Liverpool City Region Plan for Prosperity Evidence Base

Overview and Structure

This document **summarises** the evidence that is informing the development of the Plan for Prosperity.

It provides a high level overview of the key elements of the evidence base in respect of each of the Plan's key objectives. This summary is underpinned by more detailed and in-depth analysis into these themes.

It is structured as follows:

1. LCR's Economy Summary of Headlines, Challenges and Opportunities
2. Unlocking People's Potential
3. The Business and Innovation Environment
4. Integrated Infrastructure
5. Thriving, Sustainable and Resilient Places

Overview of LCR's Economy

Summary of Headlines, Challenges and Opportunities

LCR Economy In Numbers

LCR is a **£33bn** economy

LCR's productivity is **92%** the national rate

There are **741,000** jobs in LCR

1 in 3 of LCR's neighbourhoods are in the 10% most deprived nationally

78% of employees work in the private sector (compared to 84% nationally)

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Before Covid, Liverpool City Region was a growing economy

Liverpool City Region is a £33bn economy – measured by gross value added (GVA). In the last decade, we have added over £2bn to our economy in real terms.

Real GVA, 1998 - 2019
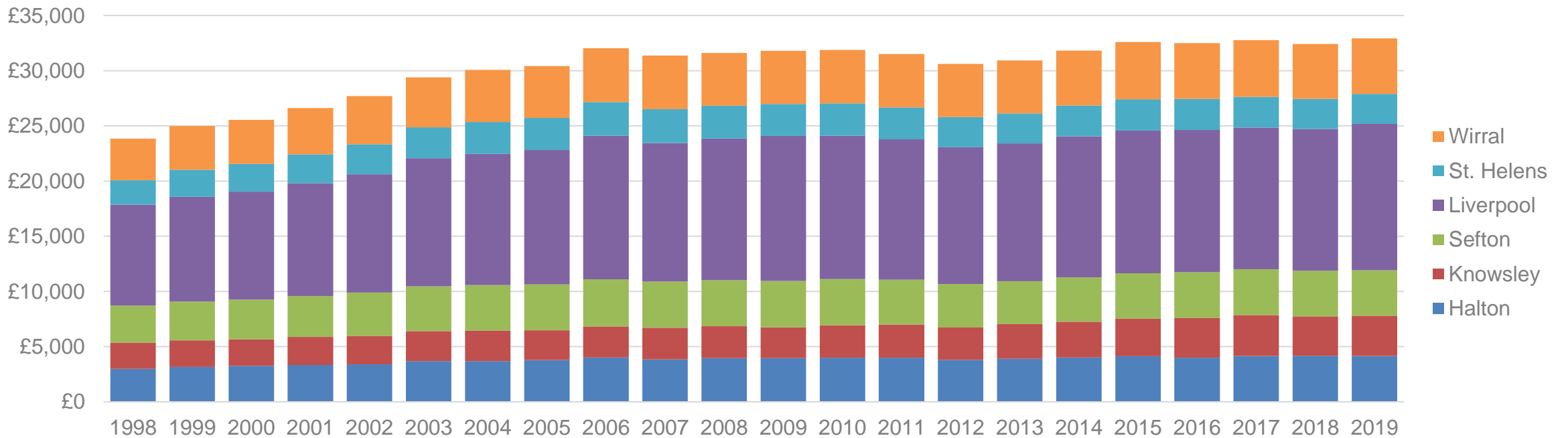
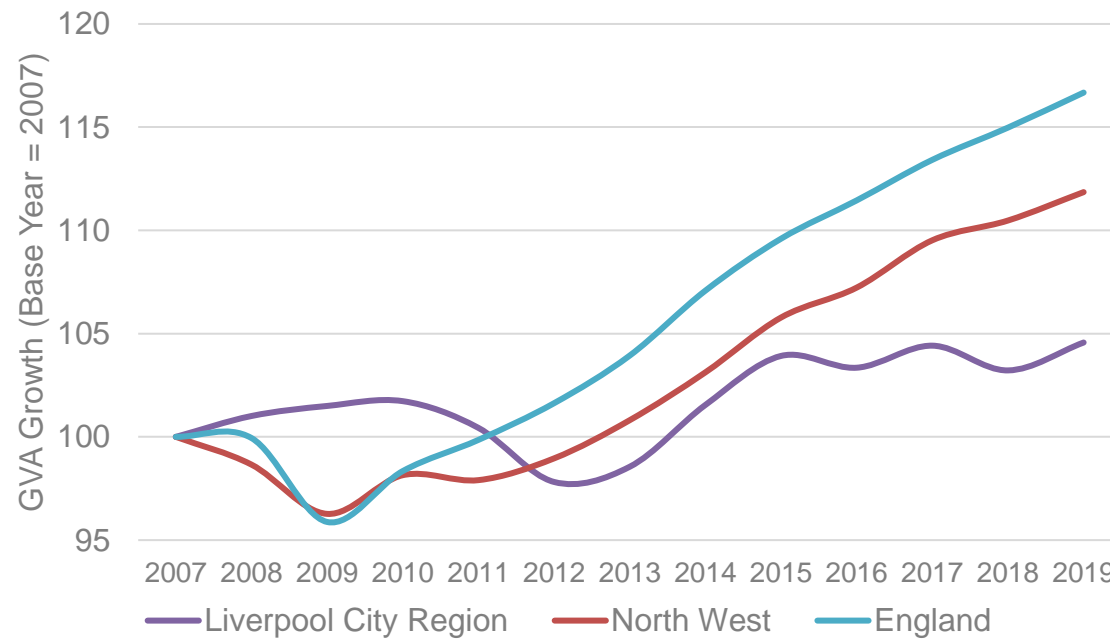Source: ONS Regional GVA, 1998 - 2019

Note: Real GVA is a measure of GVA that accounts for inflation. Real GVA measured in 2016 prices.

Our post 2007 recovery started after the national recovery

The LCR economy was insulated from the worst effects of the recession, possibly due to our strong public sector but our post recession recovery was .
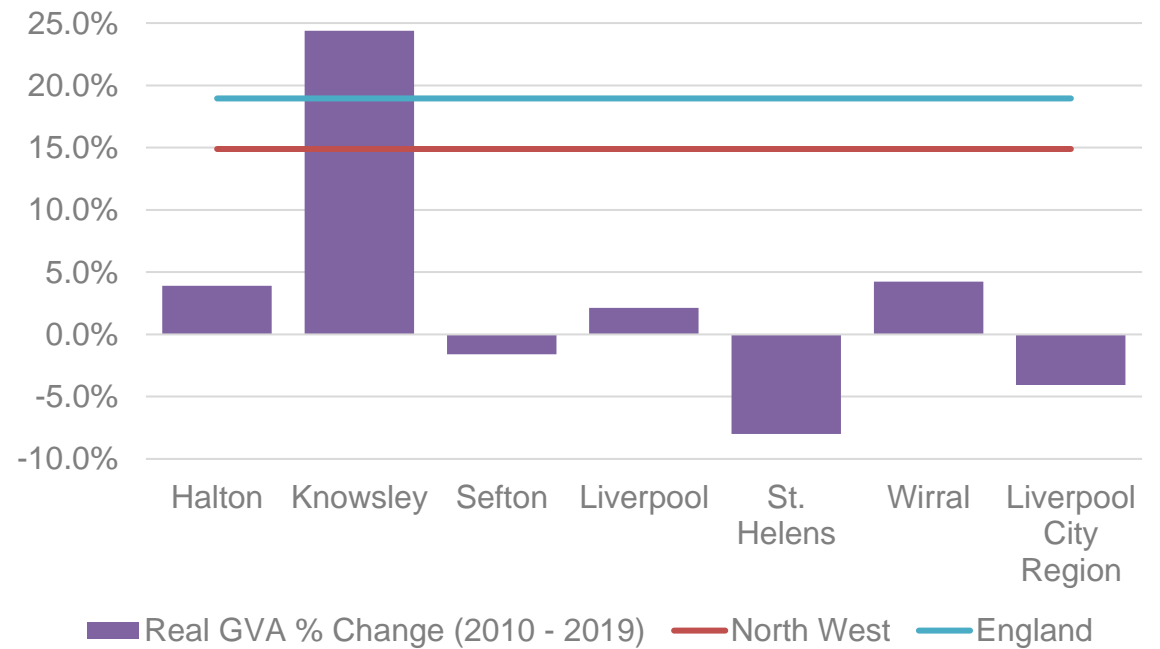
While other economies started to rebound as early as 2009, our recovery did not start until 2013. This may have been because our relatively weak private sector struggled to support the scale of economic growth required.

Real GVA growth

Real GVA growth, 2010 - 19

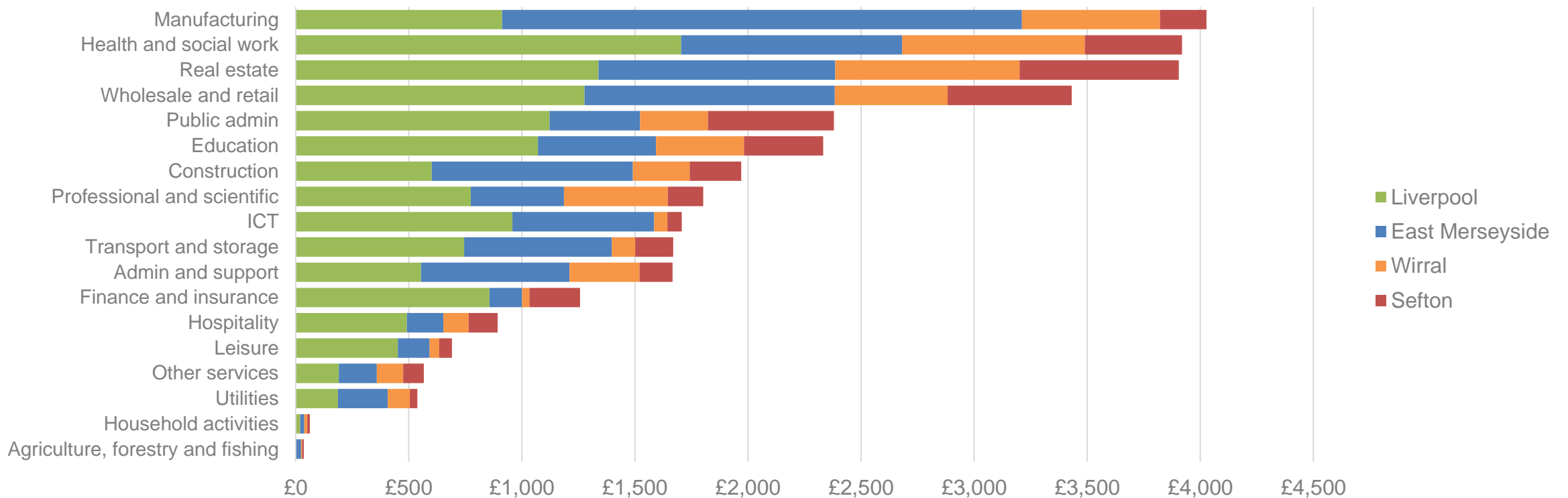Source: ONS Regional GVA, 1998 -2019   Note: Real GVA is a measure of GVA that accounts for inflation. Real GVA measured in 2016 prices.

We have key sector specialisms in manufacturing and health…

The City Region generates significant output through manufacturing, particularly in Halton and Knowsley (contributing 36% of all GVA). This is a key, high productivity sector and a major source of employment across the City Region.

Real GVA by sector, 2019

Source: ONS Regional GVA, 2019

Note: Real GVA is a measure of GVA that accounts for inflation. Real GVA measured in 2016 prices.

…but many of the sectors we specialise in are less productive

Of the six sectors that are more concentrated in the LCR economy than in England's economy, only two (manufacturing and public admin) are more productive than average.

Sector size, specialisation and GVA per FTE employee
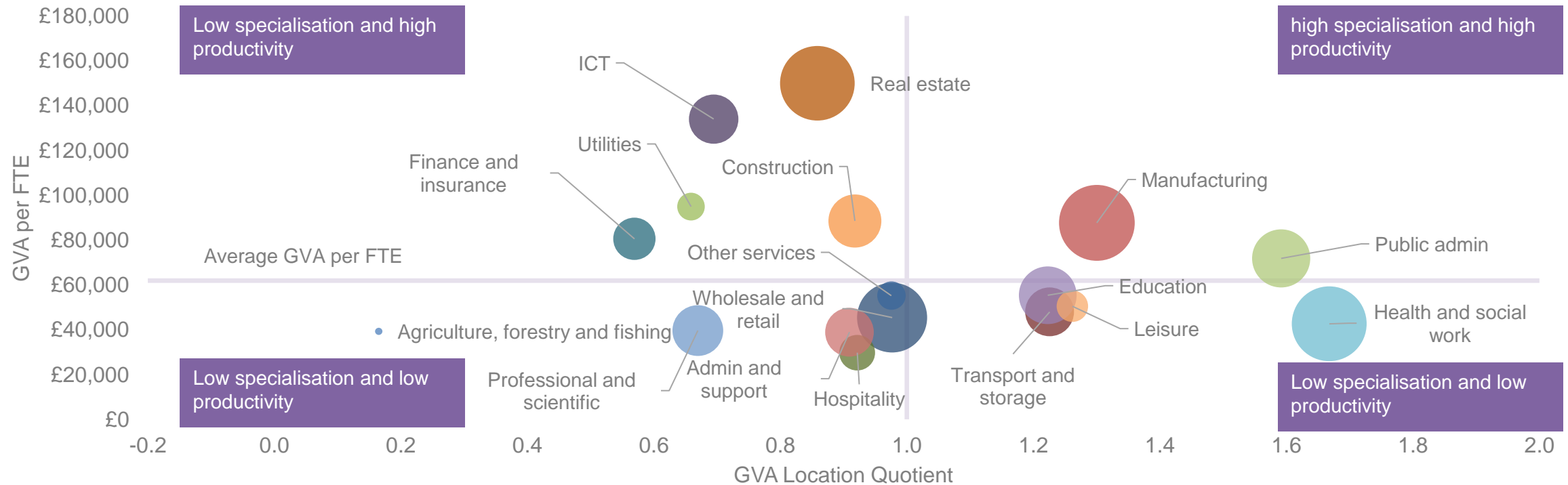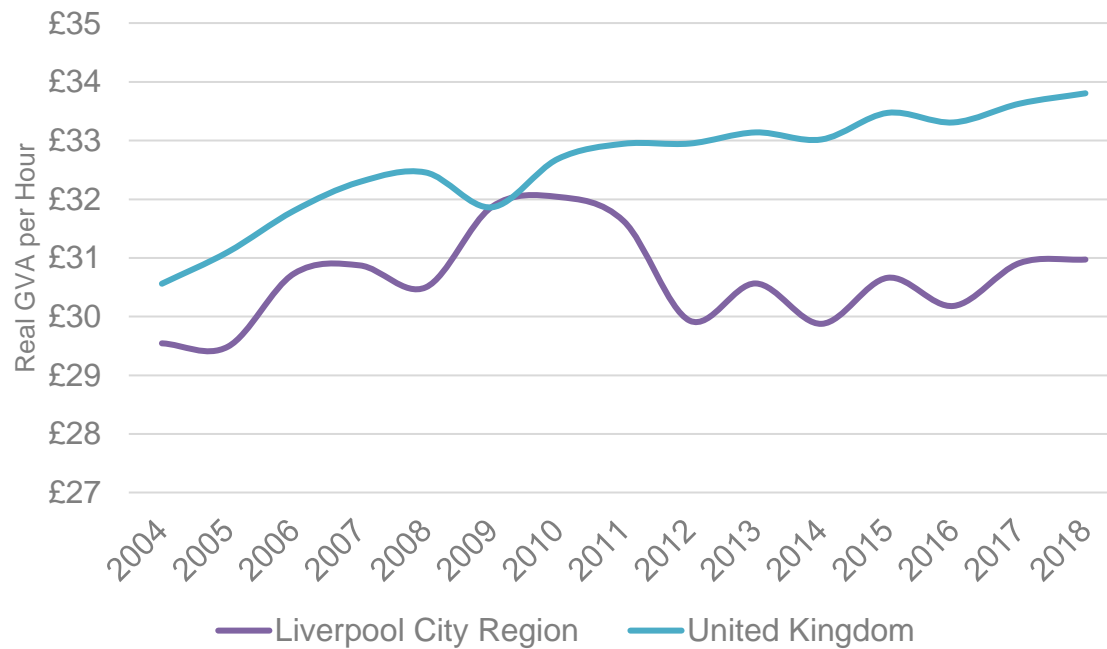

Source: ONS Regional GVA, 2019

Note: Location quotient is calculated as the sector's share of total GVA in LCR divided by the sectors share of total GVA in England

…and this is reflected in our productivity gap

Our productivity (GVA per hour worked) has been **consistently below national levels in recent years**. LCR workers produce on average £31 of GVA per hour worked, £3 (8%) less than national averages. The productivity gap with the UK is caused by both a higher prevalence of low productivity sectors, and lower within-sector productivity.

Real GVA per hour, 2004 - 2019

Real GVA per hour, 2019
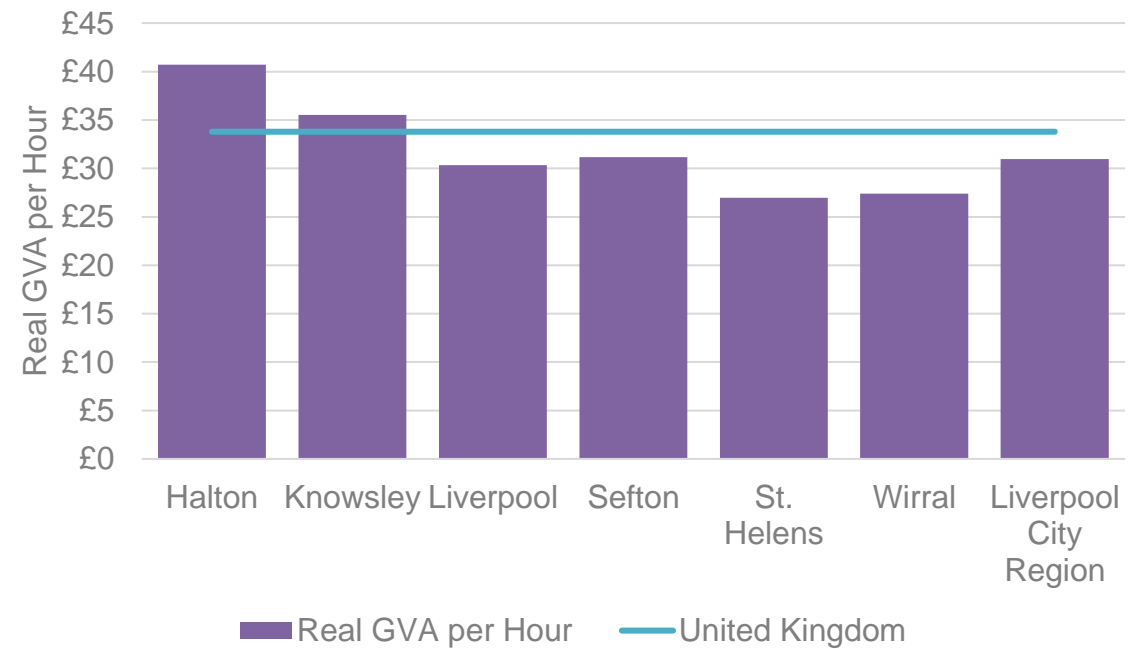
Source: ONS subregional productivity, 2004 - 2019

…which contributes to a prosperity gap

Our economy generates £21,000 of GVA for every LCR resident. This is 71% of the UK level and, since 2010, **this gap has increased** from £5,400 to £8,500. The difference in GVA per head is wider than the productivity gap (real GVA per hour) reflecting the need to get more people into work in the City Region.

Real GVA per head, 2010 - 2019
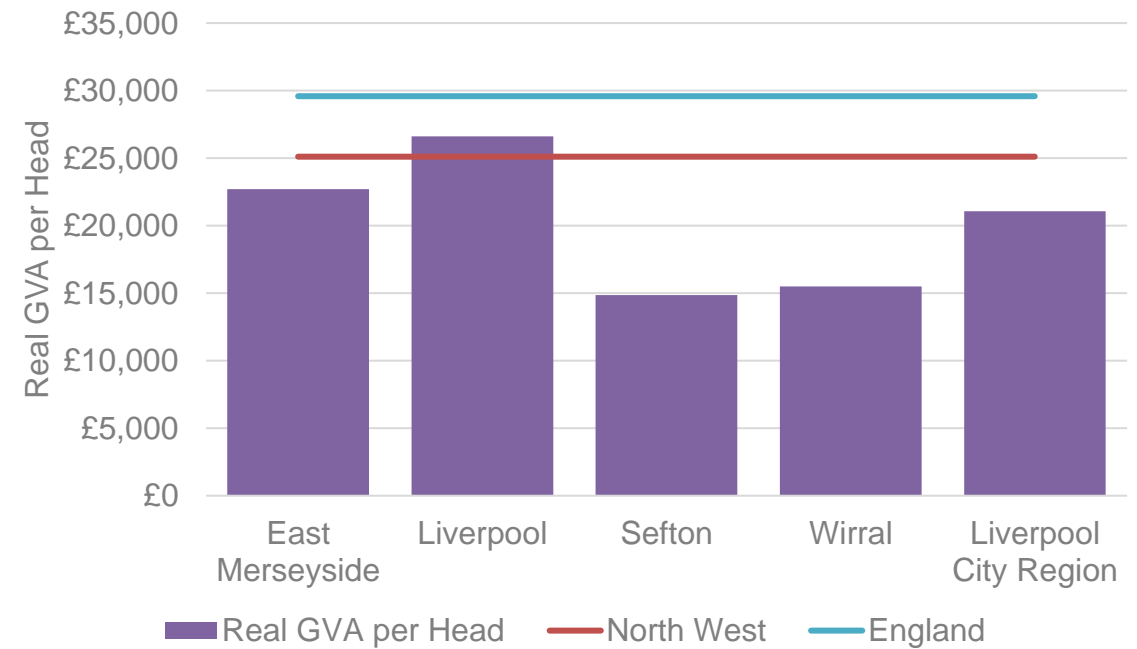
Source: ONS Regional GVA, 2019; ONS Mid-Year Population Estimates, 2019

Real GVA per head, 2019

Note: Real GVA is a measure of GVA that accounts for inflation. Real GVA measured in 2016 prices.

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These economic challenges are underpinned by a range of complex drivers

The Liverpool City Region has a **greater prevalence of deprivation** than the national average across all domains except for barriers to housing and services (reflecting lower house prices in the City Region).

All of these domains of deprivation prevent our residents from fulfilling their potential.

There are particularly high levels of deprivation in terms of **health deprivation and disability, employment and income**, which underpin the overall index of multiple deprivation scores.

Knowsley and Liverpool have particularly high rates of deprivation across many domains**.**

Deprivation levels across the Liverpool City Region Ranked by Decile, 2019

Source: MHCLG Index of Multiple Deprivation (2019)

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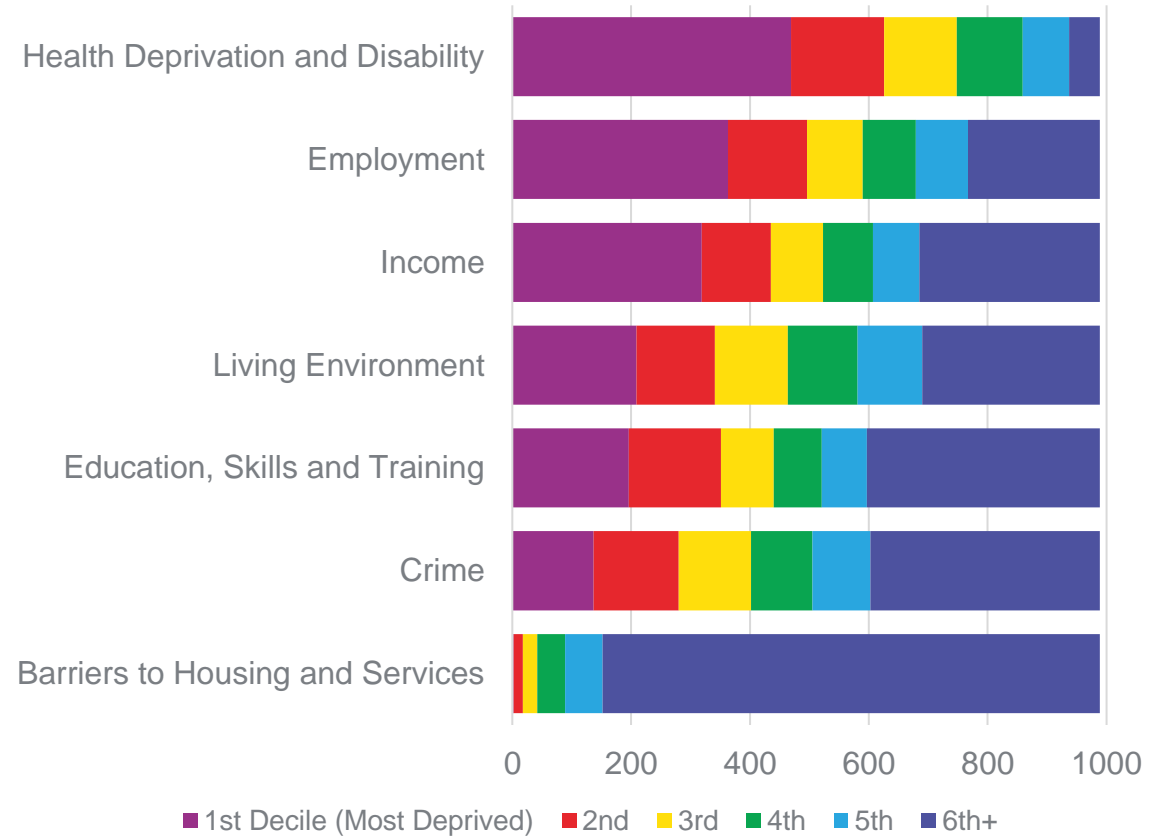
Covid has had a large negative impact on our economy

Given our sectoral composition, we saw a slightly larger fall in output in the earlier stages of the pandemic, with output in April 2020 reaching an estimated 74% of January 2020 levels.

Our economy has started to recover, and as of September 2021, was roughly the same size as in January 2020.

Estimated GVA compared to January 2020
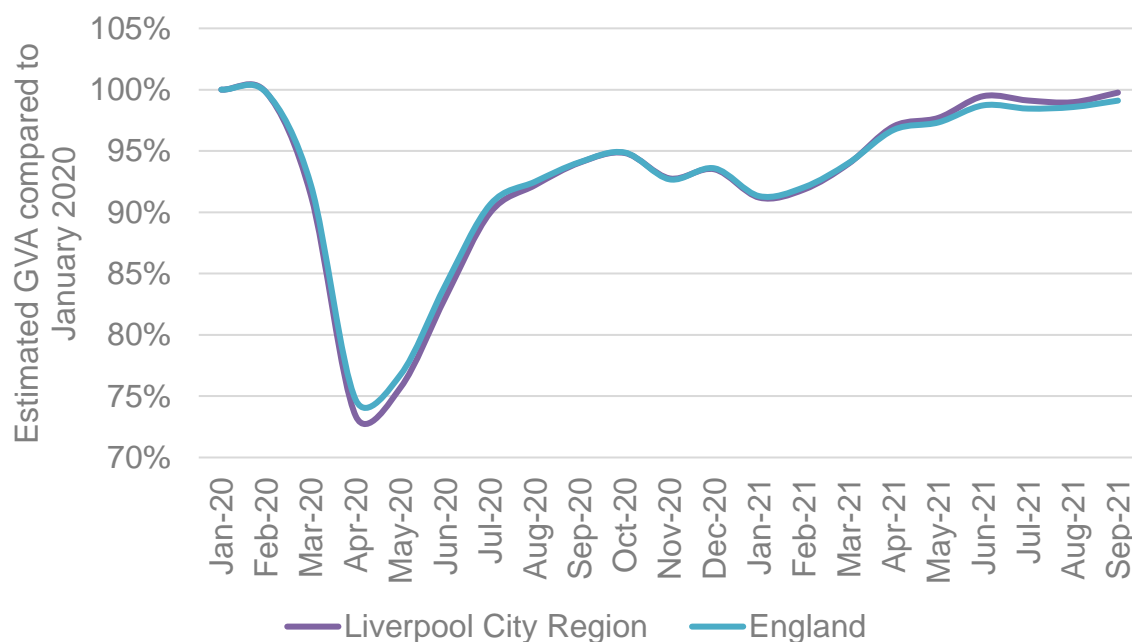
Estimated GVA compared to January 2020

Source: ONS UK Monthly GDP, 2021; ONS Regional GVA, 2020

And some of our key sectors have been particularly affected

Hospitality, other services and leisure were most affected by the Covid-19 shock in 2020. While these sectors contribute a significant number of jobs in LCR, we do not have a GVA specialism in these sectors. Key sectors such as health and social work, public admin and manufacturing saw relatively small decreases in output.

