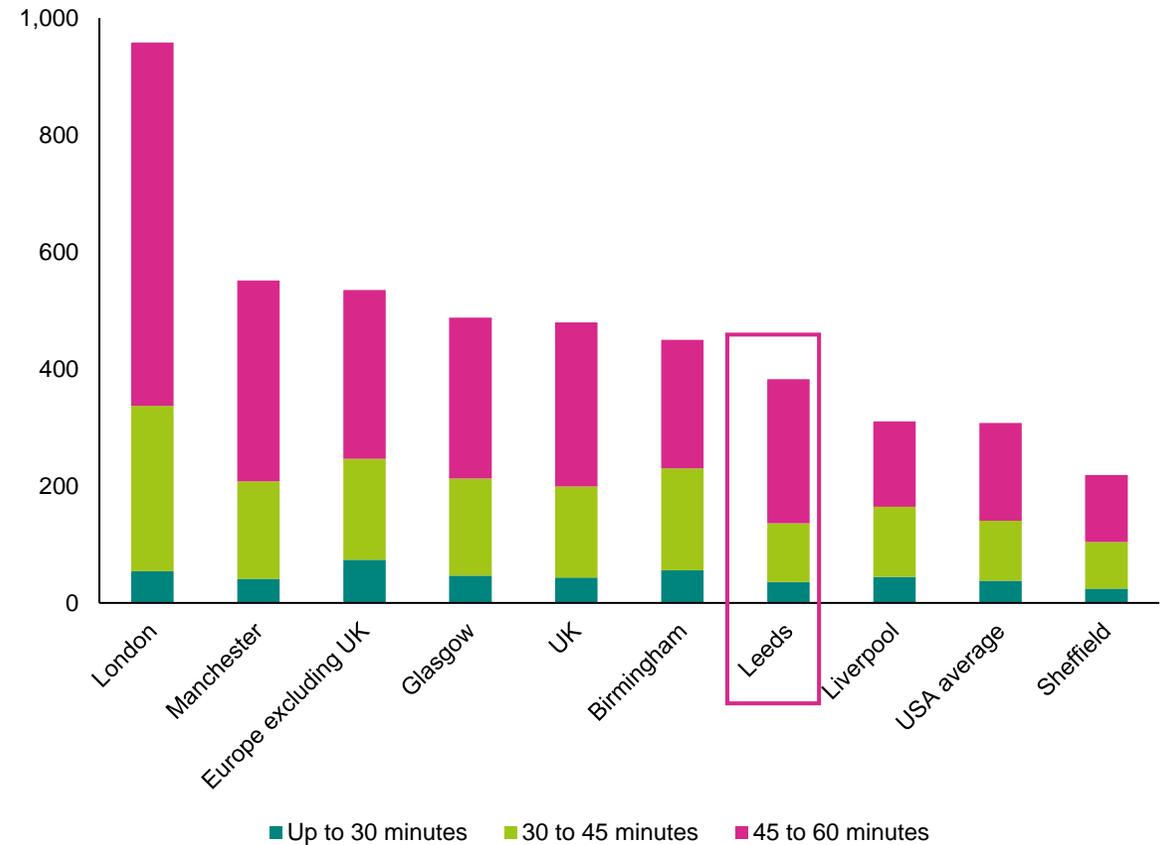
**Figure:** Public transport accessibility at peak, US and European cities (2022)



Source: Conwell, Eckert, and Mobarak (2022).

Notes: These estimates are calculated from Google Maps, using a start time of Wednesday 8:30am to reach the central business district of each city. The authors include the 109 largest American and European cities.

**Figure:** Public transport accessibility at peak, US and European cities (2022)



Up to 30 minutes 30 to 45 minutes 45 to 60 minutes

- Public transport access to reach Leeds is quite low, particularly within 45 minutes. At 60 minutes, it performs better than Liverpool and closer to the UK and European averages, which shows there is some room to raise connectivity by improving the existing network.

# Last decade characterised by lack of transport investment at the local level

Figure: Local government transport infrastructure investment, West Yorkshire and UK (1998-2021)

## Local government transport infrastructure

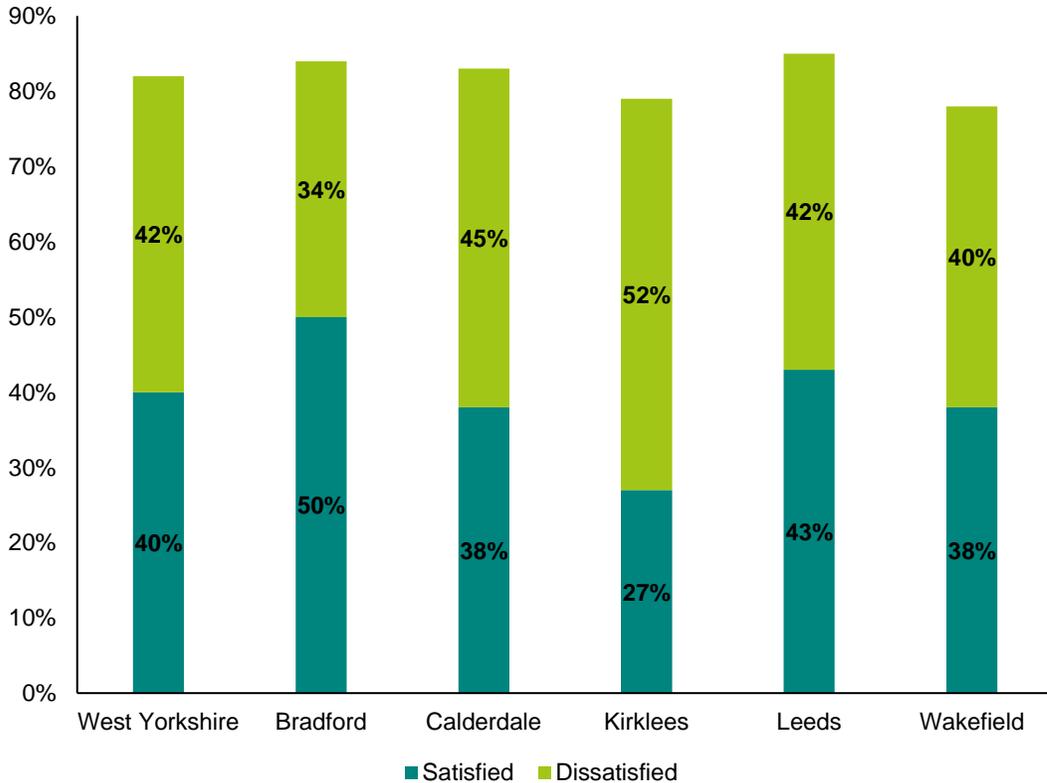


Source: ONS, Experimental regional gross fixed capital formation (GFCF) estimates by asset type. ONS, GVA at ITL2, current price estimates: 1998 to 2020. West Yorkshire Combined Authority Calculations.

- After the financial crisis, West Yorkshire investment in transport infrastructure (**done by local governments**) started diverging with the national average.
- This trend highlights the importance of transport investment to unlock other economic benefits, in an economy seems to be constrained in terms of connectivity.
- In 2021, there has been an increase – converging with the national average.
- Local government spending, excluding transport, has been performing in line with average.
- Low connectivity by lack of investment has been flagged by the [National Infrastructure Commission \(NIC\)](#).
  - The NIC identified £15bn of investments until 2040 in Leeds and other three other large cities.

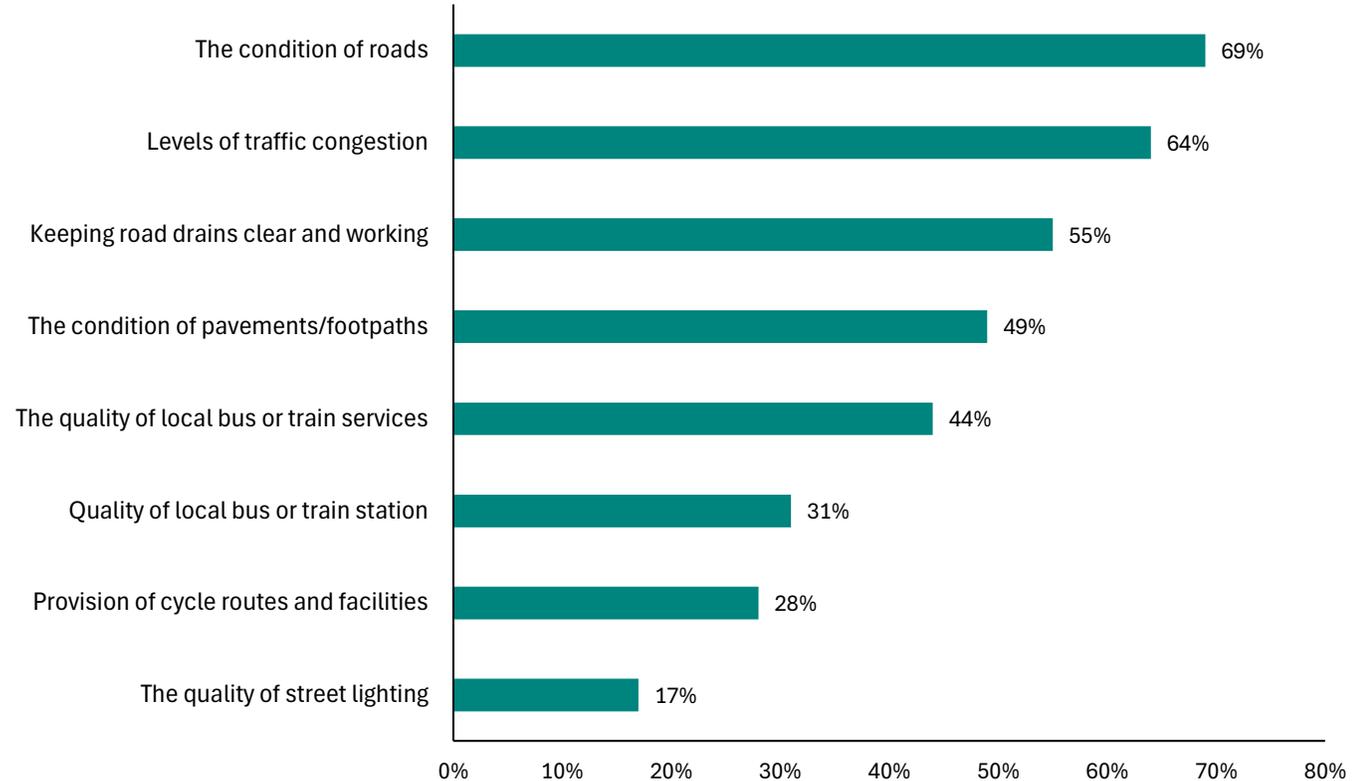
# Even if car congestion and rail use declined after covid, firms still consider connectivity a significant constraint

**Figure:** How satisfied are you with the quality of local highways and public transport infrastructure immediately surrounding your business premises?



Source: West Yorkshire Business Survey, 2023.

**Figure:** Thinking about the quality of the local highways and public transport infrastructure immediately surrounding your business premises, which of the following do you think need improvement?

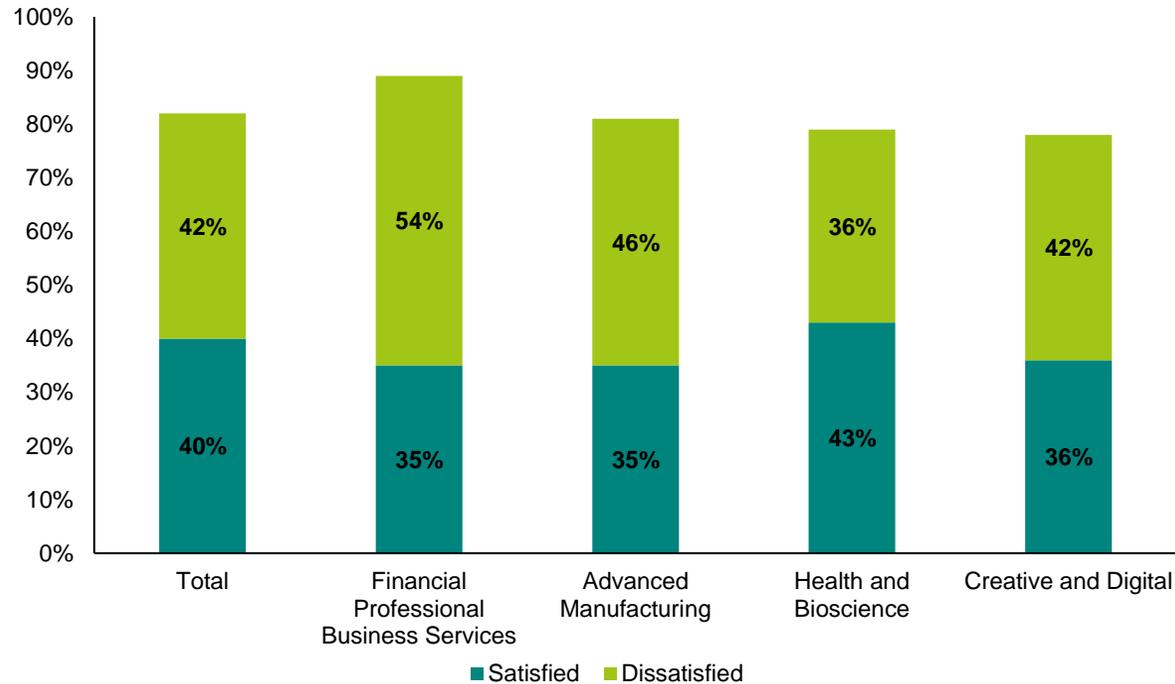


Source: West Yorkshire Business Survey, 2023.

- Geographically, satisfaction with transport is the lowest in Kirklees and higher in Bradford.
- Despite transport being seen as an issue, unlikely to be the top priority of businesses. Only 2% of firms classified transport as the main barrier to growth next year.

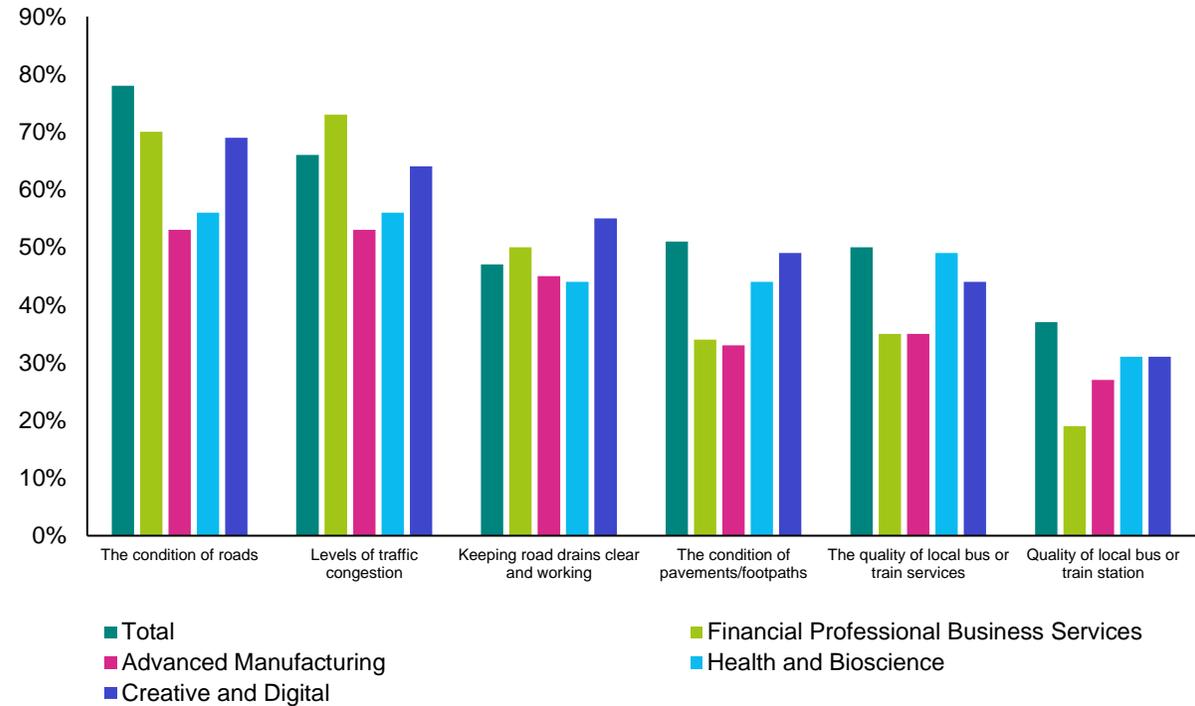
# Sectors associated with high productivity with connectivity satisfaction below average

**Figure:** How satisfied are you with the quality of local highways and public transport infrastructure immediately surrounding your business premises?



Source: West Yorkshire Business Survey, 2023.

**Figure:** Thinking about the quality of the local highways and public transport infrastructure immediately surrounding your business premises, which of the following do you think need improvement?

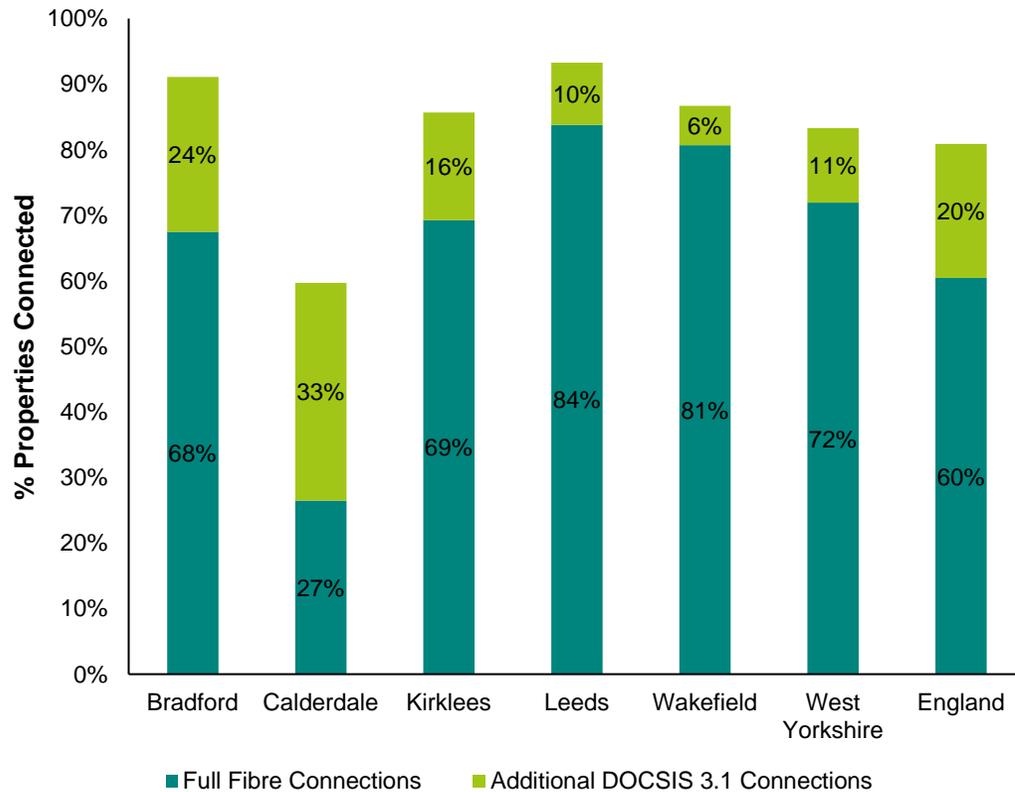


Source: West Yorkshire Business Survey, 2023.

- Sectors that are expected to play an important role in closing the productivity gap, like advanced manufacturing or professional services, report higher dissatisfaction with connectivity than average. This highlights the link between productivity convergence and connectivity.
- All sectors have major concerns about road quality and congestion. Service sectors (financial and professionals business services or creative and digital) also flag, to a lower extent, public transport as a concern.

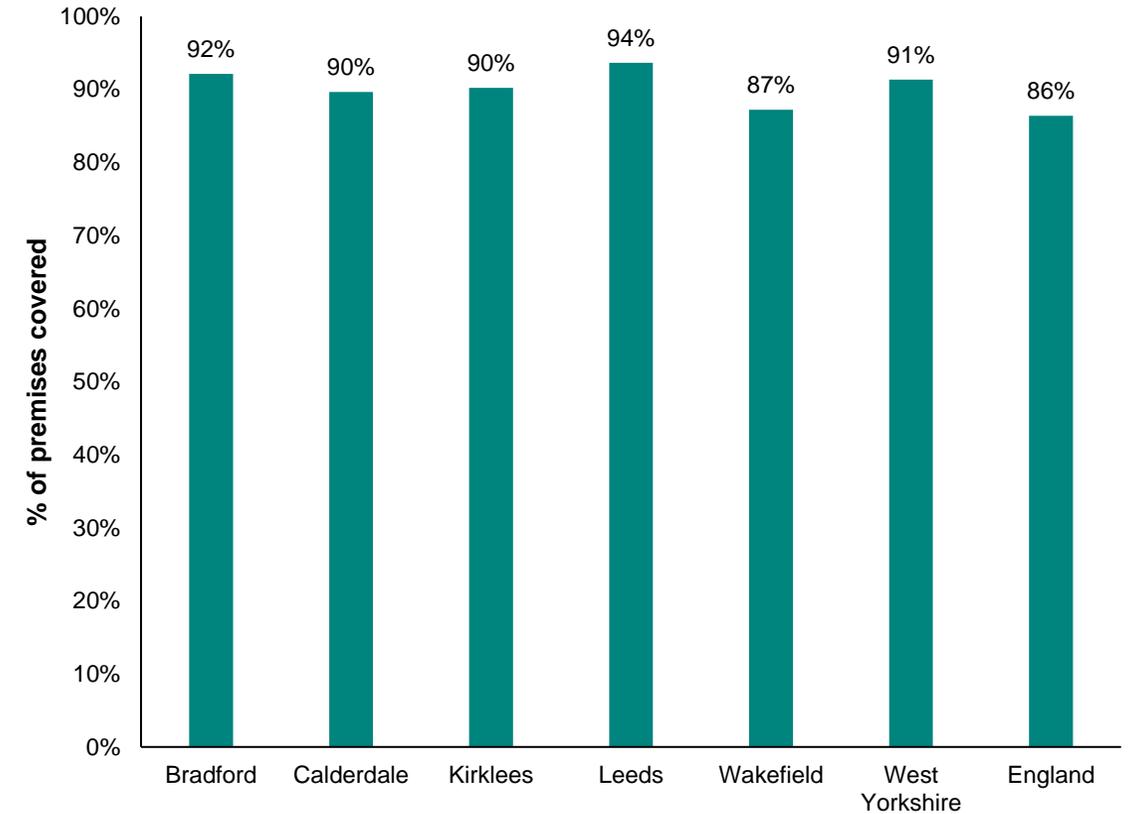
# Digital connectivity indicators above England's average, except for Calderdale

**Figure:** Premises with gigabit-capable fixed internet coverage by type



Source: ThinkBroadband, 04/2024

**Figure:** 4G premises (indoor) coverage from all providers

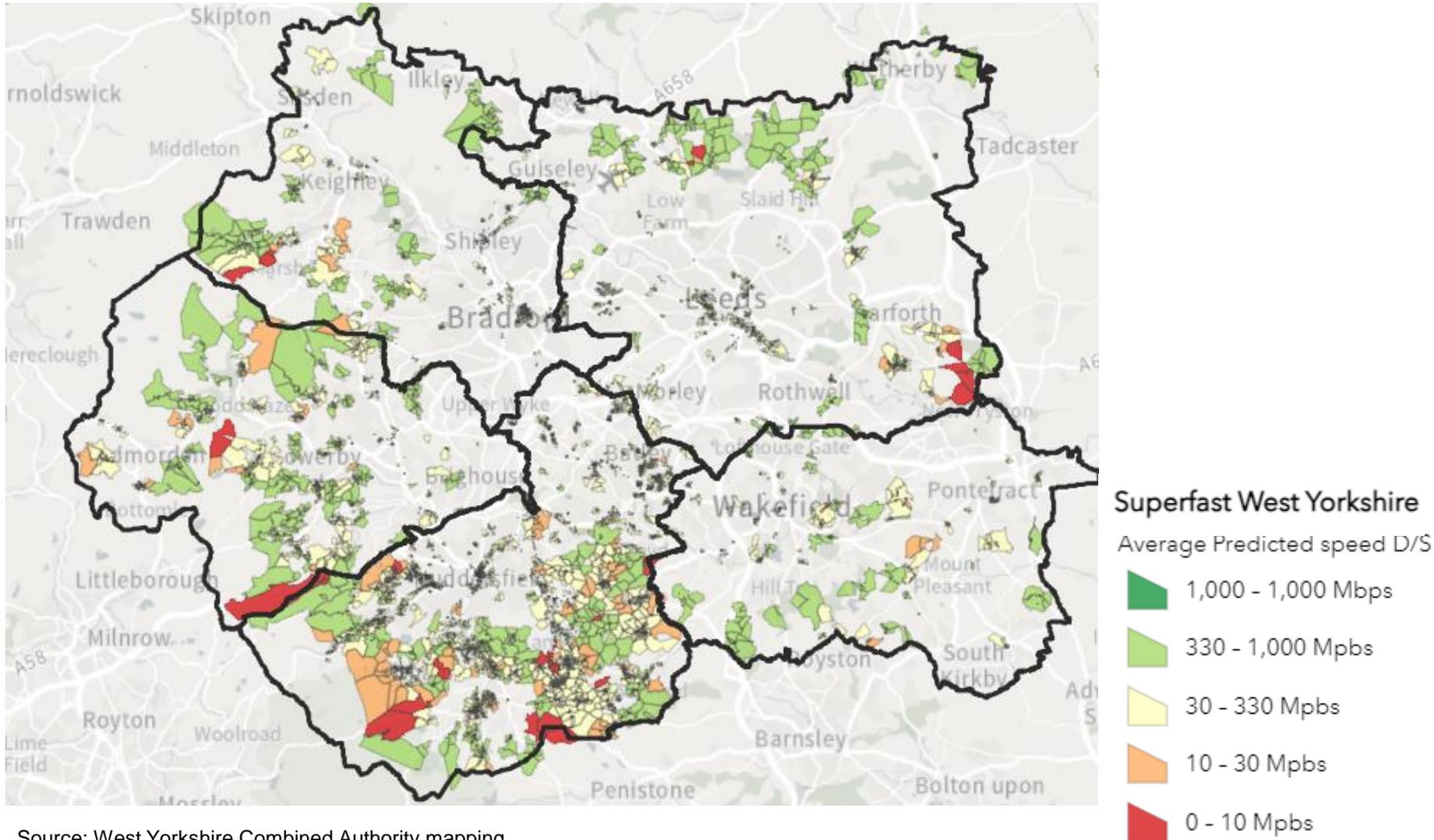


Source: OfCom Connected Regions Report, Summer 2023.

- Calderdale underperformance likely to be explained by the high prevalence of rural areas. In a context of hybrid work, this can make this local authority less competitive than the remaining ones.
- Digital connectivity is improving rapidly in West Yorkshire, Calderdale included.

# Rural areas in Calderdale and Kirklees with the highest digital connectivity issues

Figure: Areas that fail UK superfast definition (30Mbps)



Source: West Yorkshire Combined Authority mapping.

# Summary

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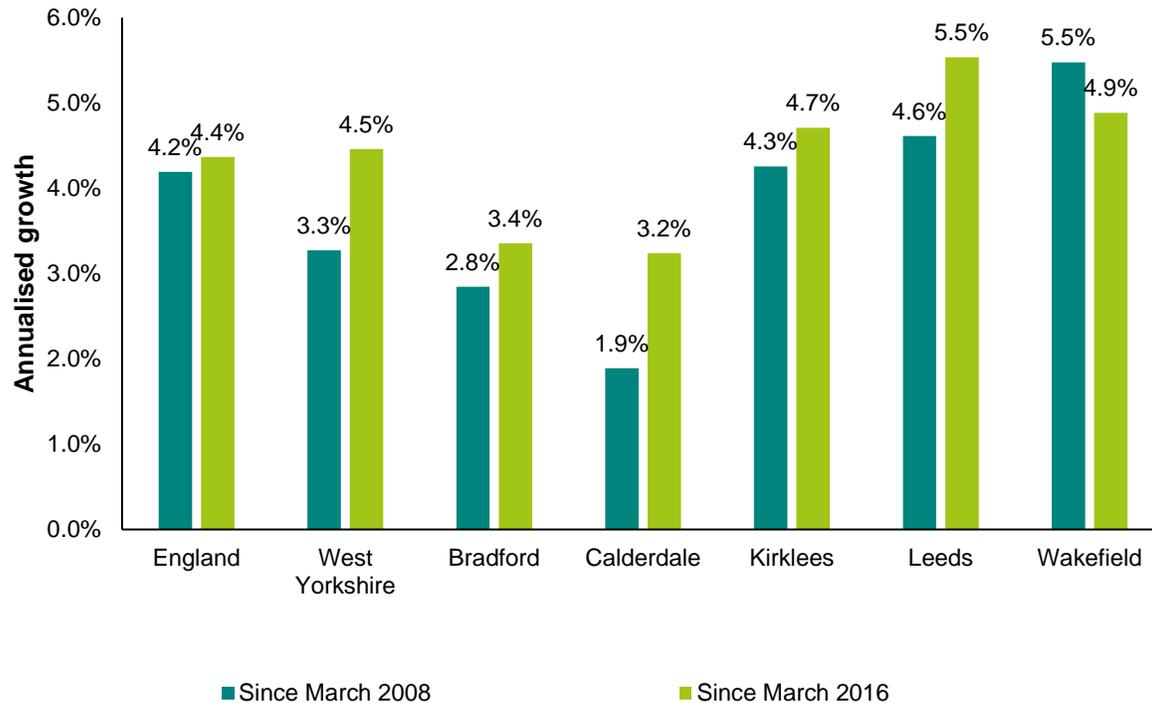
- Pre-pandemic transport connectivity, both public and private, seemed to be constrained. This affects how the economy can operate and limits its ability to expand.
- Sectors associated with highly productive activities – like advanced manufacturing, professional services or biosciences – have lower satisfaction with public transport.
- Local transport investment diverging from the national average.
- Good digital connectivity in most parts of the Combined Authority.

# The role of housing and land use in the economy

# Housing affordability can be an emerging issue in some parts of West Yorkshire. House prices growing faster than national average in recent years, especially in Leeds

Figure: Median house price paid (March 1995 to March 2023)

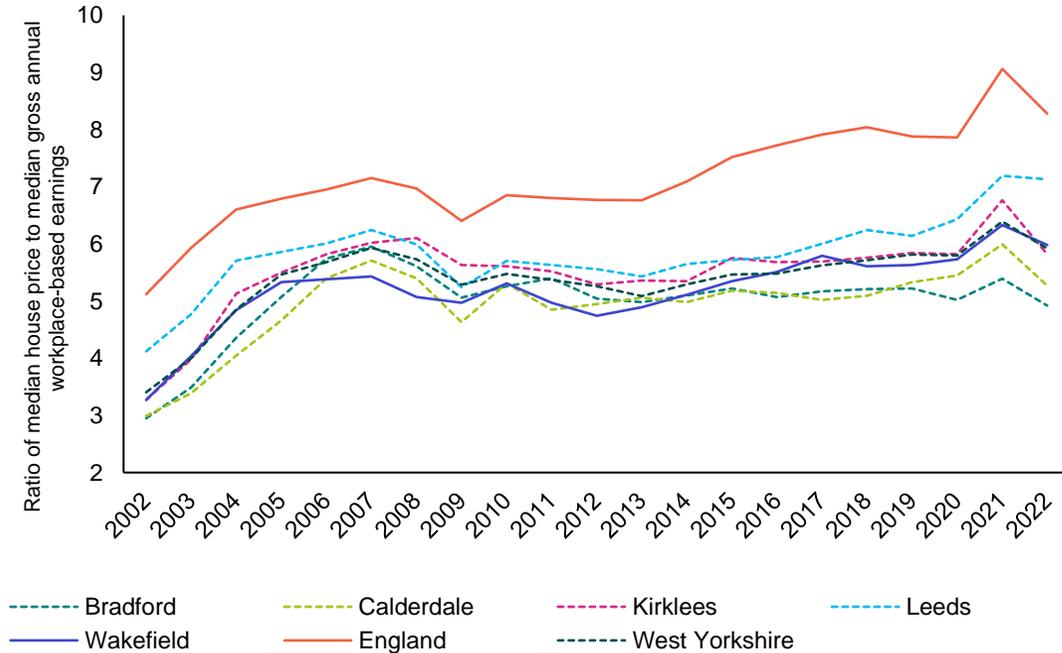
## Median house price paid, growth



- The West Yorkshire Housing Strategy 2040 identifies housing affordability and rising rents as an issue, especially for households on lower incomes.
- On top of that, housing affordability needs to be framed as a potential economic constraint.
- Despite significant differences across local authorities, house prices have been rising. House prices have been growing faster than average in recent years mostly driven by Leeds, Wakefield and Kirklees.

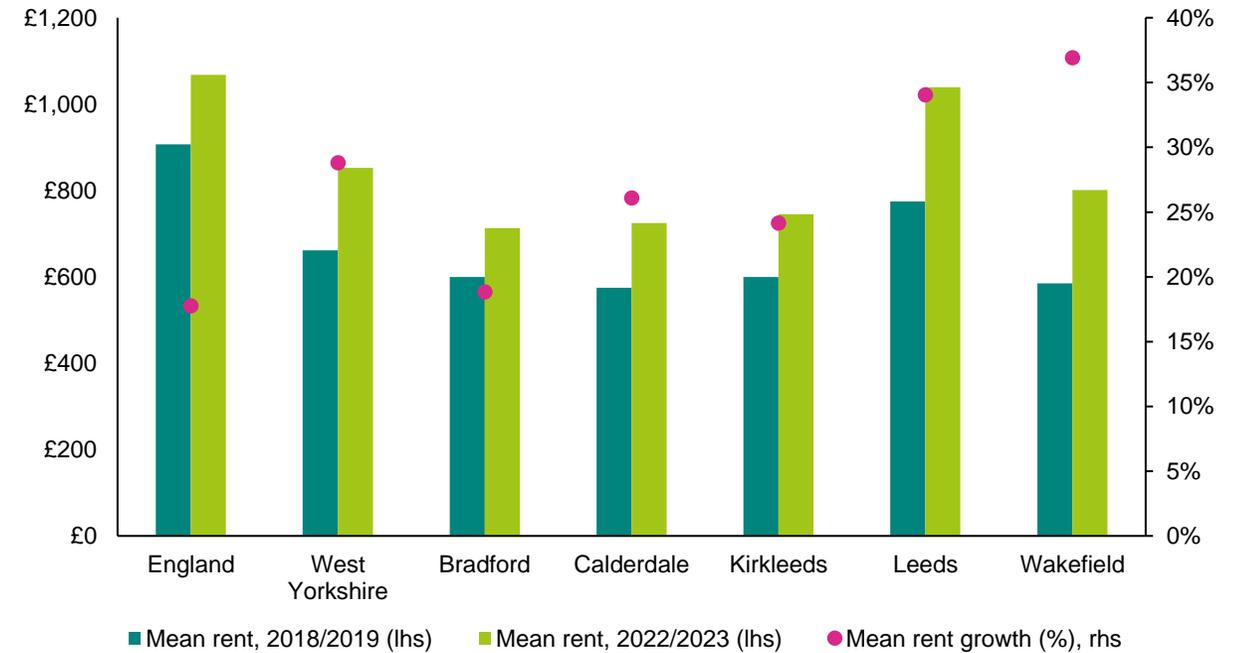
# Housing affordability is an emerging issue in some parts of West Yorkshire

**Figure:** Affordability of House Prices – ratio of median house price to median annual wage (workplace-based), 2002-2022



Source: Housing affordability in England and Wales, ONS

**Figure:** Rental prices and growth (2019/20 to 2022/23)

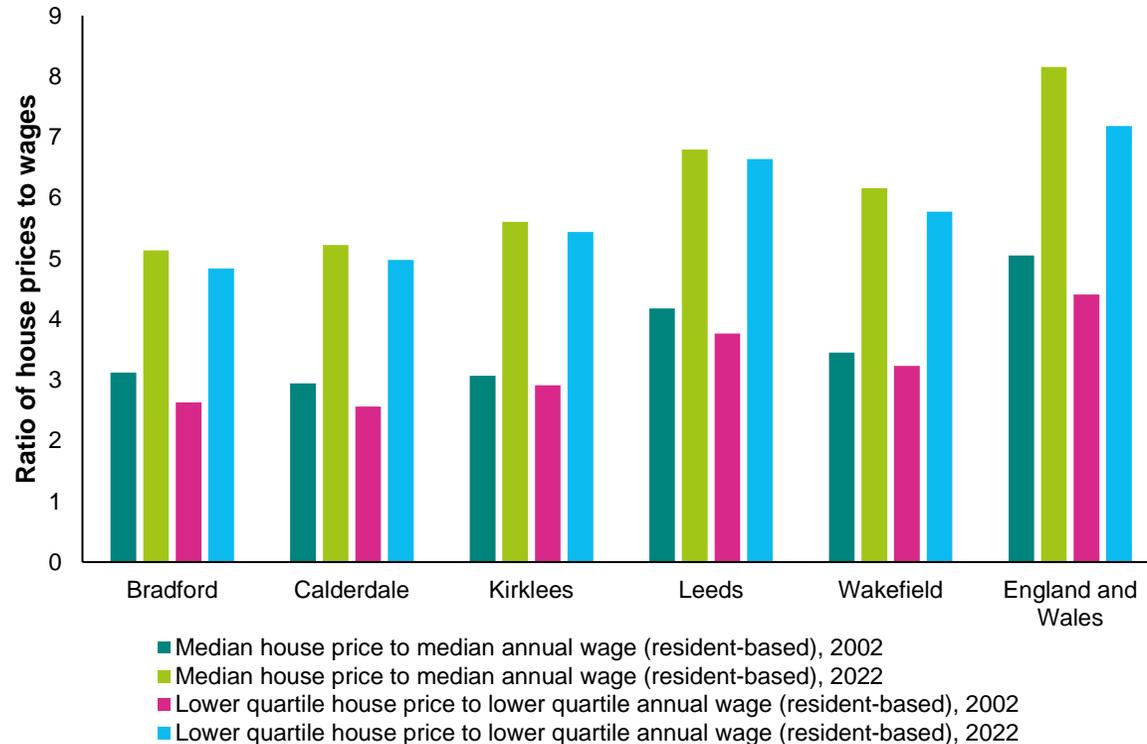


Source: ONS and VOA, Private rental market summary statistics in England.

- House price to earnings ratio above the pre-crisis high in West Yorkshire, but mostly driven by Leeds that has been converging with England's levels. Keeping affordability low is one key to attract talent, such as retaining university graduates.
- Median rents rising faster than the national average; with Leeds already above. Rents have been rising above wages in recent years.

# Income house price ratios are similar for the lower quartile and median levels and rising in both cases

**Figure:** Affordability of House Prices (resident-based), 2002-2022

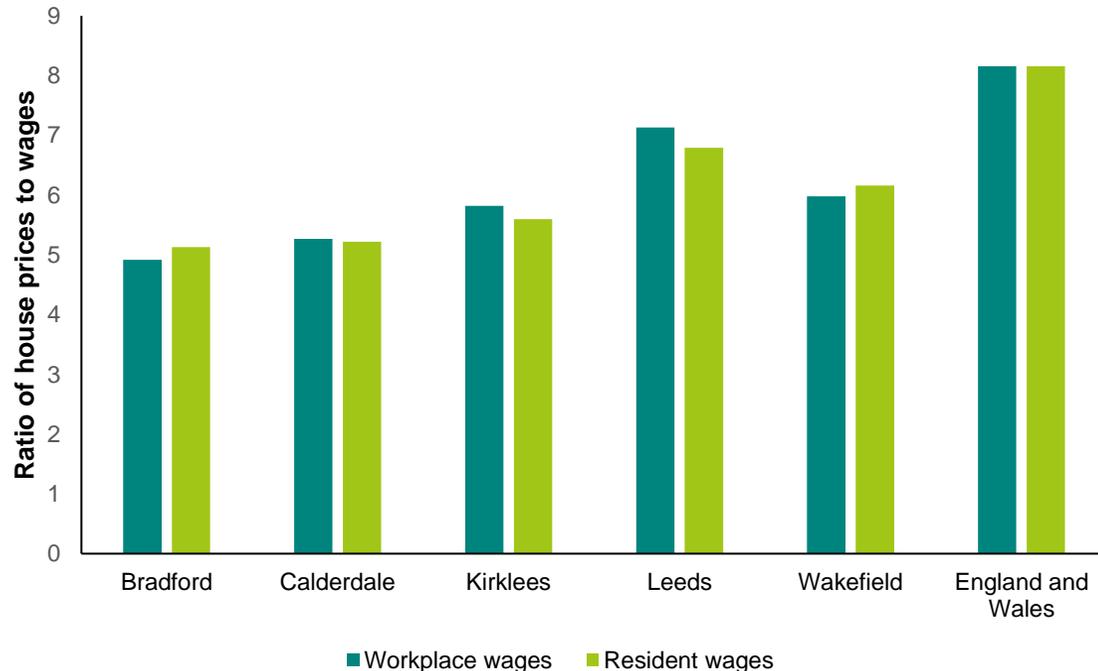


- House-wage ratios rose significantly in the last two decades. And they are similar across median and lower quartile levels.
- House prices at the lower quartile grew faster than median prices in all five local authorities, and faster than England and Wales average. Wages grew slightly faster at the lower quartile, partially driven by minimum wage increases.

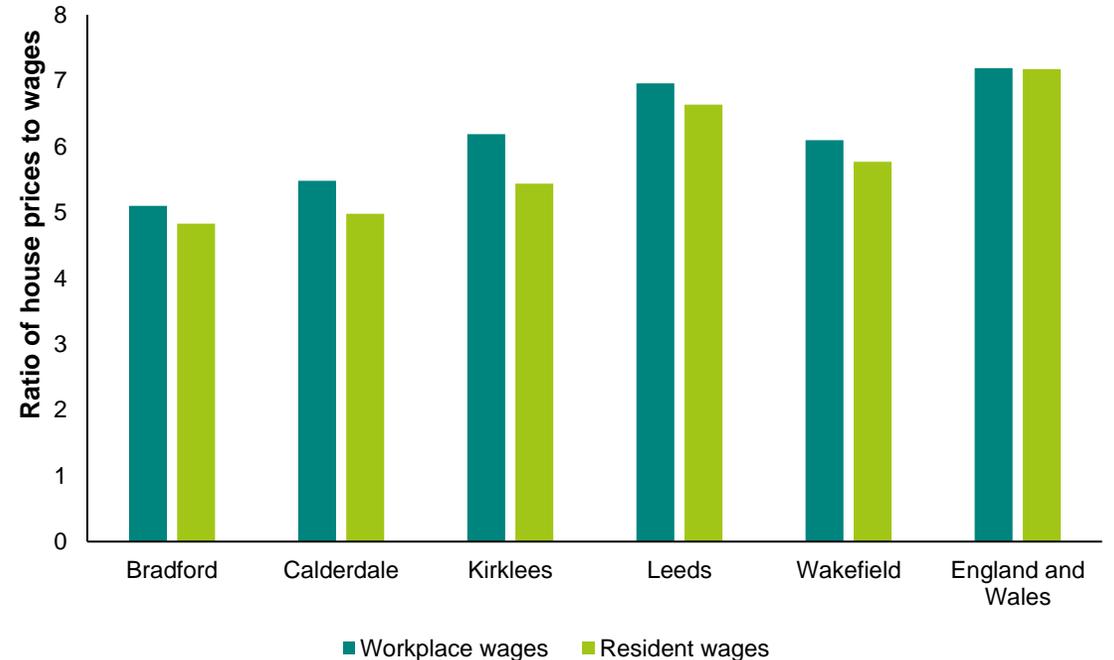
Source: Housing affordability in England and Wales, ONS

# Workplace affordability particularly high in Kirklees and Leeds

**Figure:** Affordability of House Prices (resident and workplace based) median, 2022



**Figure:** Affordability of House Prices (resident and workplace based) lower quartile, 2022

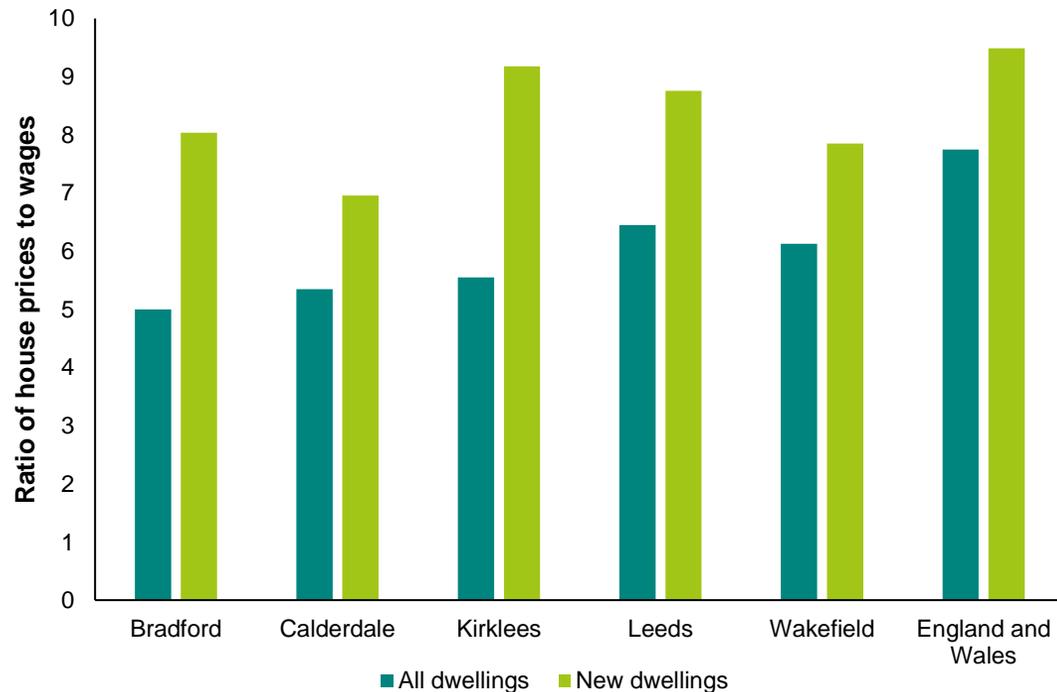


Source: Housing affordability in England and Wales, ONS

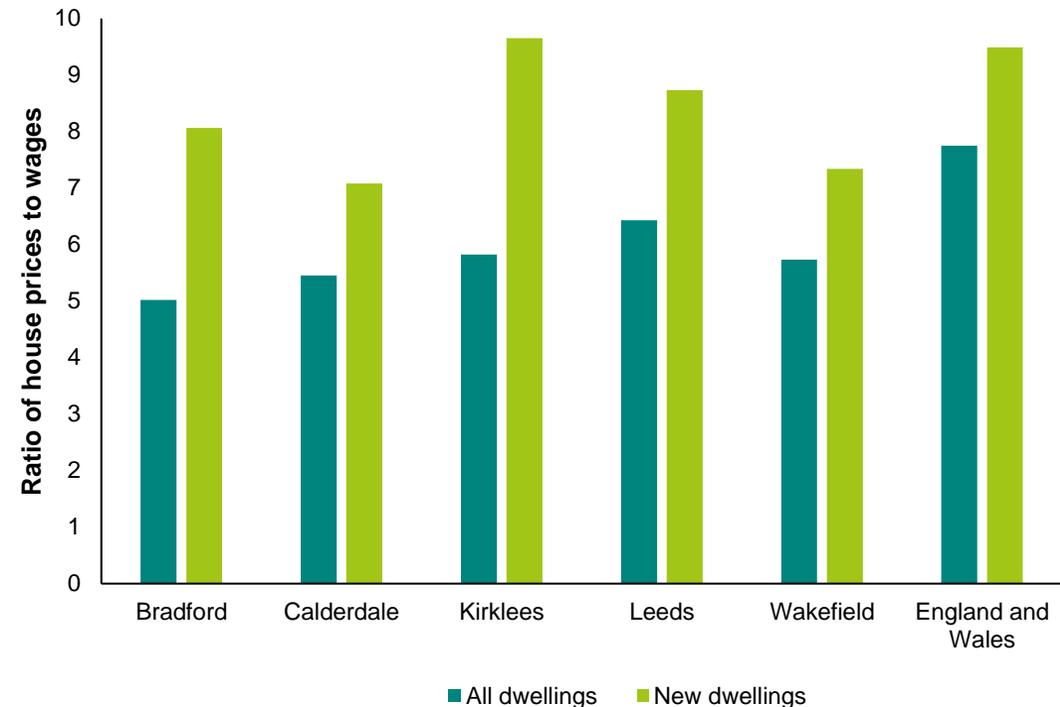
- Leeds and Kirklees housing is relatively expensive for its workers when compared to its residents. Both for median and lower quintile.
  - Leeds did not have this feature two decades ago, which suggests the amenity offer and the jobs available have been changing, increasing the demand for housing in the local authority.

# A significant part of the housing affordability difference with the national average seems to be driven by quality-related issues

**Figure:** Affordability of House Prices (resident-based) all and new dwellings, 2020



**Figure:** Affordability of House Prices (workplace-based) all and new dwellings, 2020



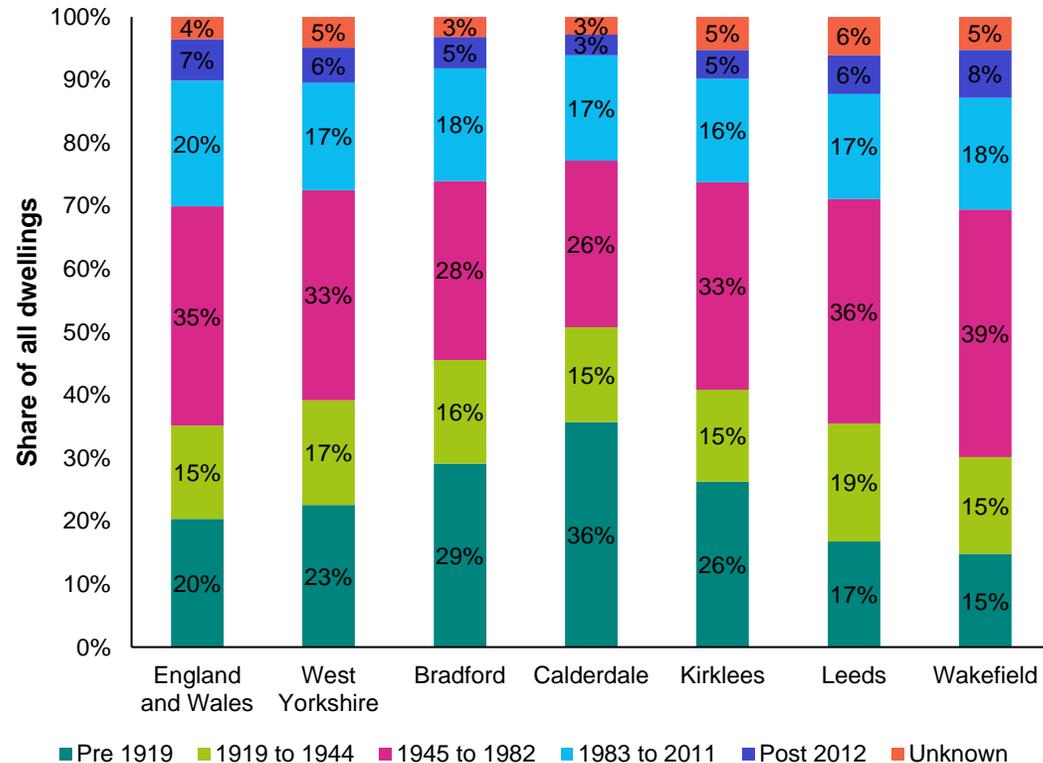
Source: Housing affordability in England and Wales, ONS.

Note: 2020 selected as Calderdale data for new dwellings is missing for most up to date periods.

- Kirklees affordability for median new dwellings is above the national average.
- The differences between West Yorkshire's local authorities and the national average in terms of new dwellings is relatively low.

# Housing stock is older than the national average

Figure: Dwelling stock composition by construction age, 2021

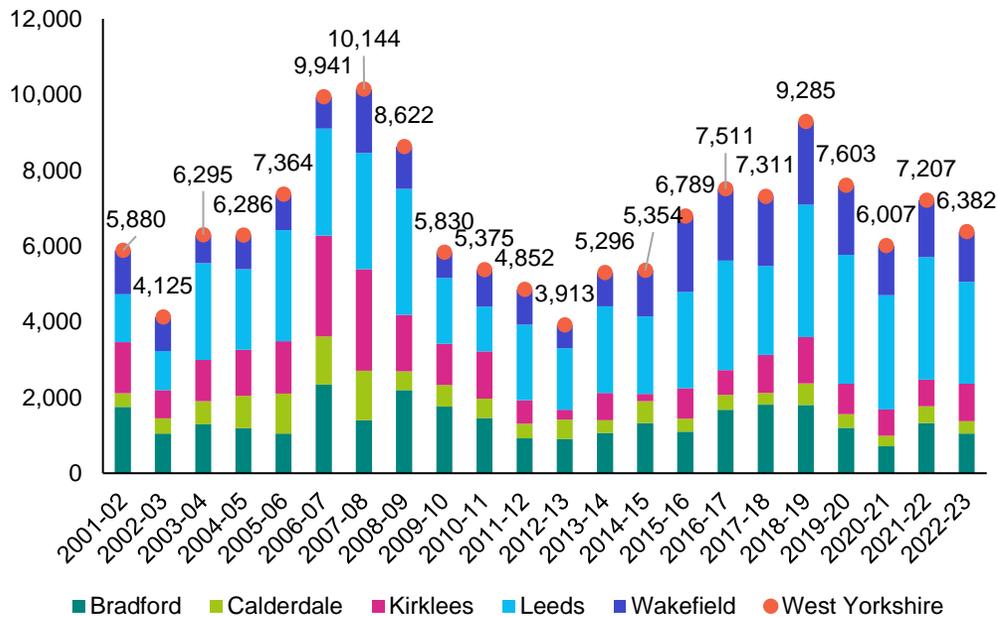


- Age of a dwelling is highly related with its energy efficiency and overall quality.
- West Yorkshire has an older housing stock and England & Wales.
  - Around 40% of dwellings built before 1945 (35% in England and Wales);
  - Only 5.6% were built post 2012 (6.6% in England and Wales)
- There are differences across local authorities.
  - Wakefield has a below average stock built before 1945, being the only authority performing better than average. Almost 8% of all dwellings were built in the last decade.
  - Calderdale stock is particularly old, half of it built before 1945. Followed by Bradford (46%) and Kirklees (41%).

Source: ONS and Valuation Office Agency (VOA), admin-based housing stock statistics.