Sector size, specialisation and national change in GVA since January 2020
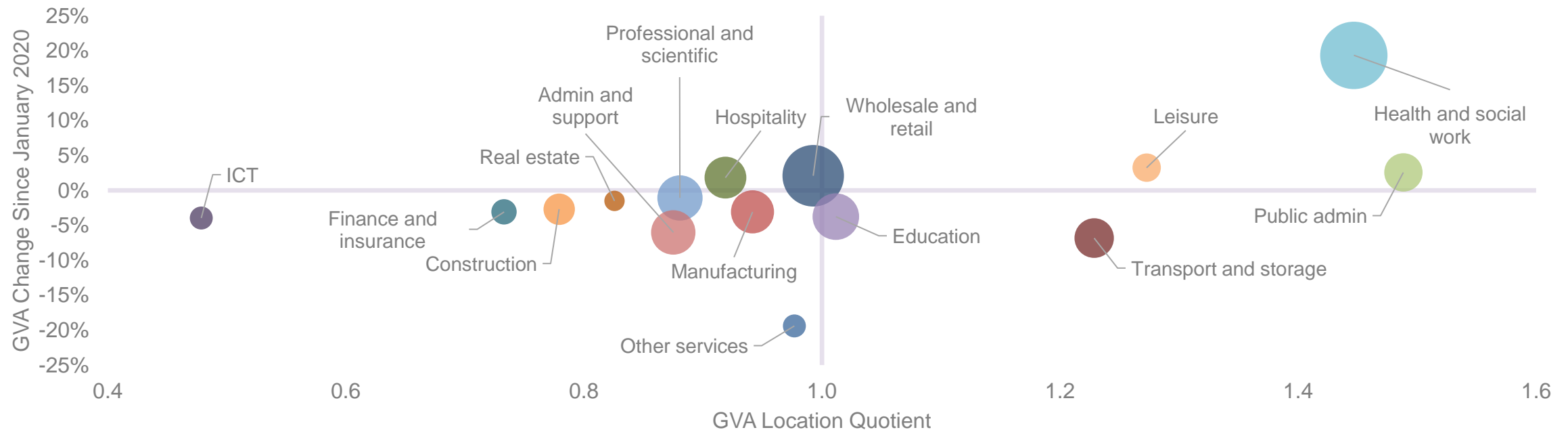
Source: ONS UK Monthly GDP, 2021; ONS Regional GVA, 2020

And while Covid has increased the number of residents claiming unemployment benefits…

The claimant count surged in spring 2020 and peaked at 7.9% of the working age population. However, since this period there has been a **steady decrease of 2.3 percentage points to 5.6% as of October 2021**. Despite signs of recovery, this still is a 2.3pp increase on the claimant rate recorded in July 2018.

Claimants as a proportion of working age population
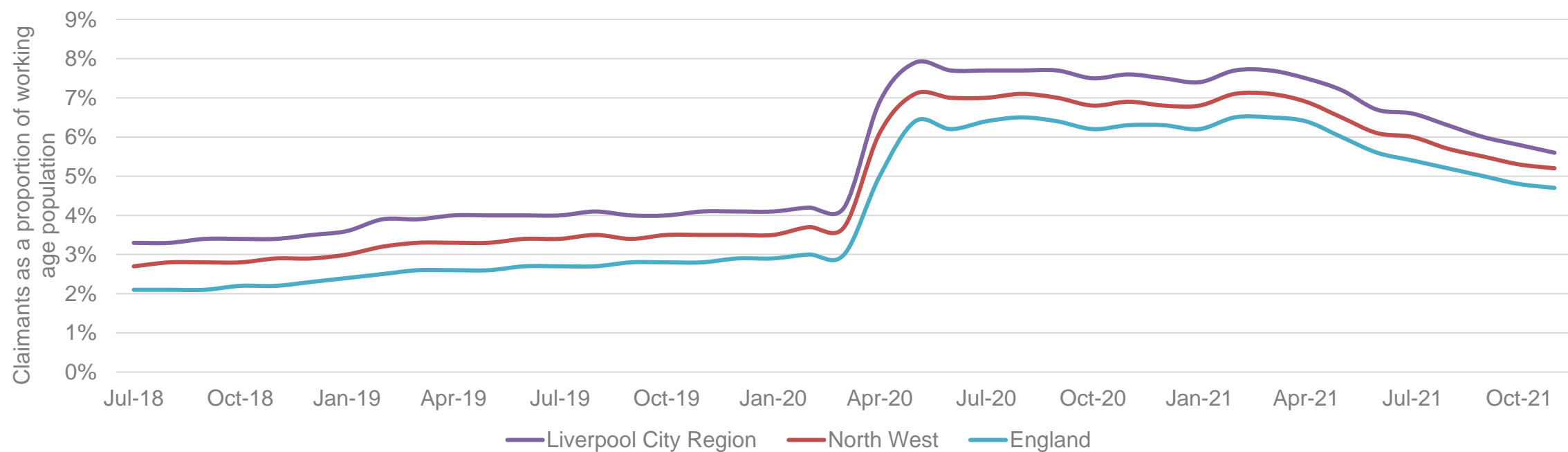
Source: ONS Claimant Count, 2018 - 2021

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…employment levels have started to recover

The number of PAYE employees in LCR has now returned to pre-pandemic levels, representing faster growth than nationally. As of November 2021, the number of PAYE employees was around 665,000. However, note this excludes self-employed residents, where there is still a shortfall.

Change in PAYE employees since January 2020 (overall)
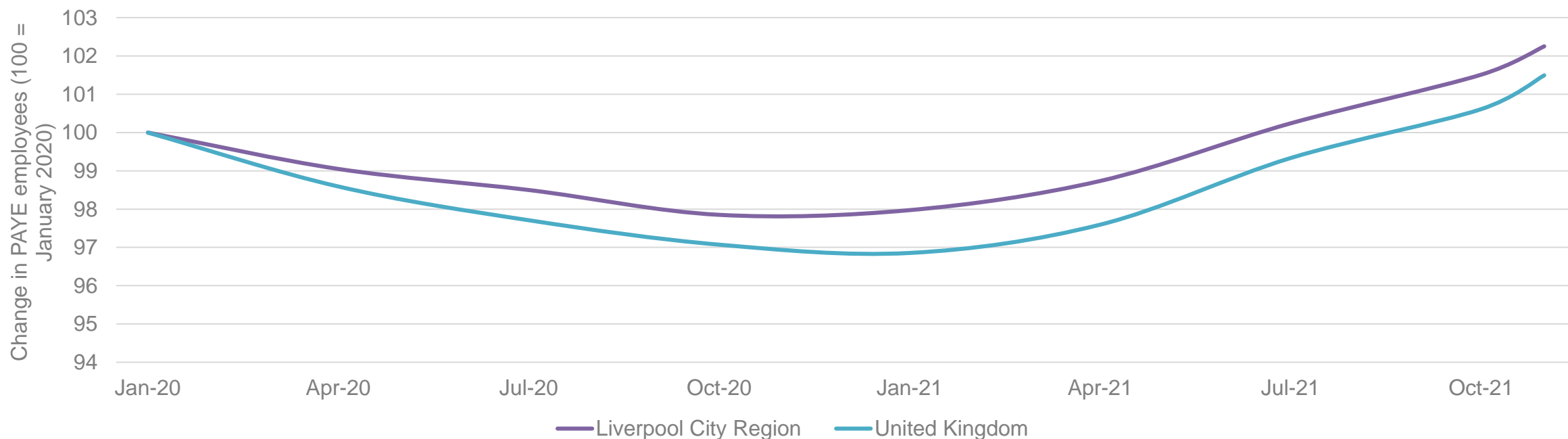
Source: HMRC PAYE Real Time Information, 2021

…but the sectoral composition of employment has started to shift

While aggregate job numbers have recovered, the **sectoral impact on employment has been uneven**. Nationally, leisure and hospitality sectors have seen large decreases in employment, while public admin and health and social care have seen growth.

Change in PAYE employees since January 2020 (sector)
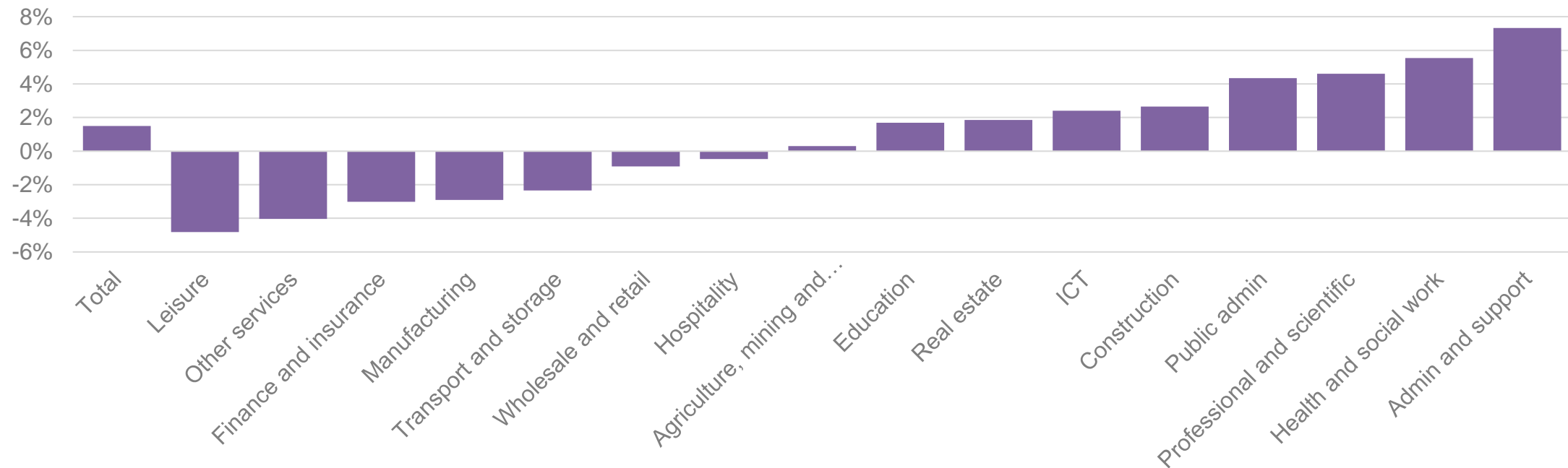
Source: HMRC PAYE Real Time Information, 2021

Note: Sector employment figures are only available at the national level.

Challenges and Opportunities: Unlocking People's Potential

Challenges

- **The pandemic has halted our recent progress on labour market indicators.** LCR has one of the highest economic inactivity rates (24%) and lowest employment rates (72%) in the country. Prior to the pandemic, we were making steady progress on these indicators but this has been reversed. Compared to pre-pandemic levels, the number of people claiming out of work benefits has increased by 13,700 (+33%) and the overall claimant rate has increased by 2.3 percentage points to 56 per 1,000 working-age residents. An associated increase in unemployment or inactivity may lead to a more competitive labour market and increase barriers to work for those already disadvantaged.

- **Poor health and wellbeing contributes to many of our labour market challenges.** Many of LCR's neighbourhoods are characterised by a high prevalence of health deprivation, with 43% of LCR neighbourhoods in the top 10% nationally. The poor health profile prevents many residents entering the workforce, with LCR having one of the highest rates of health-related inactivity.

- **The relatively poor skills profile of our labour market could undermine post-Covid recovery.** Educational attainment in LCR lags behind regional and national levels, while there is a low proportion of people with degree level qualifications and an above average proportion of people with no qualifications. This points to a lower productivity, less flexible labour market in which people may be less equipped to adapt for economic recovery.

Opportunities

- **There is an opportunity to unlock substantial economic growth by focusing on our labour market.** LCR's output gaps with the North West and England are partly driven by its lower employment rate. Enabling continued improvement on labour market indicators can support further economic growth.

- **Improved retention of LCR's large pool of graduates can support continued improvement of its skills profile.** LCR's universities produce a large number of talented graduates every year. However, currently LCR retains a smaller proportion of graduates than comparators such as Greater Manchester and West Yorkshire. Greater graduate retention will help LCR to continue to close qualification gaps with the rest of the country.

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Challenges and Opportunities: The Business and Innovation Environment

Challenges

- **LCR has too few businesses and jobs to support strong economic performance**. The number of businesses per working age resident in LCR is the third lowest of all LEP/CA areas. If our business density matched the national average, this would add 23,500 businesses to the City Region.

- **We do not have enough businesses in more productive, knowledge intensive sectors**. Only 24% of all LCR businesses are in knowledge intensive sectors, compared to 28% nationally. These types of businesses tend to be more productive, engage in more R&D and more likely to adopt new innovative processes. The lack of knowledge intensive businesses harms economic performance and will slow down future growth. This also means that out businesses are not producing enough of the higher value, higher skill and higher paying jobs for our residents.

- **Not enough LCR businesses are scaling up quickly**. Despite high business starts rates, LCR has relatively few high growth enterprises. Combined with our relatively low business survival and high business death rates, this indicates that our businesses struggle to grow quickly and sustainably.

- **LCR's relatively poor skills profile means high productivity businesses face skills shortages**. LCR has a relatively low, but growing, proportion of residents with at least degree level qualifications and a high rate of hard-to-fill high-skill vacancies.

Opportunities

- **LCR has a high business start rate**. LCR's business growth rate has outstripped regional and national rates in recent years, with particularly fast growth in the transport and storage sector. If we can increase the survival rate of these businesses, there is an opportunity to accelerate growth in our business base and economy.

- **LCR has the potential to be a strong R&D economy, making a contribution to national objectives**. LCR has outperformed national and regional rates of expenditure on R&D in recent years and can take advantage of its distinctive research excellence and innovation assets to support further innovation-led growth.

- **Exports make a relatively large contribution to LCR's economic output, with scope for further growth**. LCR is home to the UK's largest westward facing port. Combined with the freeport and growing manufacturing and logistics sectors, LCR can drive national export-led recovery.

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Challenges and Opportunities: Integrated Infrastructure

Challenges

- **Much of our housing stock is old and inefficient.** This will make it difficult to meet our net-zero goals in the housing sector, but it also impacts on our residents through higher energy bills and high rates of fuel poverty and undermines our offer as a desirable place to live and work.

- **Our digital infrastructure is comprehensive, but digital inclusion is an issue for many of our residents.** In order to reap the full benefit of our digital infrastructure we need to encourage and enable our residents to access and make best use of this. This includes ensuring that we have the right digital skills.

- **Our airport has suffered significantly during Covid.** Passenger numbers fell in 2020 to almost a quarter of their 2019 levels and it may take years for numbers to reach their previous peak. This has economic as well as connectivity implications for the City Region.

Opportunities

- **Our significant natural capital resources give us a good opportunity to create green, renewable energy.** This is particularly true of the Mersey Tidal Power project and our capacity for off-shore wind. There are potential economic as well as environmental opportunities associated with this.

- **We are a generally a well connected region, but there is an opportunity to improve our buses and cycle infrastructure to meet the needs of residents.** Not only do residents see these as important, but encouraging public transport use and active travel are important in meeting our net-zero ambitions.

- **The new freeport will provide an opportunity to build on our port's recent success.** The port has seen significant growth over the last decade, despite a small fall in traffic during Covid. The port is also well positioned to trade with non-EU countries (such as the US) which may advantageous to the port in the future given Brexit.

Challenges and Opportunities: Thriving, Sustainable and Resilient Place

Challenges

- **The visitor and creative economy have been hit hardest by Covid.** In terms of both GVA and jobs, these sectors have been heavily impacted over the last 18 months but are starting to show signs of recovery.

- **Levels of deprivation are a major challenge for the City Region.** Our levels of deprivation are far too high and have a large impact the life chances, health and educational outcomes of our residents.

- **Air quality is an issue that impacts our residents.** Although levels of air quality are on average better in LCR than nationally, within some areas air quality is very poor.

Opportunities

- **The pandemic has presented opportunities for the creative and visitor economy.** These sectors will be important in driving our recovery, as well as our strategic priorities around revitalising town centres, creating a sense of community and place, as well as improving the educational and mental health outcomes of residents.

- **Over the last 12 months there have been successful outcomes from CA run creative programmes.** This is especially true of our Film Production Fund that has helped create the potential for a TV and film production cluster within the City Region.

- **The City Region has relatively good housing affordability.** Coupled with its low house prices, the City Region could make for an attractive proposition for potential workers and businesses to help bolster our recovery from Covid.

Liverpool City Region Economic Forecasts

While Covid had a large negative impact on the Liverpool City Region economy, GVA is expected to bounce back quickly

During 2020, LCR experienced an estimated GVA contraction of 10.2%, marginally deeper than the UK as a whole (9.9%). However, GVA growth is anticipated to resume in 2021, with 8.1% growth followed by 6.8% growth in 2022.

Indexed change in Gross Value Added (GVA), base = 2016
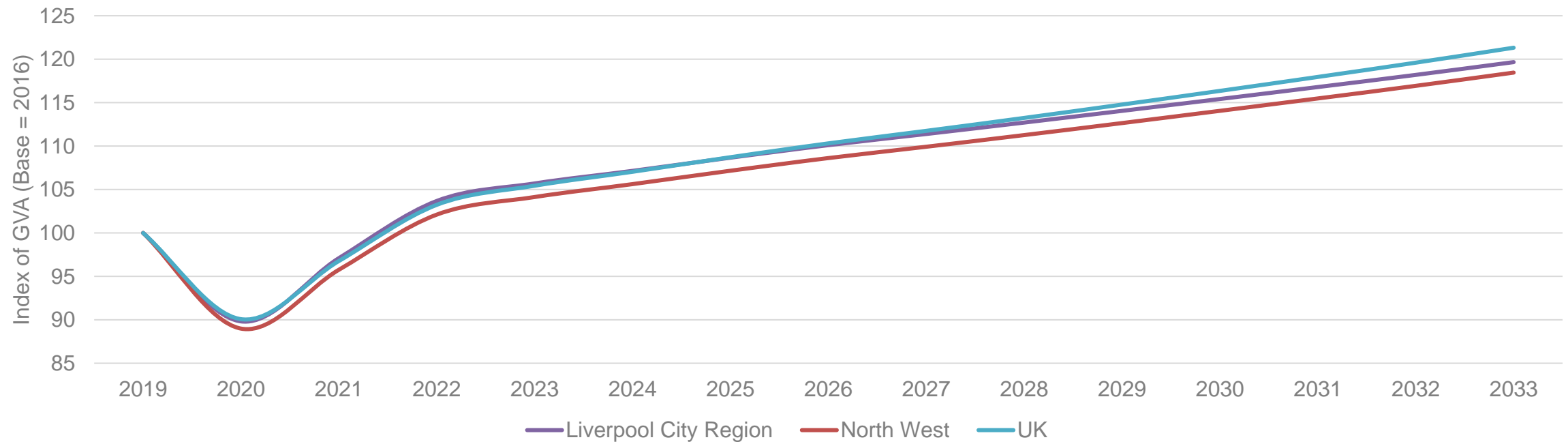
Source: Oxford Economics, 2021

However, over the coming decades, LCR's GVA is expected to grow at a slightly slower pace than the rest of the country

Between 2019 and 2045, LCR's economy is expected to grow at around 1.3% per year. This is similar to the North West, but below national levels of 1.4%. Growth is anticipated to be highest in Liverpool and Knowsley.

Annual growth rate of Gross Value Added (GVA), 2019 - 2045

Source: Oxford Economics, 2021

Population growth in LCR is expected to slow

Population growth is forecast to ease, with a contraction expected post 2033. This sluggish performance is likely to be driven by a decrease in the working age population of around 7% by 2045. This will increase the dependency ratio in LCR.

Population change, index = 2019
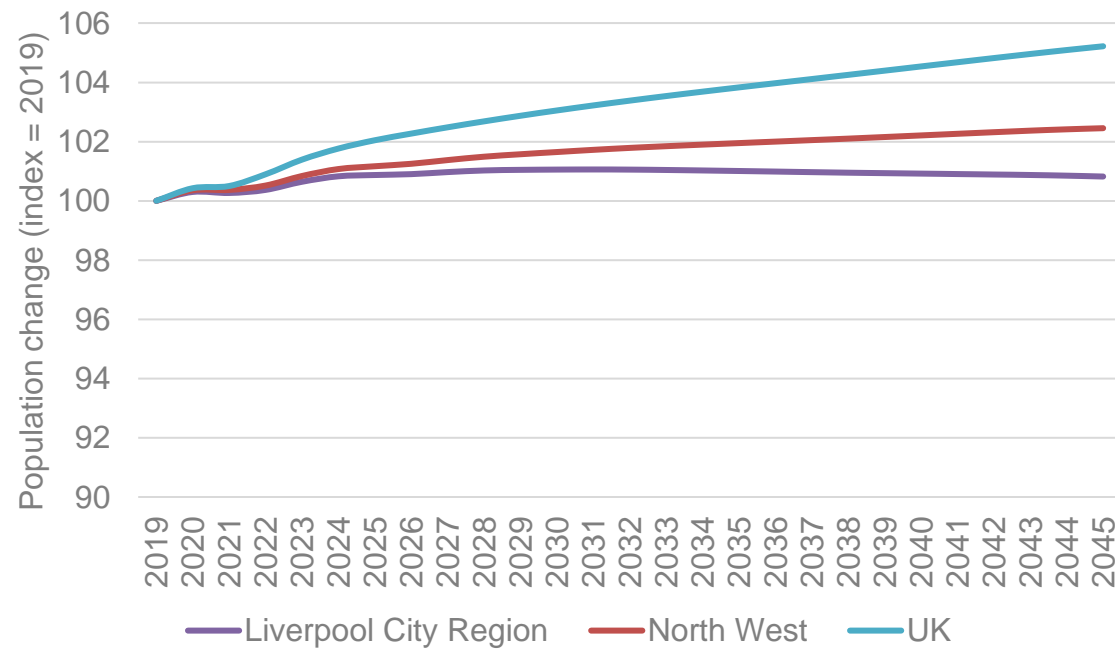
Working age population change, index = 2019

Source: Oxford Economics, 2021

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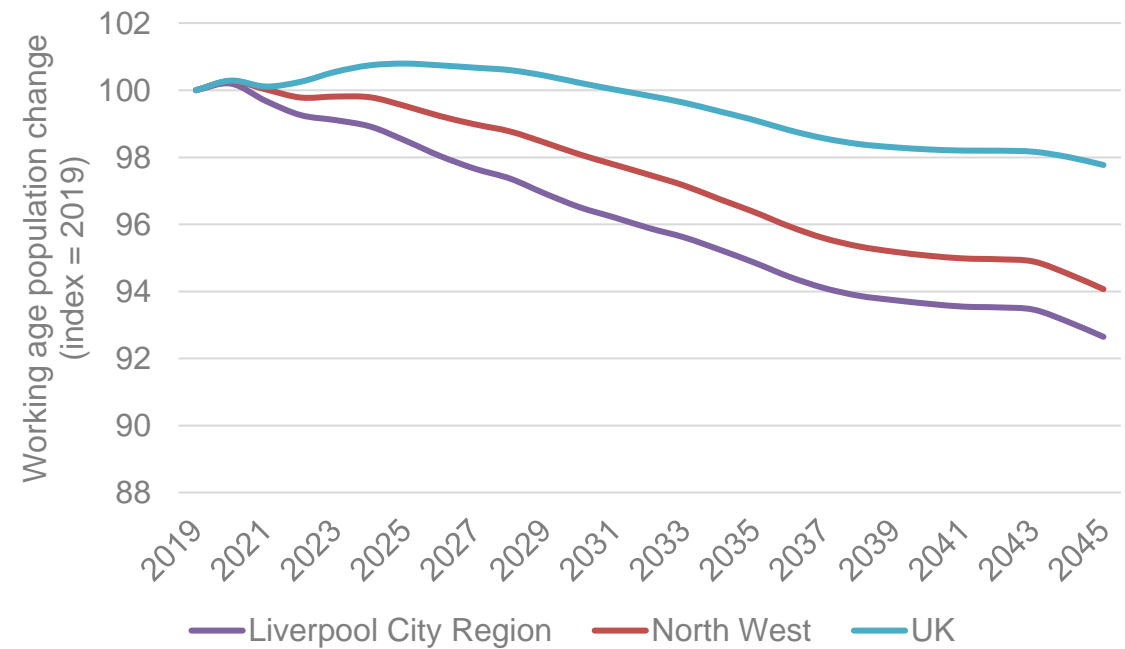
And LCR's modest employment growth is expected to be supported by a decrease in economic inactivity rather than population growth

Employment is expected to grow on par with the rest of the country, at around 0.2% per year. This is likely to be driven by a large reduction in the economic inactivity rate, as more residents move into employment. This will counteract the projected decline in working age population.