# West Yorkshire had a construction boom in the decade before the crisis, now converged with national average

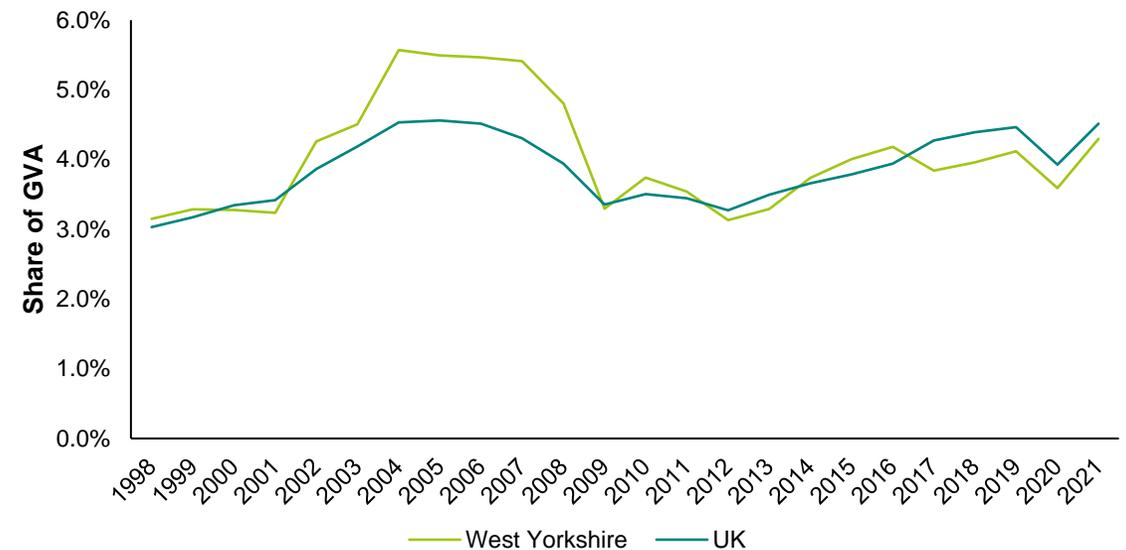
**Figure:** Net additional dwellings, West Yorkshire (2001/2002 to 2021/2022)



Source: Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government. Net additional dwellings by local authority district, England 2001-02 to 2021-22.

**Figure:** Gross fixed capital formation dwellings, West Yorkshire and UK (1998-2021)

## Investment: dwellings

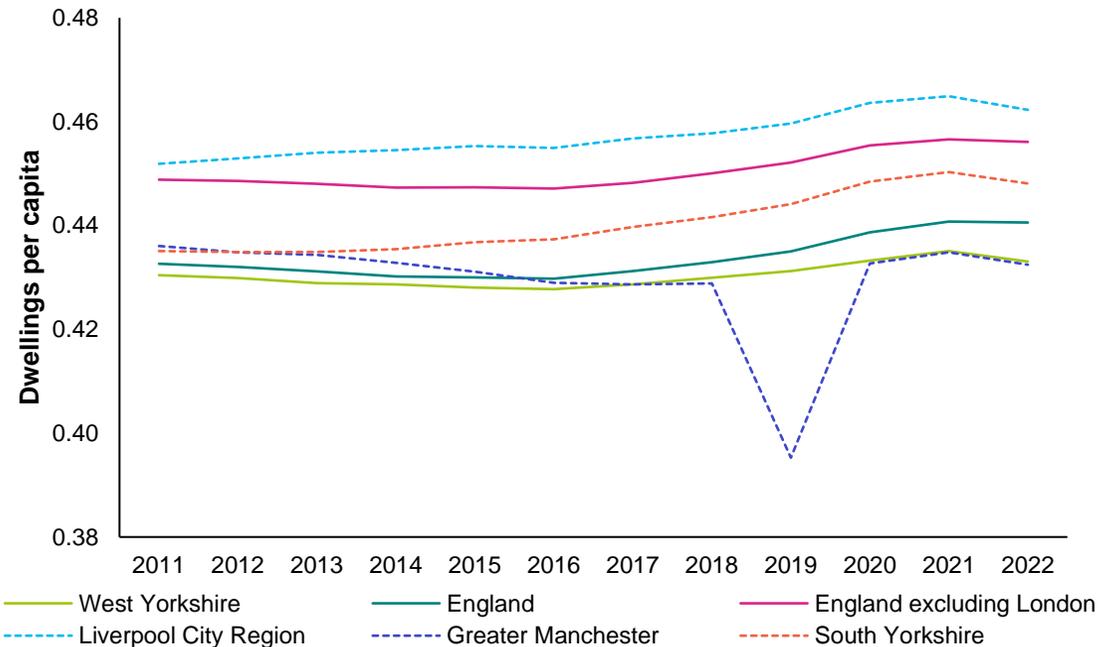


Source: ONS, Experimental regional gross fixed capital formation (GFCF) estimates by asset type. ONS, GVA at ITL2, current price estimates: 1998 to 2020. Dwellings include New dwellings use Barbour ABI data from 2010 onwards, with earlier estimates backcast using construction output survey, completions and house prices. Contract improvements use data from the construction output survey and housing stock estimates; Hidden improvements use estimates of mixed income in the construction industry; Local government capital expenditure West Yorkshire Combined Authority Calculations.

- The net additional dwellings and investment figures support the idea that West Yorkshire had a construction boom prior the financial crisis.
- Delivering new homes, in the right places, is necessary to keep West Yorkshire affordable. That would help in both attracting and retaining talent.

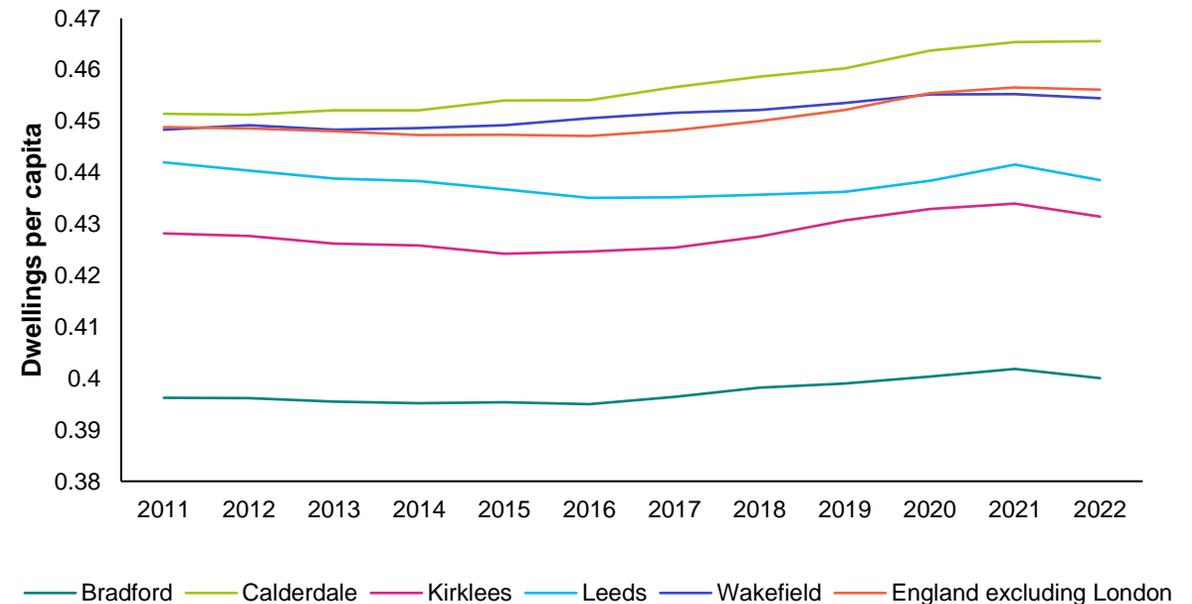
# Housing supply adjusted to population diverging from the national average after 2016

**Figure:** Dwellings per capita, West Yorkshire and England (2011 to 2022)



Source: Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government, Live tables on dwelling stock (including vacants).

**Figure:** Dwellings per capita, West Yorkshire and England (2011 to 2022)

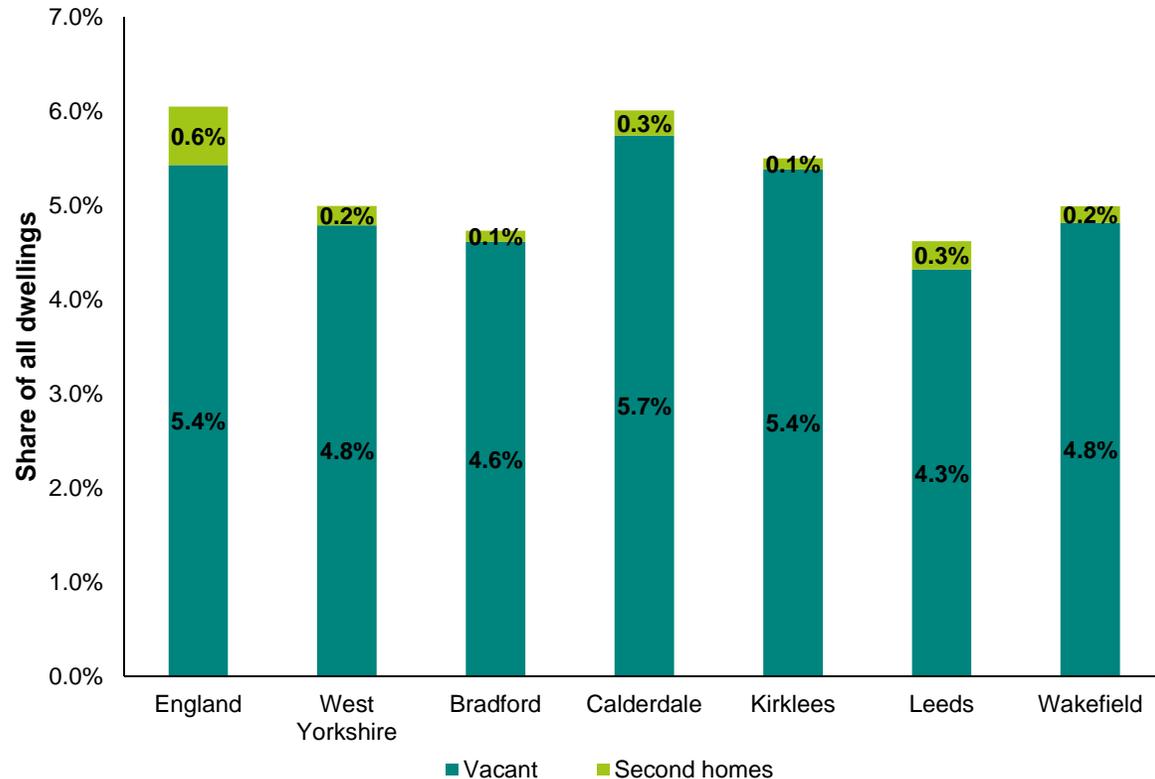


Source: Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government, Live tables on dwelling stock (including vacants).

- Dwellings per capita been stable in the last decade. Meanwhile, they rose in the England and in Combined Authorities like South Yorkshire and Liverpool City Region.
- Dwellings per capita differ significantly across the five districts. Calderdale has the highest ratio and growing. Leeds has declined, which creates pressures in the housing market. Wakefield has been in line with England except London.

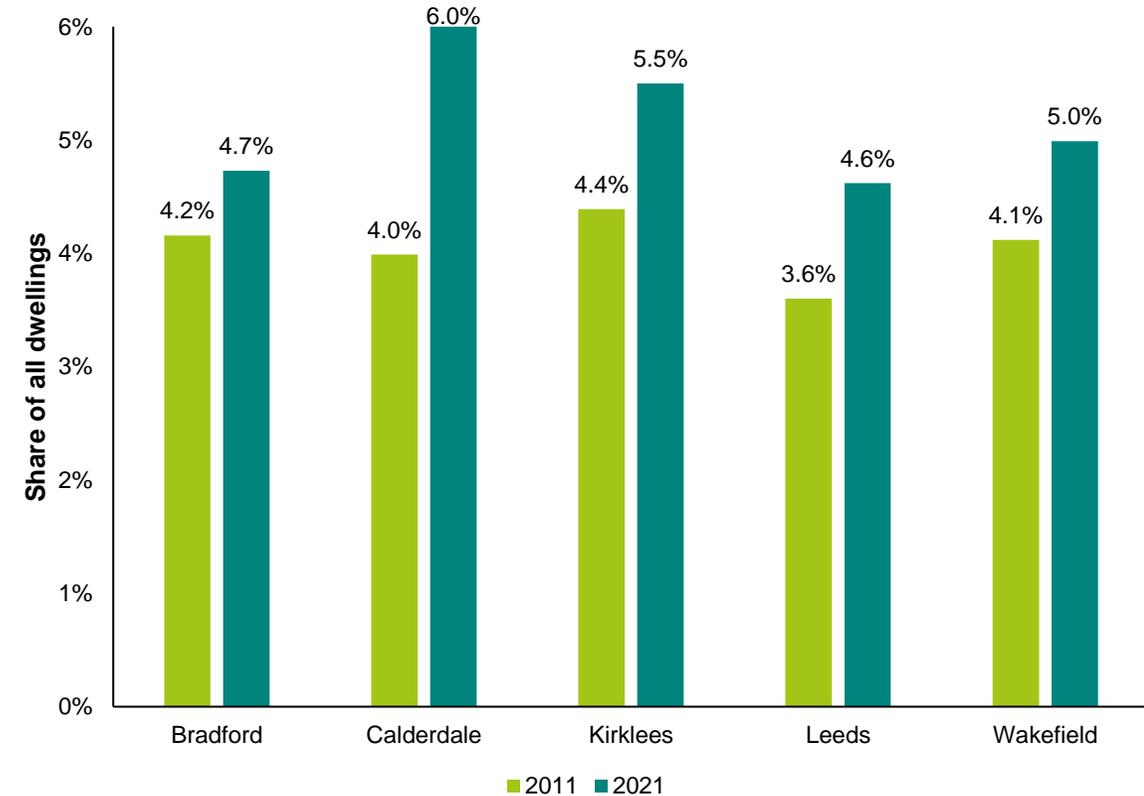
# Unoccupied dwellings rising but still below the national average in most districts

**Figure:** Vacant dwellings composition, West Yorkshire and England (2021)



Source: Census 2021. An unoccupied dwelling refers to a unit of accommodation with no usual residents, although they may be used by short-term residents or visitors on Census Day. They can be recorded as either of the following on Census Day, 21 March 2021: second residence, holiday home or vacant home only; occupied by short-term residents or visitors only.

**Figure:** Vacant dwellings, West Yorkshire (2011 and 2021)

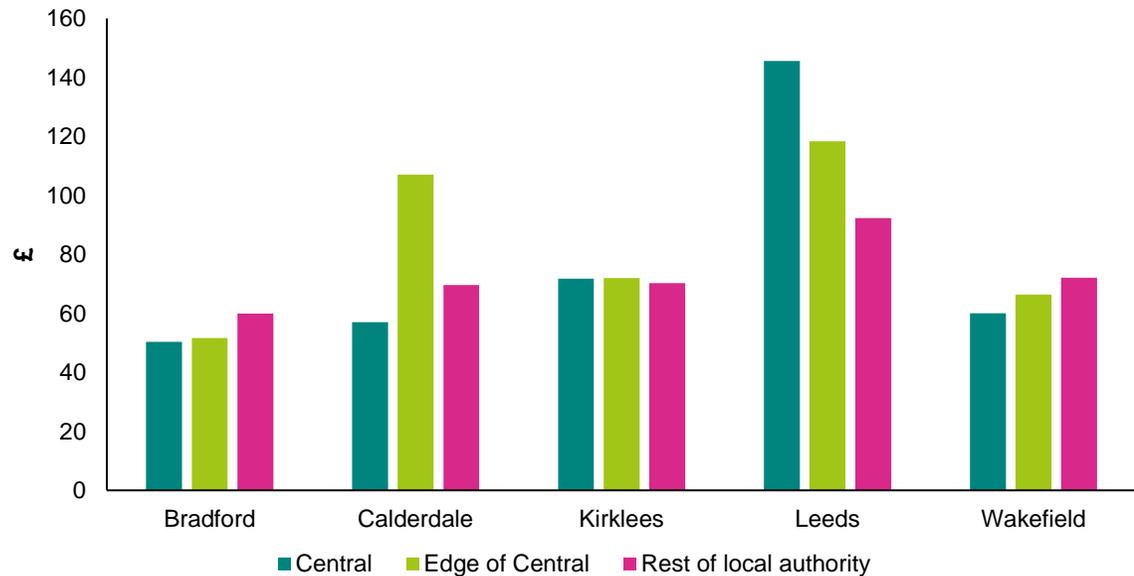


Source: Census 2011 and Census 2021. An unoccupied dwelling refers to a unit of accommodation with no usual residents, although they may be used by short-term residents or visitors on Census Day. They can be recorded as either of the following on Census Day, 21 March 2021: second residence, holiday home or vacant home only; occupied by short-term residents or visitors only.

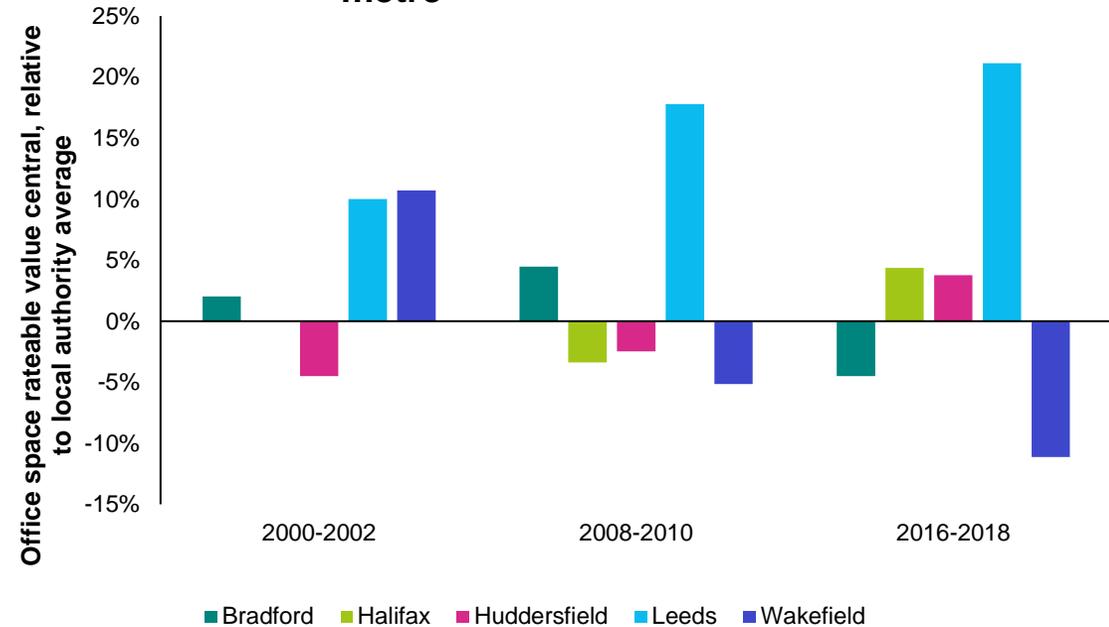
# Land values highlight the importance of Leeds central, providing good quality office space there may be an important factor

Figure: Office rateable values, 2018

Office space, rateable values by square metre



Office space central areas, rateable values by square metre



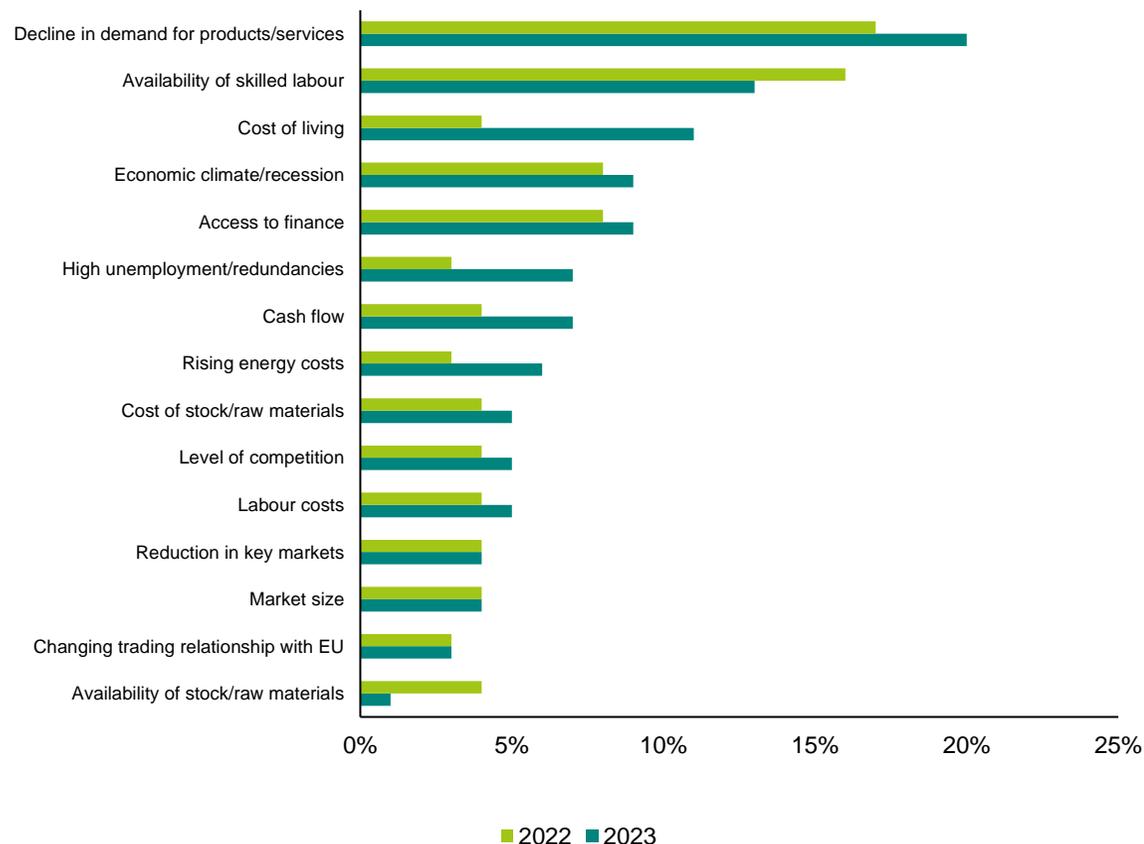
Source: West Yorkshire Estimates based on Valuation Office Agency (VOA) data.

Note: Central areas defined previously (slide 14), edge of centre are all the LSOAs that border those.

- Office values suggest there is a benefit (and demand) of being located close to central Leeds. That is a signal, combined with economic growth in central Leeds, of the benefits of central areas for service activities.
- Office space has been growing and concentrating in central Leeds. It is the only area that has continued becoming more valuable relative to the local authority average. Remaining local authorities do not seem to be offering the same benefits for businesses located in offices.
- Hybrid work may change some of these dynamics, but also highlights the importance of providing good quality office space for new types of working arrangements. The market in large cities has been [moving towards](#) good quality office space.
- The latest business survey (2023) shows that the vast majority of businesses (75%) do not expect to change its space needs. From the ones planning to move to new premises, most are moving to larger ones: 7% of all surveyed businesses, compared to 2% of businesses moving to smaller premises.

# Access to finance is reported one of the main barriers to growth but significantly behind other factors

Figure: Barriers to growth in next 3 years, 2022 and 2023



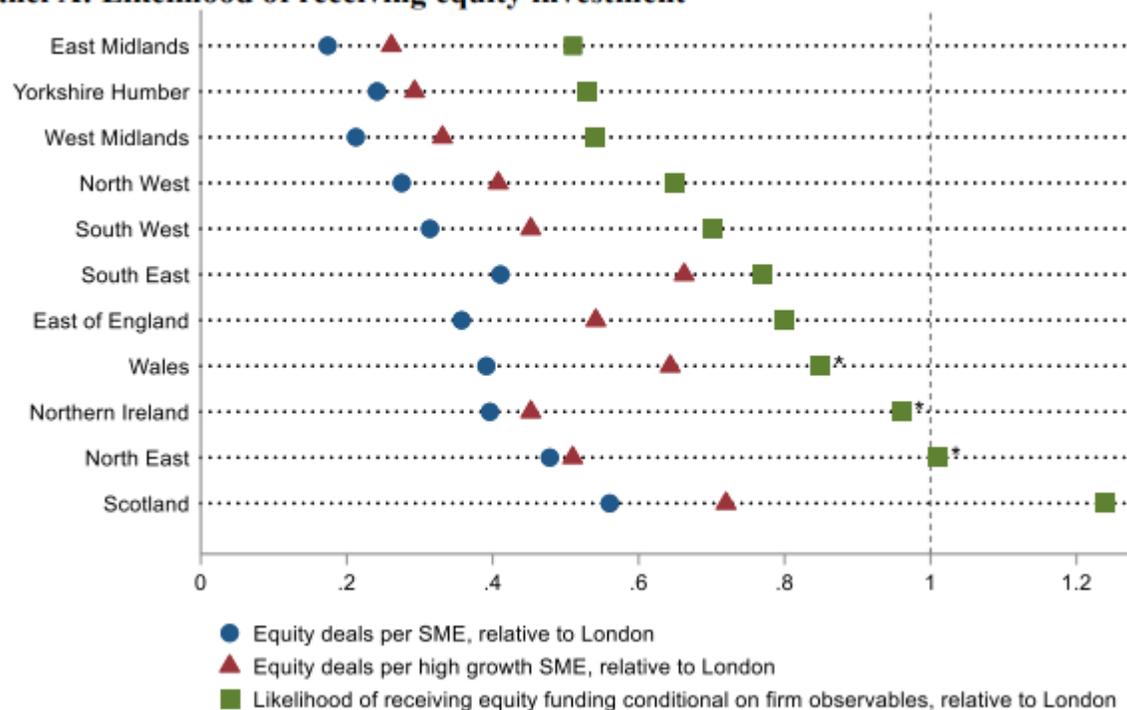
- In the last two years, in a context of rising interest rates, the business survey shows that access to finance is a relevant barrier to growth to some firms.
- However, less than 10% of firms report it (2023) has the main barrier to growth, compared to 13% of availability of skilled labour and 20% in demand conditions.
- Access to finance as a barrier grew slightly between 2022 and 2023, and a larger share of firms report it has a barrier than rising energy costs (6%, 2023) or the cost of raw materials (5%, 2023).

# Access to equity may be a constraint to some SMEs when compared to London and the South

**Figure:** Equity investment likelihood compared to London (2011-2017)

**Figure 25. Equity investment likelihood and deal size by region, 2011-17**

**Panel A: Likelihood of receiving equity investment**



- [Research](#) at the regional level suggests that SME lending is not a constraint compared to London.
- That said, equity access – which is a smaller part of all financing but particularly important for growth – are particularly low in Yorkshire and The Humber in relation to London. This affects a subset of high growth potential SMEs, particularly relevant to boost productivity.

# Public services the only group report access to finance as the main barrier

## Barriers to growth in next 3 years

	Biggest barrier	2 <sup>nd</sup> biggest barrier	3 <sup>rd</sup> biggest barrier
Total (1,014)	Decline in demand for products/services	Availability of skilled labour	Cost of living
Micro 1 to 9 (600)	Decline in demand for products/services	Availability of skilled labour	Cost of living
Small 10 to 49 (314)	Availability of skilled labour	Decline in demand for products/services	Access to finance
Medium/Large 50+ (100)	Availability of skilled labour	Access to finance	Cost of living/decline in demand
Primary (17)	Decline in demand for products/services	Cash flow	Over regulation/reduction in key markets/market size/economic climate
Manufacturing (125)	Decline in demand for products/services	Cost of stock/raw materials	Availability of skilled labour
Construction (53)	Availability of skilled labour	High unemployment/redundancies	Over regulation/red tape
Distribution (245)	Decline in demand for products/services	Cost of living	Economic climate/recession
Hotels/Catering (121)	Decline in demand for products/services	Rising energy costs	Cost of living
Transport/Storage/Comms (43)	Decline in demand for products/services	Availability of skilled labour	High unemployment/redundancies
Financial Intermediation (160)	Availability of skilled labour	Economic climate/recession	Access to finance
Public Services (127)	Access to finance	Availability of skilled labour	Cost of living
Other Services (123)	Decline in demand for products/services	Access to finance	Cash flow

Source: Leeds City Region Business Survey (2022 and 2023)

- Access the second barrier for medium and large companies.