Employment change, index = 2019
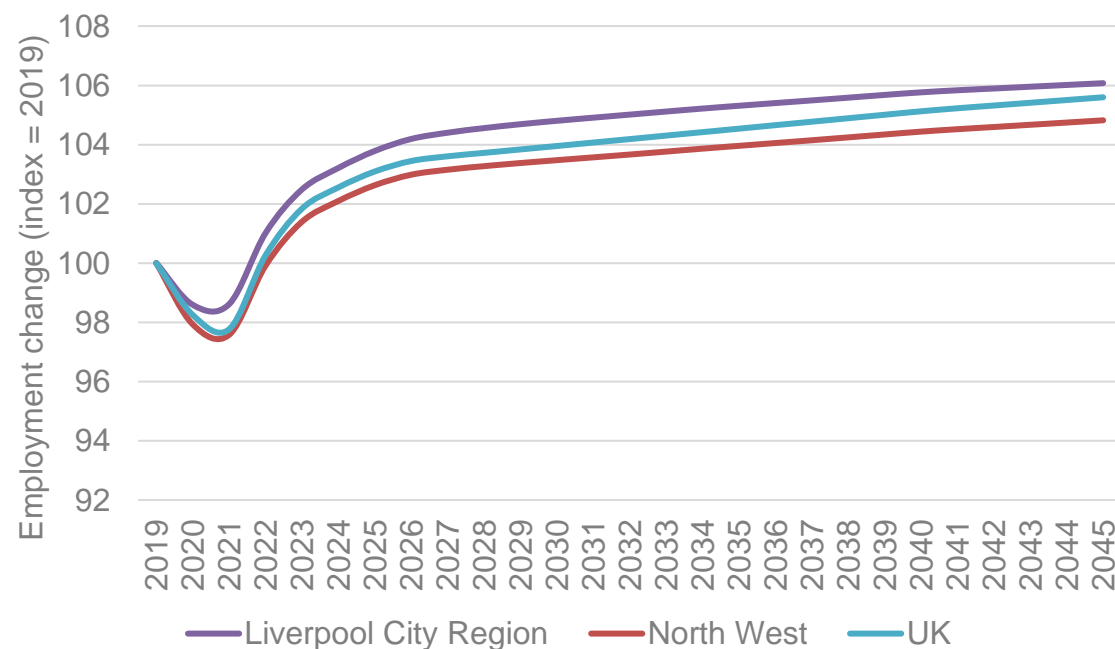
Economic inactivity rate (% of working age population)

Legend: Liverpool City Region — North West — UK
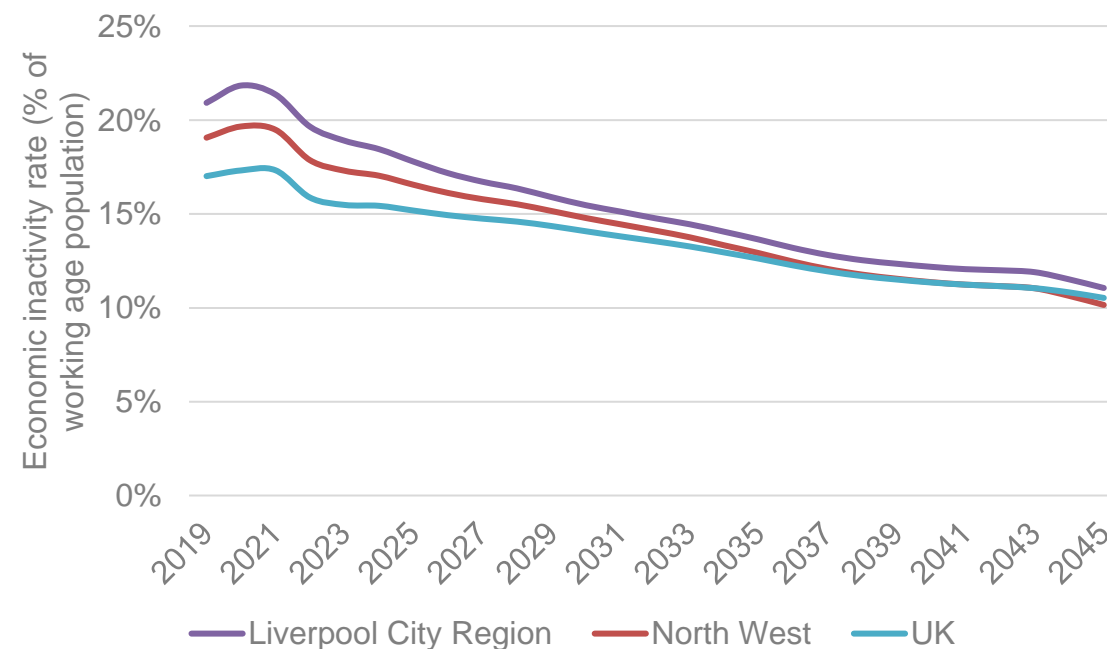
Source: Oxford Economics, 2021

The composition of our economy is likely to change

Professional services, health and social care and ICT are likely to be key drivers of economic and jobs growth in the coming decades. The number of manufacturing jobs is forecast to decline significantly over the coming decades, but the jobs that remain will be more productive.

Change in GVA and employment, 2019 - 2045
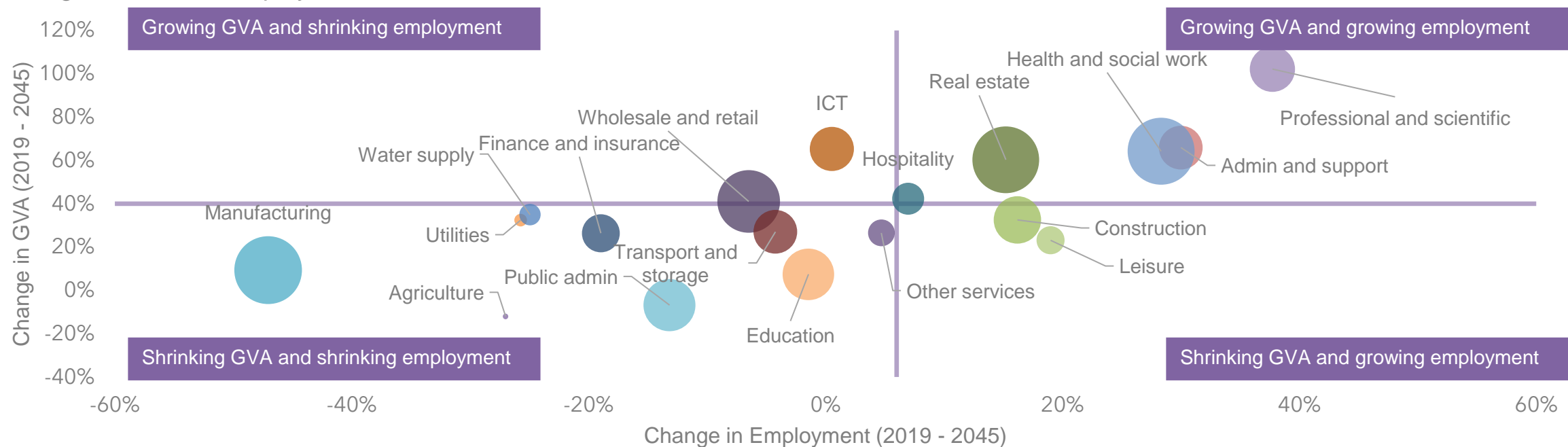
Source: Oxford Economics

Note: Bubble size indicates quantity of GVA in 2019.

And there is likely to be a shift towards jobs requiring higher levels of qualifications

Over the coming decades, there is likely to be an increase in higher paid, higher value jobs such as managers & directors and professionals. There is also likely to be an increased requirement for caring, leisure & other services.

Occupations of the workforce, 2019 - 2045
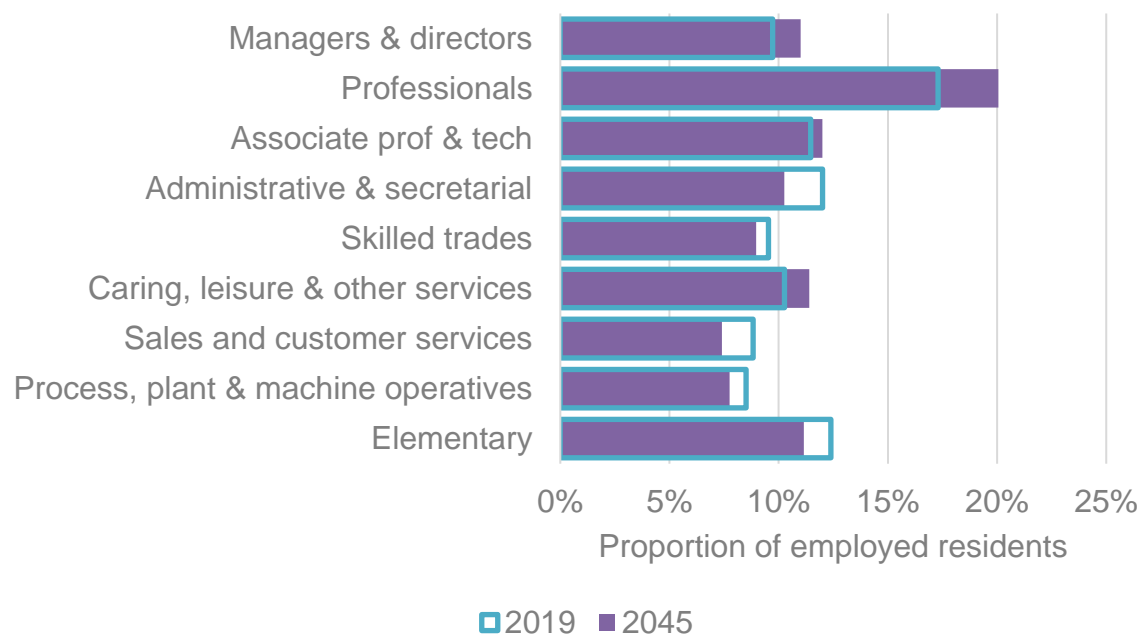
Qualifications of the workforce, 2019 - 2045

Source: Oxford Economics, 2021

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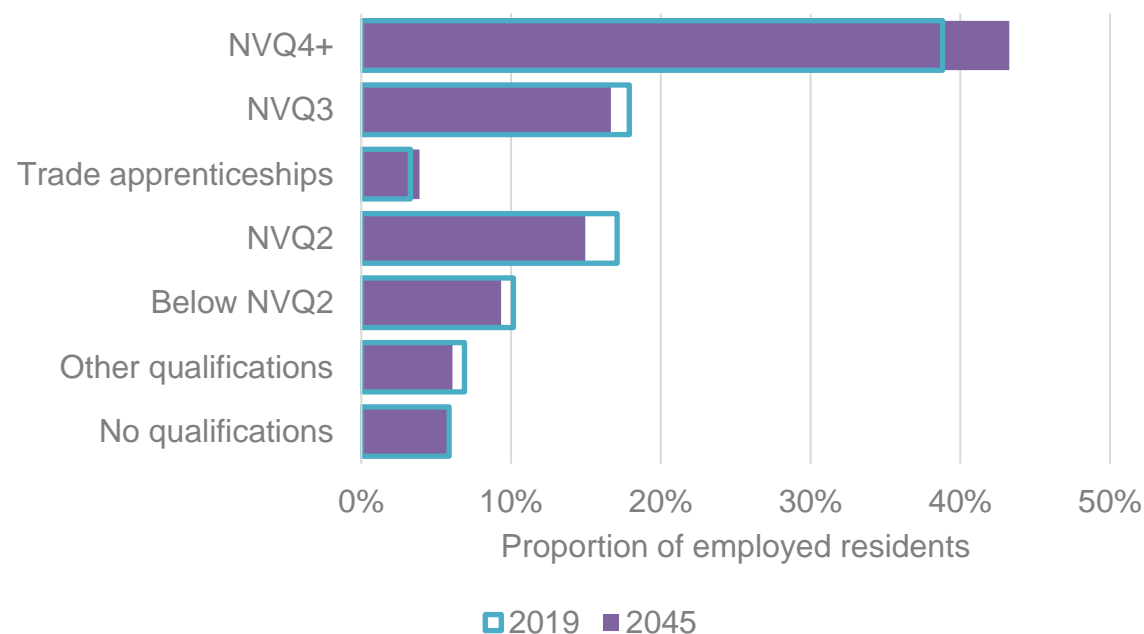
Productivity gains, rather than increased jobs, are expected to be the main driver of growth – but productivity gaps are likely to remain

LCr's productivity is forecast to increase by 1.1% per year between 2019 and 2045, slightly slower than national averages. This is likely to be driven by sectors such as manufacturing.

However, LCR's productivity gap with the rest of the country is not forecast to close further.

GVA per FTE job, 2019 - 2045
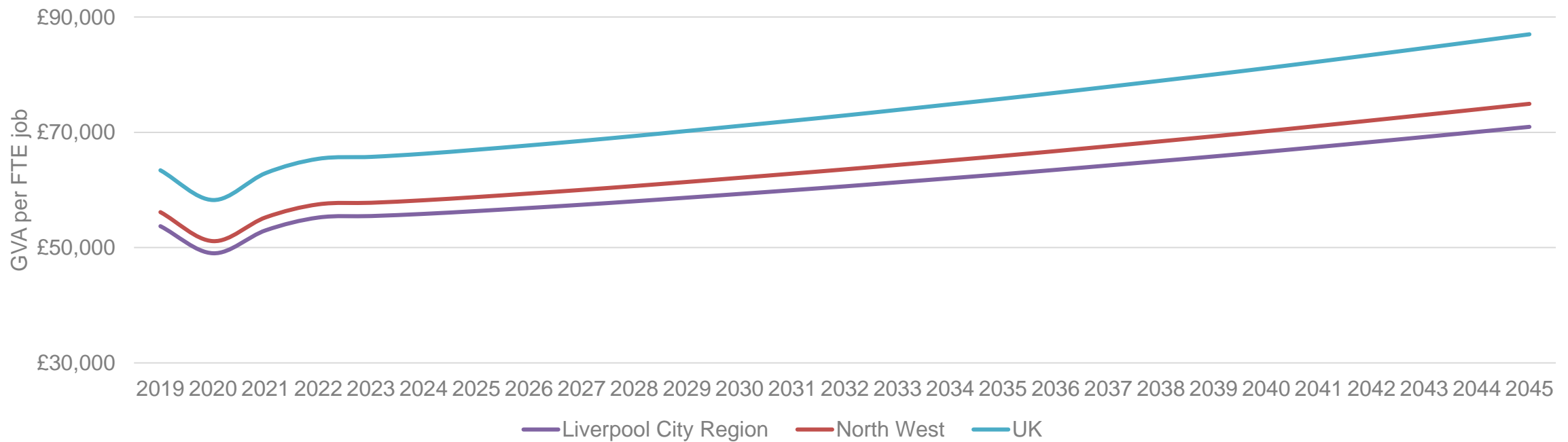
Source: Oxford Economics, 2021

Unlocking People's Potential

Plan for Prosperity Objective: Ensure our people have the skills and opportunities to realise their full potential

Challenges and Opportunities: Unlocking People's Potential

Challenges

- **The pandemic has halted our recent progress on labour market indicators.** LCR has one of the highest economic inactivity rates (24%) and lowest employment rates (72%) in the country. Prior to the pandemic, we were making steady progress on these indicators but this has been reversed. Compared to pre-pandemic levels, the number of people claiming out of work benefits has increased by 13,700 (+33%) and the overall claimant rate has increased by 2.3 percentage points to 56 per 1,000 working-age residents. An associated increase in unemployment or inactivity may lead to a more competitive labour market and increase barriers to work for those already disadvantaged.

- **Poor health and wellbeing contributes to many of our labour market challenges.** Many of LCR's neighbourhoods are characterised by a high prevalence of health deprivation, with 43% of LCR neighbourhoods in the top 10% nationally. The poor health profile prevents many residents entering the workforce, with LCR having one of the highest rates of health-related inactivity.

- **The relatively poor skills profile of our labour market could undermine post-Covid recovery.** Educational attainment in LCR lags behind regional and national levels, while there is a low proportion of people with degree level qualifications and an above average proportion of people with no qualifications. This points to a lower productivity, less flexible labour market in which people may be less equipped to adapt for economic recovery.

Opportunities

- **There is an opportunity to unlock substantial economic growth by focusing on our labour market.** LCR's output gaps with the North West and England are partly driven by its lower employment rate. Enabling continued improvement on labour market indicators can support further economic growth.

- **Improved retention of LCR's large pool of graduates can support continued improvement of its skills profile.** LCR's universities produce a large number of talented graduates every year. However, currently LCR retains a smaller proportion of graduates than comparators such as Greater Manchester and West Yorkshire. Greater graduate retention will help LCR to continue to close qualification gaps with the rest of the country.

Before Covid, our labour market was moving in the right direction…

Employment Rate, 2004-21
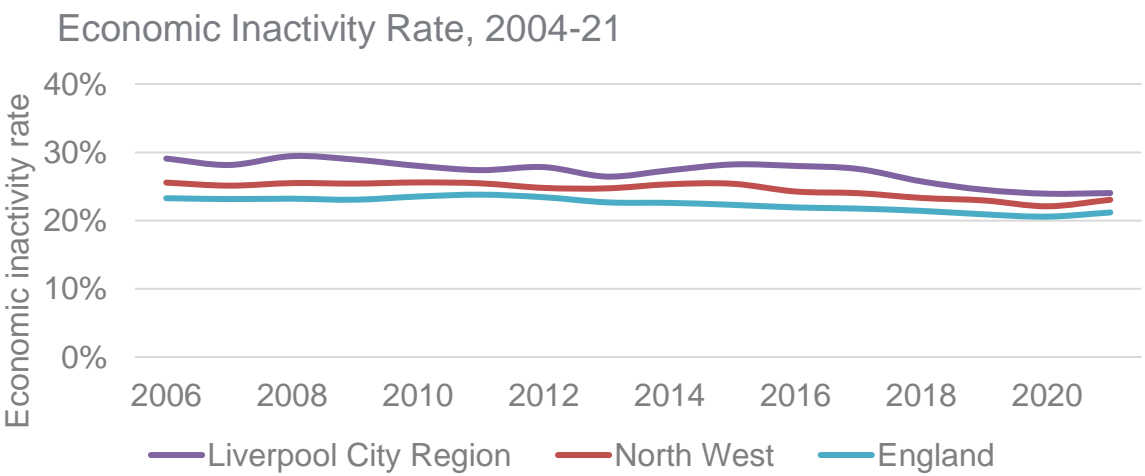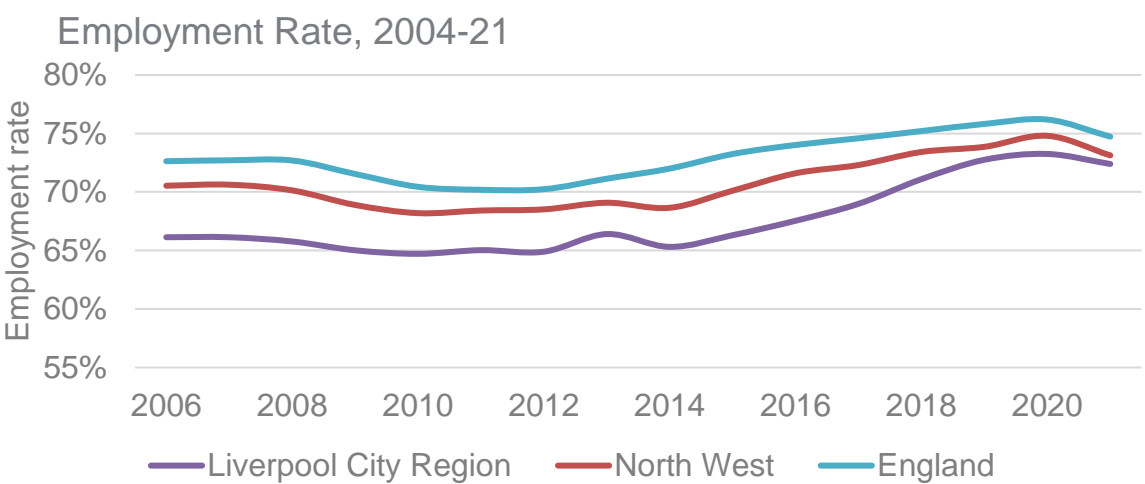
LCR has amongst the highest economic inactivity and lowest employment rates nationally. We were making progress before the pandemic and we were closing the gap with the national employment and inactivity rates.

These trends have started to reverse due to Covid-19.

More people are likely to drop out of employment and into unemployment or inactivity as they are faced with the economic and health impacts of the crisis.

Economic Inactivity Rate, 2004-21

Unemployment Rate, 2004-21

Source: ONS Annual Population Survey, 2005 - 2020

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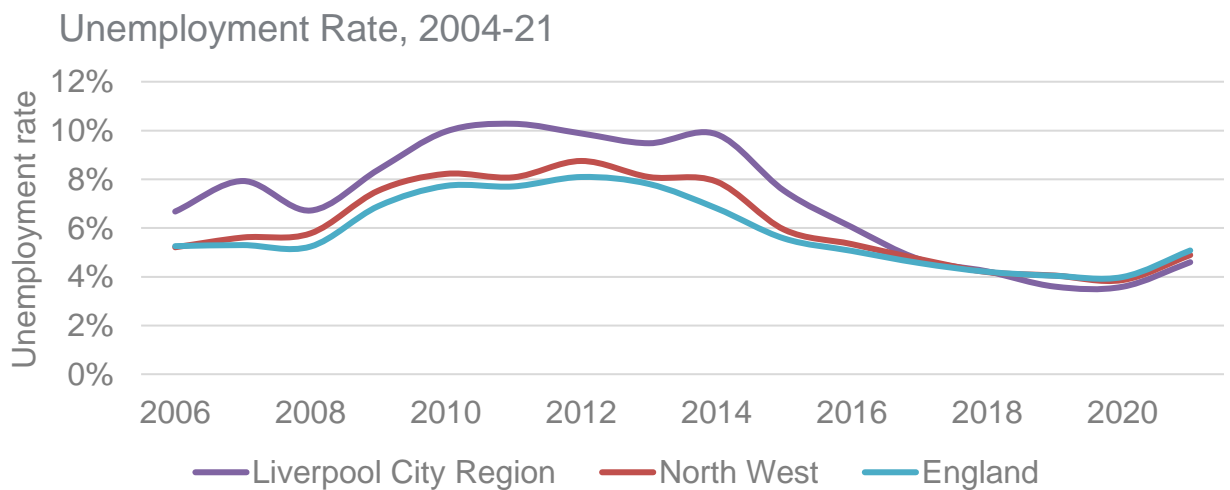
…but economic inactivity rates were still too high

24% of our working age population was inactive, the fifth highest rate of economic inactivity of all LEP/CA areas in England.

Further increases in unemployment and decreases in vacancies will push these residents even further away from the labour market.

Economic inactivity rate, 2021
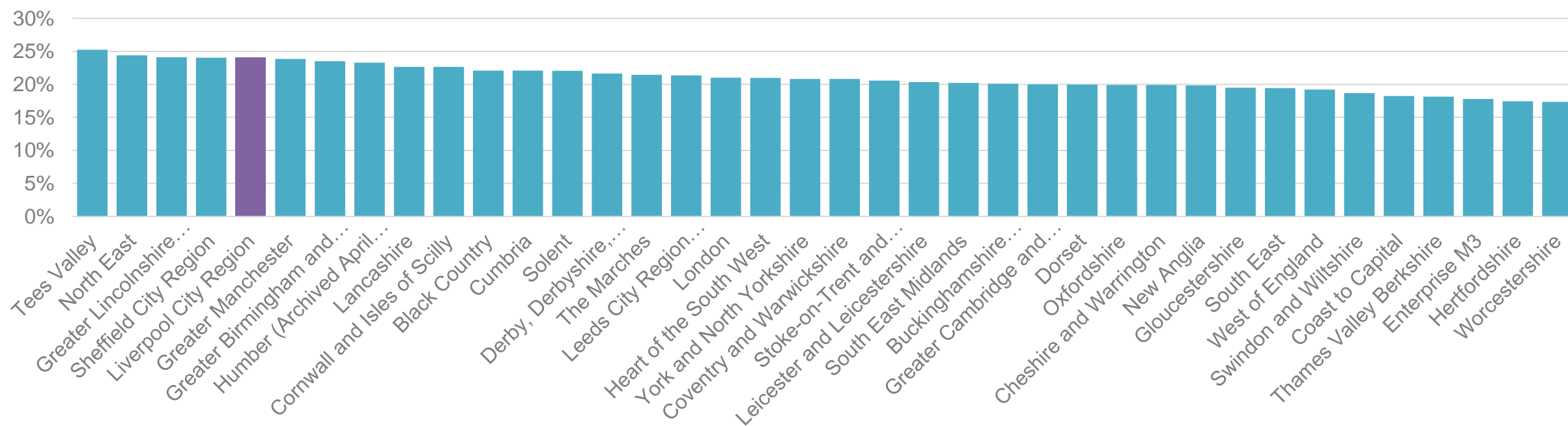
Source: ONS Annual Population Survey, 2021

There is a high prevalence of health-related inactivity…

Before the crisis, 32% of economically inactive residents reported that it was due to long-term sickness. This is the third highest share of all LEPs.

While the pandemic could lead to more inactive residents due to ill health, these statistics show that we already have a large vulnerable population that may be more susceptible to the risks of Covid-19 and less equipped to deal with the economic shock.

Proportion of Economically Inactive Reporting Long-Term Sickness as a Reason, 2020
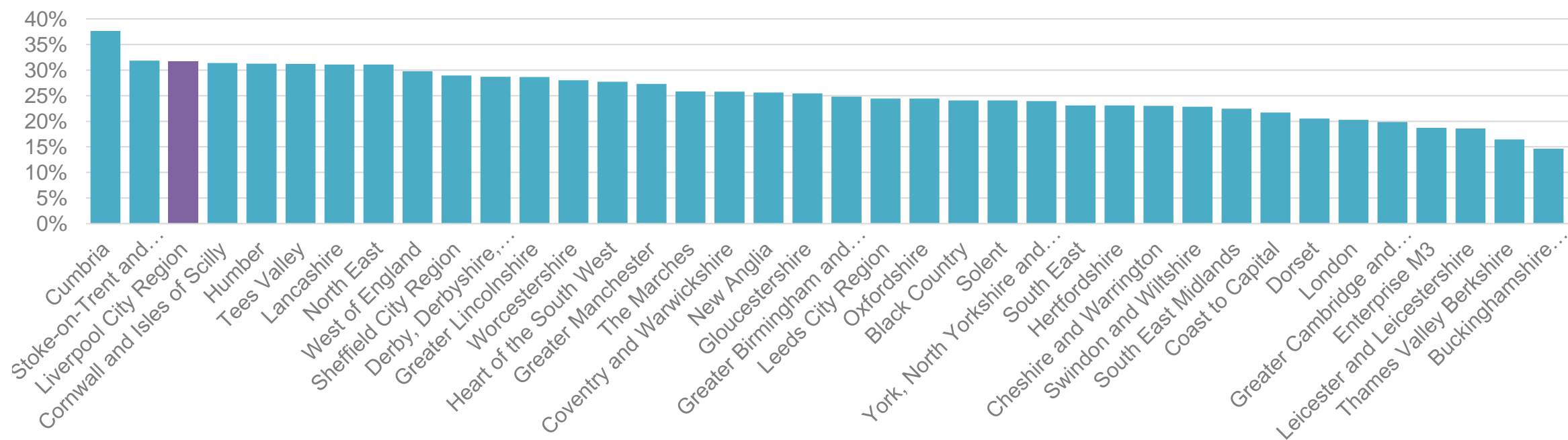
Source: ONS Annual Population Survey, 2020

…linked to significant health deprivation faced by many of our neighbourhoods

Liverpool City Region has a **large number of neighbourhoods with high concentrations of health deprivation**, indicating poor health outcomes and high levels of work-limiting illness and disability.

47% of our neighbourhoods are in the top 10% most deprive in the country, underlining the extent of poor health, and potentially mobility issues, in the City Region.