# Summary

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- Despite levels being lower than the national average, house prices and rents have been rising faster than the national average. Affordability problems affect the poorest in society but can also block the attractiveness of West Yorkshire; Leeds' relatively high prices highlight this.
- Commercial space in central Leeds is particularly valuable, and good quality office space likely to be necessary even in a post-pandemic world.



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# Inclusive and sustainable growth

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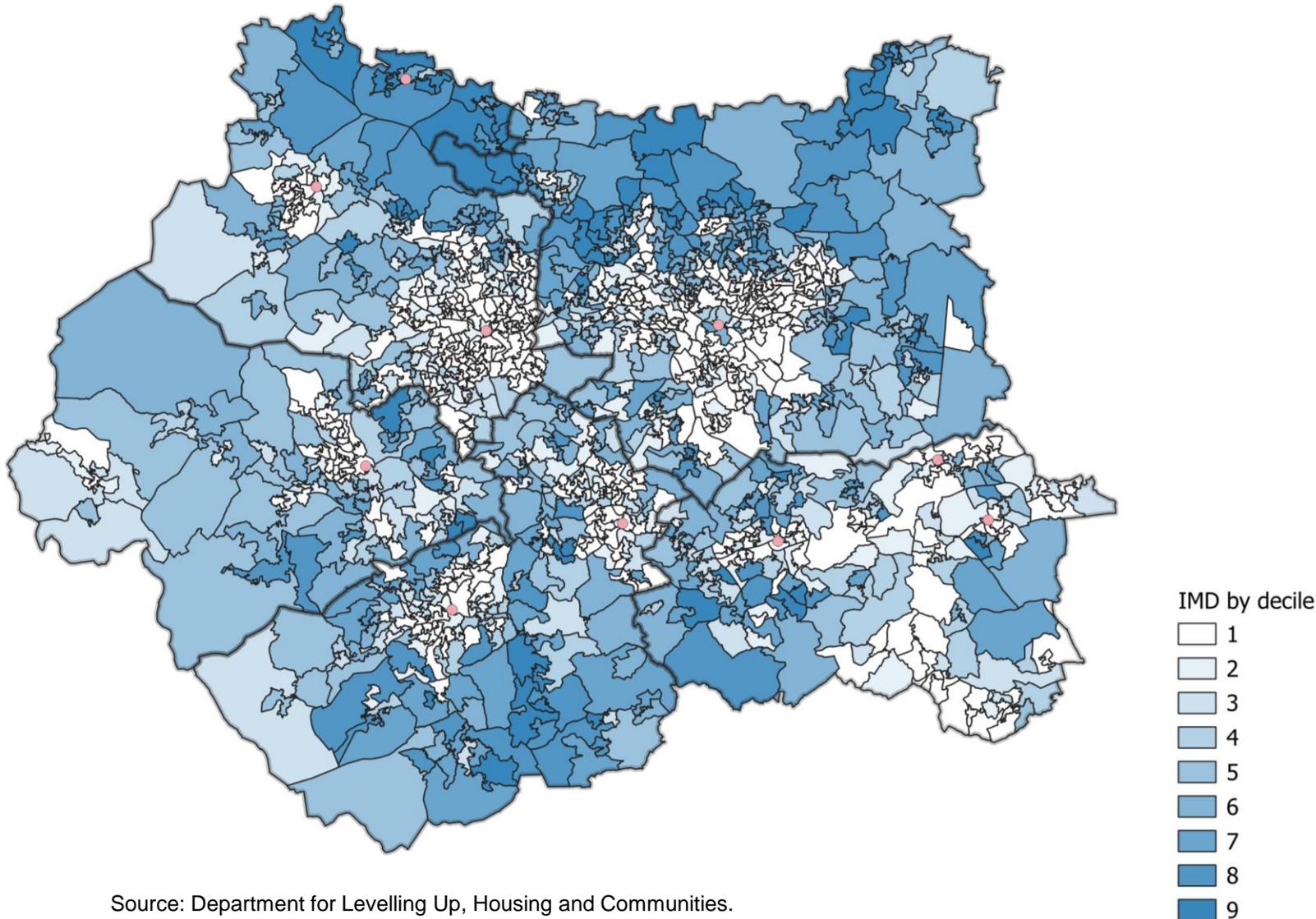
# The geography and economics of deprived areas

January 2024



# Its not all about physical proximity to opportunity as deprivation shows

Figure: English Indices of Deprivation 2019 - LSOA Level, by decile

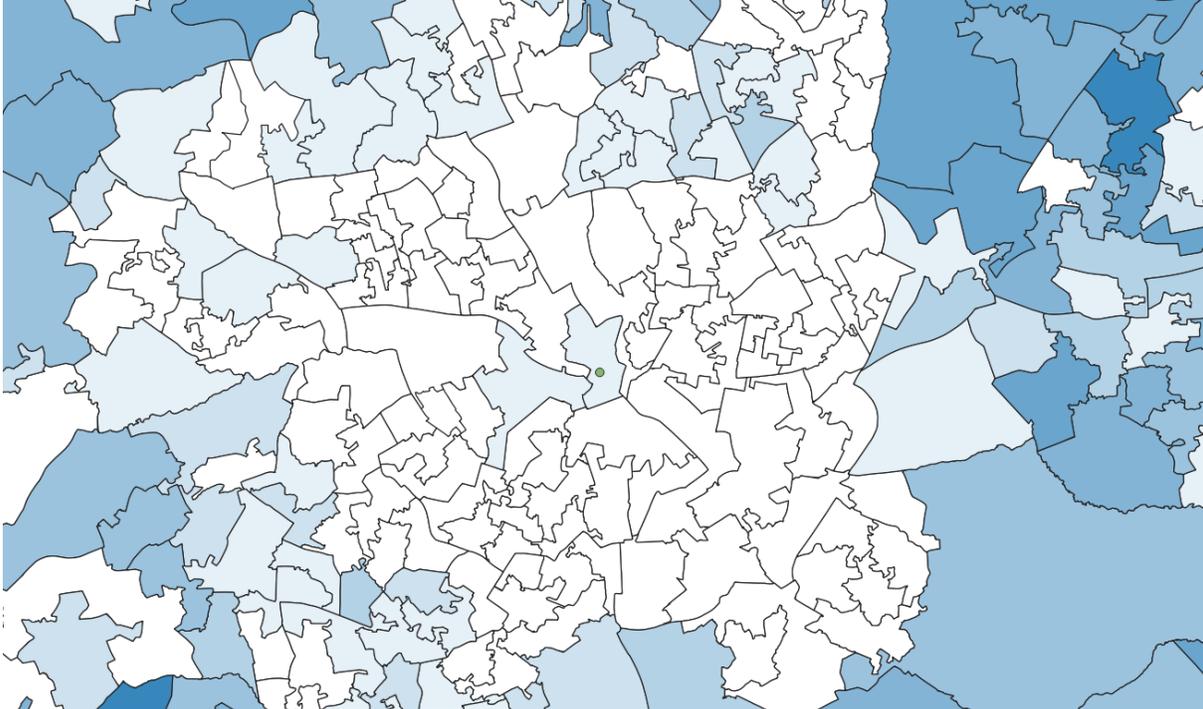


- There are areas nearby the centre of Leeds that do not benefit that much from its productivity, which highlights the importance of looking at inclusive growth when trying to close the productivity gap.
- Around 820,000 of West Yorkshire residents (35% of all) lived in areas that are the 20% most deprived.
- It's not all about proximity to opportunities as this figure shows.
- West Yorkshire local authorities are all ranked in the top third of English local authorities from the point of view of income deprivation, with Bradford worst-affected in this regard.
- In terms of “[internal disparity](#)”, the difference between deprivation in poorest and richest areas, Bradford (34<sup>th</sup> highest) and Leeds (39<sup>th</sup>) are among the highest. Followed by Calderdale (83<sup>th</sup>)

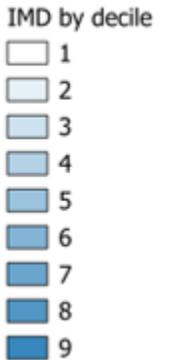
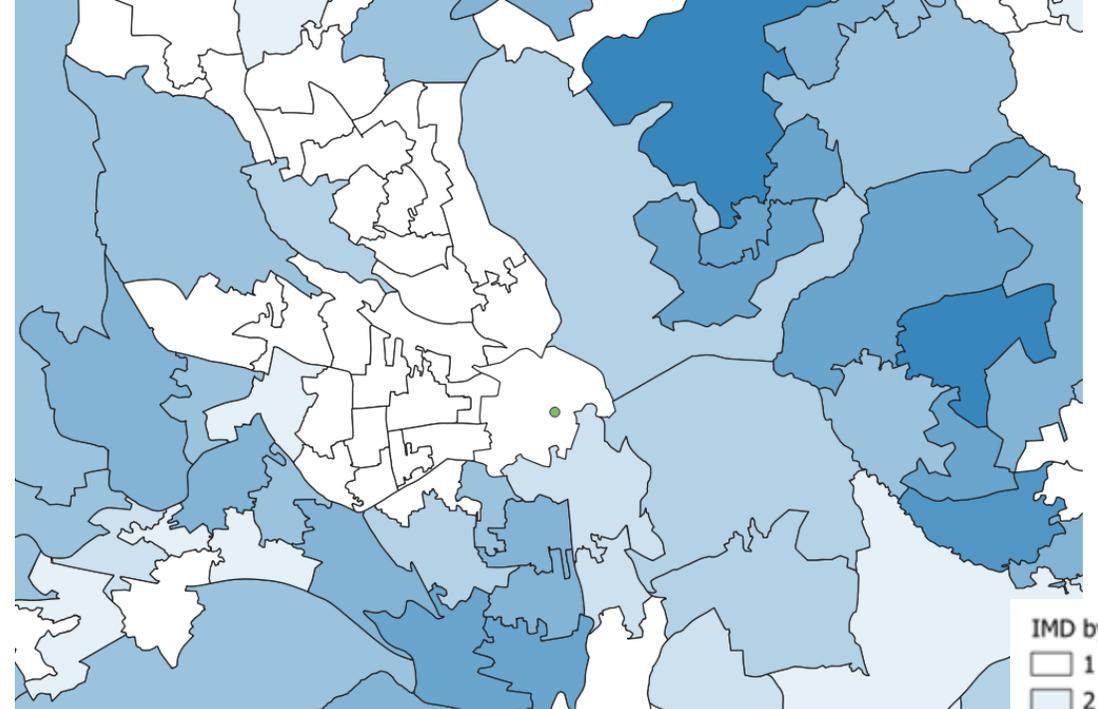
# City and Towns centres are particularly deprived in West Yorkshire

Figure: English Indices of Deprivation 2019 - LSOA Level, by decile

## Central Bradford and surroundings



## Central Halifax and surroundings

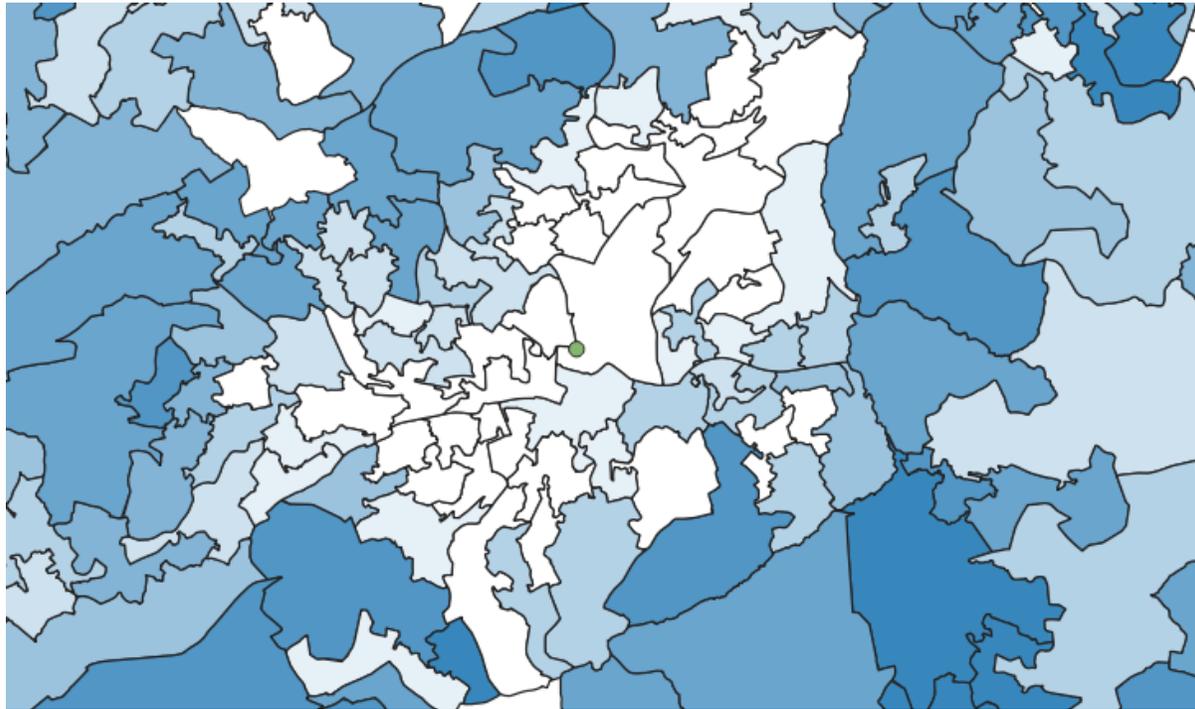


Source: Department for Levelling Up, Housing and Communities.

# City and Towns centres are particularly deprived in West Yorkshire

Figure: English Indices of Deprivation 2019 - LSOA Level, by decile

## Central Huddersfield and surroundings



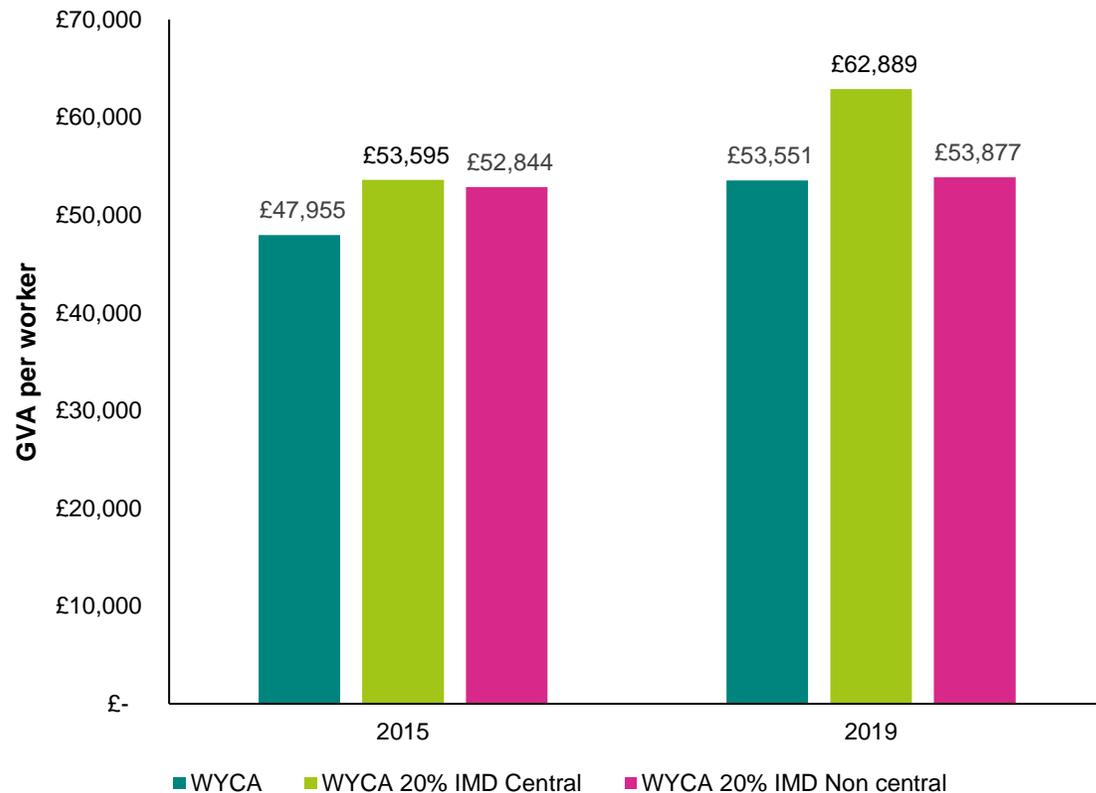
## Central Wakefield and surroundings



Source: Department for Levelling Up, Housing and Communities.

# Central and deprived areas perform differently than the remaining deprived areas. Central areas can be simultaneously productive, dynamic and deprived

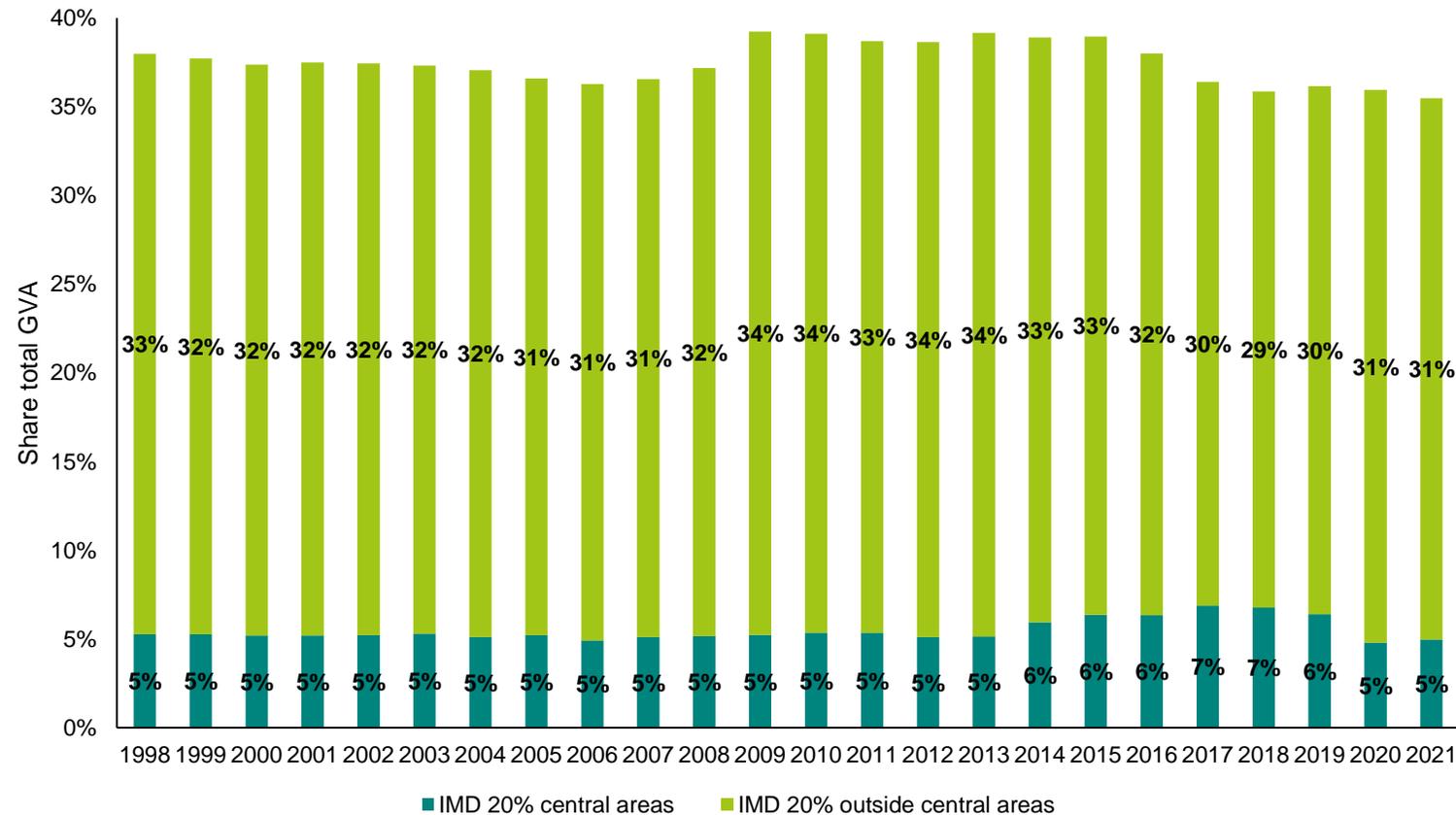
**Figure:** Productivity in West Yorkshire and areas that are within the 20% most deprived in England (1998 to 2021)



- Deprived areas in West Yorkshire, especially the ones located in central areas, are significantly more productive than average.
- This supports the idea that closing the productivity gap alone will not bring prosperity to everyone.
- This shows that being a productive areas does not necessarily benefit existing residents. Also, it highlights, as previously mentioned, that physical proximity alone cannot promote inclusive growth.
- Non-central deprived areas have a high share of manufacturing jobs (13% of jobs there). Meanwhile, deprived and central areas have a higher prevalence of finance jobs, public sectors and retail.

# Central and deprived areas performing differently than the remaining deprived areas

**Figure:** Share GVA in areas that are within the 20% most deprived in England (1998 to 2021)



- Deprived areas (bottom 20%) account for 36% of West Yorkshire economy.
- Deprived areas in West Yorkshire could be broadly be divided into two groups: central areas (mostly Leeds and Bradford); and remaining areas.
- The relative size of central areas, as a share of West Yorkshire's GVA, has increased, despite being deprived (at least until covid).
- The relatively size of the remaining deprived areas fell.

Source: ONS, UK small area gross value added (GVA) estimates. Central and deprived areas are the following LSOA: Bradford 039A, Bradford 039B, Bradford 039C, Bradford 039D, Bradford 039E, Bradford 039G, Bradford 039H, Bradford 039I, Bradford 039J, Calderdale 008E, Kirklees 029D, Kirklees 039A, Kirklees 039C, Leeds 111A, Leeds 111B, Leeds 111C, Leeds 111D, Leeds 111E, Wakefield 017D.



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# Inclusive Growth Framework

January 2024



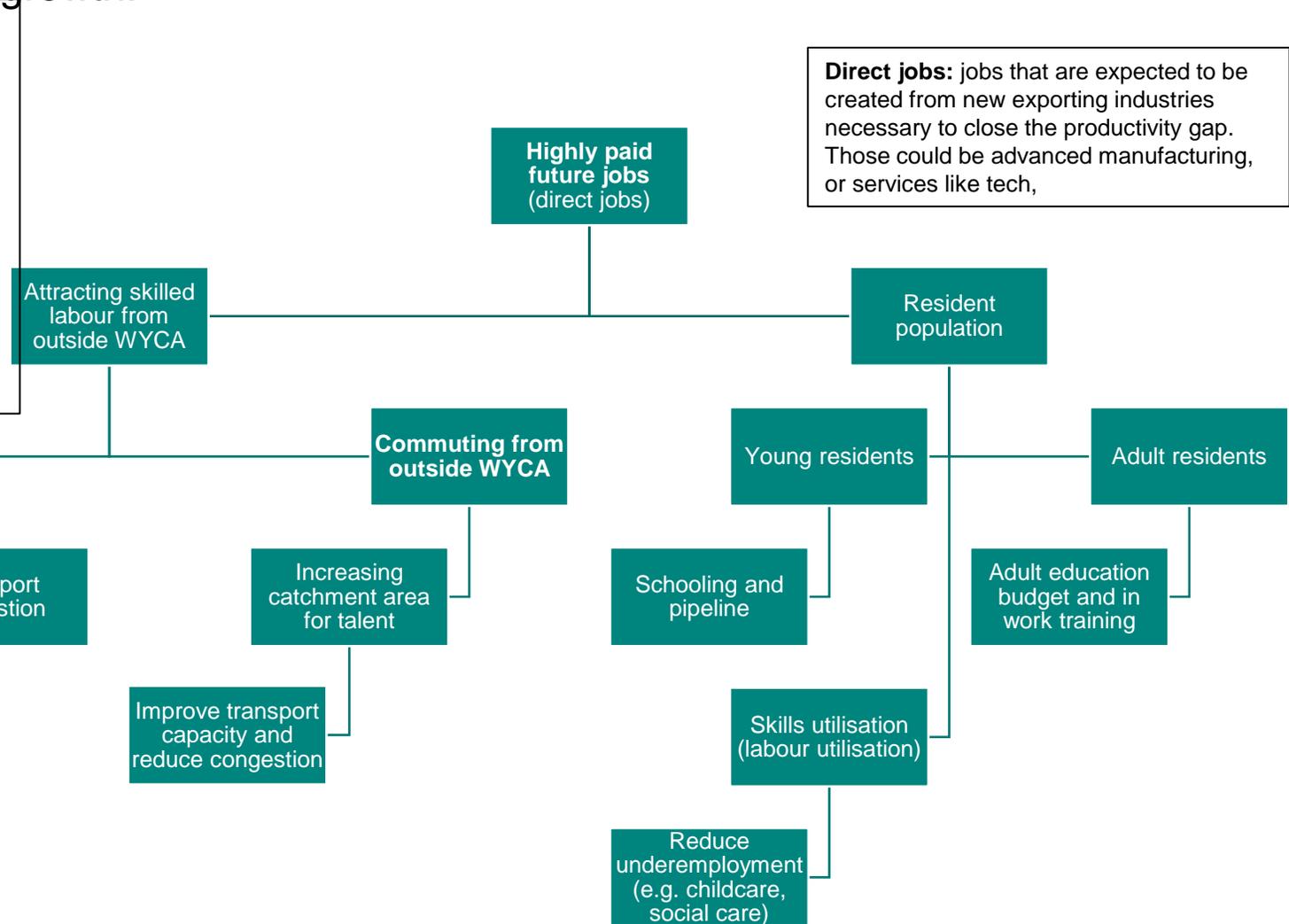
# As productivity gains do not mean inclusive growth, important to understand the potential mechanisms

**Mechanism one:** closing the productivity gap new highly paid jobs. Inclusivity aims at who can benefit from these jobs and deal with the indirect costs of growth.

**More graduates likely needed:** today, West Yorkshire would need around **100,000 additional graduates** to reach the national average.

- There are approx. 25,000 a year studying in WYCA based institutions. Doubling the HE retention of this group, could bring around **6,000 additional graduates a year**.
- There are 9,000 WYCA residents a year in HE elsewhere in the UK, few of people return (23%). Attracting some of West Yorkshire's residents back: doubling the number of graduates with a WYCA domicile working in the area would bring around **2,100 additional graduates a year**.
- There are 19,000 WYCA residents a year in HE in the UK. Increasing the HE pipeline from residents, by increasing HE progression to 50% (up from 45%, assuming all extra graduates would stay in WYCA) would increase the number of graduates by around **2,000 additional graduates a year**.
- This shows that meeting such target would **require people moving from other places, either new residents or commuters from elsewhere**.