Lower Super Output Areas (LSOAs) in Liverpool City Region in Top 20% Most Health Deprived in England, 2019

Number of Neighbourhoods in Liverpool City Region by Health Deprivation Decile
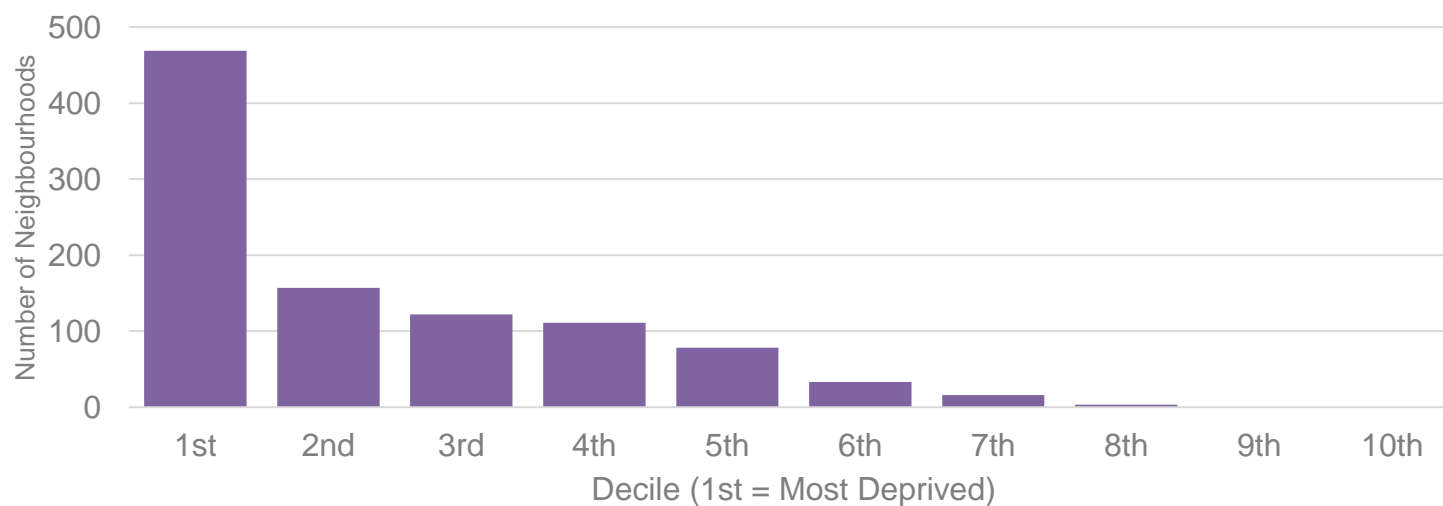
Source: MHCLGIndices of Multiple Deprivation, 2019

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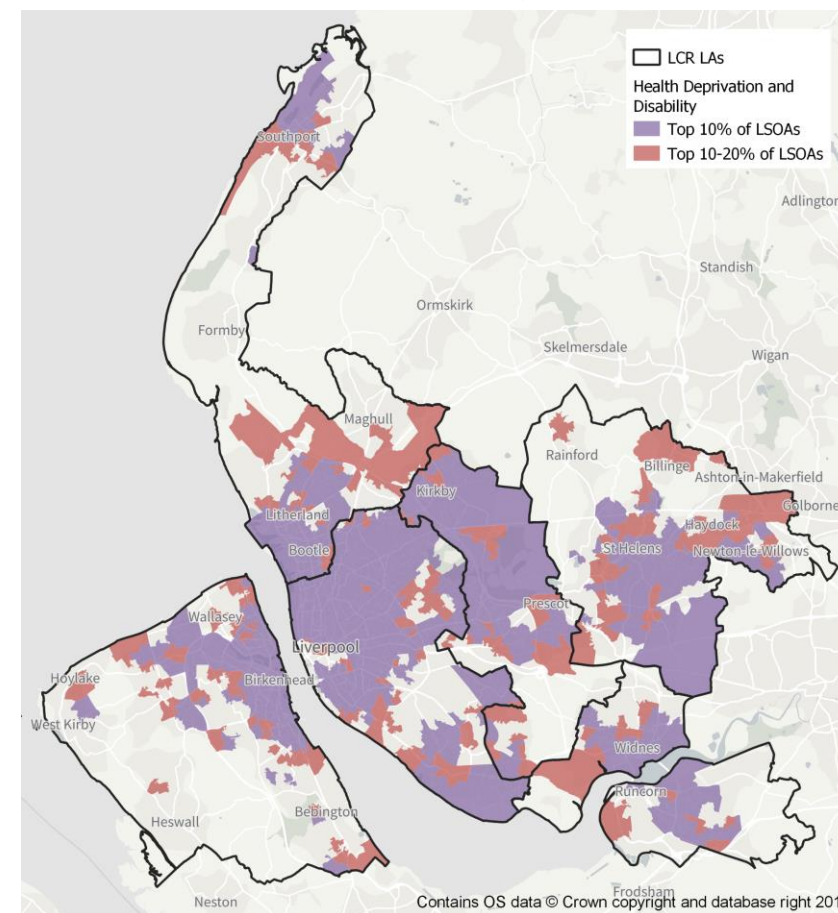
Overall LCR's population is young, with a significant student presence, but there are high dependency ratios in some areas

The City Region's **dependency ratio is slightly lower** than the national average. This points to a greater prevalence of working-age residents. This varies across the City Region, with high dependency ratios in Sefton, St. Helens and Wirral, where populations have grown slowly or contracted. Liverpool's lower dependency ratio is linked to its large student population.

Dependency ratio, 2020

Liverpool City Region population breakdown, 2020
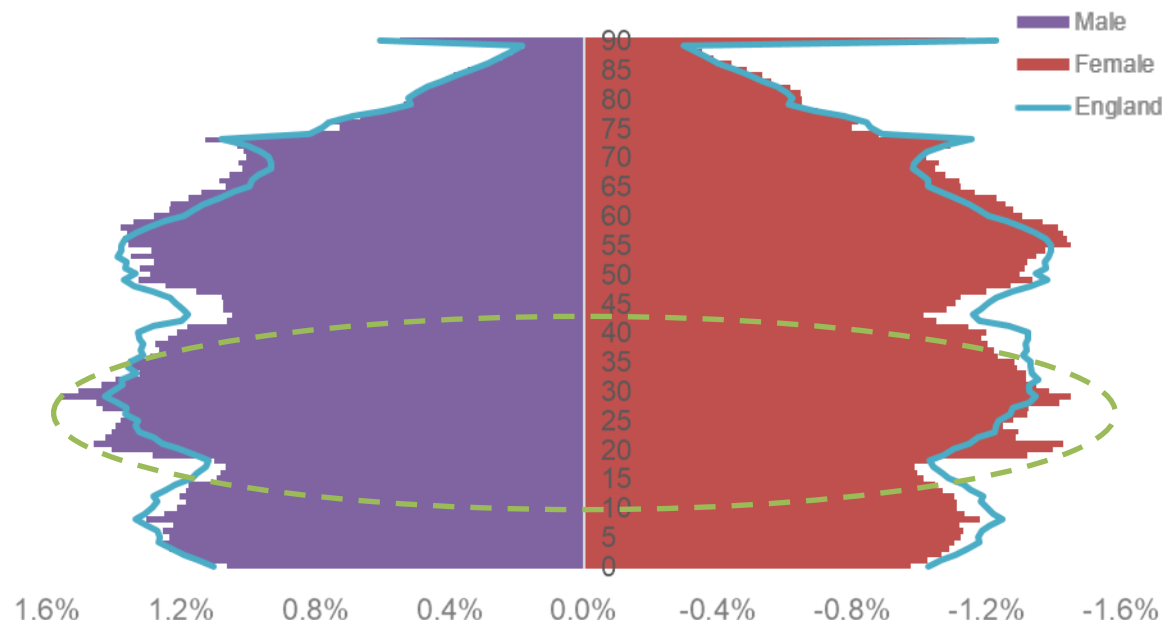
Source: ONS Mid-Year Population Estimates, 2020

We have made significant progress on our qualifications profile but there is more work to be done

Since 2010, LCR has seen the third fastest growth in the number of working age residents with NVQ4+ qualifications out of all LEPs, while **the number of people with no qualifications has more than halved**. In both measures, the City Region is catching up with the North West and the UK.

Proportion of working-age population with NVQ4+, 2004-2020
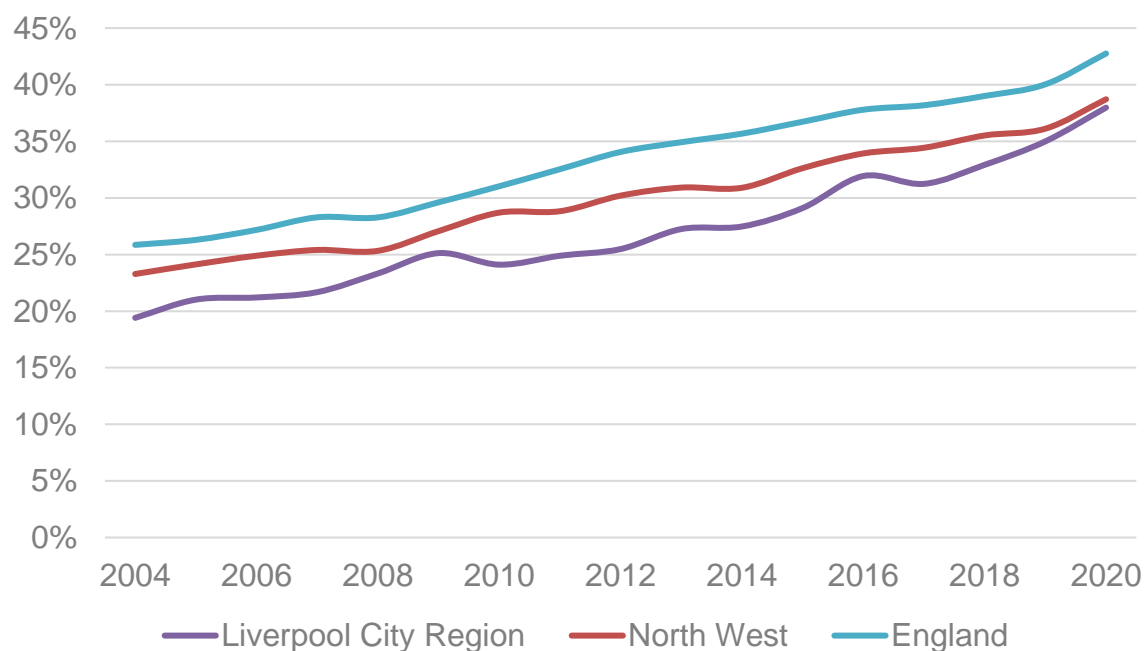
Proportion of working-age population with no qualifications, 2004-2020

Liverpool City Region — North West — England
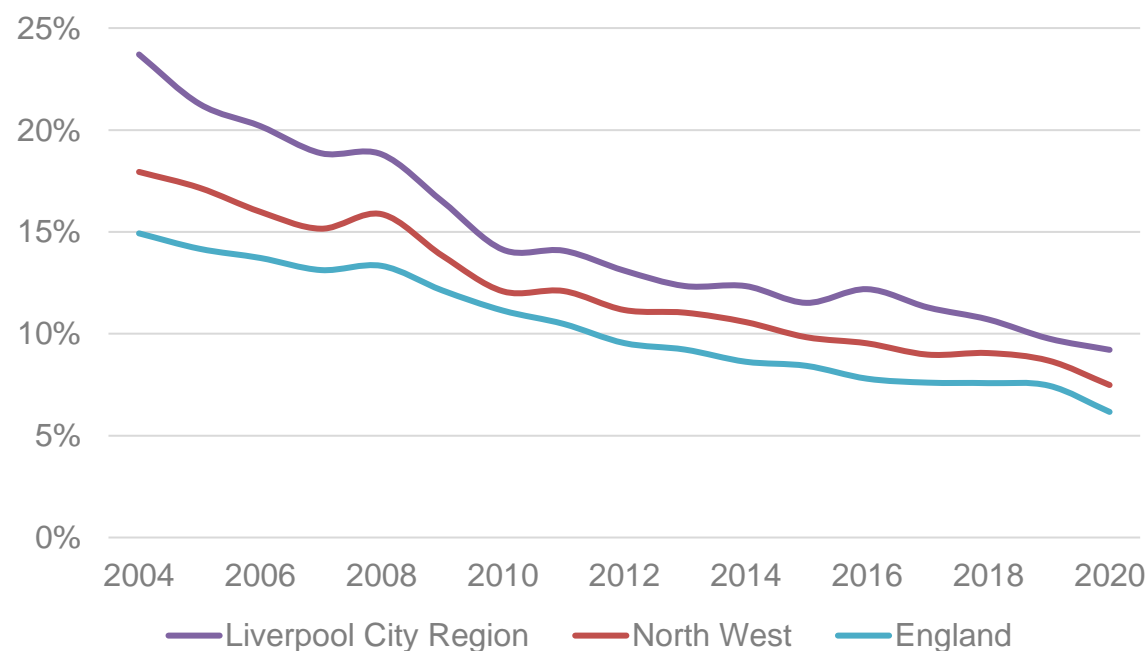
Source: ONS Annual Population Survey, 2004 - 2020

We produce a large number of graduates but we must improve our retention

41% of graduates from LCR universities remain in the City Region after completing their degree. This falls to 28% for University of Liverpool graduates. Greater Manchester and West Yorkshire do a better job of retaining their graduates.

Graduates capable of filling high skilled occupations are less likely to remain in LCR after their studies. 71% of those leaving LCR entered high skill occupations, compared to only 50% of those retained in LCR.

Proportion of graduates retained in local area
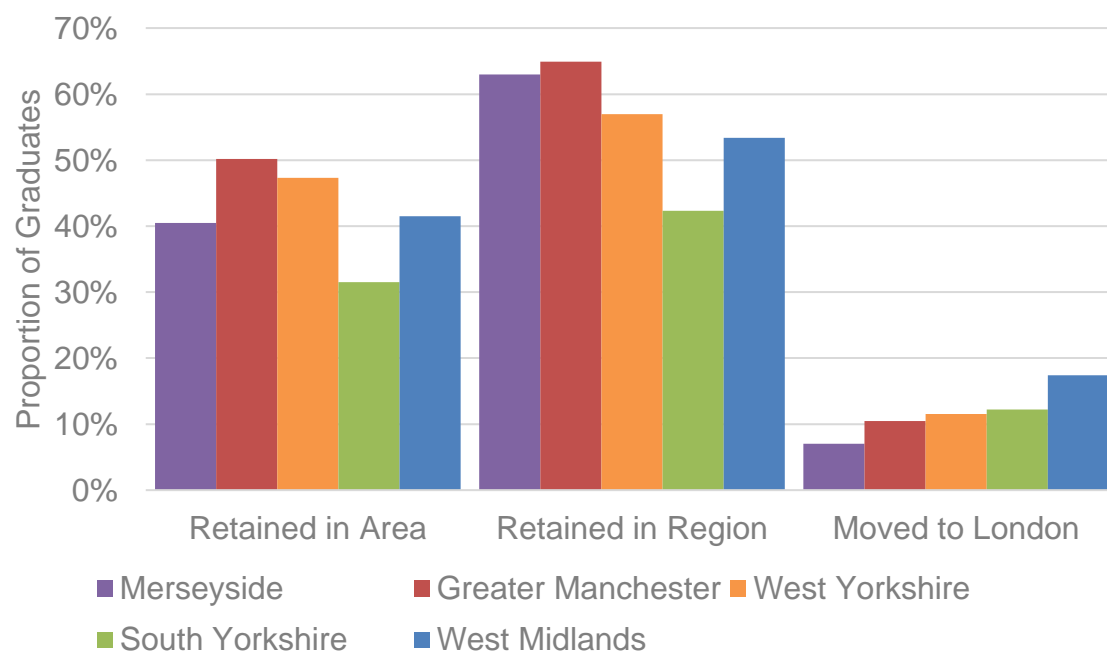
Proportion of University of Liverpool graduates entering into high skilled occupations
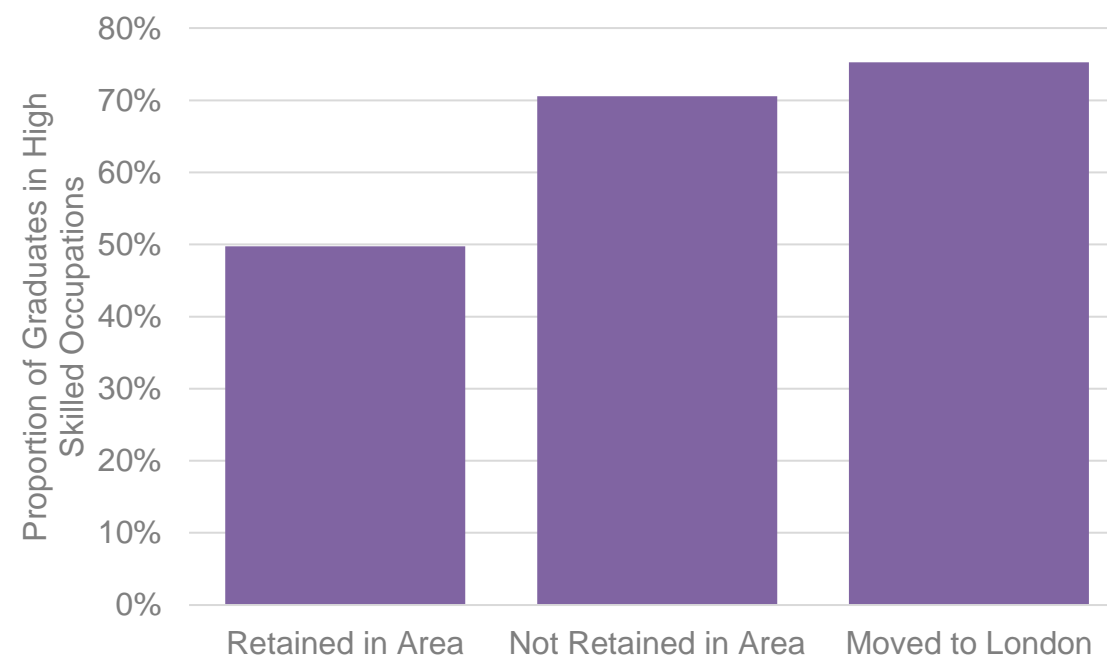
Source: Office for Students Teaching Excellence Framework Year Three, 2018

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Continued qualifications improvements will help more residents into higher paid occupations…

LCR's occupation profile is **slightly skewed towards lower paid jobs** but this varies across the City Region. A large proportion of jobs in Sefton and Liverpool are in higher paid occupations, while Halton and St. Helens have more jobs in lower paid occupations.

Workforce and resident jobs, 2020

Legend: ■ LCR Workforce ■ LCR Residents ■ England
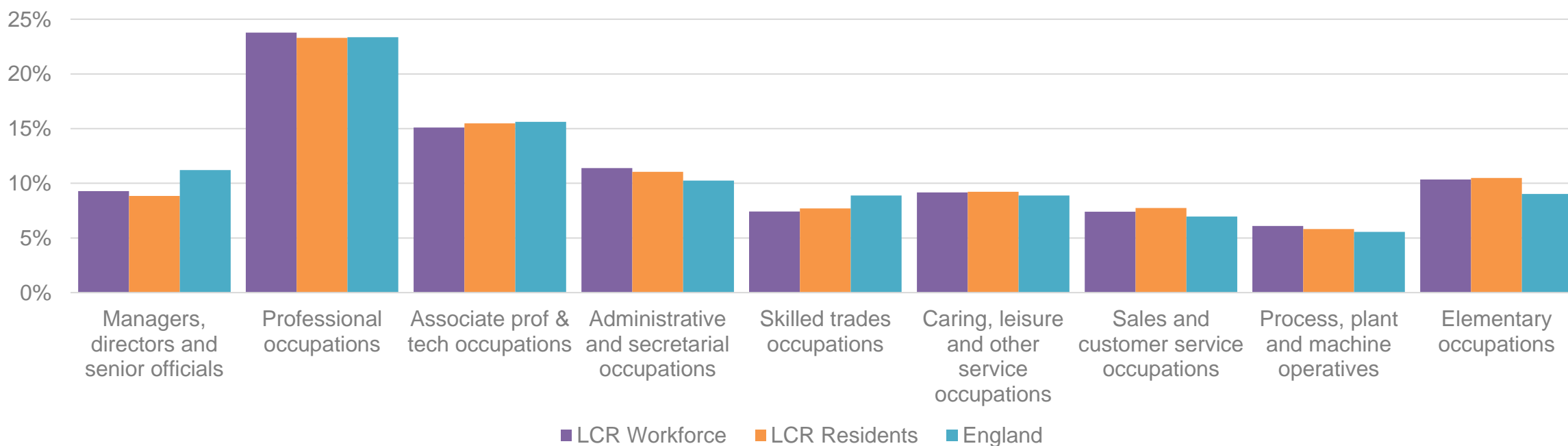
Source: ONS Annual Population Survey, 2020

…which could increase average earnings

On average, LCR residents earn around £580 per week. This is slightly above regional levels, but less than national averages. This means that **LCR residents earn £2,000 less than the national average** annually.

Median weekly earnings, 2021

Legend: Resident, Workplace, England, North West

Categories: Halton, Knowsley, Liverpool, Sefton, St. Helens, Wirral, Liverpool City Region

Source: ONS Annual Survey of Hours and Earnings, 2021

…and may help to reduce the incidence of low pay

One in five jobs in the City Region pays below the National Living Wage of £9.50 (2021). This rate is highest in Wirral (22%) and Sefton (19%).

Proportion of employees paid below National Living Wage
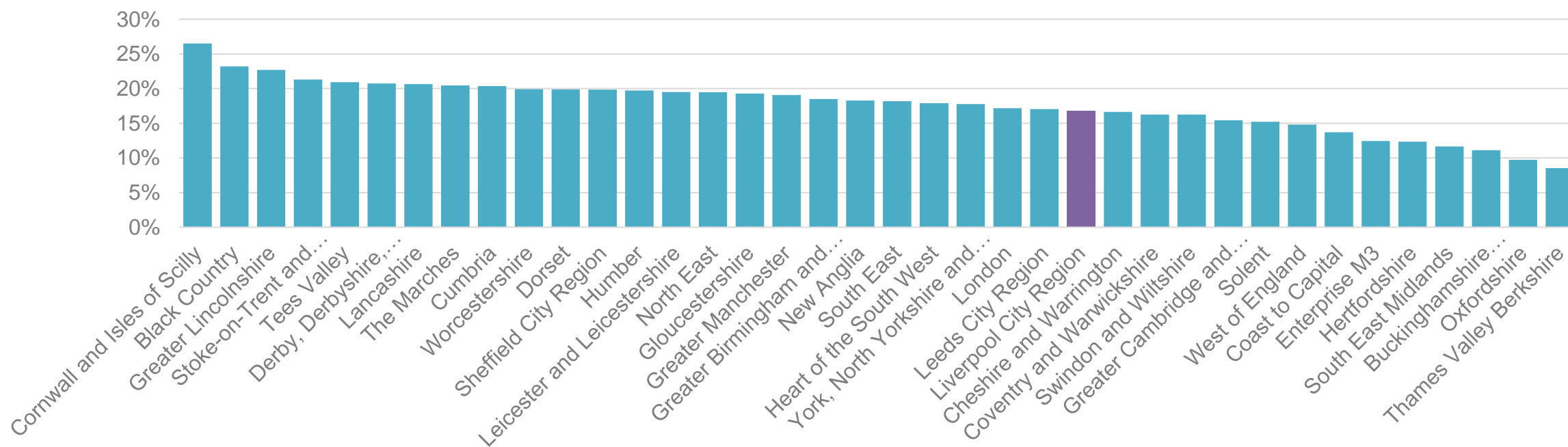
Source: ONS Annual Survey of Hours and Earnings, 2021

However to achieve this we will need to improve our educational attainment from young ages

On average, LCR pupils leave primary and secondary education with **worse attainment compared to English pupils**. Only 62% of LCR pupils achieve a grade 4 or above in English and Maths, and only 38% achieve grade 5 or above (compared to 43% nationally). Poor attainment at these stages will limit progression into further study and employment.

Proportion of KS2 Pupils Reaching the Expected Standard in Reading, Writing and Maths

Proportion achieving grades 4 or above in English and Maths GCSEs

Proportion Reaching the Expected Standard — England

Proportion achieving grades 4 or above in English and Maths GCSEs
North West
England
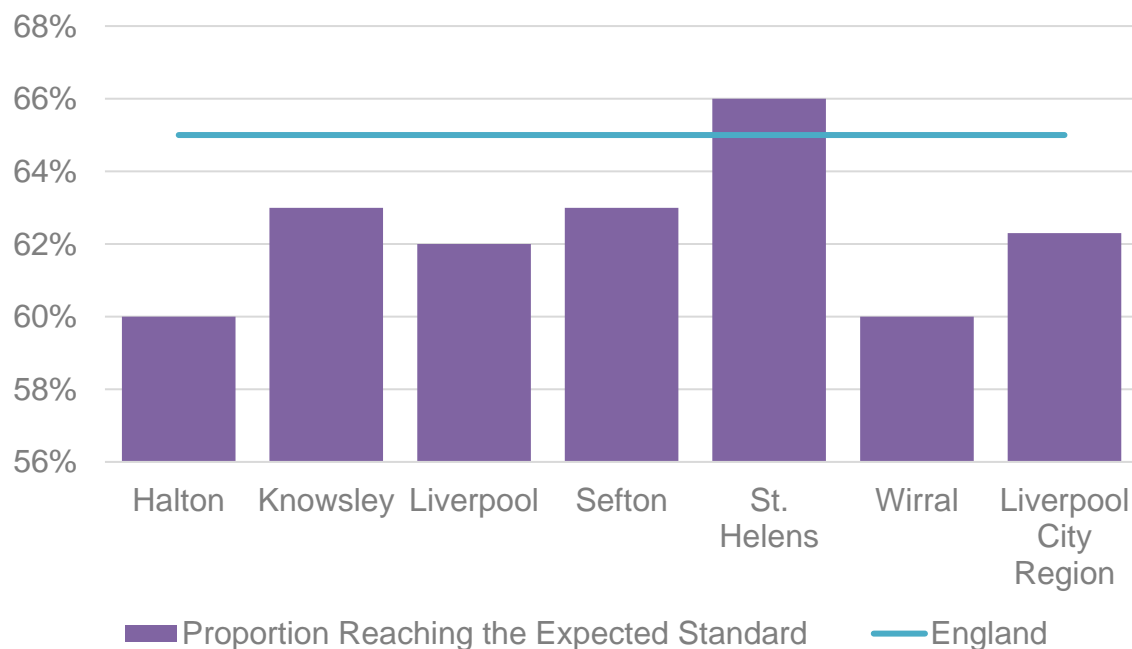
Source: DfE School Performance Tables, 2019
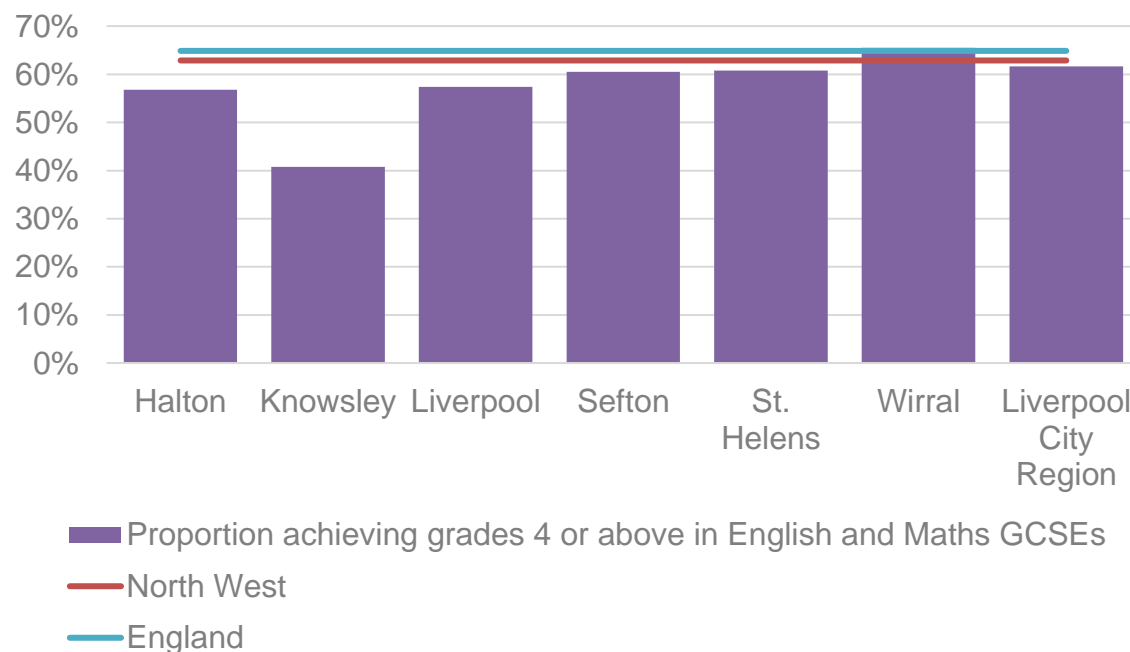
Source: DfE Key Stage 4 Statistics, 2019

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And we will need to reduce the number of young people not in education, employment or training

The City Region already has a **relatively high rate of young people Not in Employment, Education or Training** (NEET) and this could increase due to the crisis.

This is driven by various factors - it will be important to ensure that the economy is producing enough opportunities to enter higher skill jobs, or education and training.

Proportion of 16-17 Year Olds Not in Employment, Education or Training
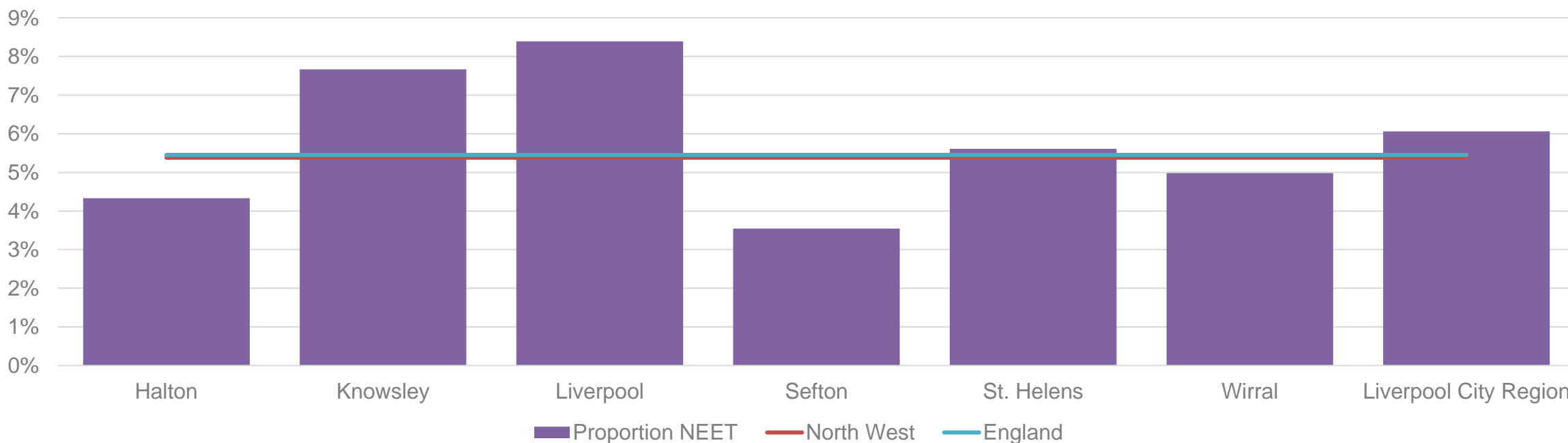
Source: DfE NEET and Participation, 2020

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While overall apprenticeship numbers have fallen in recent years, there has been a shift towards higher and advanced apprenticeships

In 2018/19 there were **22,545 apprenticeship starts** in LCR. Although this is down from 2014/15 the number of higher apprenticeships rose by around 2,500 and now makes up 16% of all apprenticeships.

Overall, LCR has roughly the same proportion of apprenticeships per head of population as the national average.

Number of apprenticeship starts in LCR, 2014/15 – 2018/19
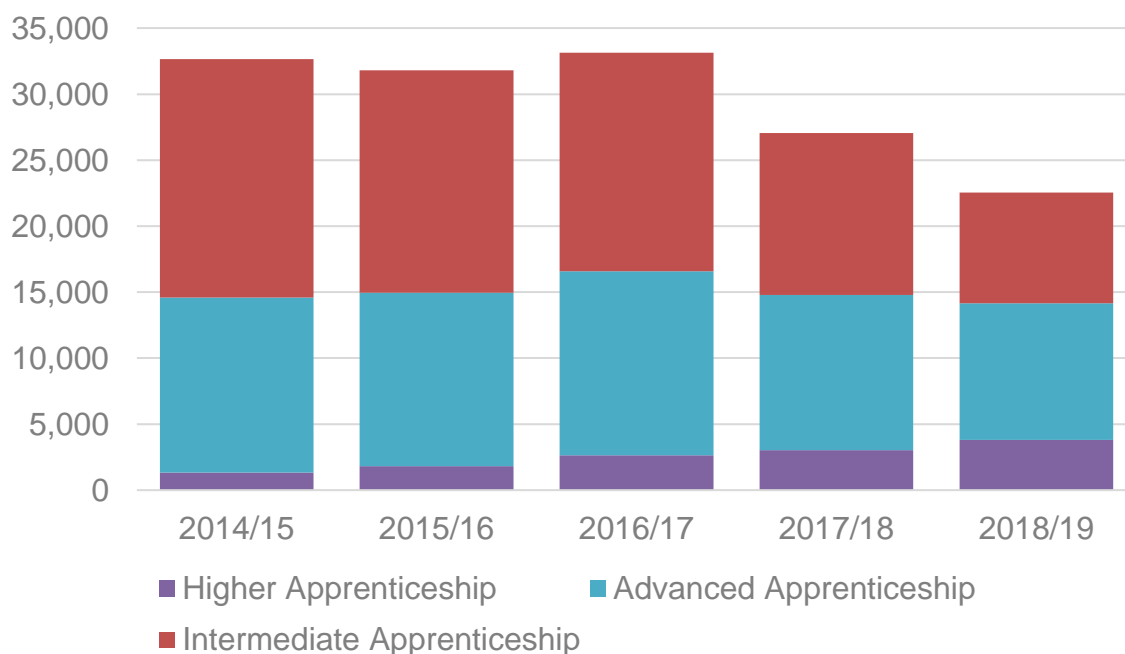
Number of apprenticeship starts in LCR, 2018/19
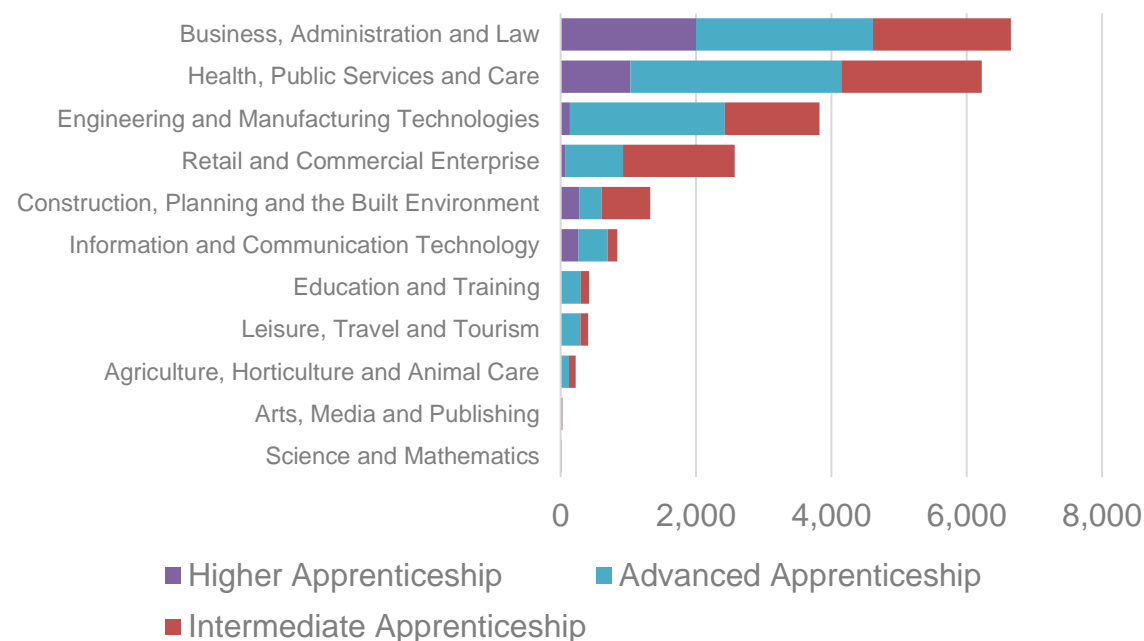
Source: DfE Apprenticeships and Traineeships Data, 2014 - 2019

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The Business and Innovation Environment

Plan for Prosperity Objective: Maximise the full potential of our innovation ecosystem, underpinned by distinctive, world leading capabilities and a highly innovative business base

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Challenges and Opportunities: The Business and Innovation Environment

Challenges

- **LCR has too few businesses and jobs to support strong economic performance**. The number of businesses per working age resident in LCR is the third lowest of all LEP/CA areas. If our business density matched the national average, this would add 23,500 businesses to the City Region.

- **We do not have enough businesses in more productive, knowledge intensive sectors**. Only 24% of all LCR businesses are in knowledge intensive sectors, compared to 28% nationally. These types of businesses tend to be more productive, engage in more R&D and more likely to adopt new innovative processes. The lack of knowledge intensive businesses harms economic performance and will slow down future growth. This also means that out businesses are not producing enough of the higher value, higher skill and higher paying jobs for our residents.

- **Not enough LCR businesses are scaling up quickly**. Despite high business starts rates, LCR has relatively few high growth enterprises. Combined with our relatively low business survival and high business death rates, this indicates that our businesses struggle to grow quickly and sustainably.

- **LCR's relatively poor skills profile means high productivity businesses face skills shortages**. LCR has a relatively low, but growing, proportion of residents with at least degree level qualifications and a high rate of hard-to-fill high-skill vacancies.

Opportunities

- **LCR has a high business start rate**. LCR's business growth rate has outstripped regional and national rates in recent years, with particularly fast growth in the transport and storage sector. If we can increase the survival rate of these businesses, there is an opportunity to accelerate growth in our business base and economy.

- **LCR has the potential to be a strong R&D economy, making a contribution to national objectives**. LCR has outperformed national and regional rates of expenditure on R&D in recent years and can take advantage of its distinctive research excellence and innovation assets to support further innovation-led growth.

- **Exports make a relatively large contribution to LCR's economic output, with scope for further growth**. LCR is home to the UK's largest westward facing port. Combined with the freeport and growing manufacturing and logistics sectors, LCR can drive national export-led recovery.

Before Covid, our business base was growing at pace

There are 53,800 active businesses in Liverpool City Region. Since 2016, our **business base has grown at a faster rate** than both the North West and the UK.

Business growth, 2016 - 2021
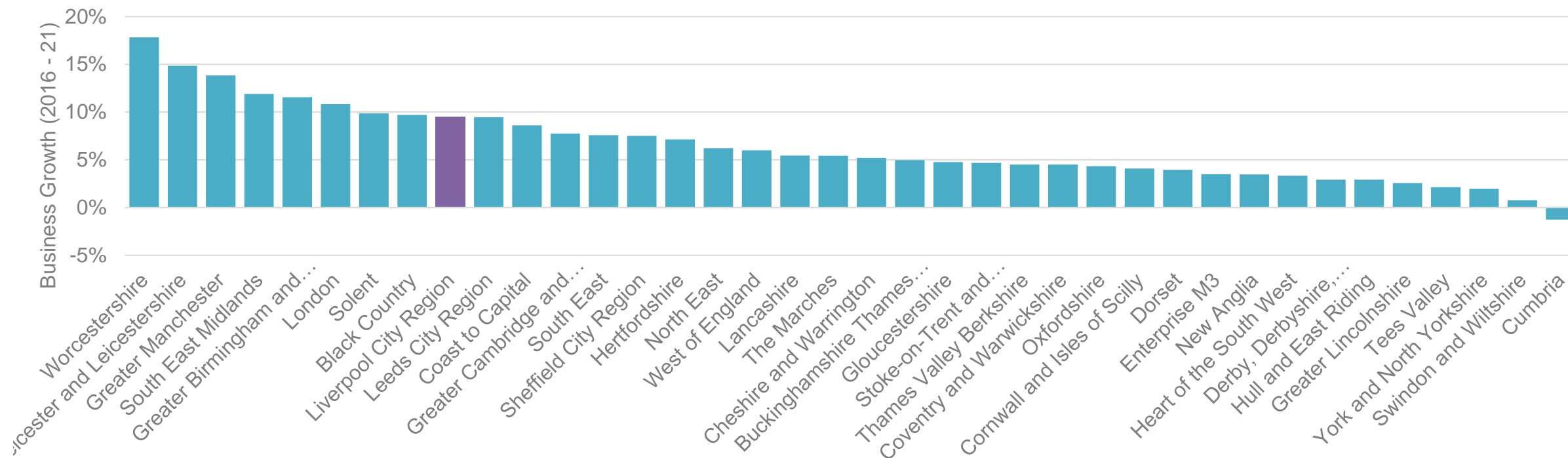
Source: ONS UK Business Counts, 2016 – 2021

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We have a very strong business birth rate

Our rate of business growth has outstripped regional and national rates in recent years. This is driven by a **consistently high business birth rate**. We have the second highest birth rate of English LEPs and the highest of any northern LEP.

Business births as a proportion of active business population, 2020

Source: ONS Business Demography, 2020

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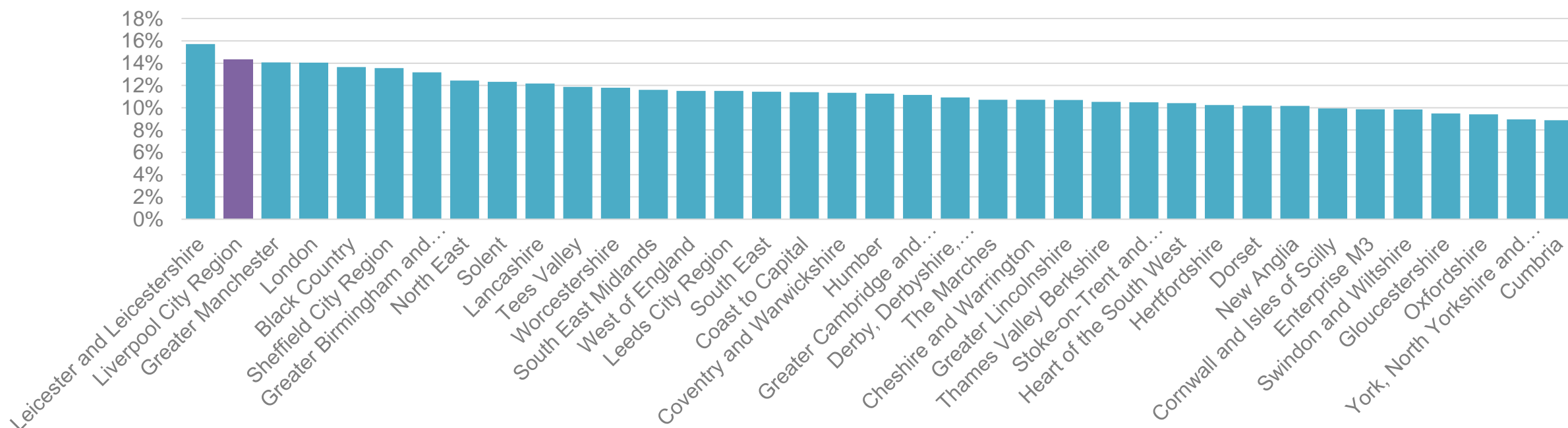
…but our business density is still too low

Although our business birth rate is high, we still have a relatively **small number of businesses relative to our population**. Our business density is the fourth lowest of all LEP/CA areas and this is contributing to our performance gaps with the UK.

Number of businesses per 10,000 working-age residents, 2021
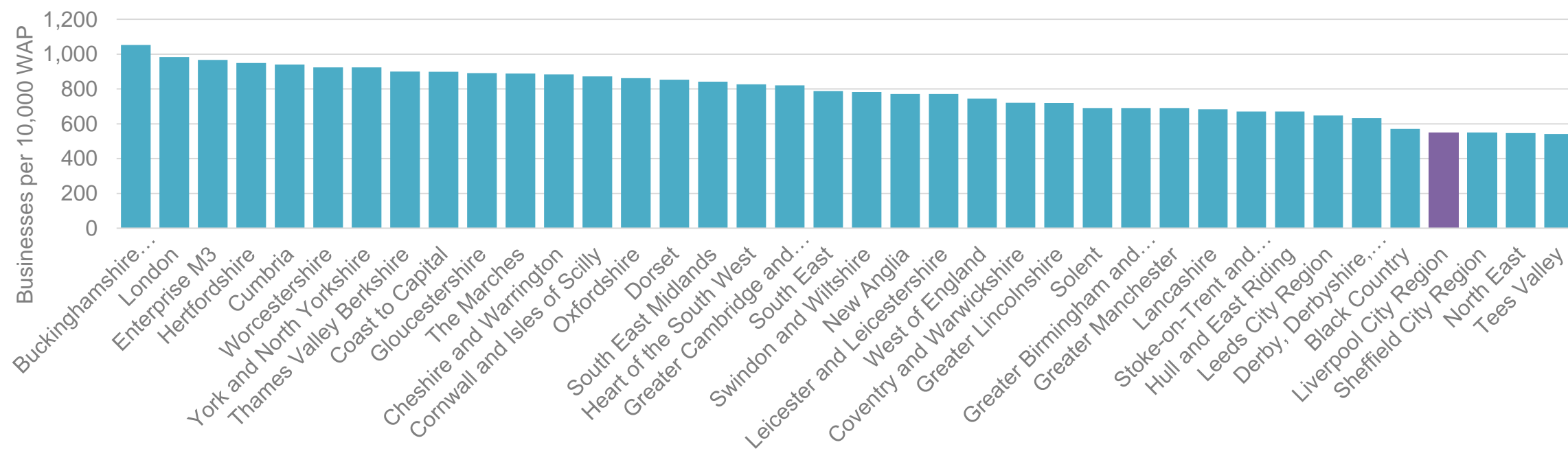
Source: ONS UK Business Counts, 2021; ONS Mid-Year Population Estimates, 2020

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…and our businesses do not provide enough jobs for our residents

We have a relatively **low number of jobs relative to our population**. Our employment density is the seventh lowest of all LEP/CA areas. This is reflected in our high economic inactivity rate and is a key reason why our GVA per head is relatively low.

Number of jobs per 10,000 working-age residents, 2020
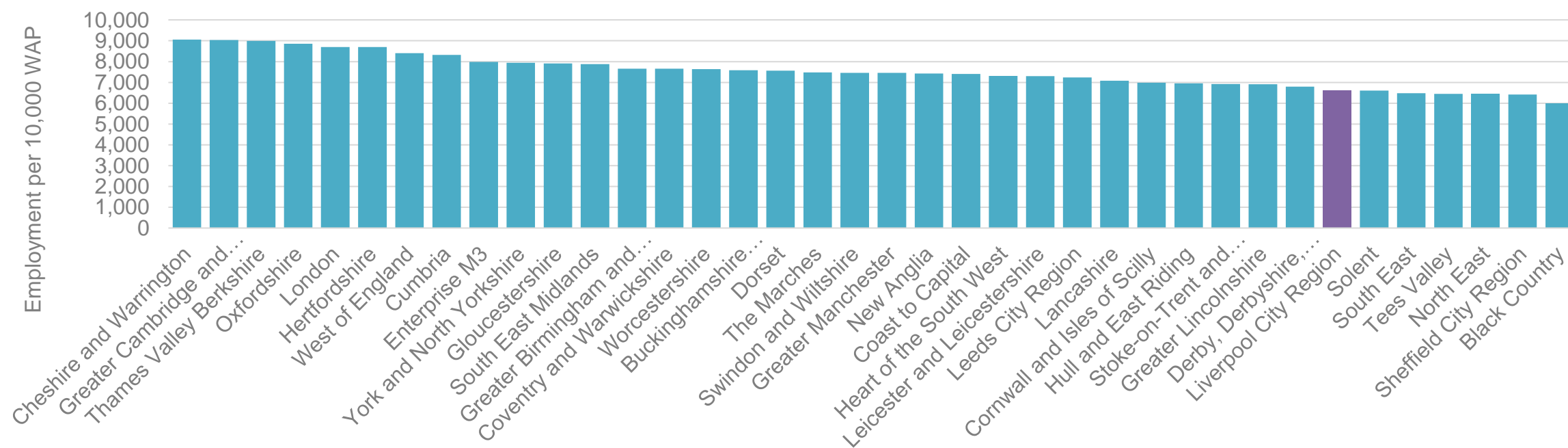
Source: ONS Business Register and Employment Survey, 2020; ONS Mid-Year Population Estimates, 2020

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Our business survival rates are below average

Despite high business growth and average business death rates in LCR, our **business survival rates are consistently lower than comparators**. More businesses close in their first three years in LCR compared to England. This is indicative of a business base struggling to grow consistently and scale-up.

Business deaths as a proportion of active businesses, 2015 - 2020
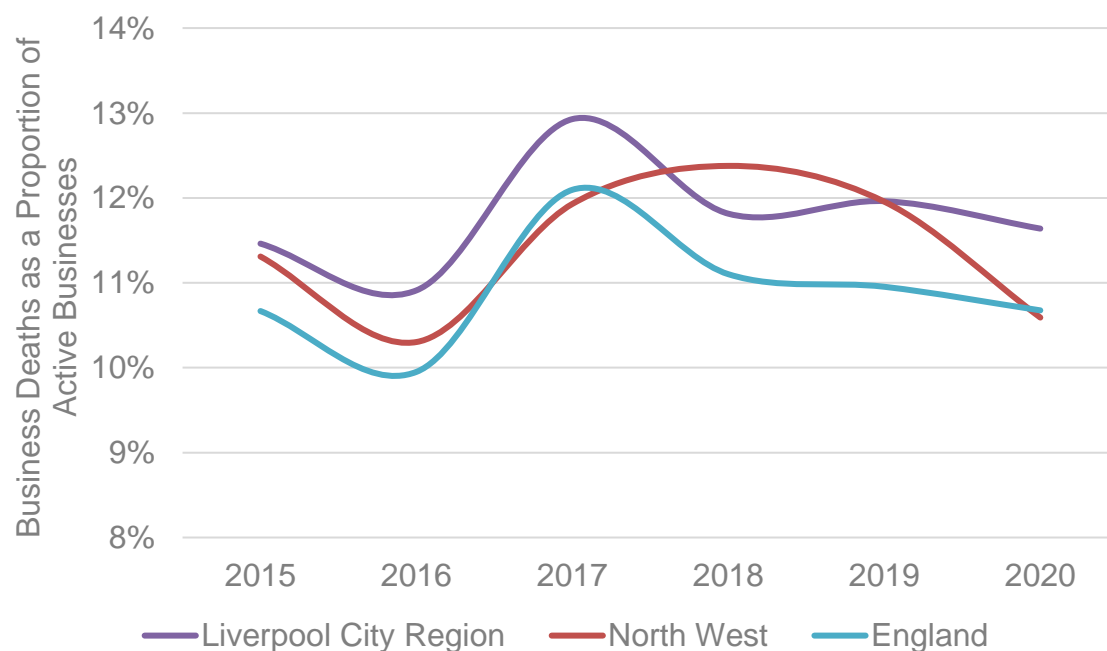
Three year business survival rate (businesses started in 2015-17)
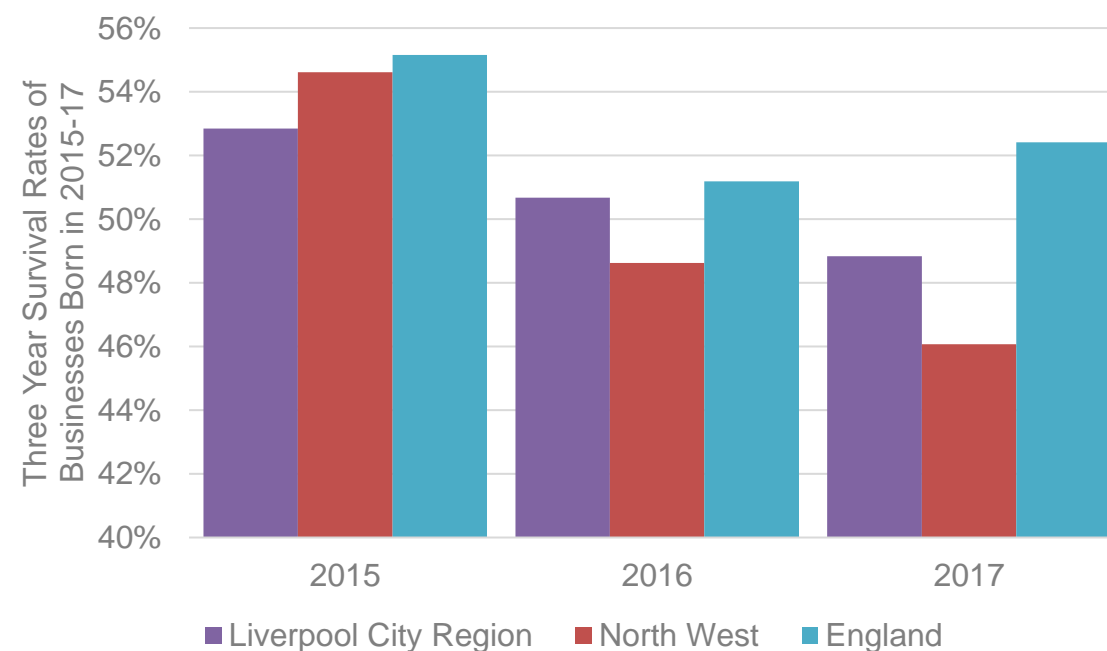
Source: ONS Business Demography, 2015 - 20

…and we struggle to produce fast growing firms

In 2020 there were 210 High Growth Enterprises (HGE) in LCR, representing 418 HGEs per 100,000 active businesses. Combined with our relatively low business survival and high business death rates, this indicates that LCR's **new business starts struggle to grow quickly and sustainably**.

Number of High Growth Enterprises per 100,000 active businesses
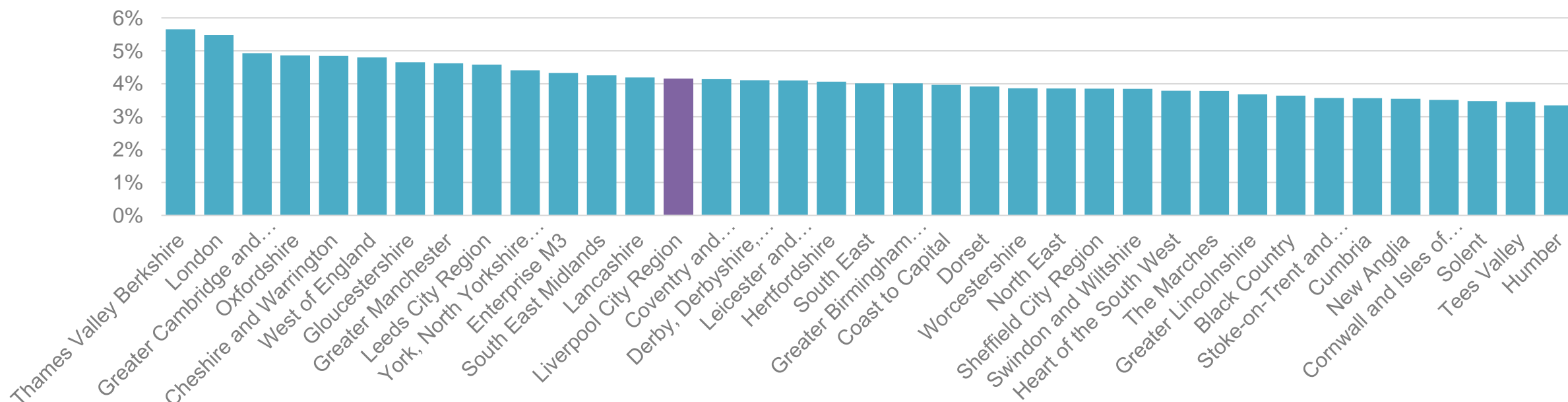
Source: ONS Business Demography, 2020

Note: A High Growth Enterprise is defined as an enterprise with average annualised growth greater than 20% over a three year period.