**Direct jobs:** jobs that are expected to be created from new exporting industries necessary to close the productivity gap. Those could be advanced manufacturing, or services like tech,

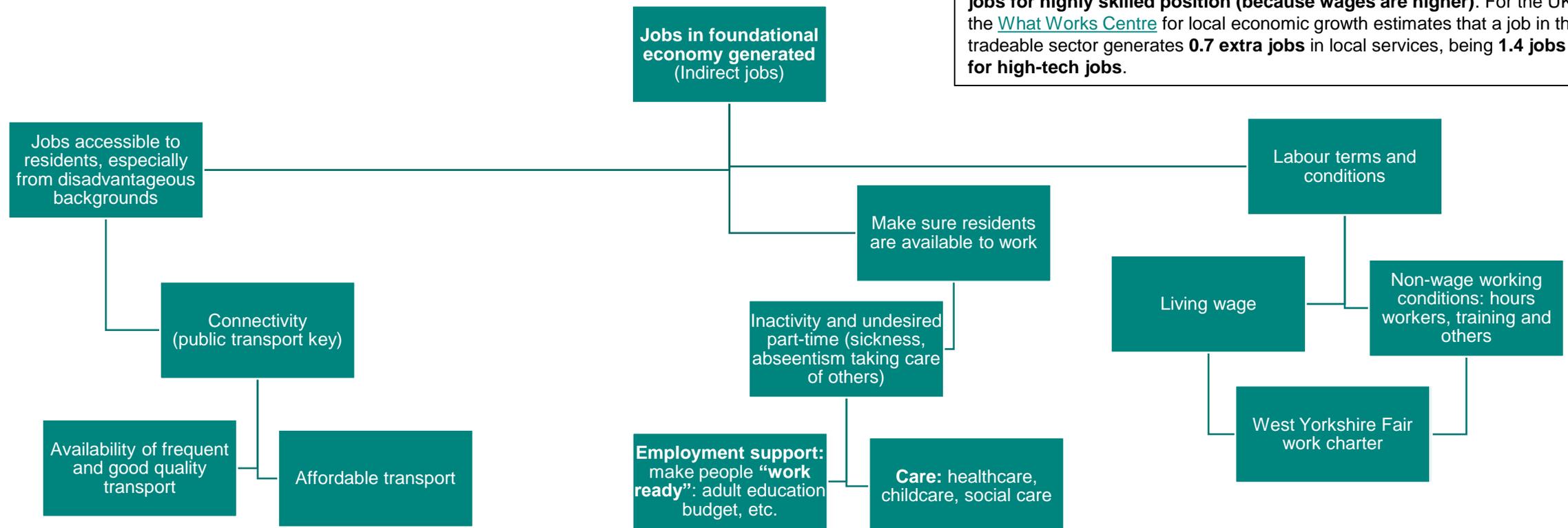


# As productivity gains do not mean inclusive growth, important to understand the potential mechanisms

**Mechanism two:** boosting good work in all types of jobs.

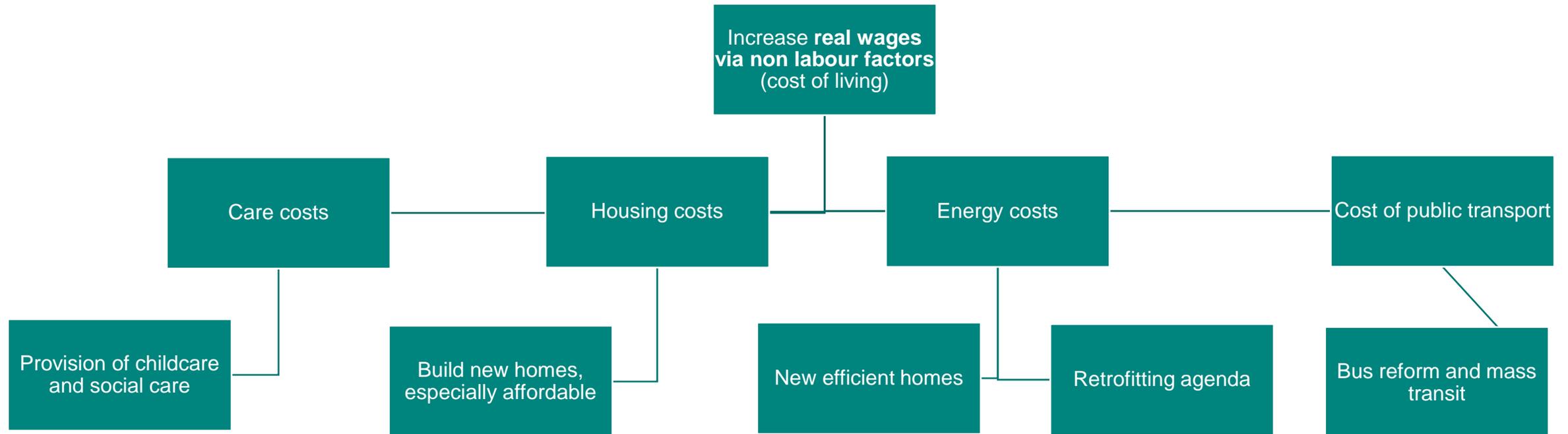
Highly paid jobs from aiming higher productivity have limited scope, not everyone will benefit from them. At the same time other jobs (indirect jobs) in local services like hospitality, retail and others will emerge.

**Indirect jobs:** Research shows that jobs in sectors like manufacturing and knowledge intensive services can boost the number of jobs in the foundational economy. Research shows that a manufacturing job tends to create **1.6 jobs** in local services in the same region; being as high as **2.5 jobs for highly skilled position (because wages are higher)**. For the UK, the [What Works Centre](#) for local economic growth estimates that a job in the tradeable sector generates **0.7 extra jobs** in local services, being **1.4 jobs for high-tech jobs**.



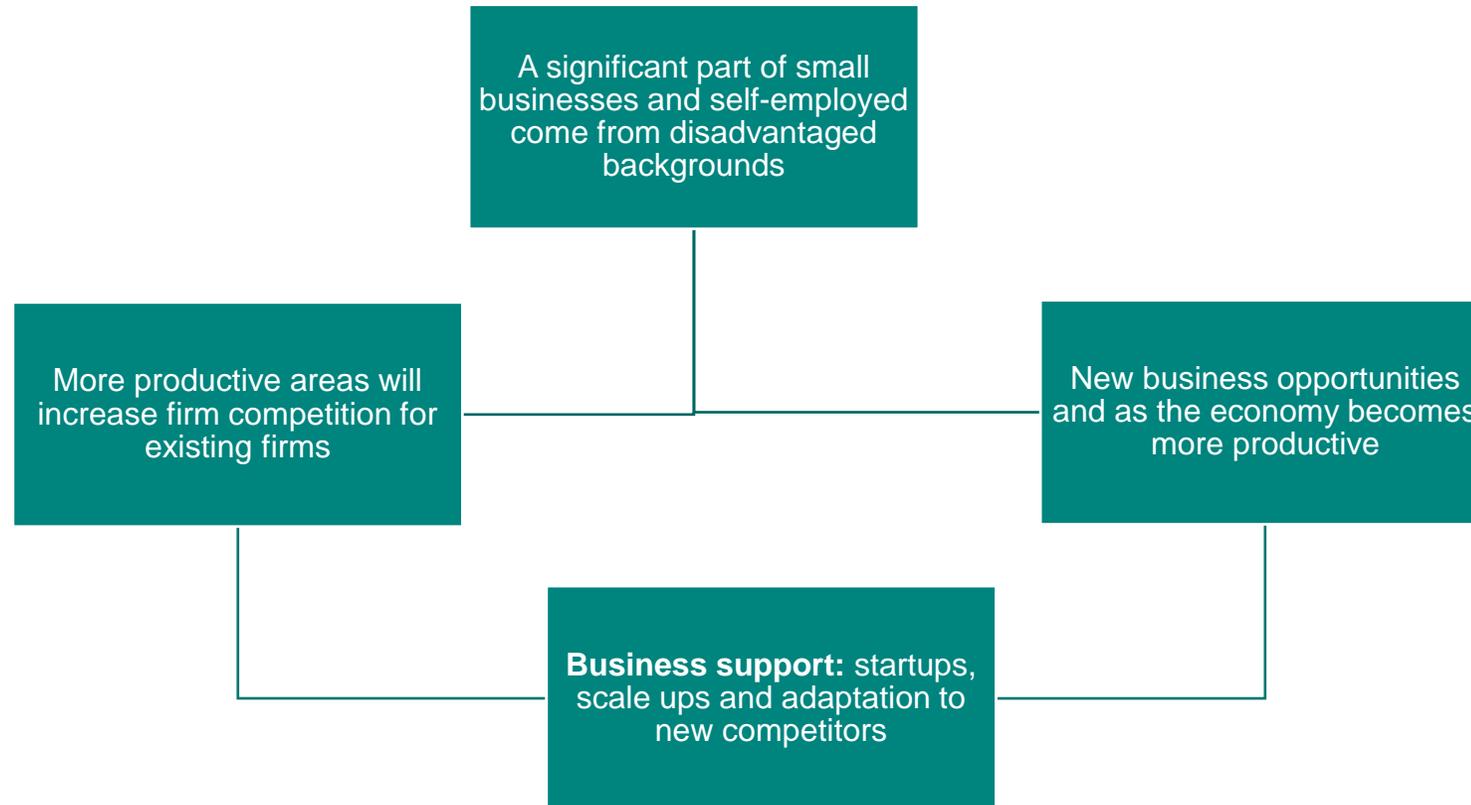
# As productivity gains do not mean inclusive growth, important to understand the mechanisms. Mechanism one: making new jobs available to residents

**Mechanism three:** another component of inclusive growth is keeping the cost of living low, regardless of labour market conditions. In some specific areas costs expected to raise with growth (housing)



# As productivity gains do not mean inclusive growth, important to understand the mechanisms

**Mechanism four:** economic dynamism will bring both more competition and new opportunities for existing local small businesses and self-employed, frequently from disadvantaged backgrounds. Supporting them is important to promote inclusive growth



## **Potential levers (not necessarily the Combined Authority) likely to tackle more than one issue simultaneously**

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- Some of the levers flagged work in more than one direction.
  - Childcare can simultaneously unlock underused talent and reduce cost of living.
  - Connectivity improvements can both benefit highly paid new direct jobs as increasing the access of residents to indirect jobs.
- Measures around housing provision, connectivity and retrofit also contribute towards sustainable growth and the 2038 net zero target



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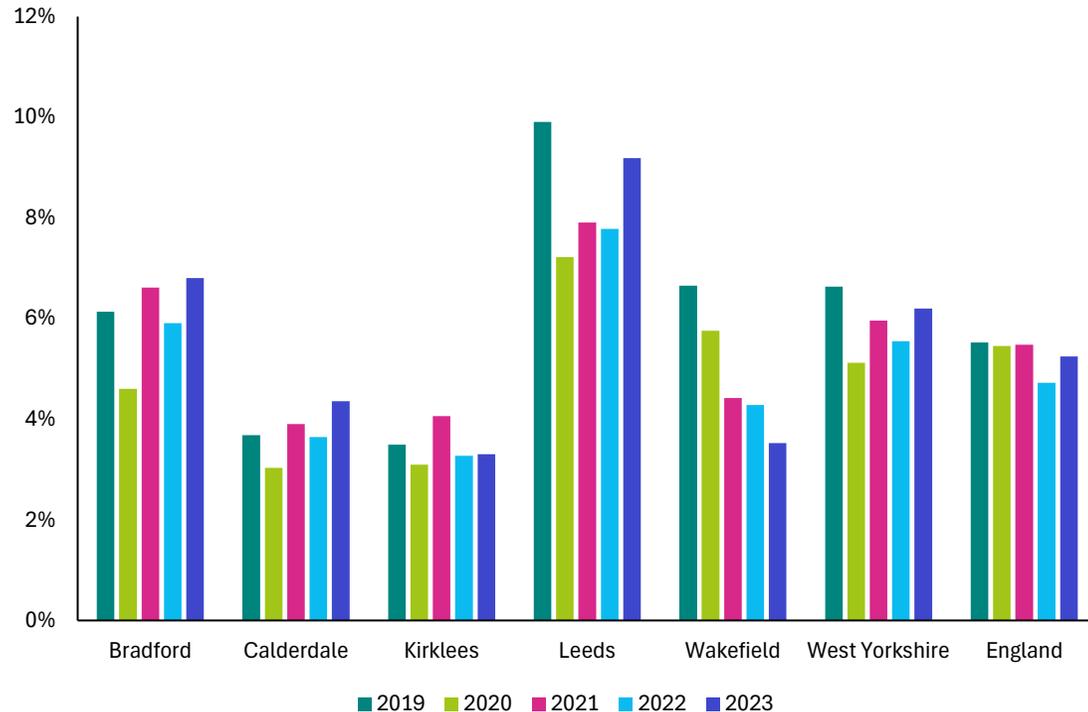
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**Inclusive and sustainable  
growth: Make the most of high  
paid jobs by building a  
pipeline**



# Build a pipeline that can benefit from future well-paid jobs

**Figure:** Young people not in education, employment or training (NEET) or activity unknown, by local authority (2019-2023)

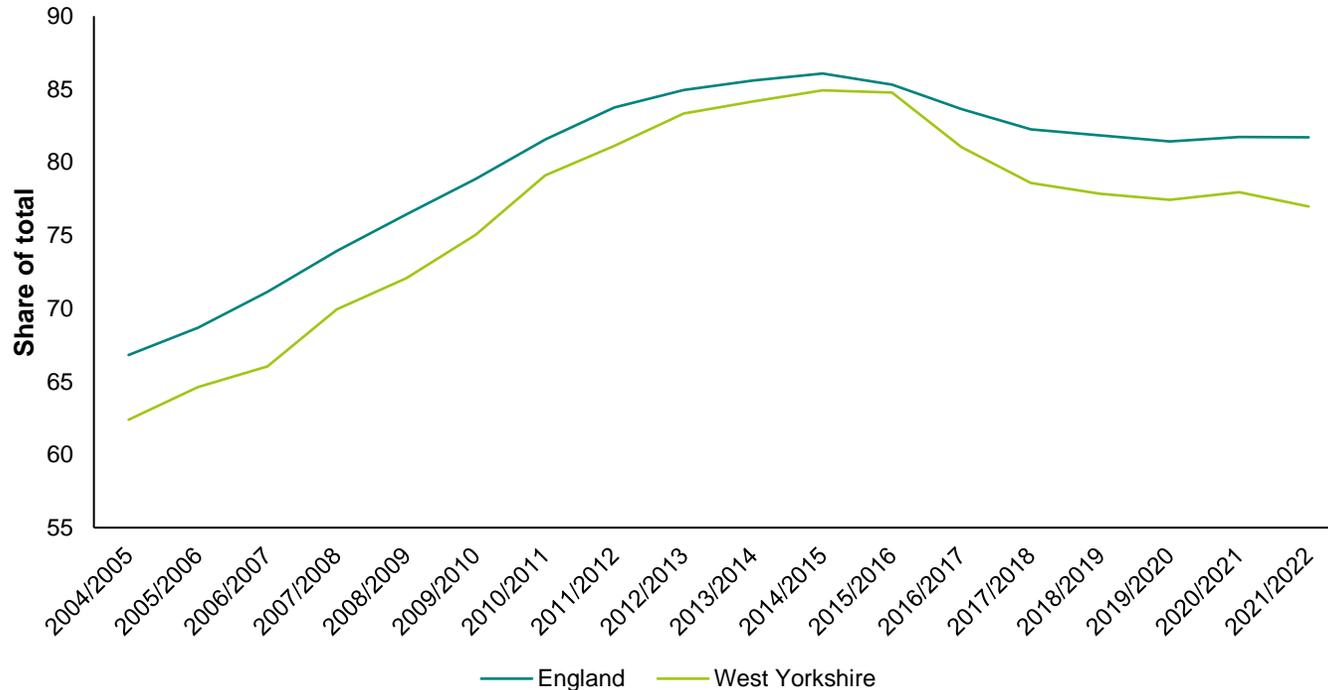


- West Yorkshire residents will need to have a certain level of skills to benefit from high paying jobs of the future.
- Today, West Yorkshire has an above average high share of NEETs, mainly driven by in Leeds and Bradford, which shows exclusion among the young.
- Unlike England, the share of NEET has been rising in recent years.
- Without further interventions, building on the existing productive industries in West Yorkshire would not directly benefit the NEET.

# Building the pipeline: West Yorkshire underperforms on home-grown skills of young people, mainly driven by Bradford, Leeds and Wakefield

Figure: Share of who achieve level 2 by the age of 19 (2004/05 and 2021/22)

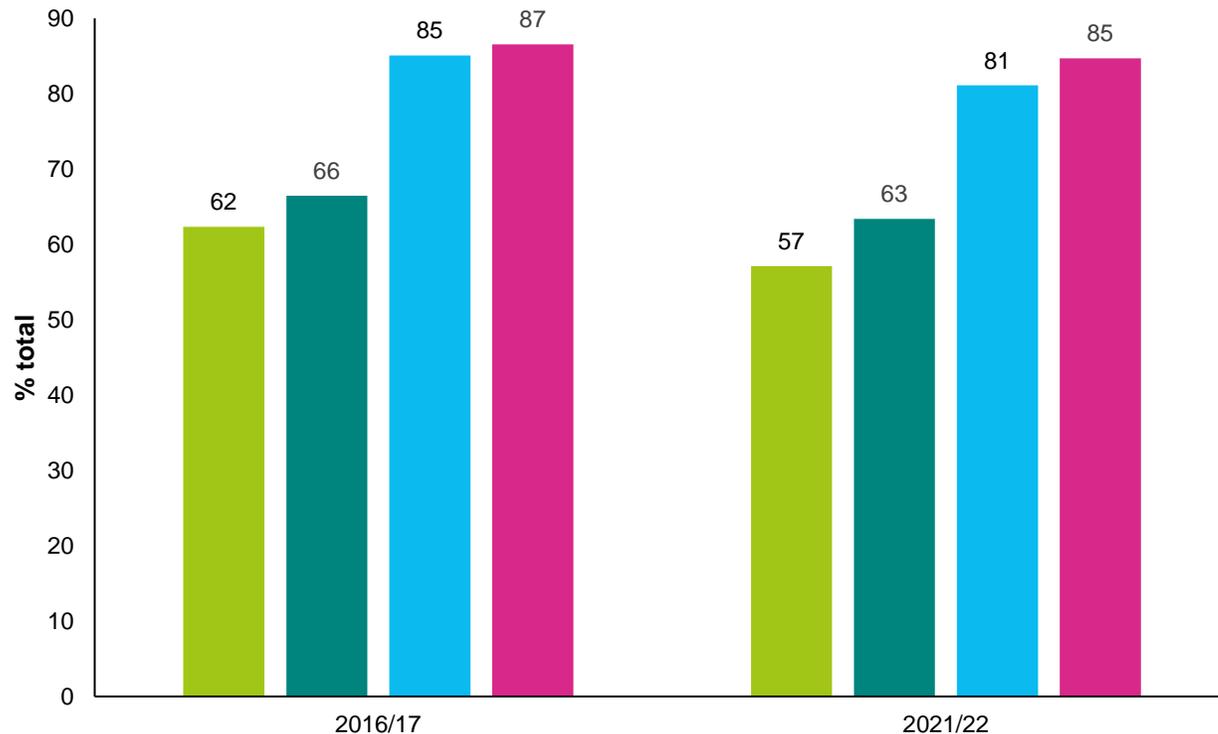
## Who achieve level 2 by age of 19



- Just like investment levels, education attainment of the young has been diverging in the last years, after a strong period of convergence.
- Improving school performance is important to make sure the jobs of the future can benefit young people in West Yorkshire.

# School performance underperforms national level mainly among free school meals (FSM) eligible students

**Figure:** Share of who achieve level 2, age of 19 by free school meal eligibility (2016/17 and 2021/22)

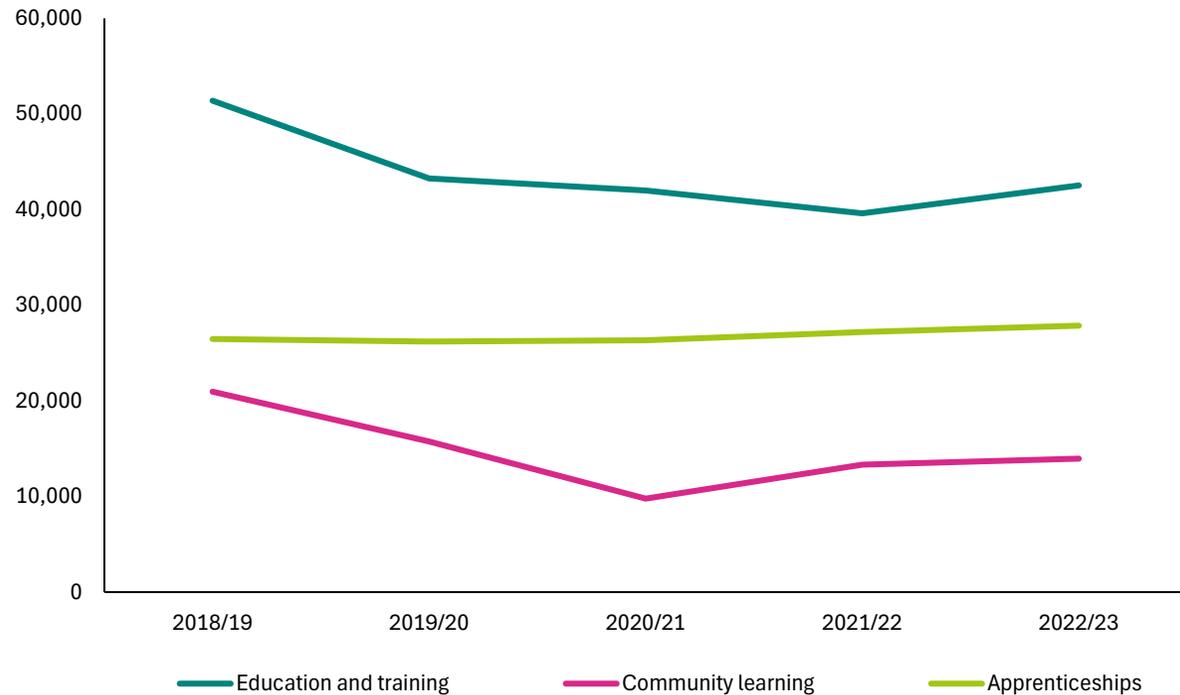


■ West Yorkshire (FSM eligible) ■ England (FSM eligible) ■ West Yorkshire (non-FSM eligible) ■ England (non-FSM eligible)

- The gap in school performance, measured by level 2 attainment by the age of 19, has widened over time, particularly for FSM eligible students.

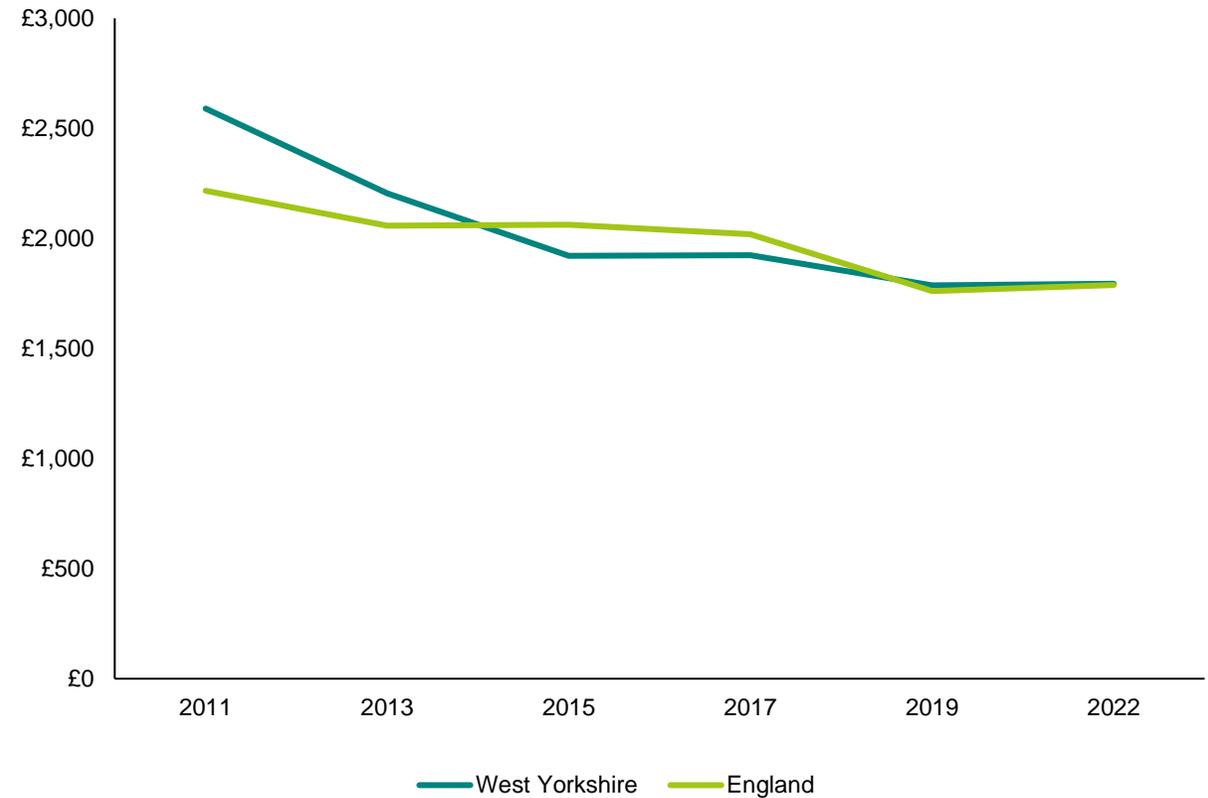
# Increasing adult education and training, both in work and outside work, is an important lever for inclusive growth

**Figure:** Adult participation in further education and skills programmes, West Yorkshire



Source: Department for Education

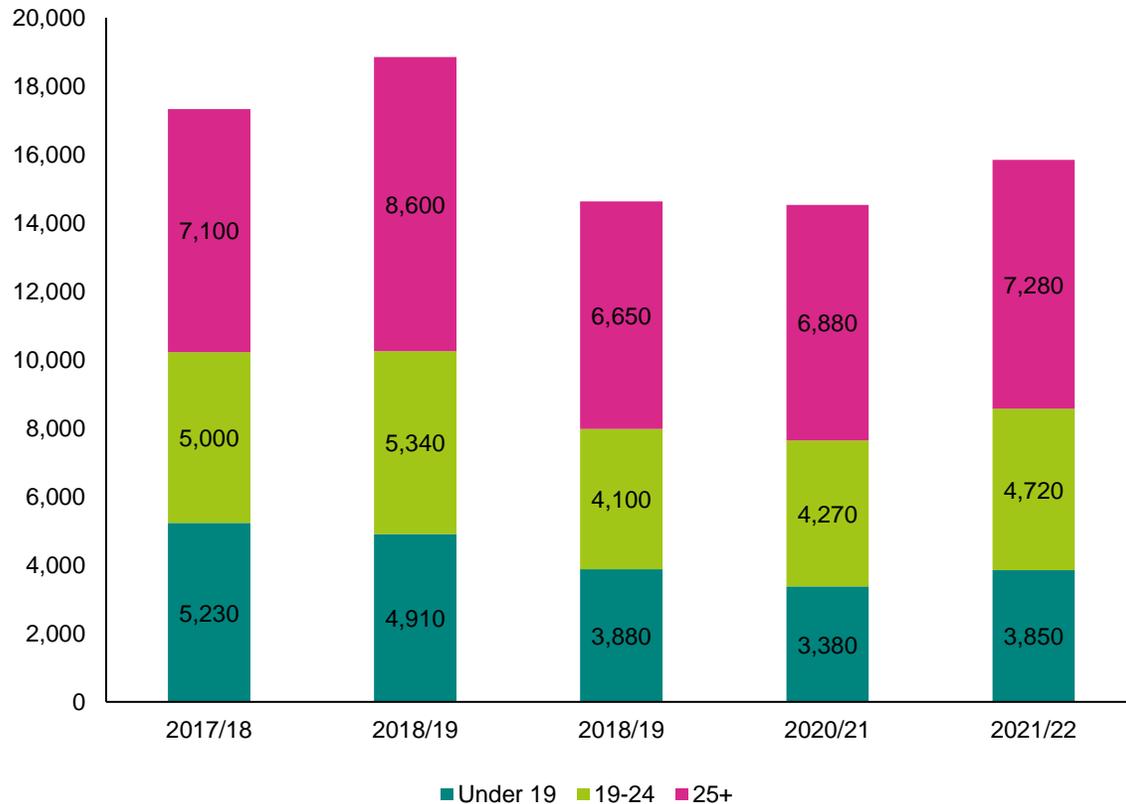
**Figure:** Trend in estimated employer investment in training per employee, West Yorkshire



Source: Employer Skills Survey

# Apprenticeships falling for the youngest and at intermediate level

**Figure:** Apprenticeships starts by age, West Yorkshire



**Figure:** Apprenticeships starts by level, West Yorkshire

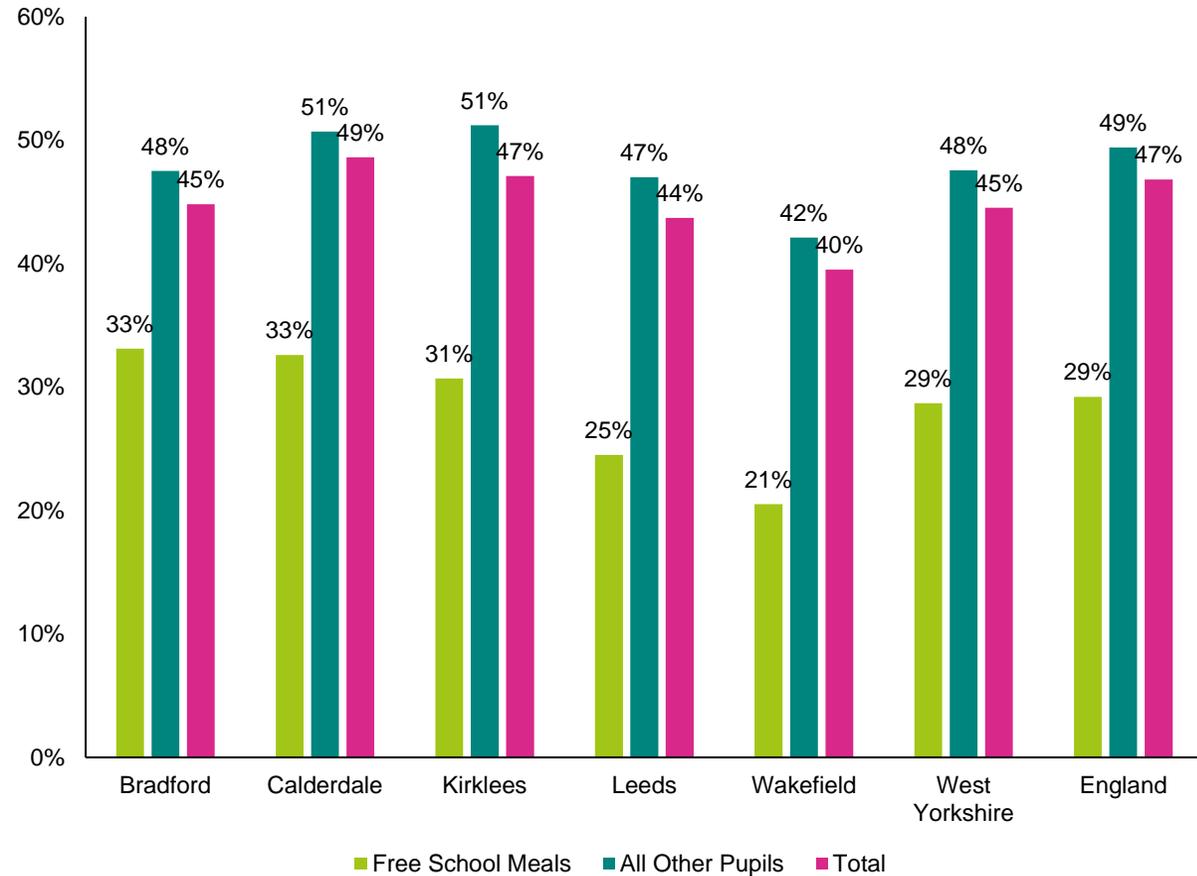


Source: Department for Education

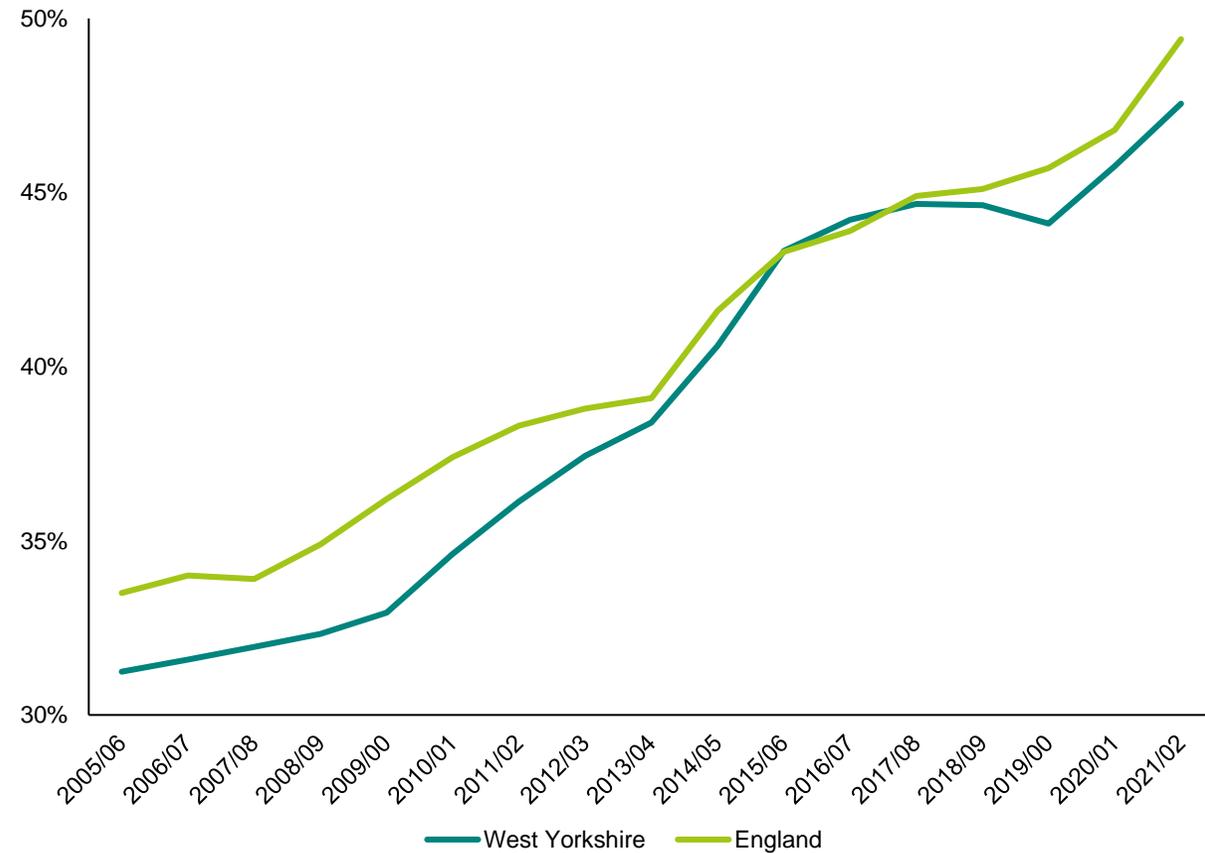
- Higher and advanced apprenticeships been stable in the last five years.

# HE progression below the national average

**Figure:** Progression rates to higher education by age 19 for state-funded pupils, 2021/22 by free school meal status



**Figure:** Progression rates to higher education by age 19 for state-funded pupils, 2005/06 to 2021/22



Source: Department for Education



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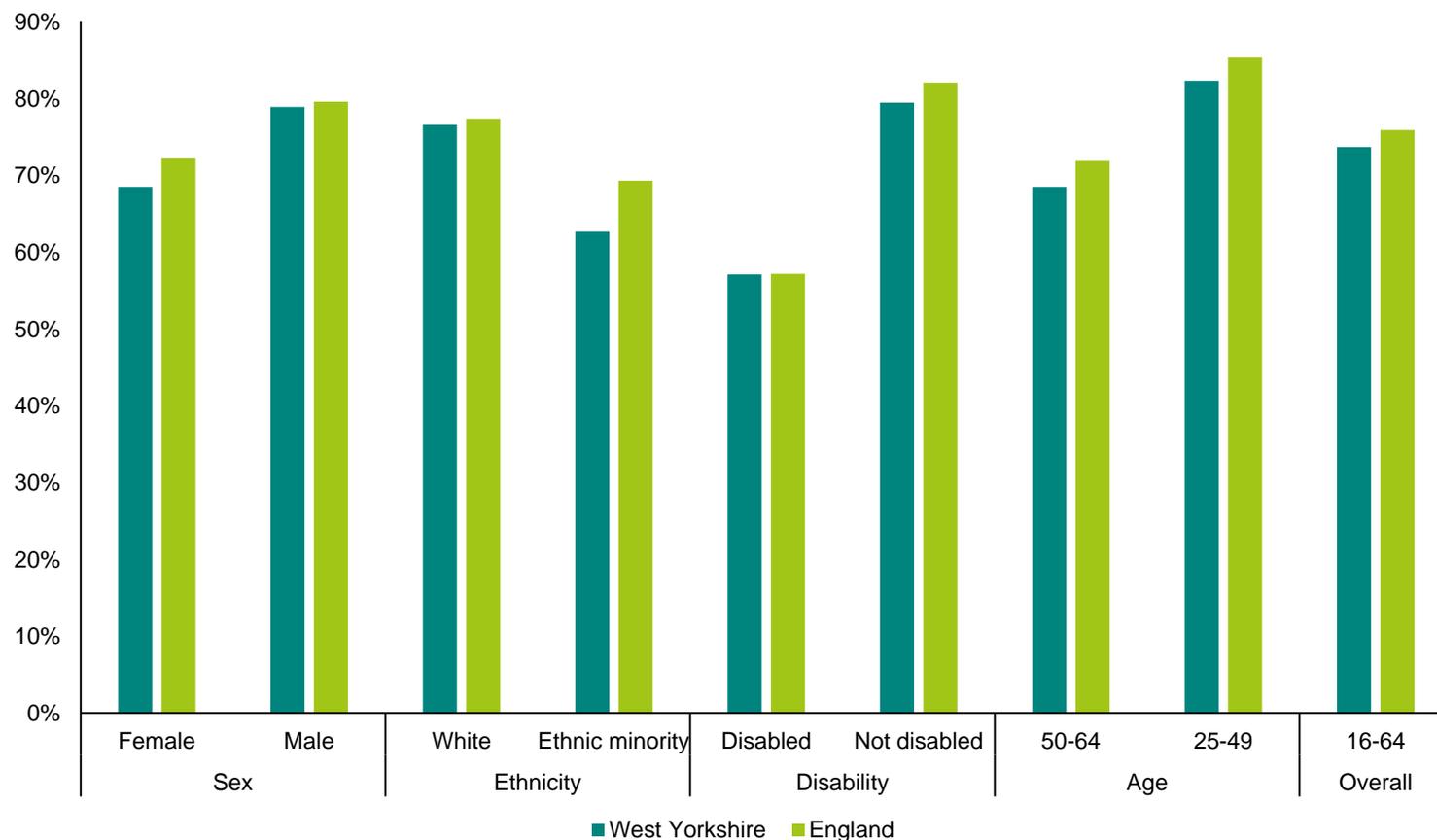
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**Inclusive and sustainable  
growth: improve labour market  
conditions and access for low  
paid workers and spread  
opportunities across the all  
residents**



# Closing the productivity gap should bring more direct and indirect jobs, those could help closing the employment gap between population groups

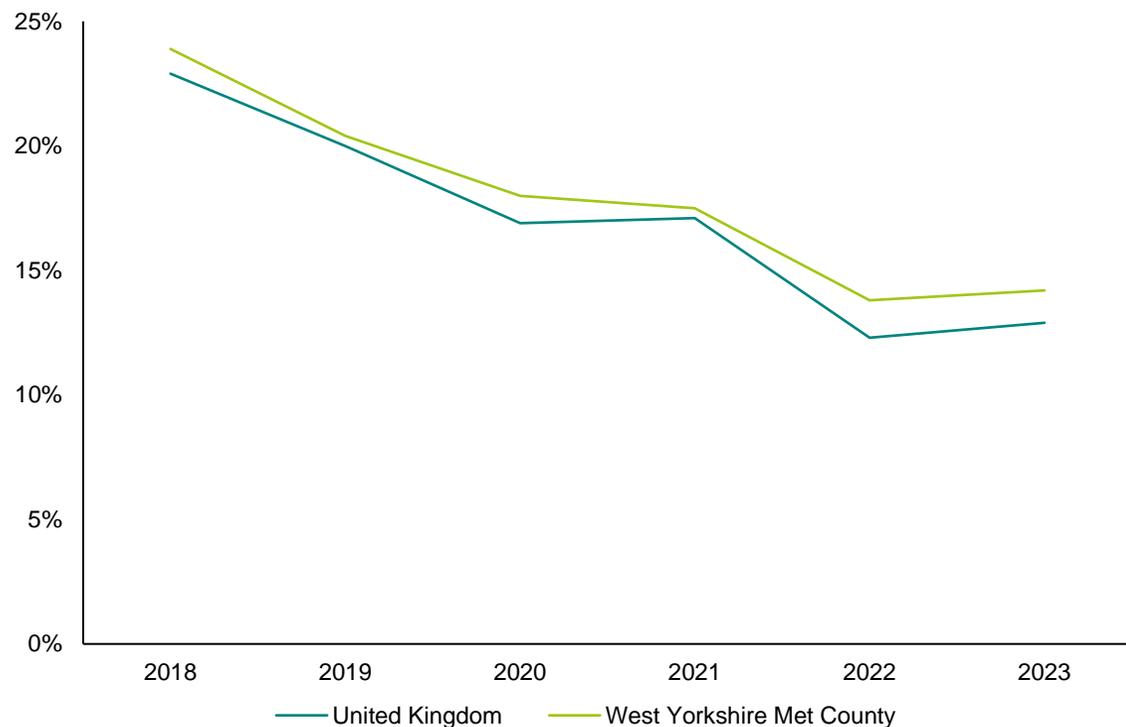
**Figure:** Employment rates by selected population groups  
(Oct 2022-Sep 2023)



- Employment rates in West Yorkshire are lower than the national average, especially for ethnic minorities and women.

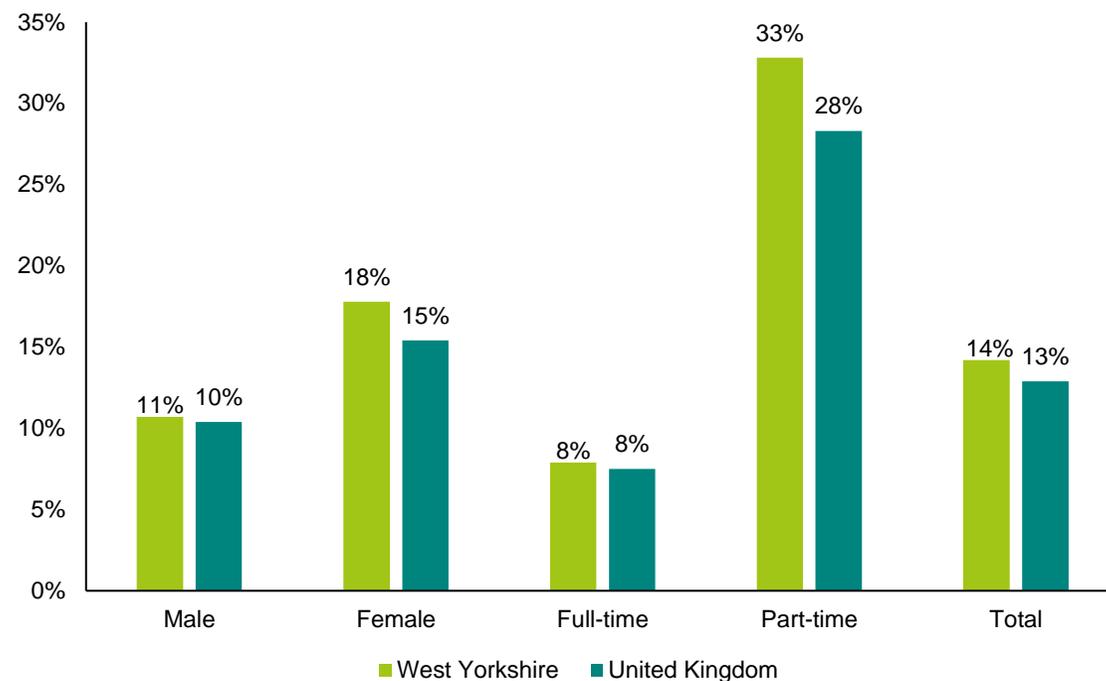
# Higher than average proportions of workers earn below the living wage, this is especially the case for women and part time workers

**Figure:** Proportion of all employee jobs paying below the Living Wage Foundation's real living wage rate (2018-2023)



Source: Annual Survey of Hours and Earnings, ONS. Note: 2023 is provisional data.

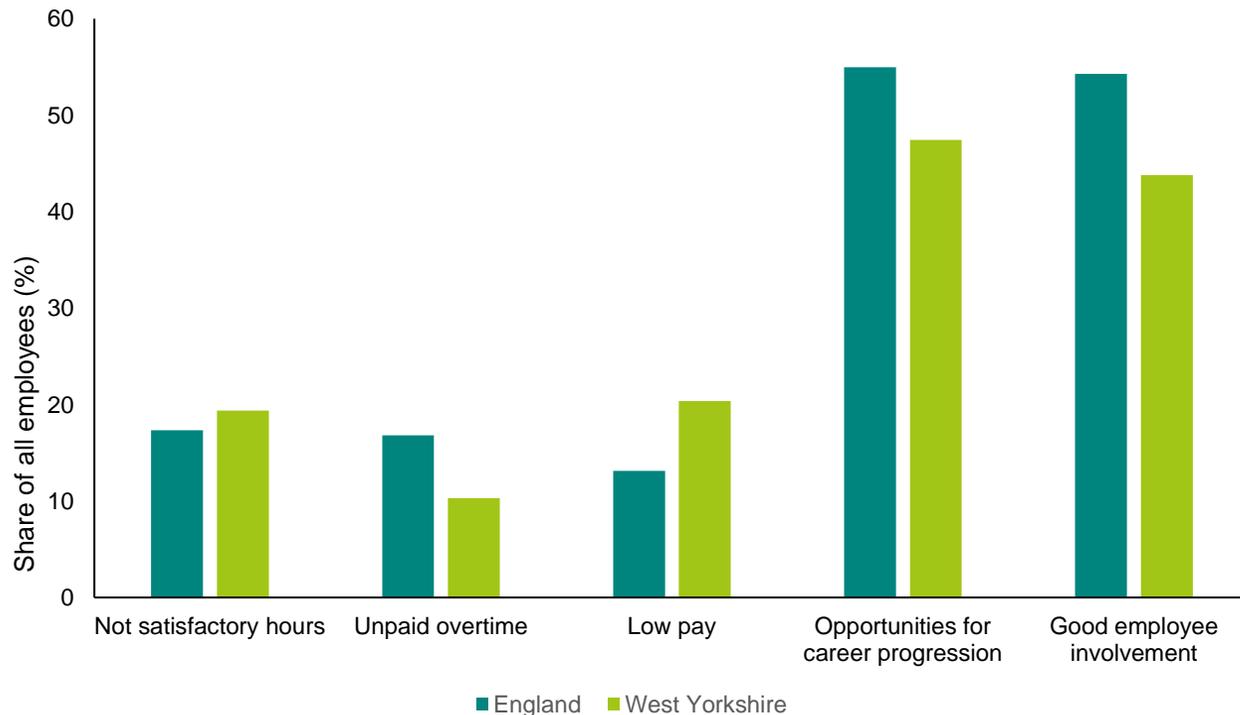
**Figure:** Proportion of all employee jobs paying below the Living Wage Foundation's real living wage rate by sex and contract (2023)



Source: Annual Survey of Hours and Earnings, ONS, 2023, provisional.

# Lack of desired hours and progression opportunities are more common in West Yorkshire than national average

Figure: Job quality indicators, January to December 2021

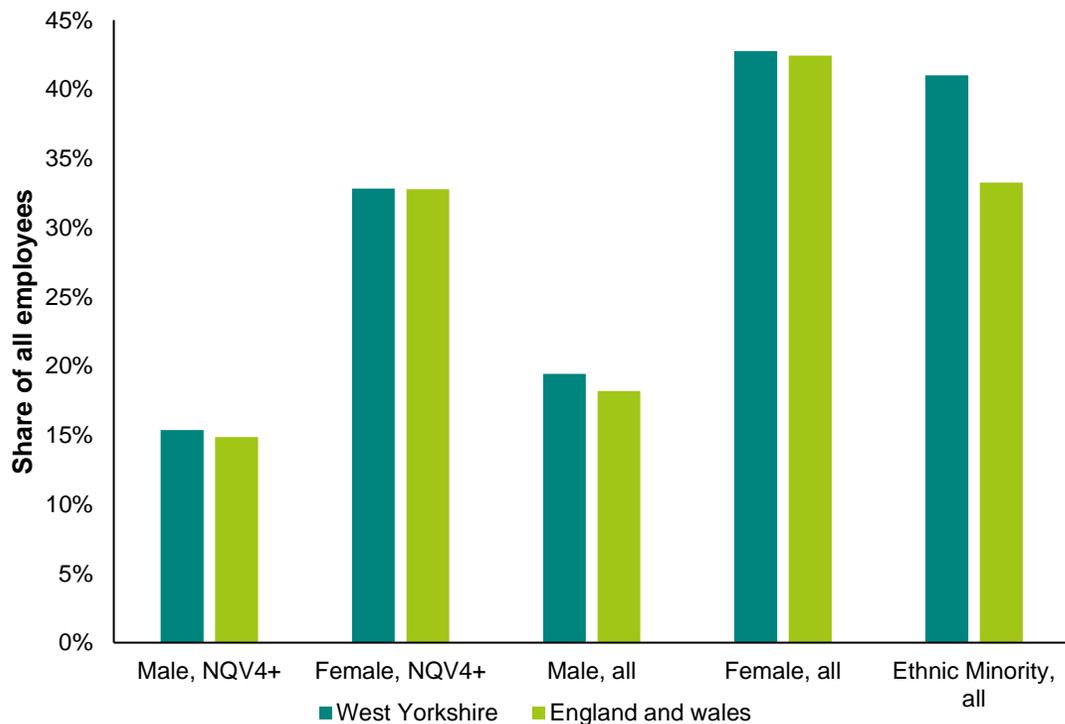


- West Yorkshire underperforms in job quality indicators like good employee involvement and opportunities for career progression.
- Addressing these issues through Fair Work Charter and other initiatives will be key to ensuring that indirect jobs from a productivity boost contribute to inclusive growth and reduce poverty.

Source: Jobs quality indicators in the UK - hours, pay, contracts, opportunities, and involvement: 2021, Office for National Statistics. West Yorkshire figures estimated using local authority statistics and weighted them using the number of employees provided by Business Register and Employment Survey (BRES).

# There are factors limiting residents ability to benefit from jobs today and in the future: underemployment

**Figure:** Share of part-time workers by sex, qualification level and ethnicity

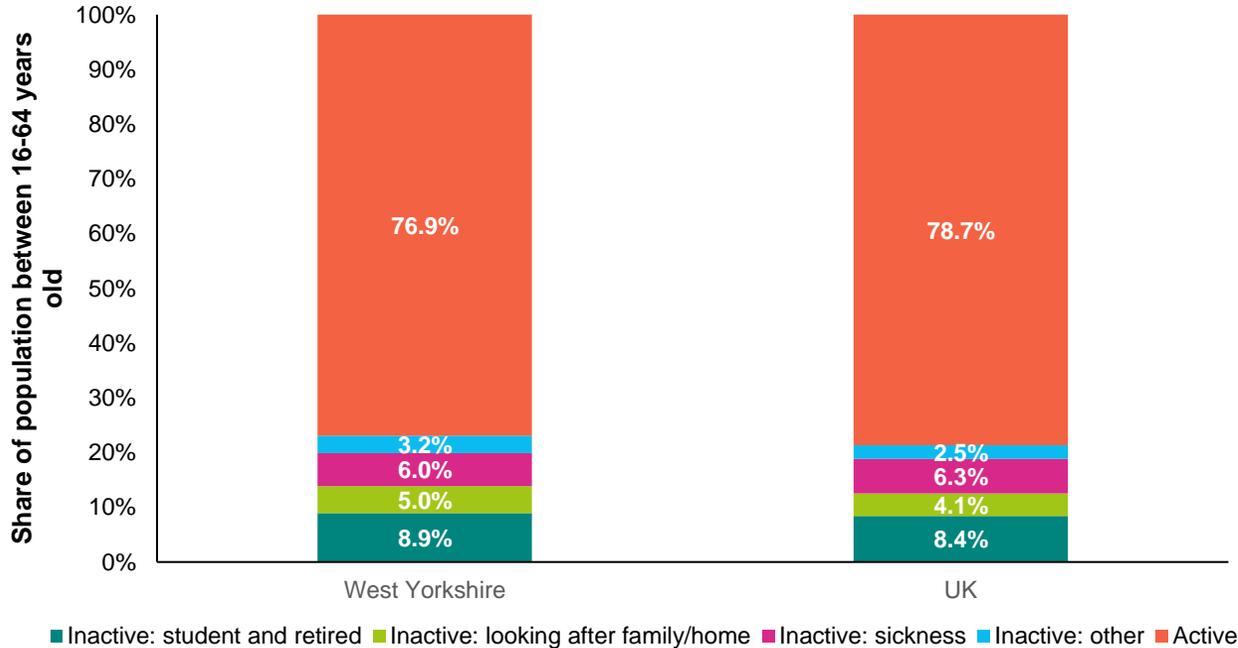


Source: Census 2021.

- Firstly, part time work is more prevalent for workers with lower qualifications, which limits income earned by workers.
- This may be a choice in some cases, but [survey](#) work on the gap between male and female part-time rates suggests it is driven by care responsibilities.
- The UK has one of the highest childcare costs in the [OECD](#).
- Lower part-time rates among workers with level 4 qualification (or above) suggest they are likely to have more job flexibility (e.g. remote working and flexible hours) to accommodate other responsibilities without losing working hours. Several occupations that require physical presence do not provide that flexibility.
- Working towards improving childcare likely to promote income gains at the bottom of the income distribution and allow West Yorkshire to make the most of its talent.