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We have too few businesses in knowledge intensive sectors

In LCR there are 12,700 businesses in knowledge intensive sectors. These businesses are less represented in LCR compared to the rest of the country. 24% of all LCR businesses are in these sectors compared to 28% nationally. Similarly, only 16% of LCR jobs are in knowledge intensive sectors, compared to 18% nationally.

Proportion of businesses in knowledge intensive sectors

Source: ONS UK Business Counts, 2021

Proportion of jobs in knowledge intensive sectors

Source: ONS Business Register and Employment Survey, 2020

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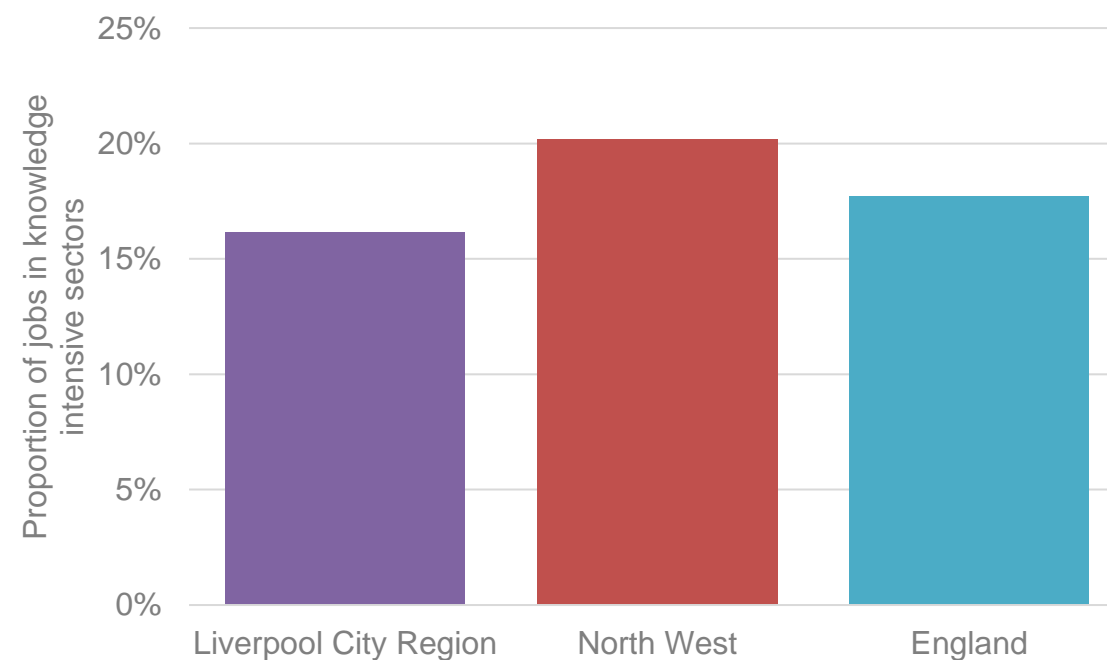
Exports make a slightly larger than average contribution to our GVA

Our exporters trade at a slightly higher rate compared to regional and national businesses. This is mostly due to a higher rate of trade with non-EU countries.

But we have relatively few businesses in tradeable sectors (20% of our business base compared to 29% nationally). These businesses tend to be more likely to adopt innovative processes, make productivity improvements, and export.

Exports to GVA ratio, 2019

Proportion of businesses in tradeable sectors, 2020

Source: HMRC Regional Trade in Goods Statistics, 2019; ONS Regional GVA, 2019

Source: ONS UK Business Counts, 2020; Centre for Cities, The Wrong Tail, 2018

Overall we are performing relatively well on R&D expenditure, generally above the national average

In recent years, our research & development expenditure has been significantly higher than national and regional levels. In 2018, £606m was spent on research & development in LCR, representing 1.8% of GVA. This is a decrease on the previous year, 2017, due to a drop is higher education expenditure on R&D. In 2017, LCR's expenditure on R&D reached 2.4% of GVA, meeting the national target for 2027.

Research & Development expenditure as a proportion of GVA
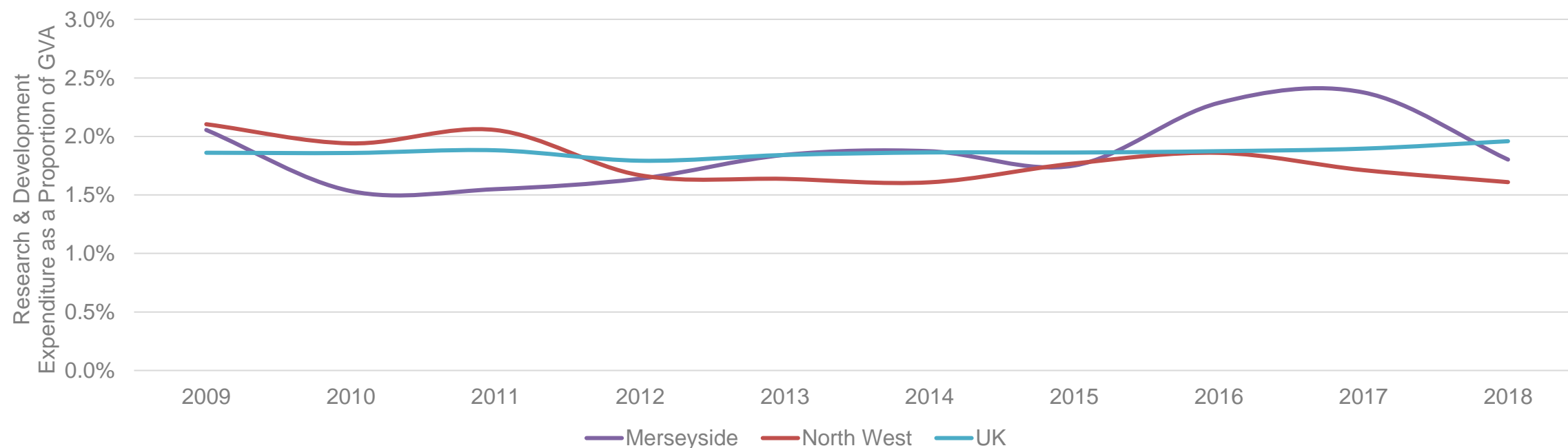
Source: Eurostat, 2009 - 2018

Note: The large drop in 2018 is due to a significant drop in HERD. This may be a data error.

This is supported by our innovation specialisms

Materials Chemistry

- World-leading industry and academic expertise in materials chemistry and fast moving consumer goods (FMCG)
- Track record of accessing research funding from national and international sources
- A unique model for university-industry collaboration - the 'Liverpool Model' - developed in partnership with multinationals and their supply chains in several phases over the past 15 years
- Opportunity to translate this model into other parts of the LCR innovation ecosystem
- Opportunity to become a globally significant player in both FMCG and other high value chemical industries and their supply chains, underpinned by academic excellence

Infection

- World-leading assets and expertise, with the largest concentration of expertise in translational-focused public sector research, development and innovation (RD&I) for infectious diseases in the UK
- An excellent track record of accessing research funding from national and international sources, including the World Health Organisation and Gates Foundation
- Opportunities to leverage strengths through Centre of Excellence for Infectious Disease Research, and attract further inward investment
- Need to convert this research excellence into economic impact within the LCR

High Performance & Cognitive Computing

- Nationally significant cluster, including IBM and The Hartree Centre, at Sci-Tech Daresbury
- Opportunity for high performance and cognitive computing (HP&CC) to be developed both as a sector in its own right, and as an enabler for infection and materials chemistry, and the wider economy
- Opportunity to develop the local supply chain to retain and enhance the LCR presence of IBM and Atos
- Opportunity to increase HP&CC activity in Liverpool's Central Business District and Knowledge Quarter
- Opportunity to build stronger links between Sci-Tech Daresbury and the emerging digital cluster in the Baltic Triangle of Liverpool

And many important innovation assets

Transatlantic Fibre Optic Cables
The transatlantic internet cables connecting the UK, North America and the rest of the world land in Sefton. We are looking to build on this asset with the potential global digital interchange in Southport.

Knowledge Quarter Liverpool
University of Liverpool, Liverpool John Moores University, Liverpool School of Tropical Medicine, Royal Liverpool University Hospital, Hope Street Cultural Quarter; including:
- **Materials Innovation Factory** – world-leading robotics/computer-aided materials design & discovery
- **Sensor City** – one of the world's only dedicated sensor & IoT incubators
- **Health Innovation Liverpool campus** anchored by Royal College of Surgeons North (open 2020) & Civic Data Cooperative

L2 Port of Liverpool
Large and growing port that plays a significant role in facilitating UK trade with North America.

Glass Futures
Intended location of a new industry-led global glass R&D hub with 30T per day pilot plant, close to where Pilkington invented the float glass process.

Liverpool Bay and Mersey Tidal
Our natural assets support our clean growth aspirations. Liverpool Bay is home to some of the largest offshore windfarms in the world, while we can realise the potential for tidal energy through the Mersey Tidal project.

Rocksavage International at INOVYN, & Ineos Hydrogen Supply
Developed new generation and storage technologies for hydrogen, a by-product of its chlor-alkali production. It is now one of the largest hydrogen fuel suppliers in Europe.

5G Health & Care Testbed
The UK's only DCMS-designated 5G health & care testbed, delivering services to one of the country's most deprived places via Europe's largest 5G mmWave mesh network.

Sci-Tech Daresbury
National STFC science & innovation sister campus to Harwell, including:
- **Hartree Centre** – UK's most powerful supercomputer dedicated to industrial R&D
- **IBM Global Research Lab** & UK "Watson" AI platform base
- **Atos Quantum Learning machine** (only 1 in the UK)
- **Virtual Engineering Centre**, pioneering visualisation and digital adoption with industry
- **Industrial Digitisation Accelerator** for Industry 4.0 technologies partnering with Siemens & Atos.
- **Hitachi High-Technologies** UK scientific base

Wirral Waters
Close to the world famous Cammell Laird shipyard, Wirral Waters is a 500 acre £4.5 billion Enterprise Zone. This will include the proposed Port City Liverpool maritime innovation hub.

Baltic Triangle
Nationally significant digital & createch cluster.

Unilever Port Sunlight
The company's birthplace and global R&D headquarters. A new Advanced Manufacturing Centre was recently opened, while there is intention to open a National Packaging Innovation Centre.

Alder Hey in the Park
Designated Global Digital Exemplar hospital (1 of 4 in the LCR), incorporating a 1,000 sqm innovation "Batcave," aspiring to be the world's first "Living Hospital."

Speke Bio-Manufacturing Cluster
One of the world's longest established bio-manufacturing centres, home to AstraZeneca/Medimmune, Allergan, Seqirus, and Lilly/Elanco.

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However, our businesses need to get better at commercialising innovation and absorbing best practice

Research from the ERC shows that LCR's businesses are underperforming when it comes to creating and selling innovative products. Only 32% of LCR business' sales comes from innovative products or services, compared to 50% in many other LEPs. This is driven by the lack of firms undertaking product or service innovation, with few businesses introducing new products or services to the market.

The research indicates LCR businesses are good at introducing new business practices, but not new methods of work organisation. Only 16% of surveyed firms have introduced new methods of work organisation.

Liverpool City Region innovation benchmarks, 2014 - 16

Innovation Activity	Share of Firms	Rank (out of 38 LEPs)
Introduction of new business practices by local economic area (% of firms)	27%	6
Introduction of new methods of work organisation by local economic area (% of firms)	16%	34
Marketing innovation by local economic area (% of firms)	14%	19
Percentage of firms undertaking R&D by local economic area	23%	14
Percentage of firms undertaking design investment for innovation by local economic area	10%	31
Collaboration for innovation by local economic area (% of innovating firms)	32%	19
The proportion of firms undertaking product or service innovation	26%	19
New to the market products and services by local economic area (% of firms)	7%	34
Sales of innovative products and services by local economic area (% sales of innovating firms)	32%	32
Process innovation by local economic area (% of firms)	22%	5

Source: ERC Innovation Benchmarks Report, 2017

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There is scope for significant improvement, through developing all foundations of our innovation ecosystem

Understanding the foundations of the LCR innovation ecosystem

Innovation is driven by a complex and interconnected ecosystem. This ecosystem can be broken down into seven broad foundations. This table assesses the strength of each foundation against a range of relevant indicators. Each foundation has been given a rating where:

- Green – a significant strength of LCR which should be built on to foster R&D-led growth.

- Amber – LCR performs around national average levels but must be developed further in order to realise potential.

- Red – LCR performs poorly and these indicators must be addressed in order to prevent them continuing to drag on innovation activity and growth.

Foundation of an innovation ecosystem	Indicator of innovation ecosystem foundation	Indicator assessment
1: **Globally & nationally significant local innovation assets**, plus first class enabling infrastructure	Qualitative assessment of innovation assets	Green
	Gigabit mobile and fixed broadband coverage	Green
	Connectivity to other economic and geographic markets	Amber
2: A diverse, **excellent research base** with demonstrable, distinctive "smart specialisms"	Higher education expenditure on R&D	Amber
	Research grant awards	Amber
	Research, knowledge exchange and teaching excellence	Amber
	Government expenditure on R&D	Red
3: A **vibrant business ecosystem** comprising a diverse critical mass of R&D intensive firms with the capacity to absorb and apply new methods and technologies	Business expenditure on R&D	Amber
	Density of R&D-intensive and knowledge economy firms	Red
	Business R&D grant awards	Amber
	Patents	Red
	Absorptive capacity	Amber
4: A clear, **comprehensive enterprise support system** geared towards fostering an innovation culture & diffusing knowledge across the whole business base & life cycle	Business birth rate	Green
	High growth businesses	Amber
	Incubators and accelerators	Amber
	Access to finance	Red
5: **Translational capacity** & mechanisms across organisations/sectors	Firms collaborating for innovation	Amber
	HEI Collaboration income	Green
	Patent and Innovate UK collaborations	Amber
	HEI spinouts and start-ups	Red
6: A **strong human capital profile/talent pipeline**	Qualifications profile	Red
	Graduate retention	Red
	Skills gaps and vacancies	Red
	Digital skills	Red
7: **Quality of place**	Quality of life	Amber
	Access to culture	Green
	Index of Multiple Deprivation	Red

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Integrated Infrastructure

Plan for Prosperity Objective: to create a fully strategic approach to infrastructure that delivers good, sustainable growth and shared prosperity for all our communities and businesses

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Key Challenges and Opportunities: Integrated Infrastructure

Challenges

- **Much of our housing stock is old and inefficient.** This will make it difficult to meet our net-zero goals in the housing sector, but it also impacts on our residents through higher energy bills and high rates of fuel poverty and undermines our offer as a desirable place to live and work.

- **Our digital infrastructure is comprehensive, but digital inclusion is an issue for many of our residents.** In order to reap the full benefit of our digital infrastructure we need to encourage and enable our residents to access and make best use of this. This includes ensuring that we have the right digital skills.

- **Our airport has suffered significantly during Covid.** Passenger numbers fell in 2020 to almost a quarter of their 2019 levels and it may take years for numbers to reach their previous peak. This has economic as well as connectivity implications for the City Region.

Opportunities

- **Our significant natural capital resources give us a good opportunity to create green, renewable energy.** This is particularly true of the Mersey Tidal Power project and our capacity for off-shore wind. There are potential economic as well as environmental opportunities associated with this.

- **We are a generally a well connected region, but there is an opportunity to improve our buses and cycle infrastructure to meet the needs of residents.** Not only do residents see these as important, but encouraging public transport use and active travel are important in meeting our net-zero ambitions.

- **The new freeport will provide an opportunity to build on our port's recent success.** The port has seen significant growth over the last decade, despite a small fall in traffic during Covid. The port is also well positioned to trade with non-EU countries (such as the US) which may advantageous to the port in the future given Brexit.

The Liverpool City Region transport network helps residents access employment and services relatively quickly compared to other cities
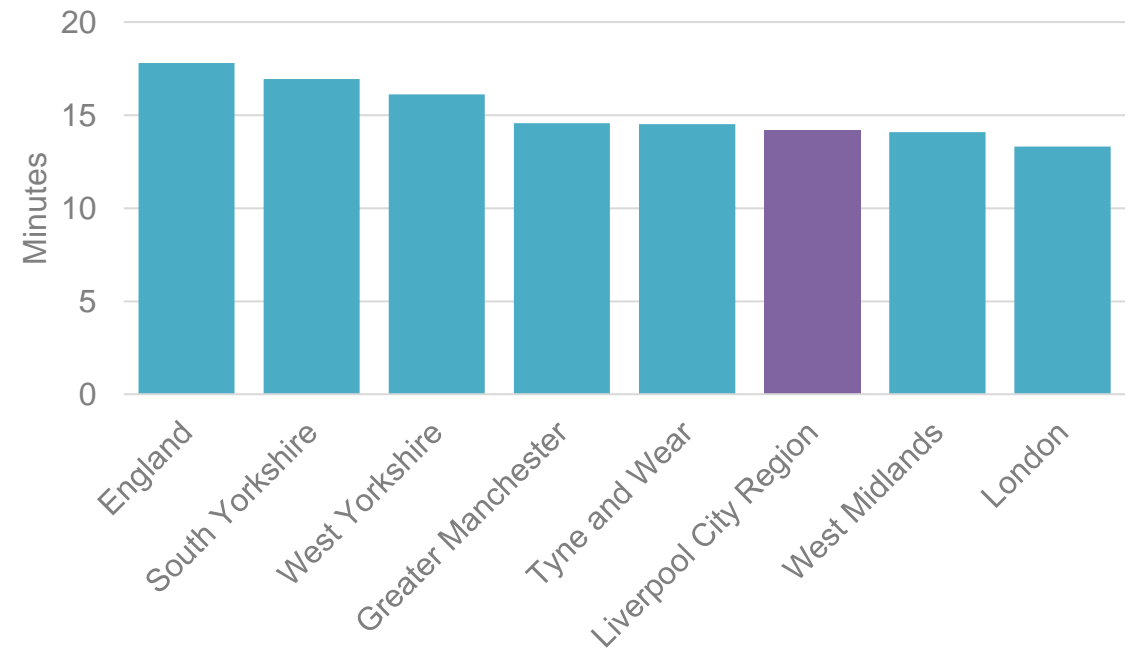
Compared to other city regions, the latest data suggests that **average travel time to key services in LCR is relatively low;** the same is true of travel to work, however this data pre-dates Covid.

Average Time Taken to Travel to Work (All Modes of Travel)

Average Time Taken to Travel to Key Services by Public Transport
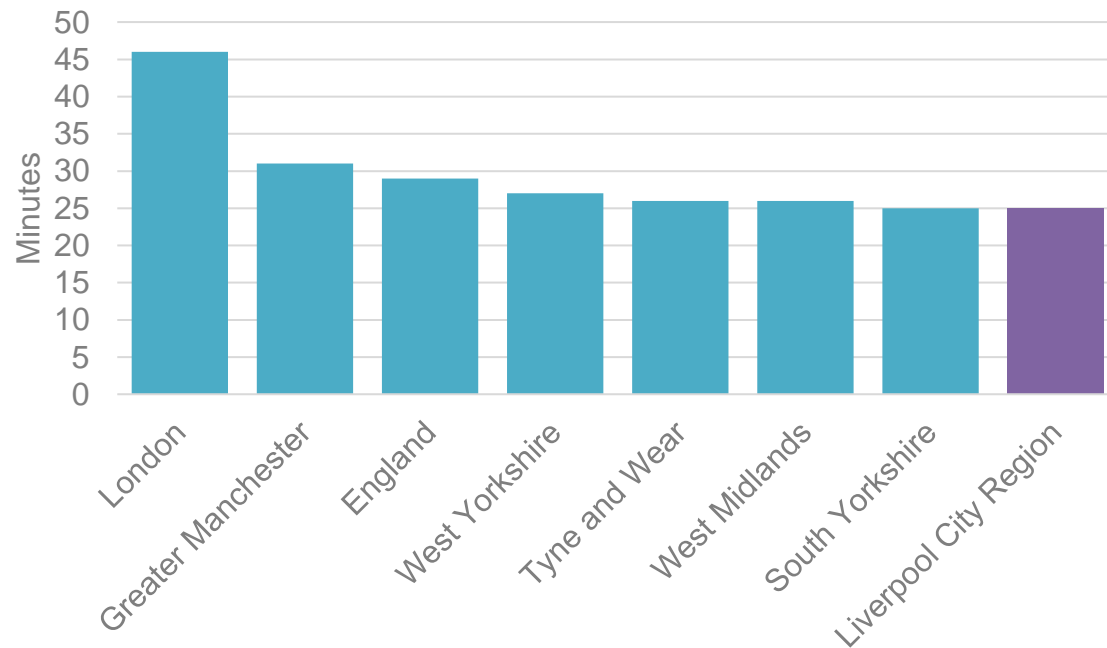
Source: DfT Journey Time Statistics, 2020

This dataset only provides data for the Merseyside area, meaning Halton is not included in the Liverpool City Region figures. Key services include employment centres, schools, Further Education, GPs, hospitals, food stores and town centres.

And the majority of residents are connected by public transport to a strategic employment site

Public Transport Accessibility of Key Employment Sites

Almost all densely populated areas in the City Region are connected by public transport to one of the eight largest employment sites.

Many of these areas also function as regional centres, providing residents with access to key services.

Source: TravelTime Platform

Catchment measured as arriving at the employment site at 09:00 on weekday in 45 minutes.
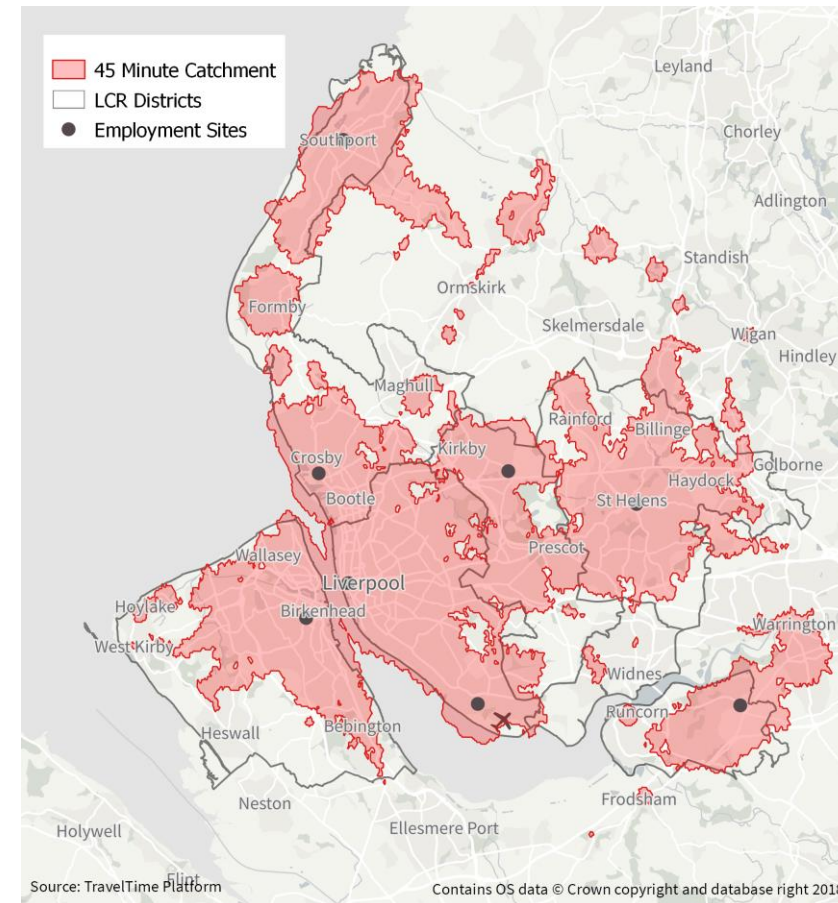
Residents living near the Merseyrail network are very well connected

Internal Connectivity of Liverpool City Region by Rail

For those living near Merseyrail stations (along the Northern and Wirral lines), **the network quickly and efficiently connects residents with key employment areas and services** in the City Region. However, **rail connectivity is much weaker away from the Merseyrail network**. Other rail services are less reliable and there are some notable gaps, particularly in more rural areas.

Significant growth in passenger numbers over the coming decades was anticipated pre-Covid. The Long Term Rail Strategy notes that investment is required to mitigate constraints on this growth, particularly in central Liverpool. It is unclear what the longer term effects of the pandemic will be for demand for public transport.

Source: Merseytravel Long Term Rail Strategy

Liverpool City Region
Connectivity by Rail
Less Connectivity
More Connectivity
Line
National Line
Northern Line
Wirral Line
Employment Sites

Southport
Knowsley Industrial Park
St Helens
Port of Liverpool
Liverpool City Centre
Birkenhead
Estuary Business Park
Daresbury Sci Tech

0   20
kilometers

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Whereas those living away from the rail network commute by car or bus

Levels of car usage are very uneven across the City Region; **it is significantly more common in less deprived areas**.

Buses must offer access to employment and skills for those who cannot access a car or do not live near rail stations. For example, much of Knowsley is not served by the rail network, but buses provide good opportunities to access employment and services.

In general, satisfaction with bus services is high in the City Region. 91% of Transport Focus survey respondents said they were satisfied or very satisfied with bus services – the joint highest in the UK with Tyne and Wear.

Proportion of Journeys to Work by Car
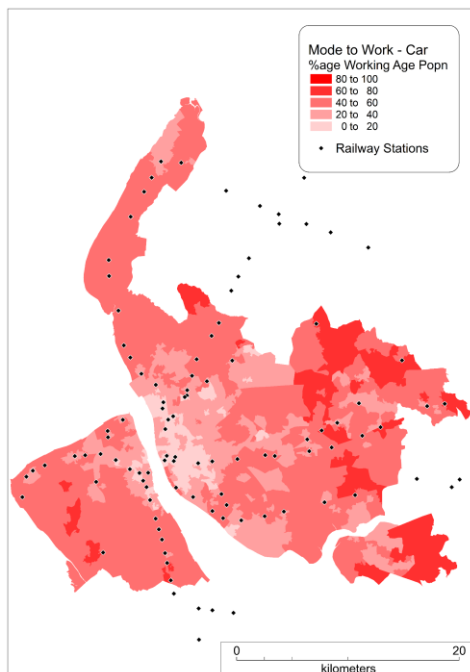
Proportion of Journeys to Work by Bus
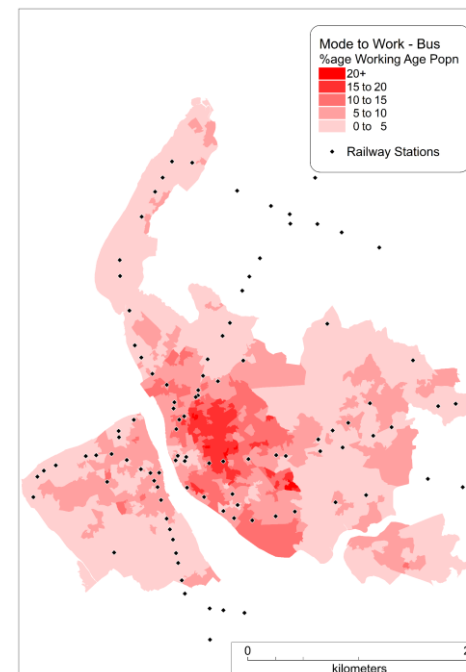
Source: ONS Census (2011)

However, there is room for improvement, particularly around our bus network

As part of our #LCRListens engagement for the LIS, 73% of respondents choose to discuss transport, indicating the importance of this issue to the City Region's residents.

The most common type of responses related to issues with buses. Comments highlighted unreliability of buses, long travel times, and high costs. Many also recognised the difference in transport availability across the LCR, with some areas better provided for than others.