# There are factors limiting residents ability to benefit from jobs today and in the future: inactivity

**Figure:** Share of economic inactivity composition by reason of inactivity, Oct 2022-Sep 2023



**Figure:** Share of economic inactive (excluding students) who want a job, 2005-2023



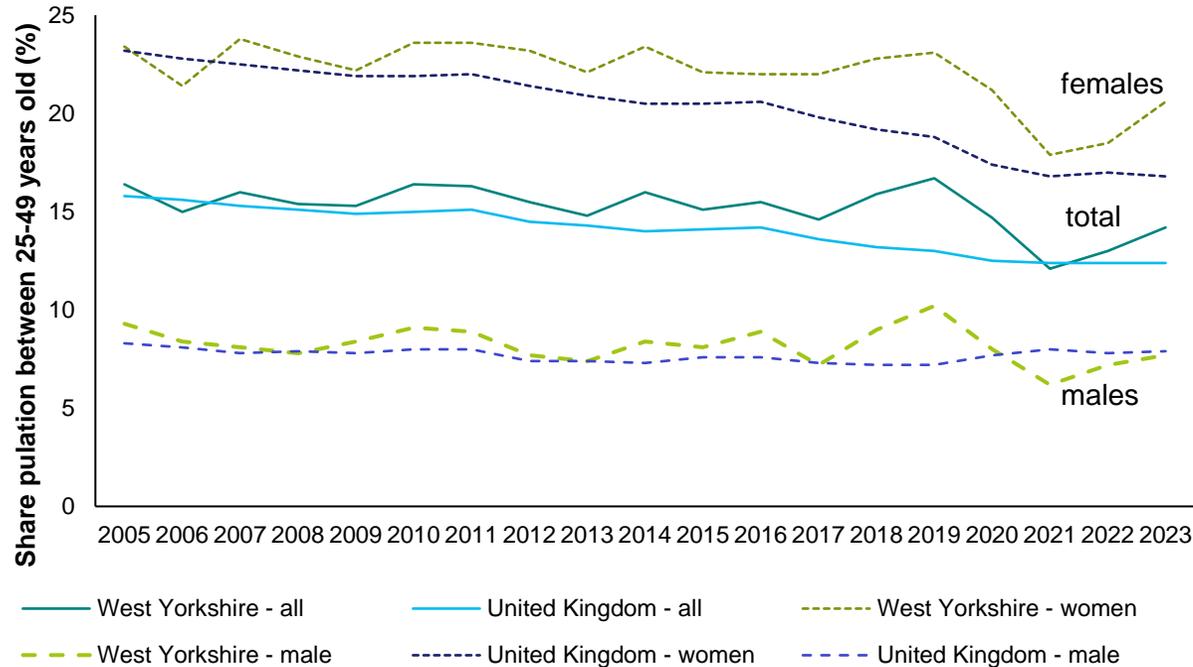
Source: Annual Population Survey.

Source: Annual Population Survey. Note: Period from October to September.

- Around two thirds of the inactive population (160,000 residents) are caused by sickness or care responsibilities, around 11% of people between 16-64 and above the national average.
- Since the pandemic, the number of inactive who are looking after family/home reasons declined significantly (20% decline), which may be explained by increase in work flexibility post-covid. However, the number of inactive due to sickness rose and offset a part of those gains.
- Around a quarter of the inactive (excluding students), want a job. Despite the sharp decline before the pandemic, the share of inactive who want a job converged again with the national average. Under these circumstances, labour market interventions are required to promote job accessibility.

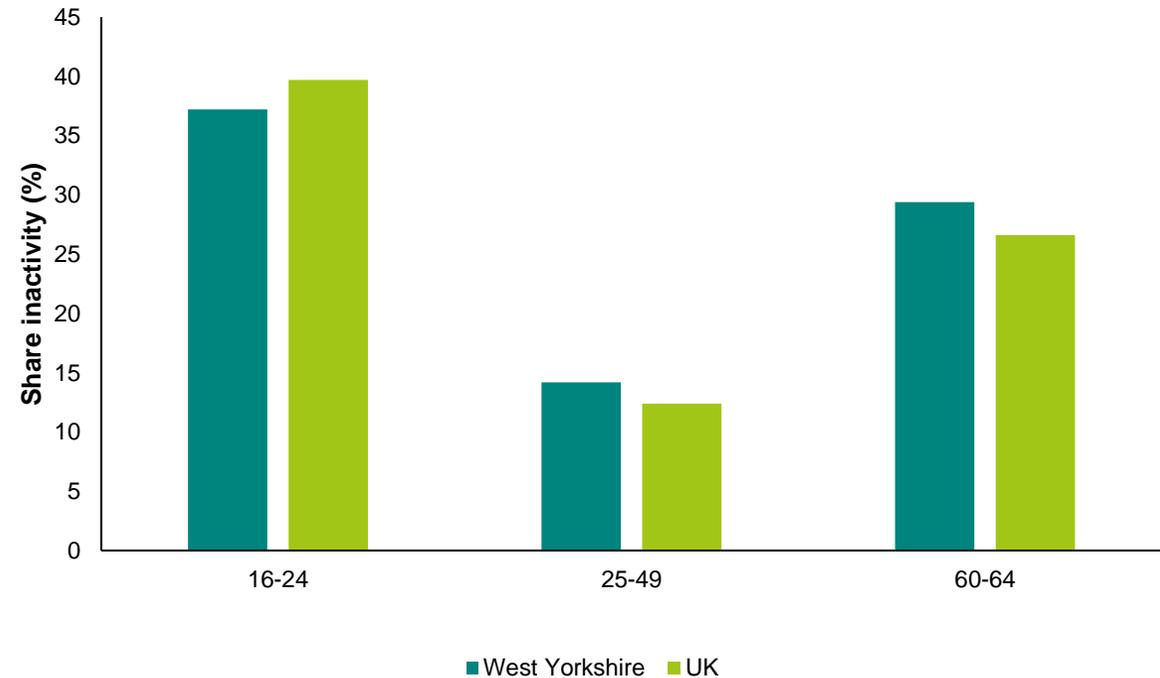
# Economic activity is higher among individuals aged 25 and above

**Figure:** Share of economic inactivity aged 25-49, 2005-2023



Source: Annual Population Survey. Years defined in the period "October to September".

**Figure:** Share of economic inactivity by age, 2023



Source: Annual Population Survey. Years defined in the period "October to September".

- Prime age (25-49 years old) inactivity above the national average since the financial crisis. And it is particularly high among women.
- Inactivity in West Yorkshire is higher above 25 years old. Inactivity is lower between 16-24 but that is likely to be driven by studying.

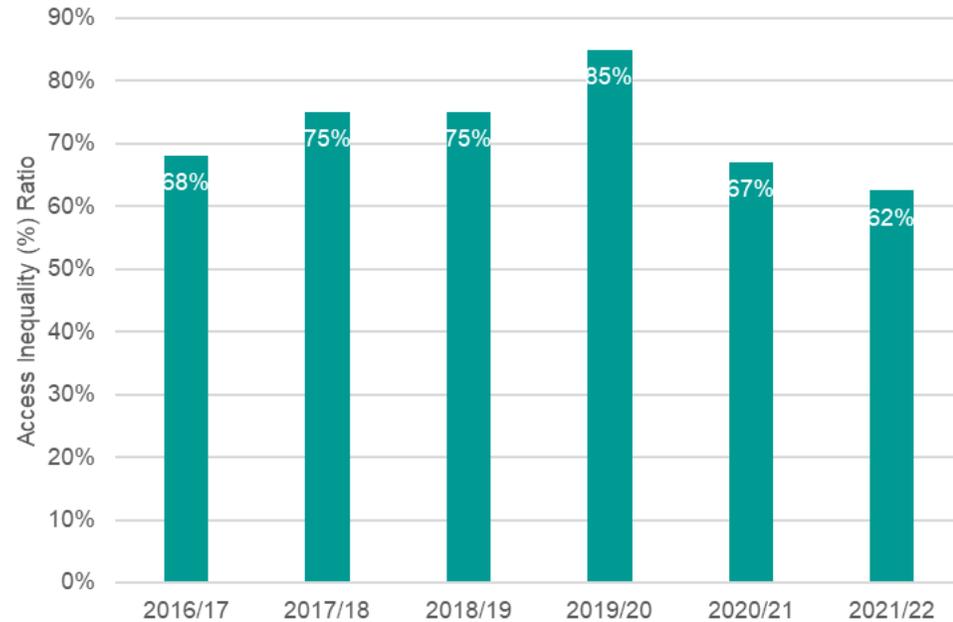
# Improving health can lead to economic growth

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- According to [Public Health England](#), UK economy lost almost £100 billion – pre-pandemic (2016) – worklessness, informal care giving, and health-related productivity losses.
  - Applying this ratio to West Yorkshire (5.0% of GVA) today, this would represent £3.0bn in 2021 alone (£2,750 per worker / £1,290 per resident).

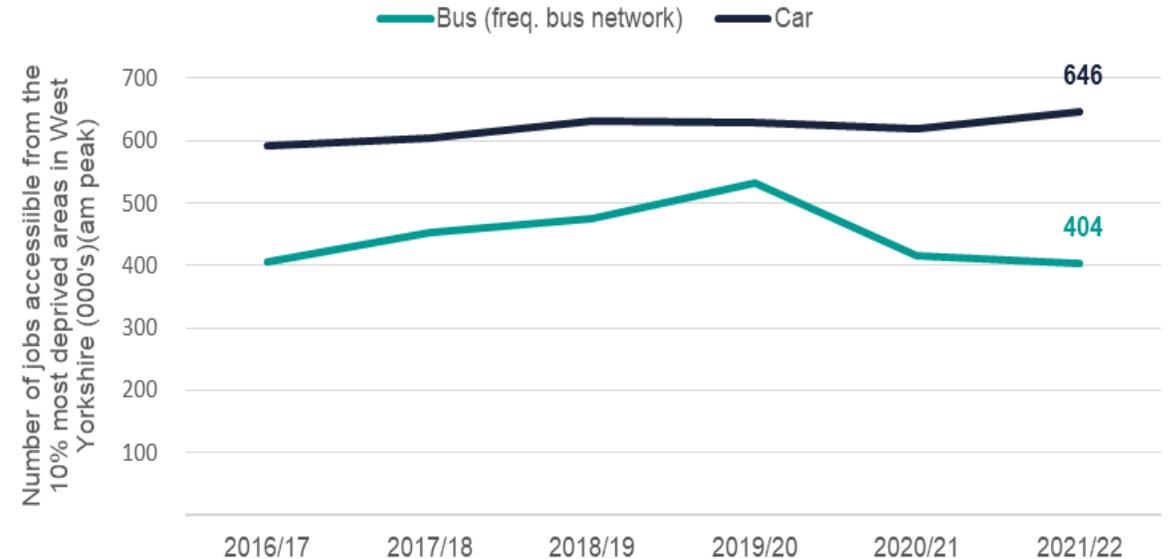
# Mobility restricting workers to get into jobs, especially the ones reliant on public transport

**Figure:** Access inequality (employment) – Proportion of jobs in major employment centres accessible within 30 min by bus in the morning peak, relative to jobs accessible by car



Source: West Yorkshire Combined Authority calculations.

**Figure:** Morning peak access to major employment centres by the frequent bus network, from the 10% most deprived areas in West Yorkshire, vs car accessibility



Source: West Yorkshire Combined Authority calculations.

Public transport connectivity is key to make job opportunities more equal across residents. According to the Census, 26% of household in West Yorkshire do not have car, which highlights the importance of having a good quality public transport system.

An inclusive economic strategy needs to improve the number of jobs available by public transport, especially from the most deprived areas of West Yorkshire.

Transport also important to reach net zero targets: the [connectivity infrastructure plan](#) states that between 70% and 80% of transport carbon emissions can be achieved with investment in sustainable transport supported by behaviour change programmes, technology and policy interventions.



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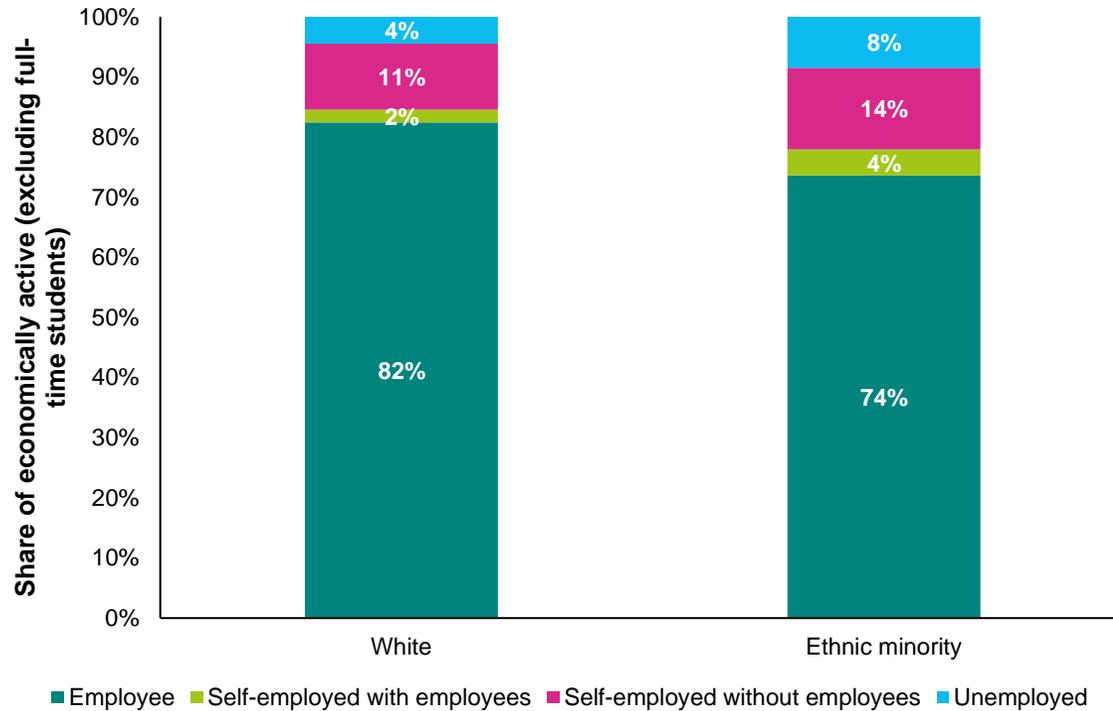
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# **Inclusive and sustainable growth: Business support to self-employed and businesses in deprived areas**



# Self-employment without employees is high within ethnic minorities but slightly lower in the most deprived areas

**Figure:** Distribution of economic activity by ethnicity, West Yorkshire (2021)



Source: Census 2021.

**Figure:** Distribution of economic activity by IMD in West Yorkshire (2021)



Source: Census 2021.

- Self-employment is particularly high for ethnic minorities, especially among men. Self-employed without employees is the most common form of self-employment.
- Providing business support to these groups is fundamental to generate inclusive growth.
- The most deprived areas face more unemployment but not higher self-employment than the remaining areas.

# Business formation in deprived areas has grown significantly

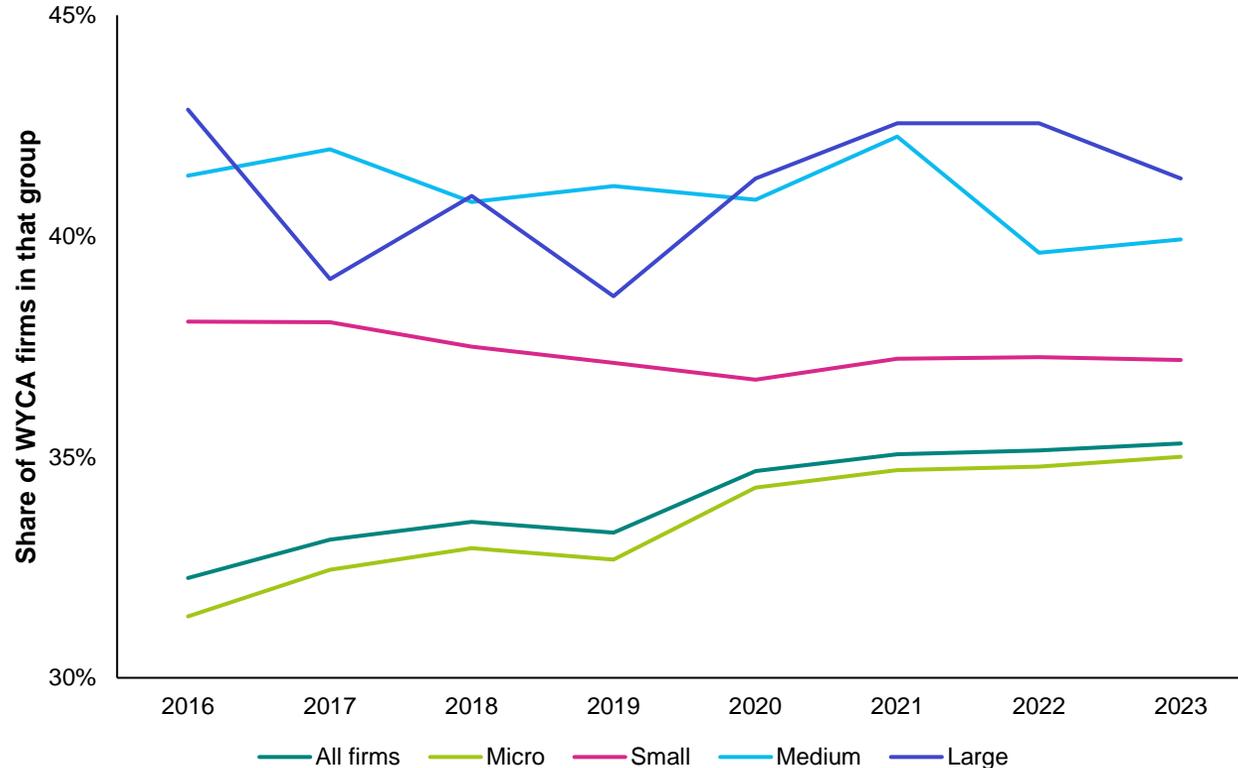
**Figure:** Share of new Business Start Ups in the 20% most deprived areas



- Trend seen across all local authorities and particularly high in Bradford.
- Based on GVA data, it is likely to be driven by central areas that have high levels of deprivation.

# Micro firms growing fast in deprived areas

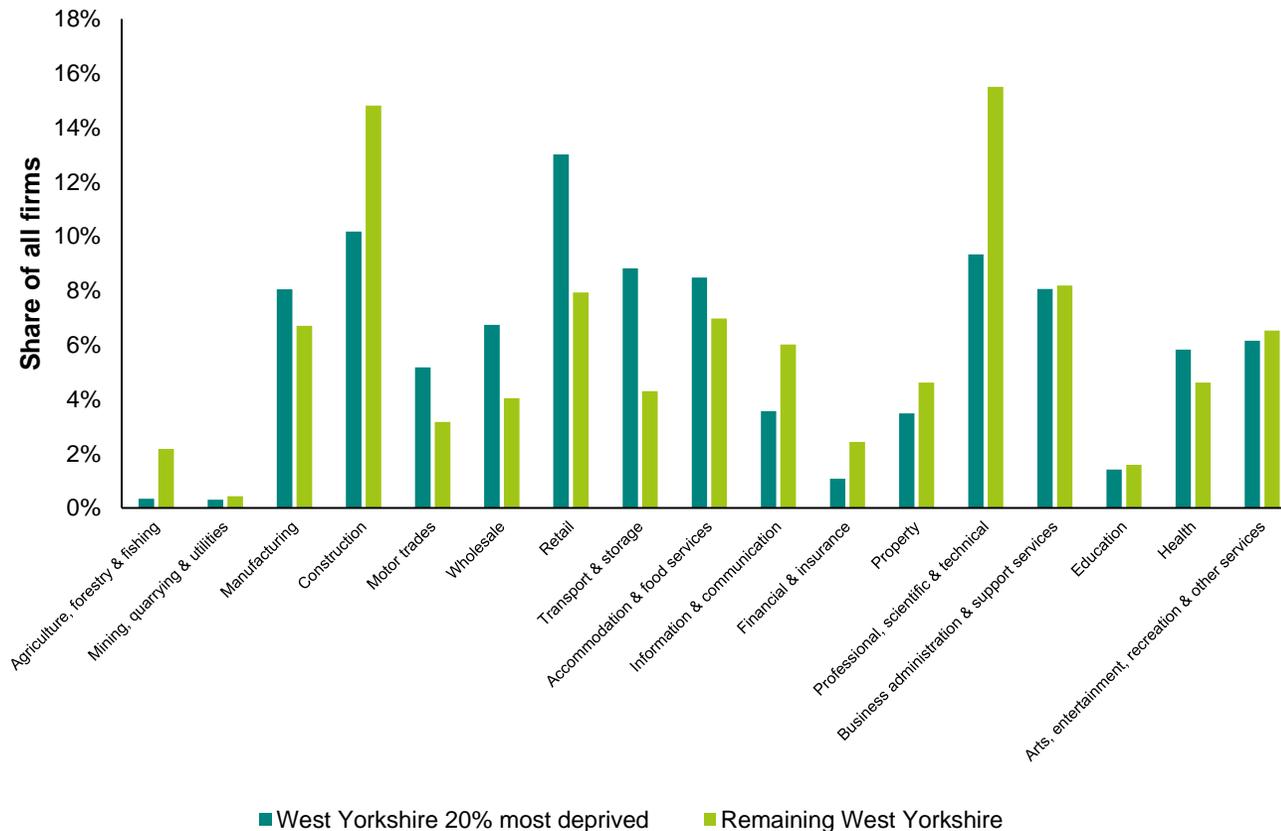
**Figure:** Private enterprises by size, 20% most deprived areas as a share of all firms (2016-2023)



- Deprived areas have increased their contribution to the number of firms in WYCA in recent years, from 31% to 35%, mostly driven by micro firms.
- Deprived areas have a large contribution in medium and large firms but relatively stable over the last eight years.

# Businesses in deprived areas more specialised in local services and manufacturing

**Figure:** Private enterprises by sector, 20% most deprived and remaining areas of West Yorkshire (2023)



- The most deprived areas of West Yorkshire have a high prevalence of firms in sectors like transport, retail, food & accommodation or manufacturing.
- Except manufacturing, most of these sectors are local services, relatively labour intense.



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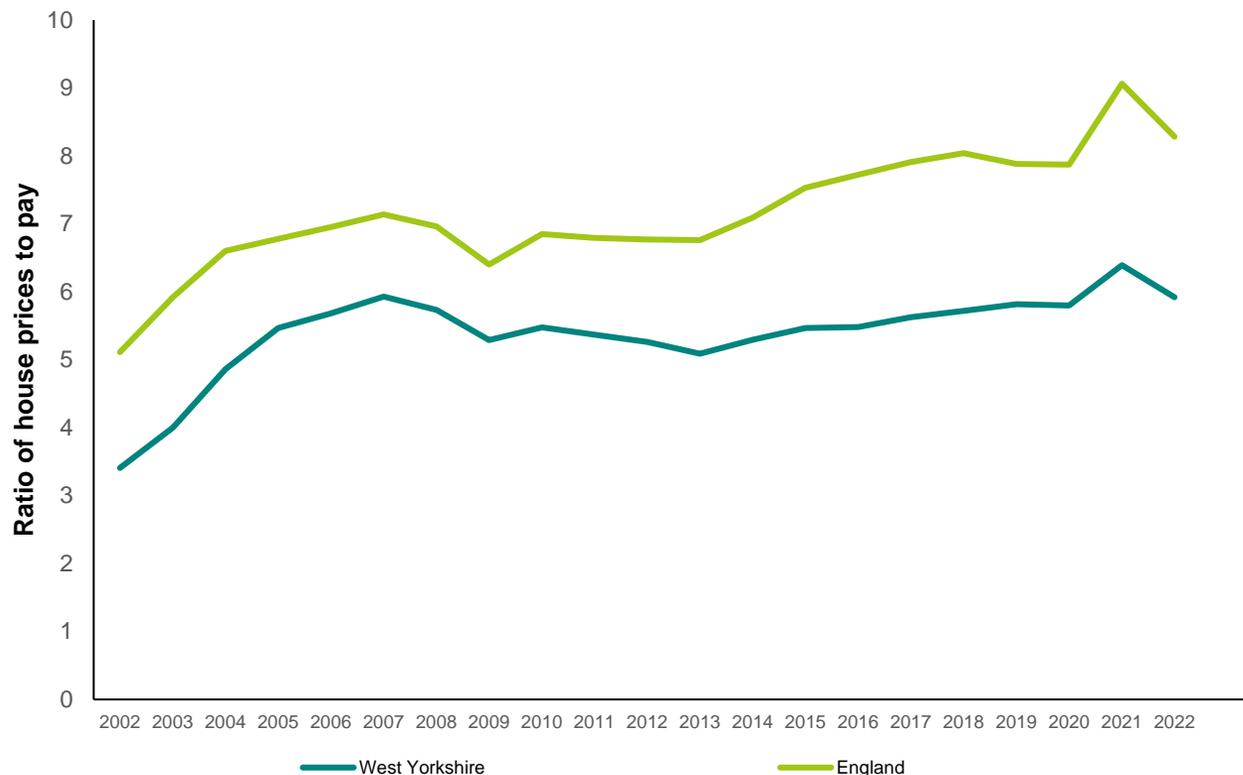
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**Inclusive and sustainable  
growth: Improve cost of living  
by housing quality, energy  
needs and other costs**



# Housing affordability deteriorating in recent years and near two decades high

**Figure:** Affordability of House Prices – ratio of median house price to median annual wage (residence based)



Source: Housing affordability in England and Wales, ONS

Housing affordability above pre-financial crisis high.

One risk of economic and productivity growth is rising housing prices, affecting the poorest households.

Inclusive growth does not only depend on direct labour market dynamics. Cost of living, like housing and energy bills.

Analysis done for Greater Manchester and West Midlands shows that this could offset income gains from employment creation.

# Provision of new homes and affordable the only way of mitigating a larger and growing economy

Figure: Net additional dwellings, 2001/02-2021/22



Source: ONS, housing supply: net additional dwellings.

Figure: Additional Affordable Housing Supply, 2001/02-2021/22

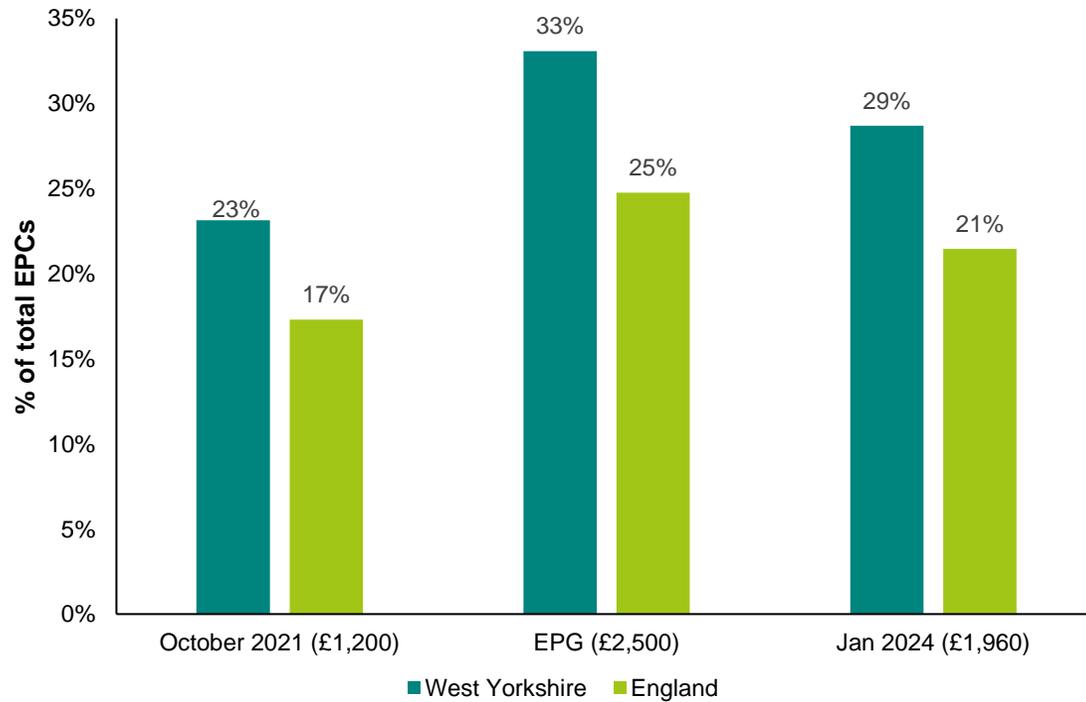


Source: Department of Levelling Up, Housing and Communities, Affordable housing supply statistics

Housing expansion – total and affordable houses – in recent years. It needs to increase further to mitigate the costs of growth.

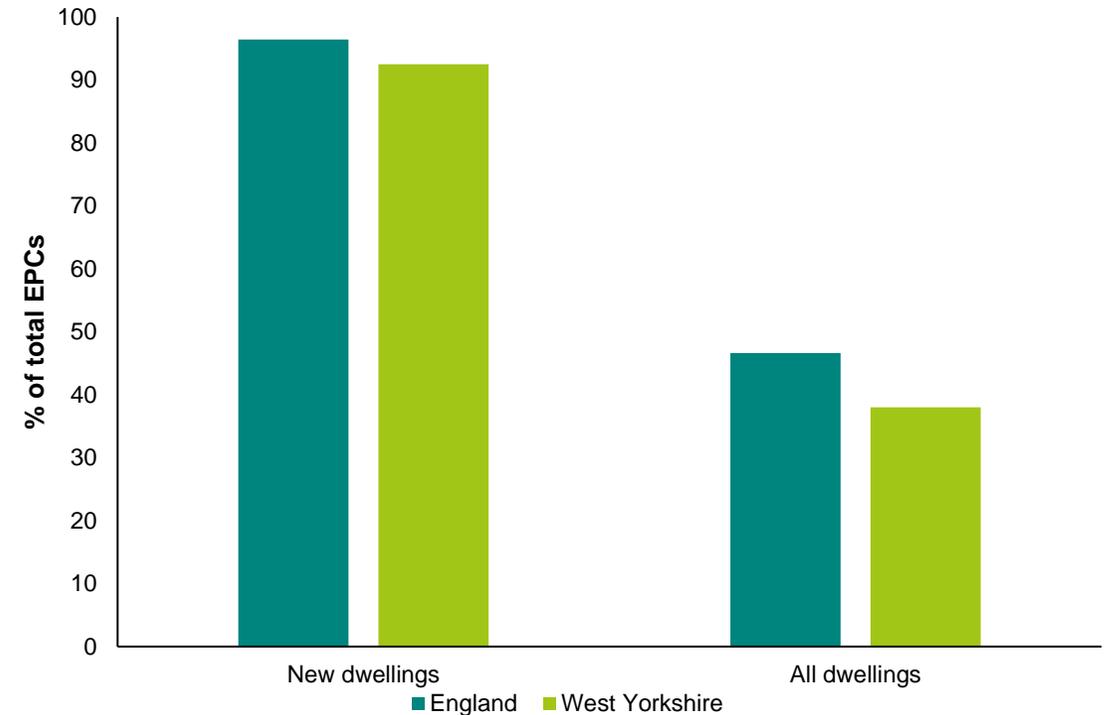
# Dealing with fuel poverty and improving energy efficiency is another way of keep cost of living low

**Figure:** Proportion of households in fuel poverty, estimates based on End Fuel Poverty Coalition figures



Source: West Yorkshire Combined Authority estimates, based on End Fuel Poverty Coalition figures. This figures differ, methodologically, from ONS [Low-Income Low Energy Efficiency](#) (LILEE) methodology.

**Figure:** Energy Performance Certificates by local authority, new and existing dwellings, as of March 2023



Source: Energy Performance Certificate (EPC) Band C or above, England and Wales, ONS. All new dwellings registered over the whole decade.

Making West Yorkshire's housing stock more efficient will i) reduce fuel poverty and energy bills ii) help reaching net zero transition.

New dwellings are mostly efficient, still below the national average, but there is a huge scope to improve efficiency of existing dwellings. West Yorkshire has the target of retrofitting 680,000 homes to at least an EPC C rating and installing 665,000 domestic heat pumps.

# Cost of living factors related to other inclusive growth levers

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- **Public transport:** cost of transport is particularly high in the UK. Despite not including West Yorkshire, a report from Clean Cities Campaign analysed 35 European cities and the three English cities (London, Birmingham and Manchester) had the most expensive public transport. Meanwhile, Edinburgh ranked better (20 out of 36) showing that it is possible to make public transport more affordable in British cities. In 2022 West Yorkshire, households were spending almost equal amounts per week on housing and transport (£65.70 and £64.50 respectively).
  - Bus reform, mass transit could be tools to make transport more affordable, especially for job seeker and low paid workers (part time and others);
- **Childcare:** As previously mentioned, childcare is one of the most expensive within OECD. The role of the Combined Authority on this front is limited, but it is clearly an area that limits inclusive growth. Further work with the University of Leeds will explore the role of childcare in the West Yorkshire economy.



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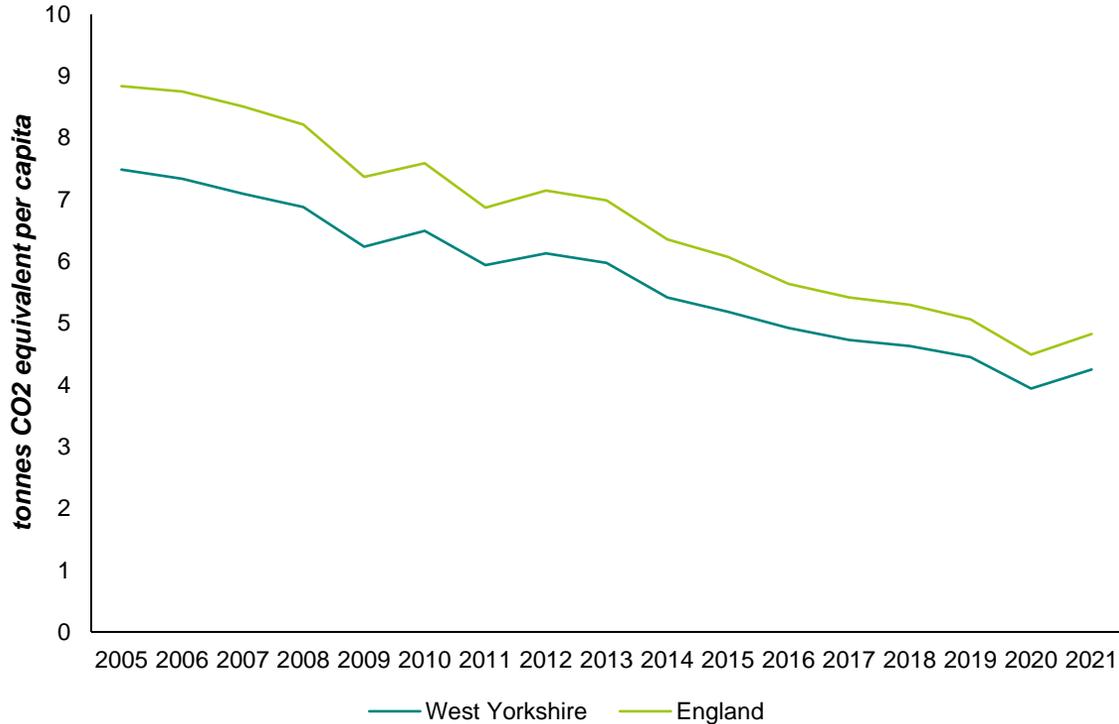
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# Inclusive growth and sustainable growth: Net zero



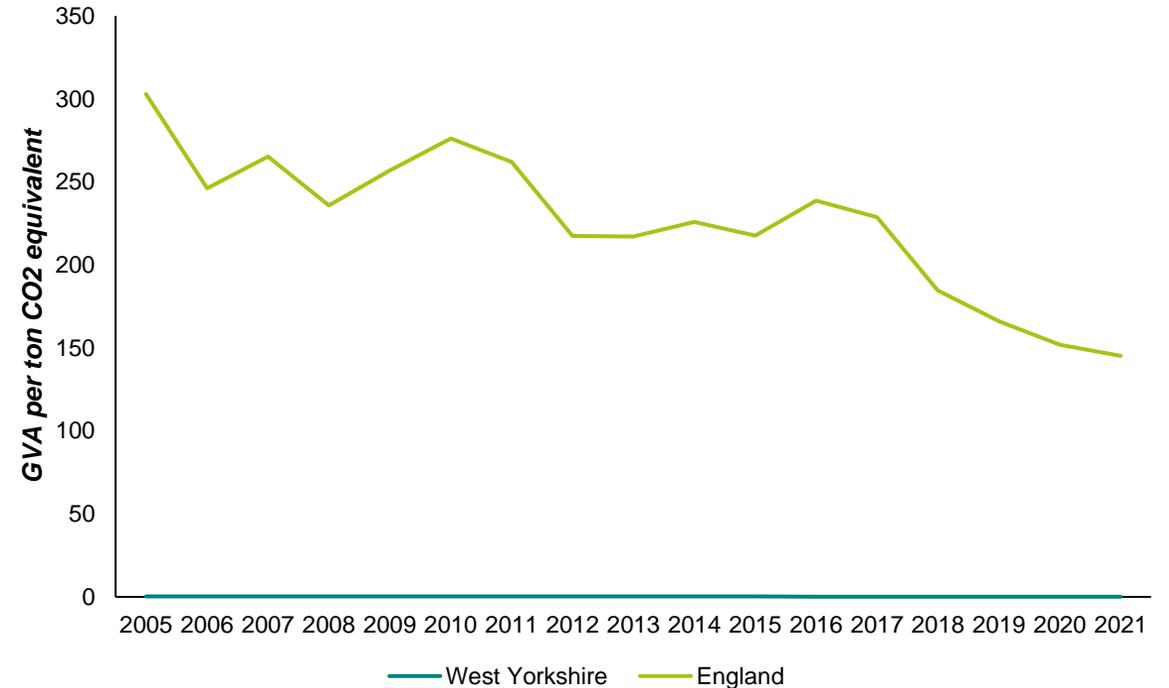
# Carbon emissions falling in the last two decades, but carbon intensity still above the national average

Figure: Greenhouse gas emissions per capita, (2005-2021)



Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023.

Figure: Emissions intensity ratio, greenhouse gas emissions per unit of gross value added (GVA), (2005-2021)

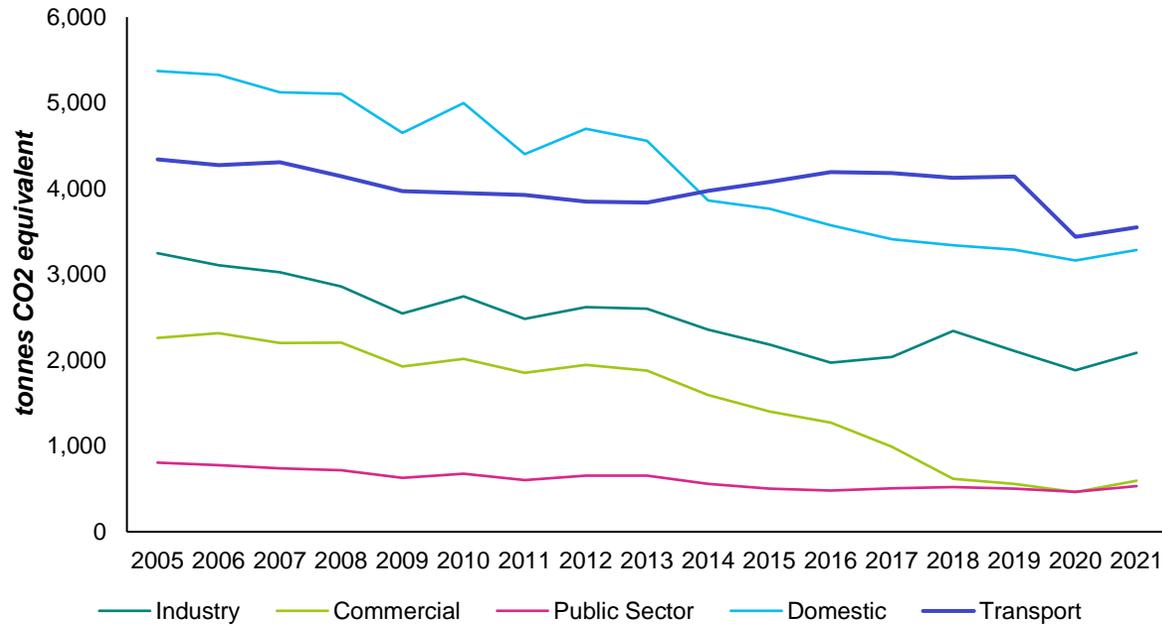


Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023. ONS, Regional gross value added (balanced) by industry: all ITL regions.

- West Yorkshire has seen its emissions per capita falling, like the rest of the country, and below the national average.
- Emissions intensity, as a share of GVA, still below the national average, but stable in recent years.

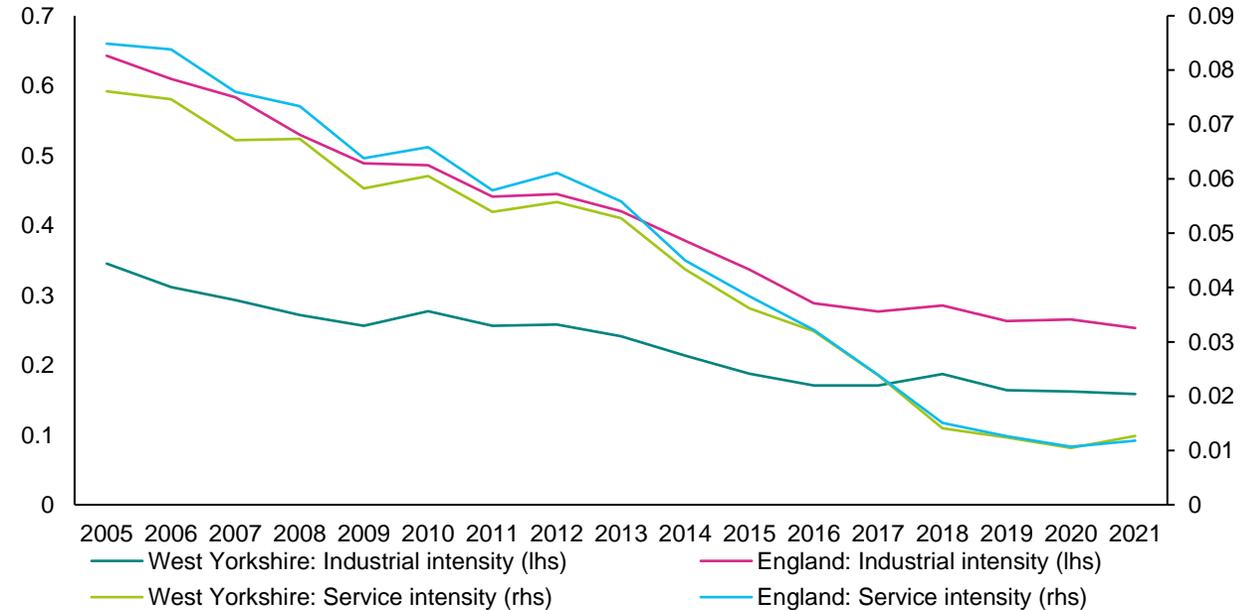
# Total emissions decline driven by domestic and commercial sectors

**Figure:** Greenhouse gas emissions by sector (2005-2021)



Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023.

**Figure:** Emissions intensity ratio, industries and services, greenhouse gas emissions per unit of gross value added (GVA), (2005-2021)

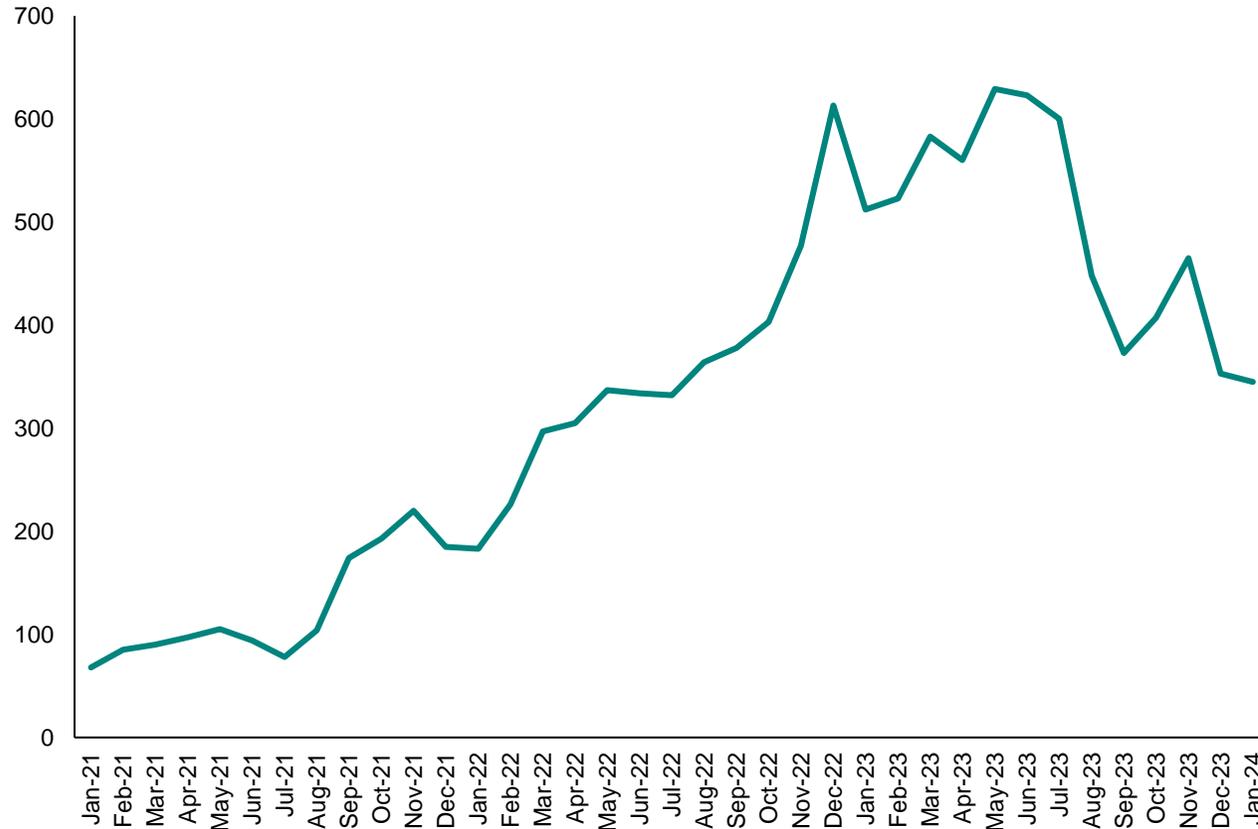


Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023. ONS, Regional gross value added (balanced) by industry: all ITL regions. Note: Industry intensity divides industrial emission by GVA generated by Manufacturing, Construction, Mining and quarrying, Electricity, gas, steam and air conditioning supply; and Water supply; sewerage and waste management. Commercial emissions are divided by the GVA generated by the service sector.

- Transport emissions rising and industrial relatively stable.
- Domestic emissions have been performing in line with the national average. Industrial emissions have been falling faster in England, but partly due to deindustrialisation of carbon intensive industries.
- Industry emission intensity relatively stable in the last years in West Yorkshire.

# Net zero transition creates job opportunities that requires training

**Figure:** Unique job postings with “net zero” as key words, West Yorkshire (January 2021- January 2024)

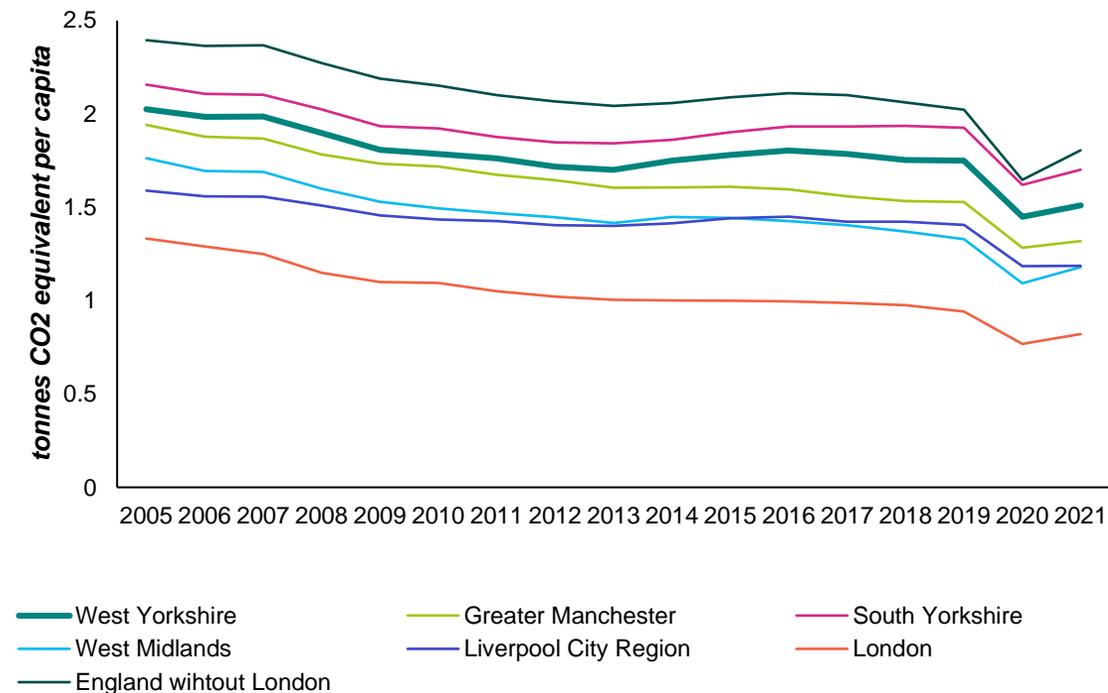


Source: LightCast.

- Despite a decline in recent months, there has been a significant increase in job postings related to net zero.
- Current modelling on the level of retrofit required across our region indicates a need for a 30,000 strong workforce to be developed and sustained up to 2038

# Before the pandemic, transport-related emissions stopped their gradual decline

**Figure:** Transport-related greenhouse gas emissions per capita (2005-2021)



Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023

- Transport-related emissions in large urban areas are lower than the national average, but West Yorkshire emissions are relatively high within the Combined Authorities.
- On top of that, the period between 2013 and 2019, emissions rose and diverged from Greater Manchester.
- Transport also important to reach net zero targets: the [connectivity infrastructure plan](#) states that between 70% and 80% of transport carbon emissions can be achieved with investment in sustainable transport supported by behaviour change programmes, technology and policy interventions.

# The increase was driven by local roads and motorways

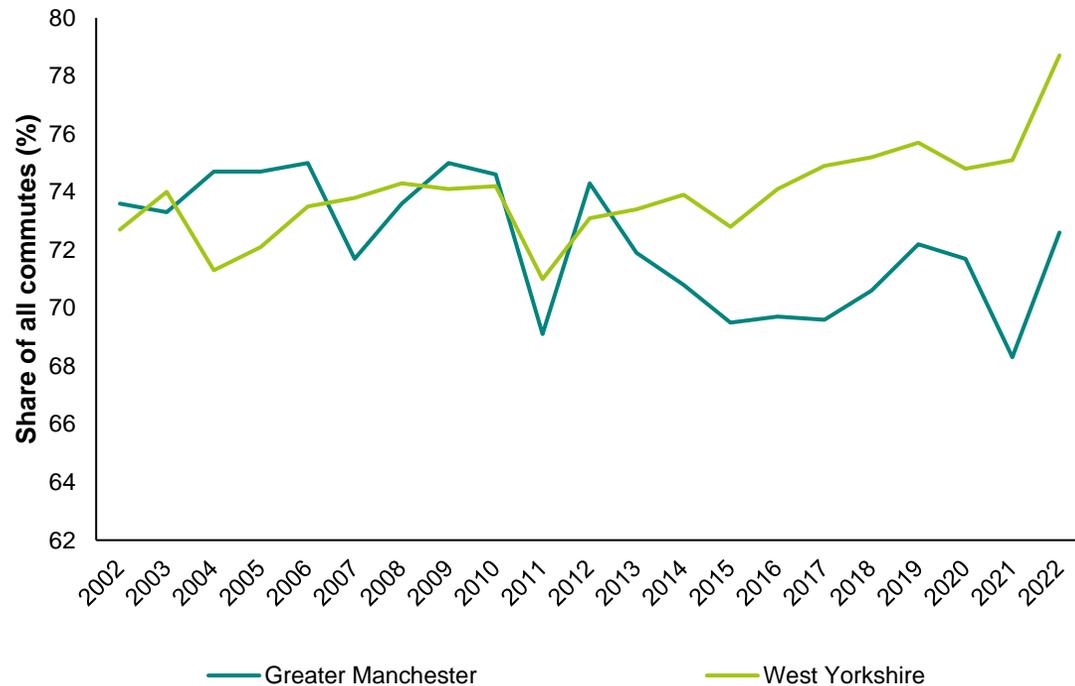
**Figure:** *Transport-related greenhouse gas emissions per capita (2005-2019)*



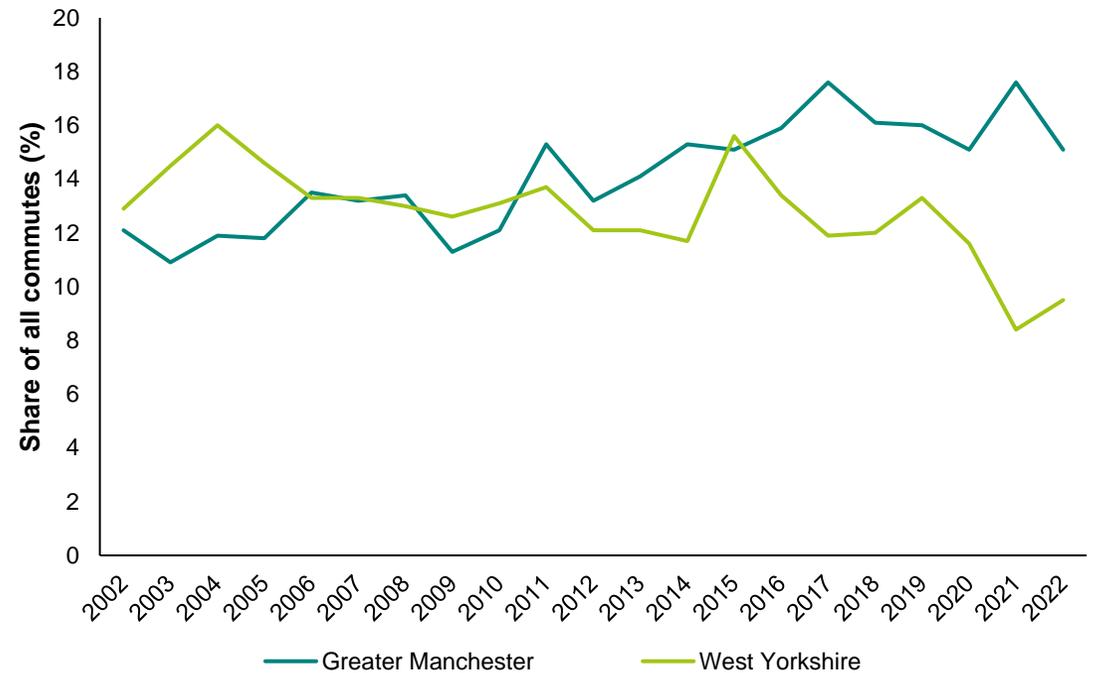
Source: UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, Department for Energy Security and Net Zero, 2023.

## Example: WYCA and GMCA commuting trends suggests that the transport-related emissions divergence is related with an increase in public transport commuting in GMCA

**Figure:** Car as usual method of travel to work by region of workplace (2002-2022)



**Figure:** Public transport as usual method of travel to work by region of workplace (2002-2022)



Source: DfT, Modal comparisons (TSGB01).

- Car as the main mode of transport has increased in recent years, while the opposite has happened in Greater Manchester.
- That is exactly the period when Metrolink expanded and transport-related carbon emissions diverged between the two combined authorities. This highlights the importance of Mass Transit and Bus reform to tackle transport emissions.



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**Thank you**

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