I use buses every day. Traveling to Liverpool on a bus made me change my job to St Helens. Even though I have to get two buses, I still get home quicker than working in Liverpool – **Knowsley Resident (#LCRListens online)**

A quick glance at my attendance report indicates that on average I was late by 20 minutes to my 9am class every morning. I have three 9am classes per week. This equates to an hour of missed education per week. I pay for my bus services and I expect them to be on time. This loss in my education will negatively impact my future and the future of our city. – **Liverpool Resident (#LCRListens online)**

Generally good at peak times - scarce in some areas outside peak. – **Knowsley Resident (#LCRListens online)**

Public transport into and out of the city centre is generally excellent but there is often poor connections between different parts of the city. – **Liverpool Resident (#LCRListens online)**

Buses into busy areas are excellent but bus links to more remote areas or in local areas are pretty non-existent these days – **Wirral Resident (#LCRListens online)**

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And for residents who wish to travel by bike

Of those that took part in the #LCRListens online survey 10% of comments on transport noted poor cycling provision and infrastructure in the City Region, including feeling travelling by bike in the City Region was dangerous.

Perceptions of safety when riding a bike on the road

During daylight hours (1451)
- 13% — 39% — 13% — 29% — 6%

52%

During hours of darkness (1423)
- 47% — 31% — 9% — 11% — 1%

78%

■ Very unsafe   ■ Quite unsafe   ■ Neither   ■ Quite safe   ■ Very safe
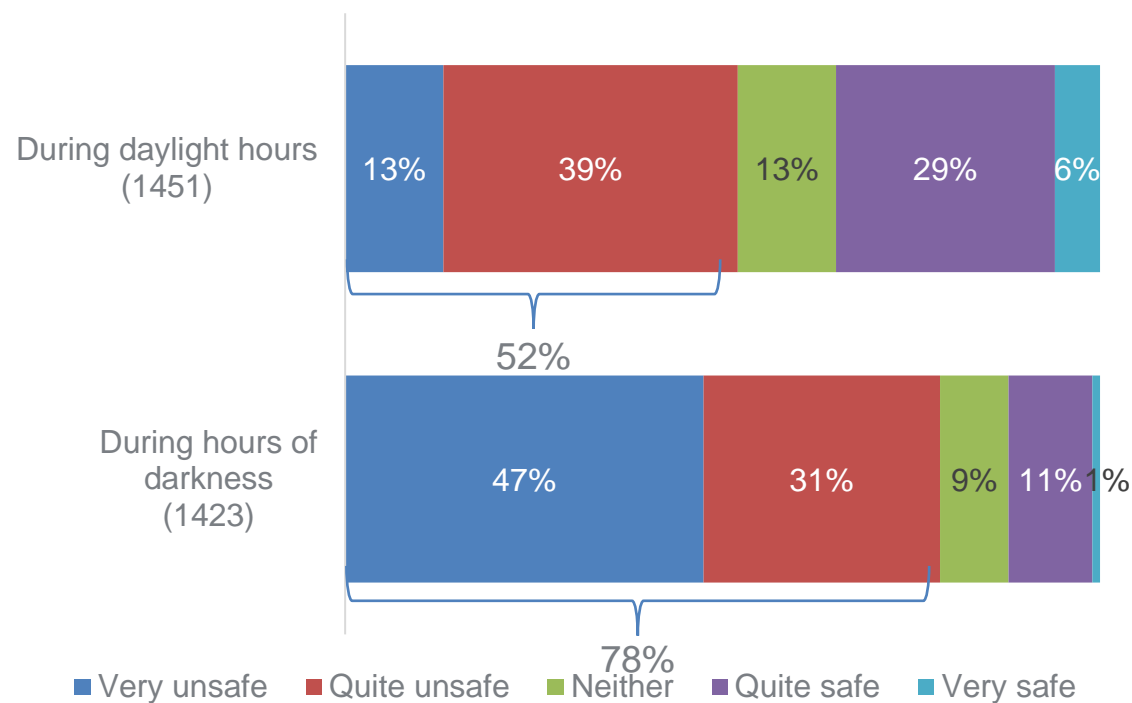
Source: Liverpool City Region Cycling and Walking Survey, 2019

Our roads are extremely hostile for riding - I've had numerous close calls and have submitted many police reports. My son cannot get to school on his bike in safety. It's a journey of around 500 metres that many of our neighbours choose to do by car. – **Wirral Resident (#LCRListens online)**

36% Agree their area has good and useful cycle routes

Source: Breaking Blue Street Survey (2019)

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Our external connectivity to other key cities in England is relatively weak

Liverpool's rail connectivity with other UK cities is poor, given its **lack of direct service links to many locations**. This is especially true for a city of its size; **of the 20 cities with better connectivity, 13 have a smaller population than Liverpool**, and there are no cities with a larger population and worse connectivity.

Connectivity with Other British Cities
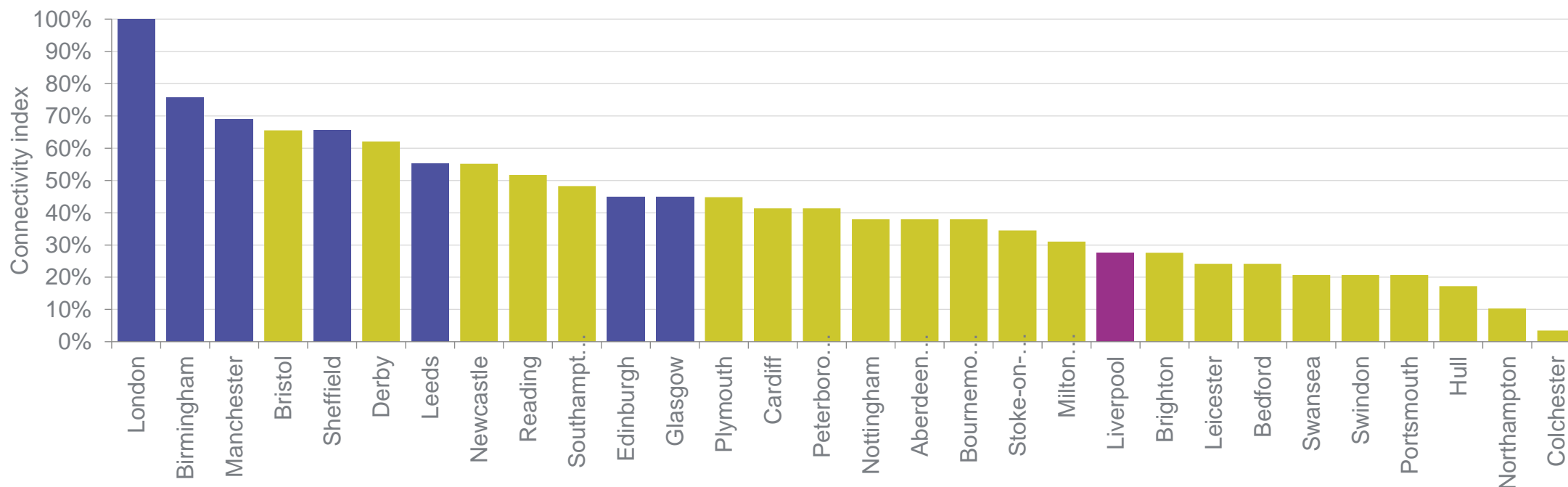
Source: LCR Long Term Rail Strategy

Note: Blue indicates a larger population than Liverpool, while yellow indicates a smaller population than Liverpool.

Although our port is a key international gateway for the UK

The Port of Liverpool is the 4th largest UK port (it handles 7% of all traffic through UK ports).

Due to the port's location on the west coast, **it facilitates strong trading links between the UK and the USA and Republic of Ireland,** but is not as well positioned for supporting trade with the rest of the EU.

Port Tonnage, All Cargoes, 2020
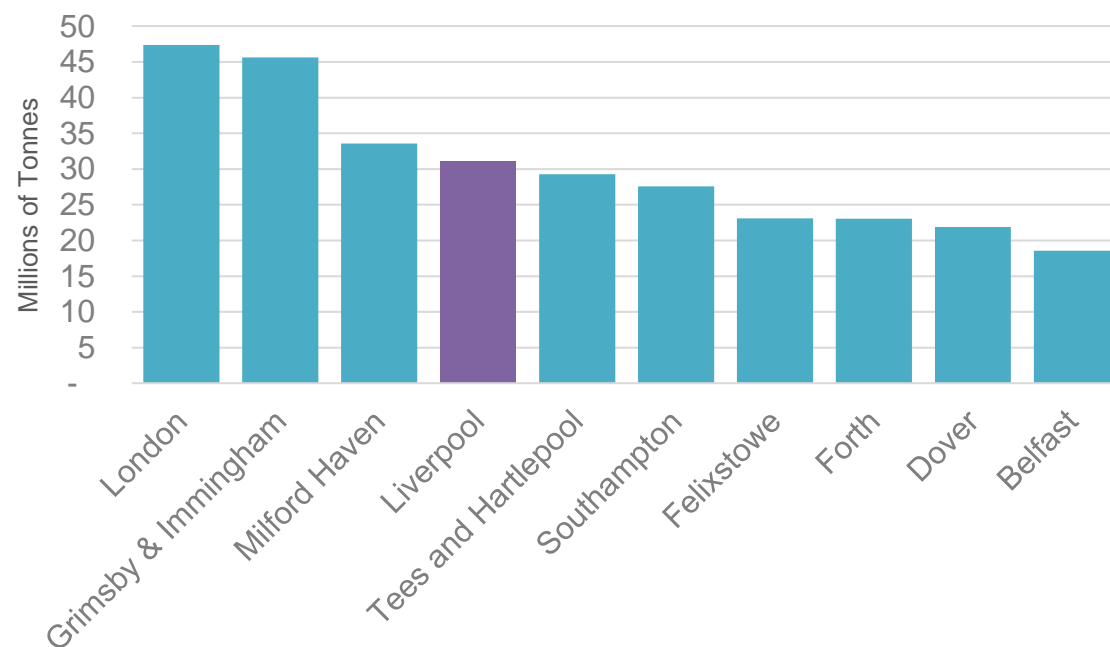
Port of Liverpool Traffic by Country, 2020

Source: DfT Port and Domestic Waterborne Freight Statistics, 2020

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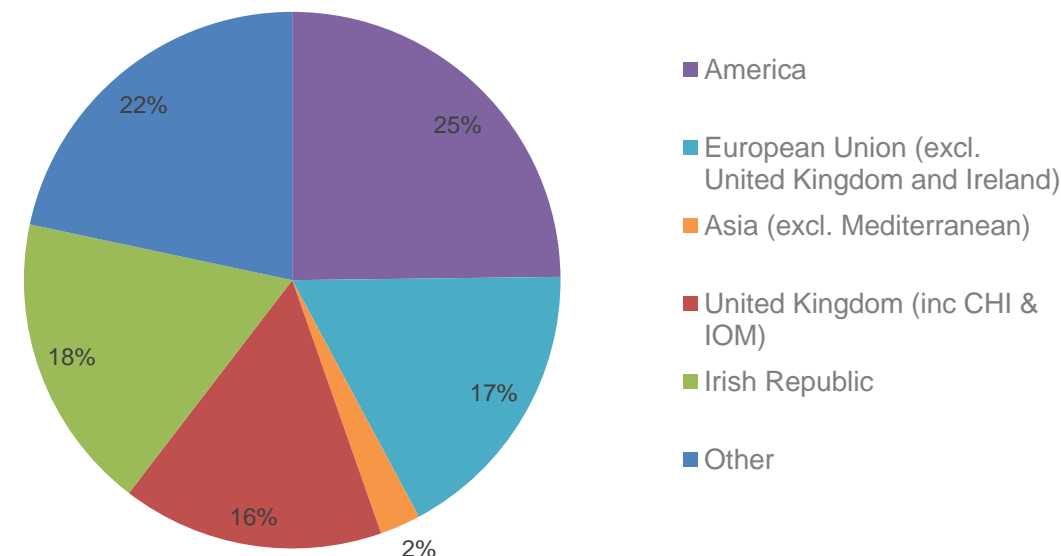
And port traffic is still above 2010 levels despite a slight fall during the pandemic and a downward national trend

During 2020, our port traffic fell by around 9% compared to 2019, similar to the fall in traffic seen nationally.

However, despite this, our traffic in 2020 was 2% higher than it was in 2000, whilst nationally traffic fell by 23% during this period; the establishment of the new freeport may further build on the port's recent success.

Change in Total Port Tonnage Since 2000, 2020

Source: DfT Port and Domestic Waterborne Freight Statistics, 2020

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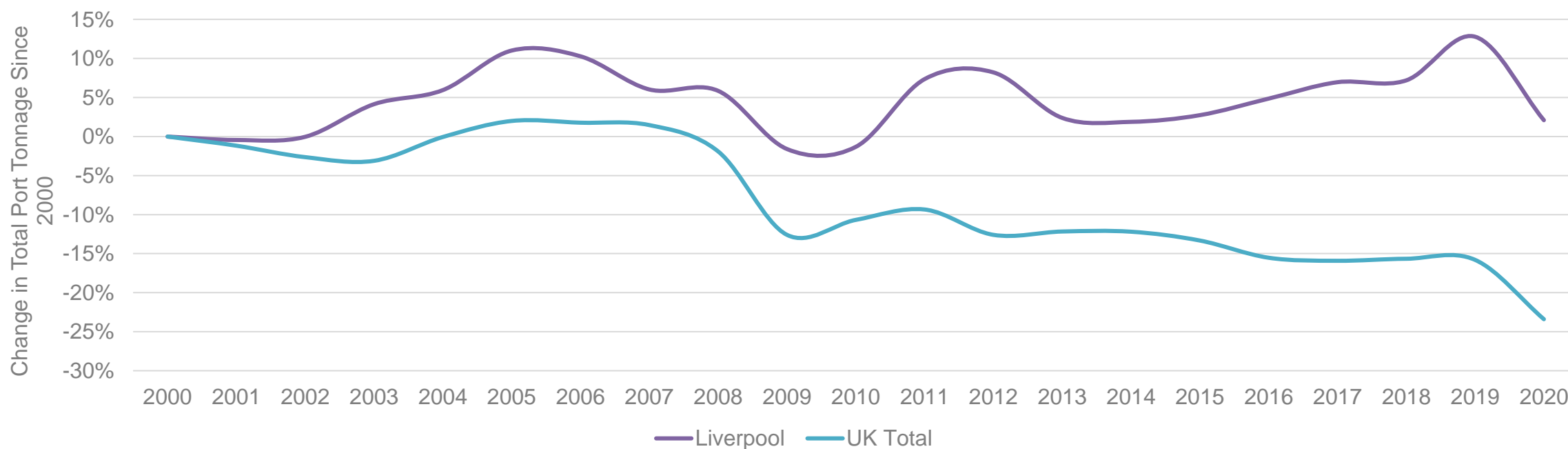
Pre-Covid, our airport served a wide catchment of passengers

Liverpool John Lennon Airport has a **wide catchment across the North West, significant growth aspirations and, alongside Manchester Airport, provides residents with good opportunities for international travel**. However, the airport is still **mostly used for leisure travel**; less than 10% of the nearly 5m passengers in 2017 were travelling for business. This is possibly due to **surface access limitations, including a lack of a direct rail link, and fewer destinations offered.** The airport needs better public transport connections, particularly to key business areas if it is to expand and become a hub.

Proportion of Passengers Travelling for Business Purposes
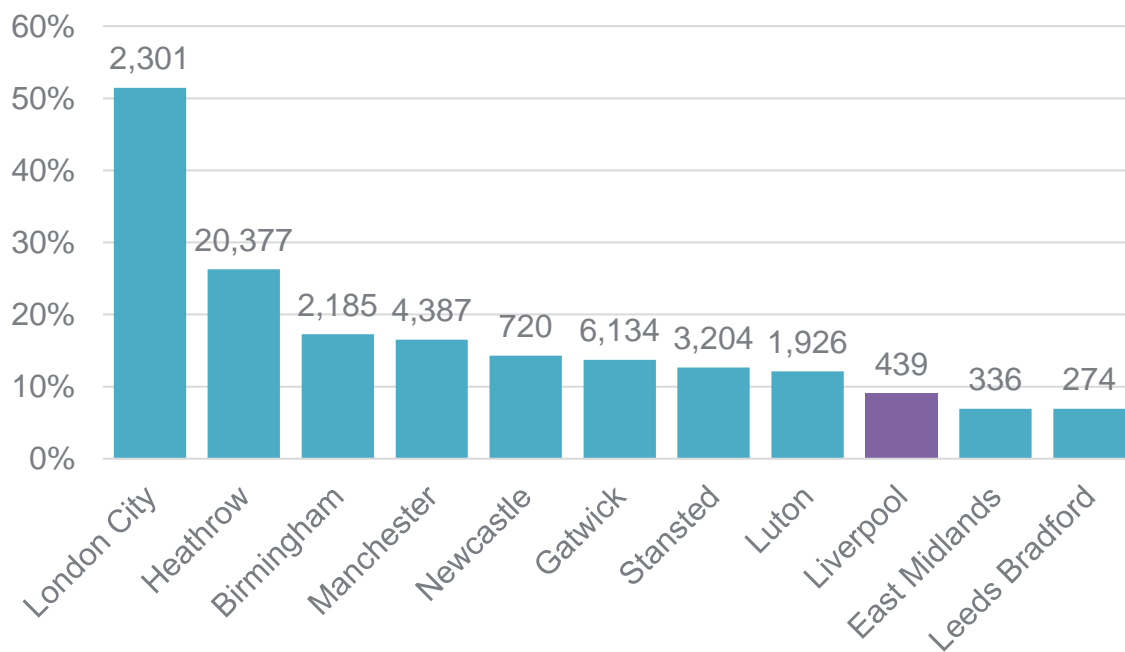
Source: CAA, 2017

Share of Journeys to Airport by Public Transport
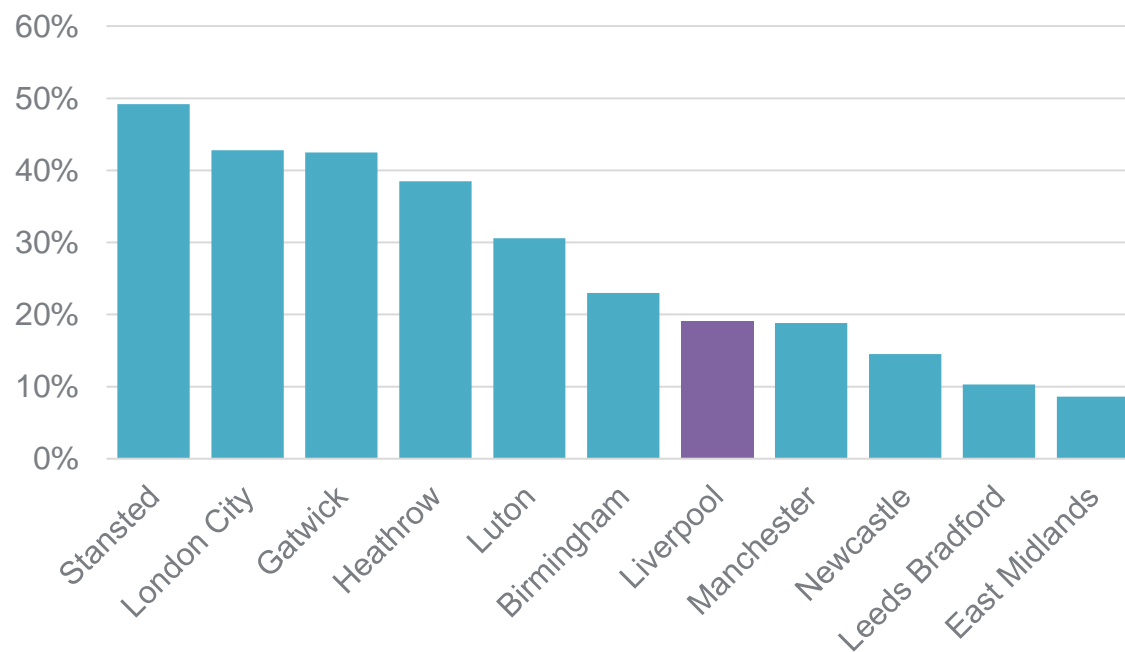
Label indicates number travelling for business purposes.

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However the airport has suffered during Covid with passenger numbers down significantly

The number of passengers using John Lennon airport dropped by 75% in 2020

A similar pattern can be seen across most other airports; the uncertainty around international travel and Covid restrictions will mean that it may be years until passenger number fully recover to 2019 levels.

Number of Passengers Using Liverpool Airport, 2018 - 2020
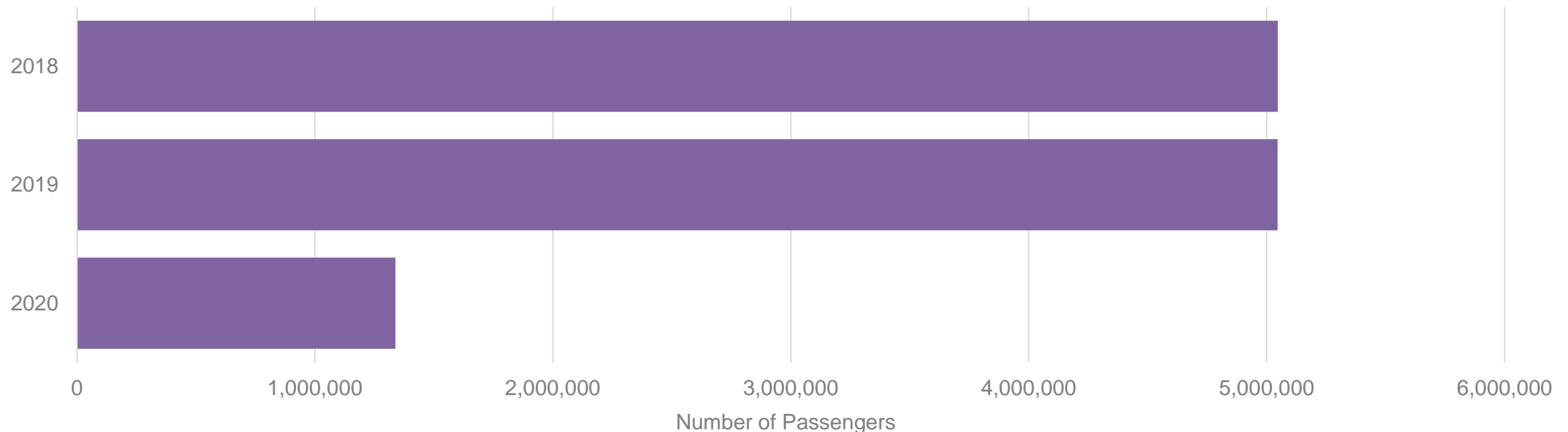
Source: CAA, 2020

Broadband coverage is high, but take-up is low in deprived areas of the City Region

Despite almost universal superfast capability, only 58% of City Region premises have taken up superfast broadband.

Superfast take up is lowest in Liverpool and is generally higher in less deprived areas.

Proportion of Premises with a Broadband Connection, 2021

Area	Superfast Broadband	Ultrafast Broadband
Halton	62%	5.5%
Knowsley	61%	6.1%
Liverpool	54%	5.3%
Sefton	59%	5.1%
St. Helens	59%	6.9%
Wirral	56%	4.6%
Liverpool City Region	57%	5.4%
England	58%	4.3%

Source: Ofcom Connected Nations, 2021

Proportion of Premises with a Superfast Broadband Connection, 2021
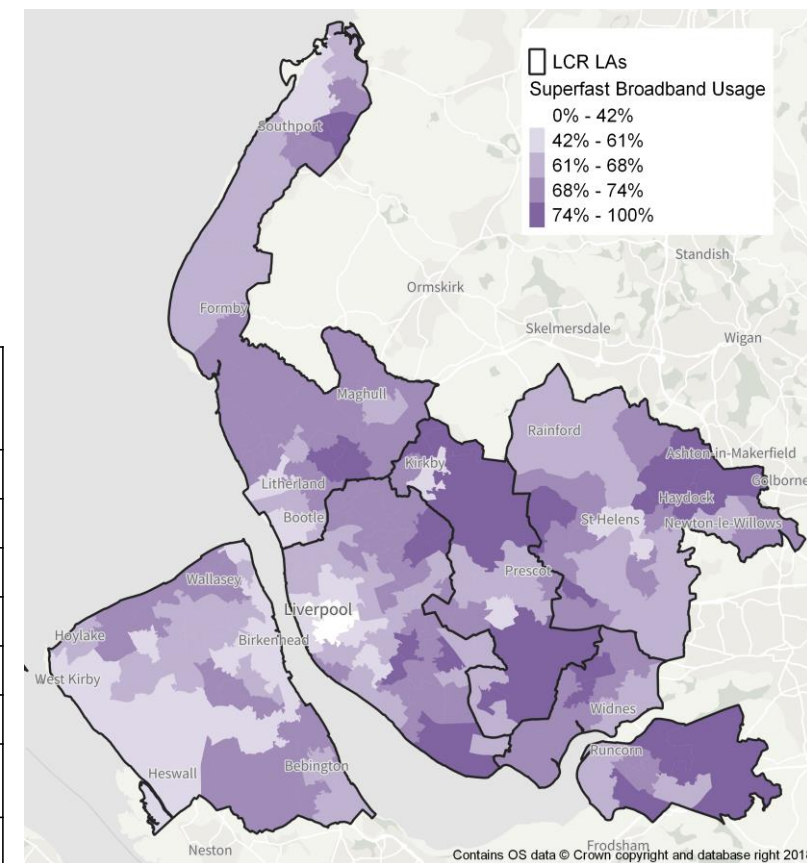
And many neighbourhoods are not digitally active largely down to cost, a lack of digital skills or a perceived lack of need for digital

A large proportion of LCR neighbourhoods are classified by low digital engagement.

23% of neighbourhoods in LCR are e-withdrawn compared to 10% nationally and these are generally in the more deprived areas of the City Region.

These residents are unlikely to access information or financial services online and do not use the internet to communicate, access entertainment or shop.

Superfast broadband take up is generally low in these areas and, while cost may be a key driver of this, it will also be due to a lack of skills or perceived need.

Internet User Classification, 2018

Group	Liverpool City Region	United Kingdom
E-Cultural Creators	**2%**	1%
E-Professionals	2%	4%
E-Veterans	6%	13%
Youthful Urban Fringe	1%	5%
E-Rational Utilitarians	12%	16%
E-Mainstream	14%	14%
Passive and Uncommitted Users	**27%**	22%
Digital Seniors	**10%**	9%
Settled Offline Communities	3%	5%
E-Withdrawn	**23%**	10%

Source: Alexiou, A. and Singleton, A., 2018

Internet User Classification, 2018

Source: Alexiou, A. and Singleton, A. (2018). The 2018 Internet User Classification. ESRC Consumer Data Research Centre. Contains OS data © Crown copyright and database right 2018
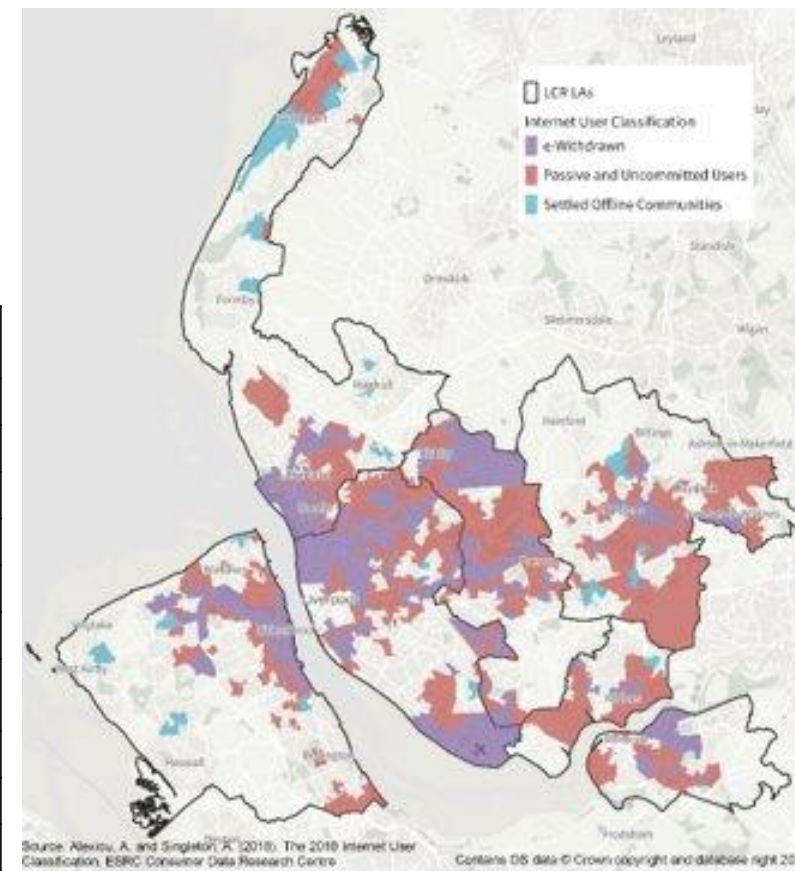
The City Region currently emits just under 7,000 kilotonnes of CO2 per year and has seen significant emissions reduction across most sectors

**LCR's carbon footprint by around 40% since 2005,** from over 11,000kt of CO2 to less than 7,000kt.

We have made significant progress in emissions reduction across most sectors, however **our transport emissions have stayed static since 2005.**

Total CO2 Emissions (Kilotonnes), Liverpool City Region, 2005 - 2019
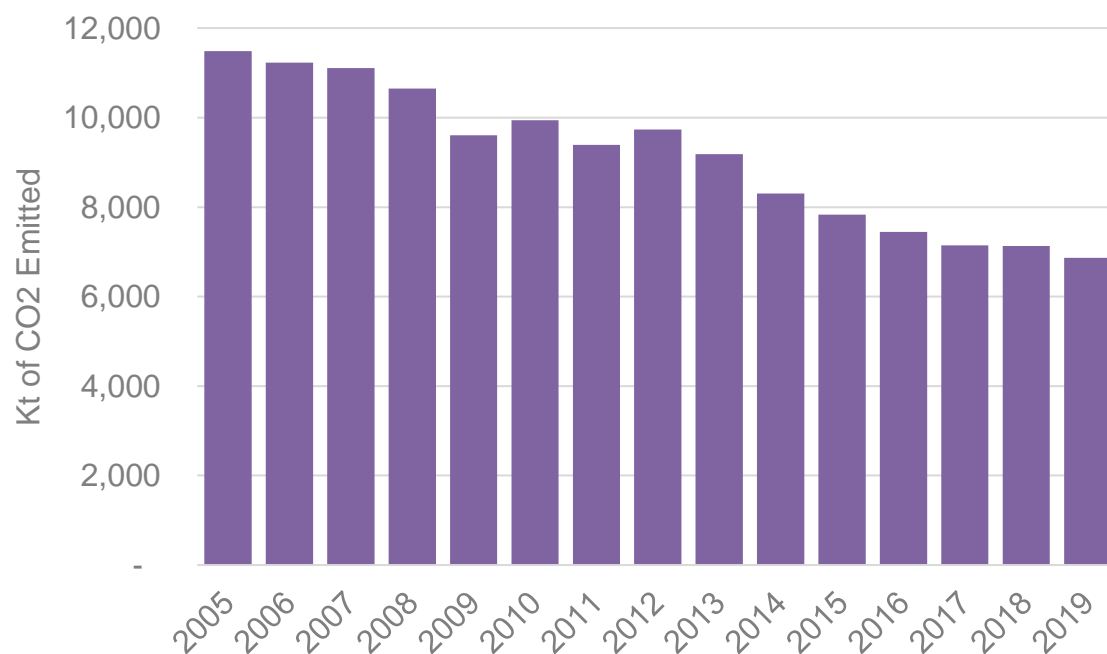
Total CO2 Emissions (Kilotonnes) by Sector, Liverpool City Region, 2005 - 2019
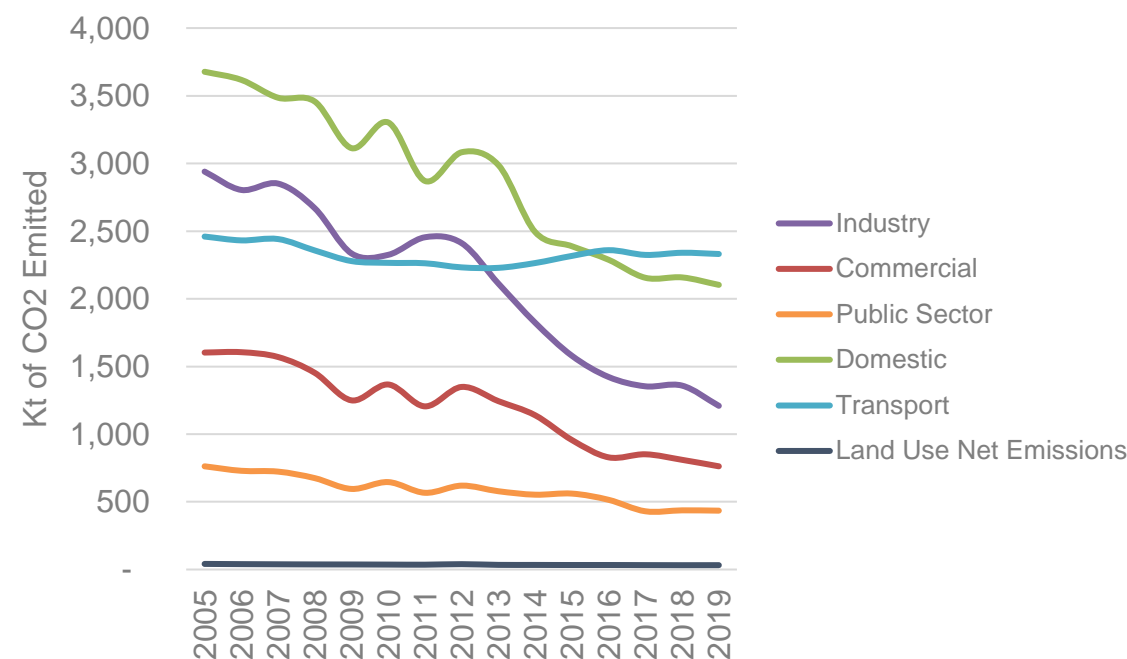
Source: BEIS Local Authority Carbon Estimates, 2021

These estimates do not include some aspects of emissions such as air travel and shipping

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LCR has reduced it's emissions by a larger proportion than both the regionally and national average and emits less carbon per person also

LCR's emissions have fallen faster than both England and the North West, though our emissions have started to fall at a slower rate than previously over the last few years.

Per person, the City Region emits less than both the national and regional average.

Change in CO2 Emissions Since 2005
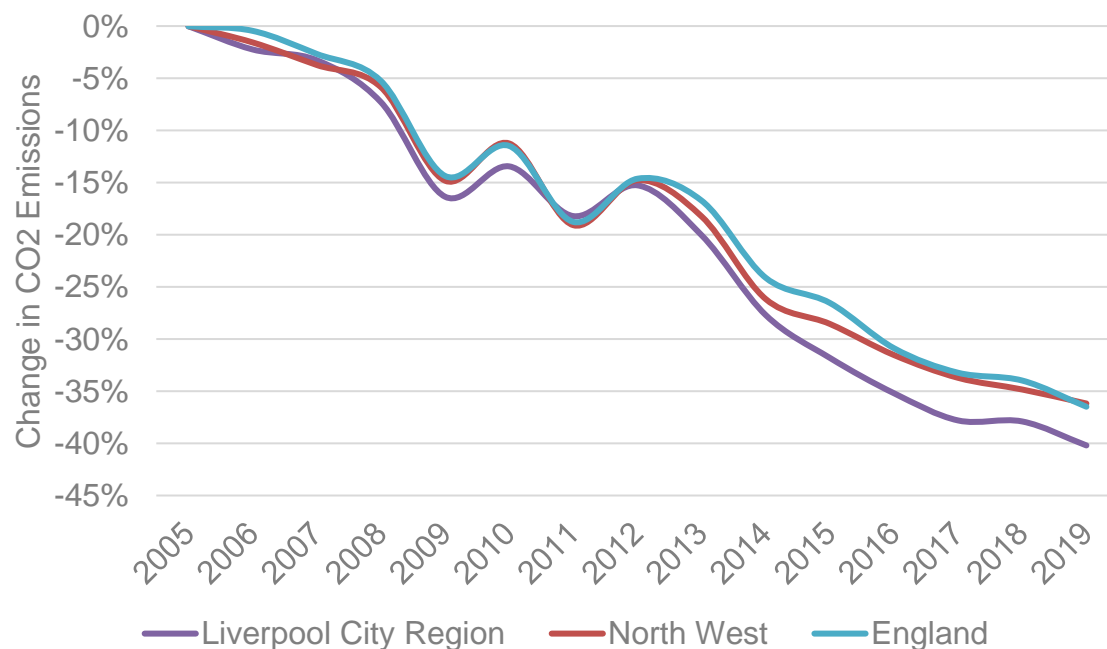
CO2 Emissions (Tonnes) Per Capita, 2019
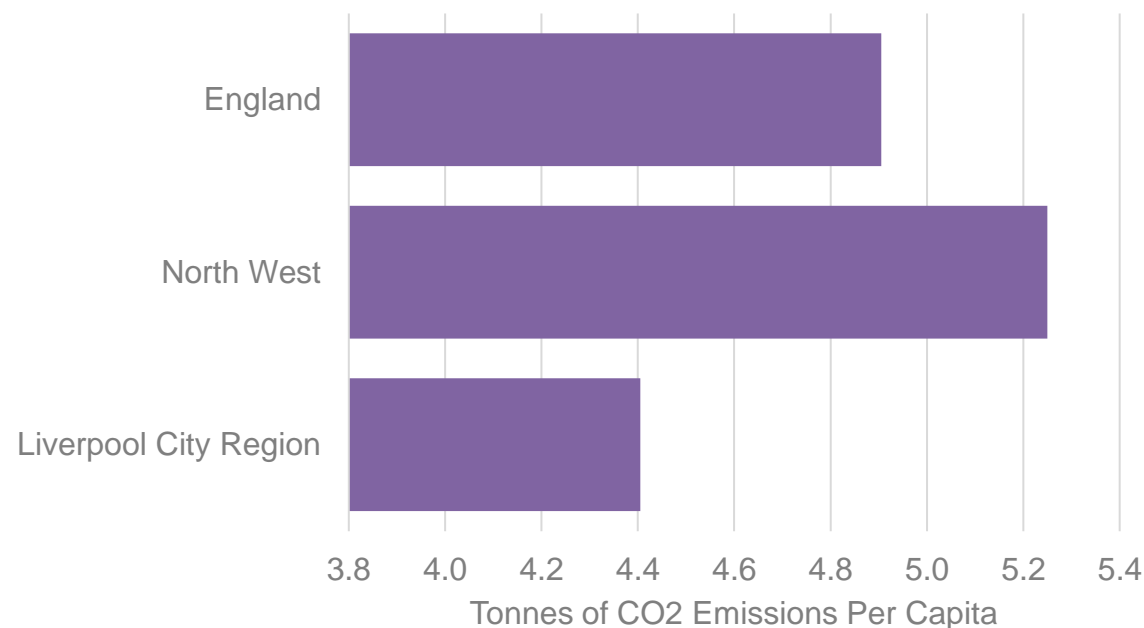
Source: BEIS Local Authority Carbon Estimates, 2021

These estimates do not include some aspects of emissions such as air travel and shipping

Carbon emissions from housing has fallen significantly since 2005, however much of this is due to the de-carbonisation of electricity

Reductions in emissions from electricity has been the primary driver of falling emissions since 2005 in the domestic sector.

Whilst some of this has been caused by efficiencies, a proportion of the reduction in electricity emissions between 2005 and 2018 is a reflection of the de-carbonisation of the national grid.

The domestic sector has, however, also seen reductions in the carbon dioxide emissions from gas, though since 2014 emissions from domestic gas has been increasing.

Gas (primarily used for heating homes) is therefore the major challenge facing the City Region if it wishes to totally de-carbonise its housing stock.

Total Domestic CO2 Emissions (Kilotonnes) by Sub-Sector, Liverpool City Region, 2005 - 2019

Legend: Domestic Electricity, Domestic Gas, Domestic 'Other Fuels'
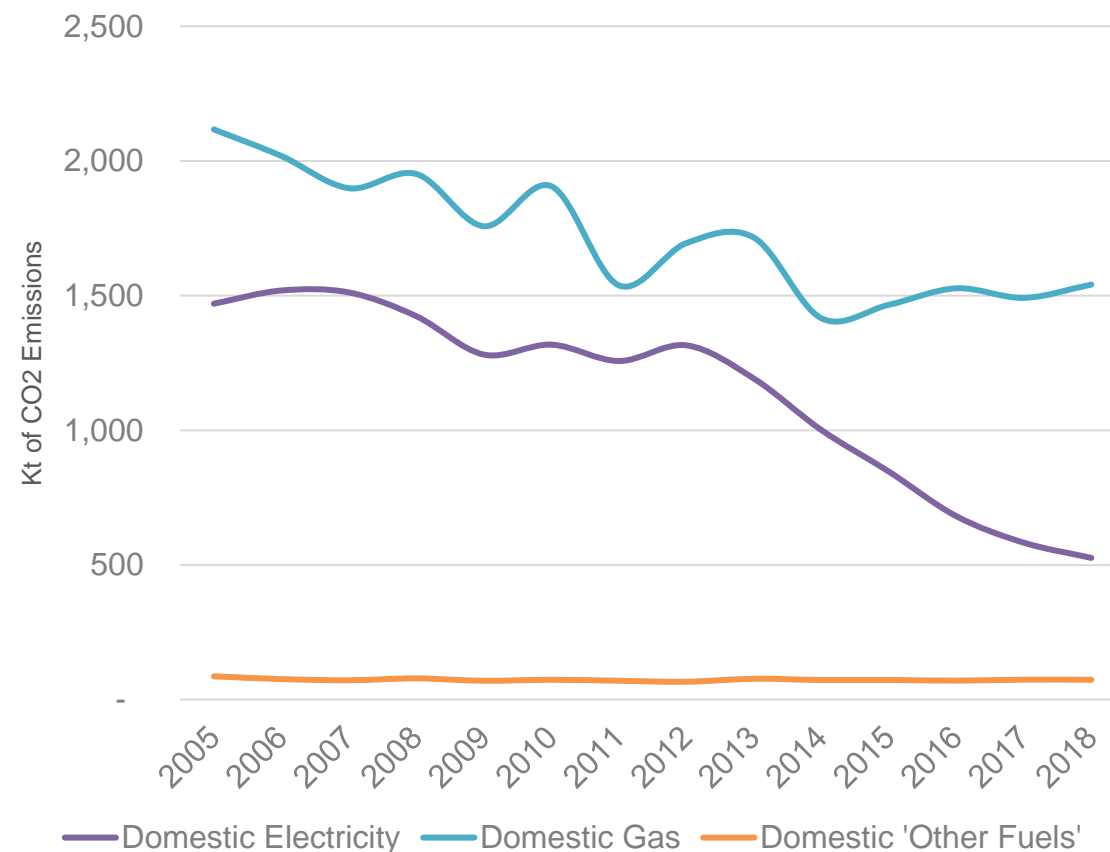
Source: BEIS Local Authority Carbon Estimates, 2021

The City Region faces a major challenge in reducing its emissions from gas heating, especially given the age and average efficiency of our housing stock

Much of the City Region's housing is older stock with issues around energy efficiency. This presents a challenge in reducing our carbon emissions as many of these properties take a significant amount energy to heat due to the leakage of heat through walls and rooves.

Age of Domestic Properties, 2020

Energy Performance Certificate (EPC) on Properties Assessed up to Q2 2020 by Band, Liverpool City Region

Source: Valuation Office Agency Council Tax: Stock of Properties (2020)
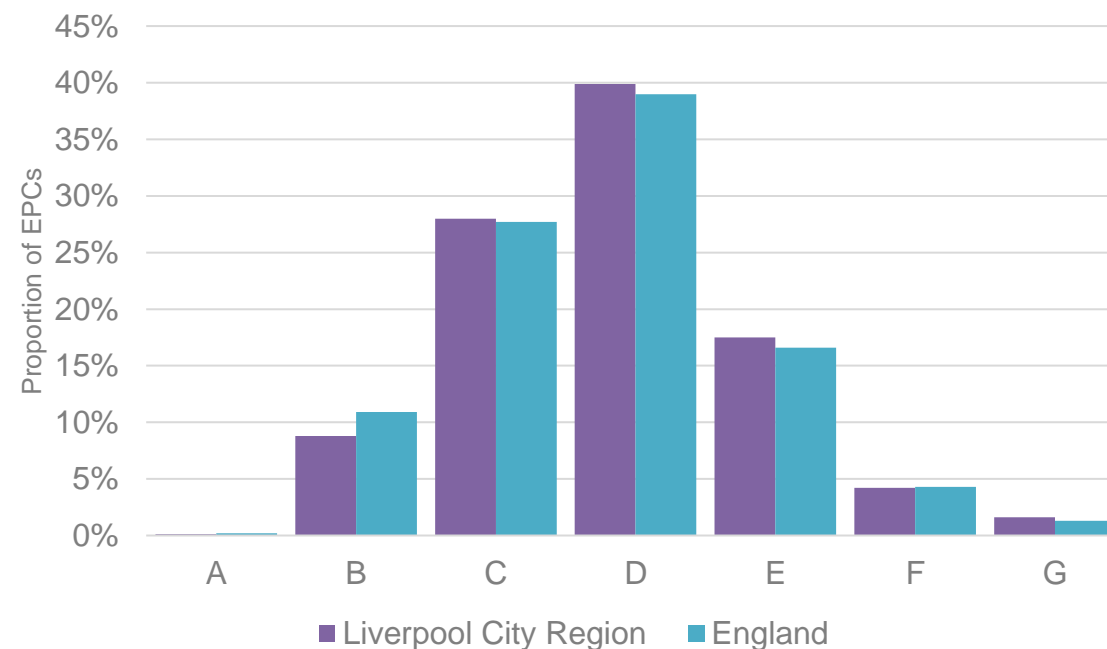
Energy Performance Certificates are ranked from A (most efficient) to G (least efficient); not all properties have been assessed for an EPC rating

Which partially drives the high rates of fuel poverty in LCR

In 2018, within **every district of the City Region, a higher proportion of households were in fuel poverty than the national rate of 10.3%.**

Liverpool had the highest proportion of households in fuel poverty at 15.6%, whilst Halton and St. Helens had the lowest rate of 10.9% and 11.3% respectively.

Fuel poverty is driven by low incomes, but also by poor quality housing stock. By retrofitting homes across the City Region, we make progress towards our carbon targets but we will also ensure our residents can more easily heat their homes.

Proportion of Households in Fuel Poverty, 2018

Proportion of Households in Fuel Poverty (y-axis: 0% to 18%)

Halton, Knowsley, Liverpool, St. Helens, Sefton, Wirral

Legend: ■ Proportion of Households Fuel Poor — North West — England

Source: BEIS Sub-Regional Fuel Poverty, 2018

Energy generation

The City Region has substantial natural capital and we can use this to our advantage in supporting our low carbon aspirations. The proximity of Liverpool Bay and the Irish Sea are significant advantages and can enable us to support the UK to compete internationally in the clean energy sector.

The local **offshore wind sector** is already significant and the City Region is home to some of the largest offshore windfarms in the world. Many key companies, for example, are located in the City Region due to the proximity of the wind farms and there has been £4.3bn of private sector investment over the last five years. These industries have encouraged the development of a strong supply chain, stretching across the North West, of which LCR is at the centre.

The **Mersey Tidal Project** offers the chance for the City Region to realise the potential for tidal energy in the Mersey. This will provide a large and reliable source of clean energy.

While these projects would contribute significantly to national objectives related to clean growth, they will also provide opportunities to create high productivity jobs, secure investment, engage in clean energy innovation and to develop skills of residents.

Alongside our natural capital assets, we are also taking advantage of our existing industrial strengths to innovate and develop cleaner technologies. For example Ineos is now developing **hydrogen generation and storage** technologies, encouraging the supply of a cleaner source of fuel.

Thriving, Sustainable and Resilient Place

Plan for Prosperity Objective: LCR to be a desirable place to live, go to school, start a family, work and call home

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Key Challenges and Opportunities: Thriving, Sustainable and Resilient Place

Challenges

- **The visitor and creative economy have been hit hardest by Covid.** In terms of both GVA and jobs, these sectors have been heavily impacted over the last 18 months but are starting to show signs of recovery.

- **Levels of deprivation are a major challenge for the City Region.** Our levels of deprivation are far too high and have a large impact the life chances, health and educational outcomes of our residents.

- **Air quality is an issue that impacts our residents.** Although levels of air quality are on average better in LCR than nationally, within some areas air quality is very poor.

Opportunities

- **The pandemic has presented opportunities for the creative and visitor economy.** These sectors will be important in driving our recovery, as well as our strategic priorities around revitalising town centres, creating a sense of community and place, as well as improving the educational and mental health outcomes of residents.

- **Over the last 12 months there have been successful outcomes from CA run creative programmes.** This is especially true of our Film Production Fund that has helped create the potential for a TV and film production cluster within the City Region.

- **The City Region has relatively good housing affordability.** Coupled with its low house prices, the City Region could make for an attractive proposition for potential workers and businesses to help bolster our recovery from Covid.

Before the pandemic LCR's visitor economy was showing strong signs of growth

Pre-Covid, the City Region attracted a significant number of visitors every year. **In 2018 visitor spend generated an estimated £5bn boost to the LCR economy and supported 55,000 jobs.**

Our offer remains strong: LCR is home to more museums, theatres, galleries and heritage buildings than any other place outside of London.

Destination of Overnight Staying Visitors to Liverpool City Region, 2005-2018
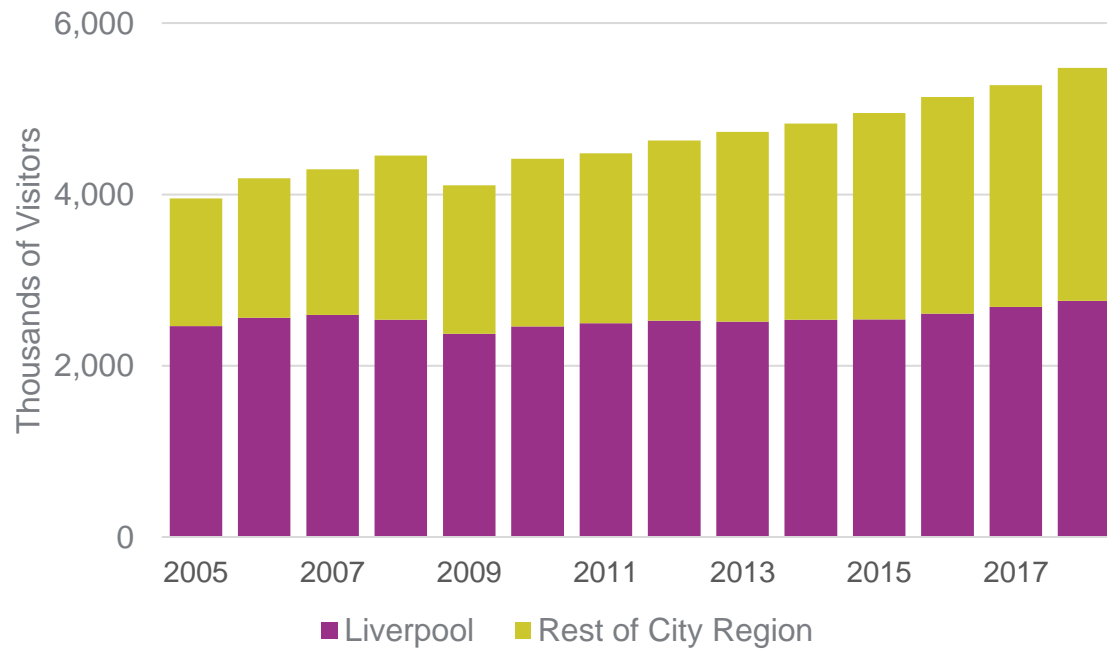
Destination of Day Visitors to Liverpool City Region, 2005-2018
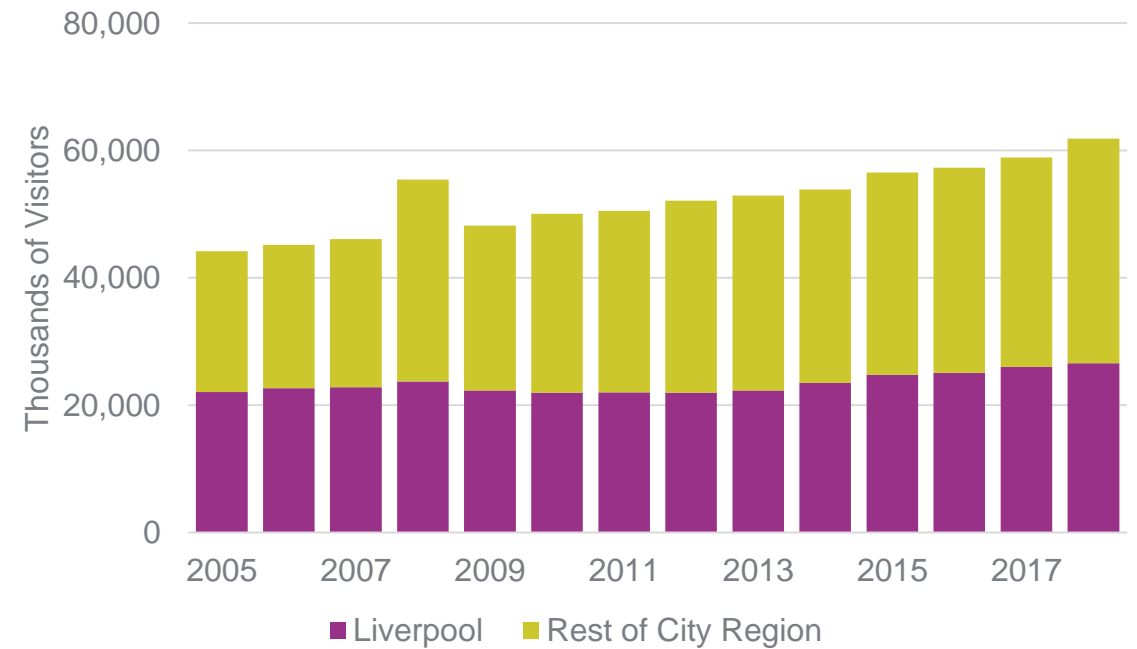
Source: STEAM (2018); Liverpool City Region LEP

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Retail and recreation footfall is recovering but is yet to reach "normal" levels

Footfall in retail and recreation venues across the City Region has yet to reach its pre-pandemic peak; **currently it is at around 92% of its early 2020 baseline.**

Similarly, visitor numbers to the City Region dropped both for domestic and overseas travellers. VisitBritain estimates that across the countr**y overseas visits dropped by 75% when comparing 2020 to 2019**. They also estimate that **domestic overnight trips declined by 60% and day visits by 64%**

Retail and Recreation Footfall Compared to Early 2020 Baseline

—— United Kingdom ——— Merseyside
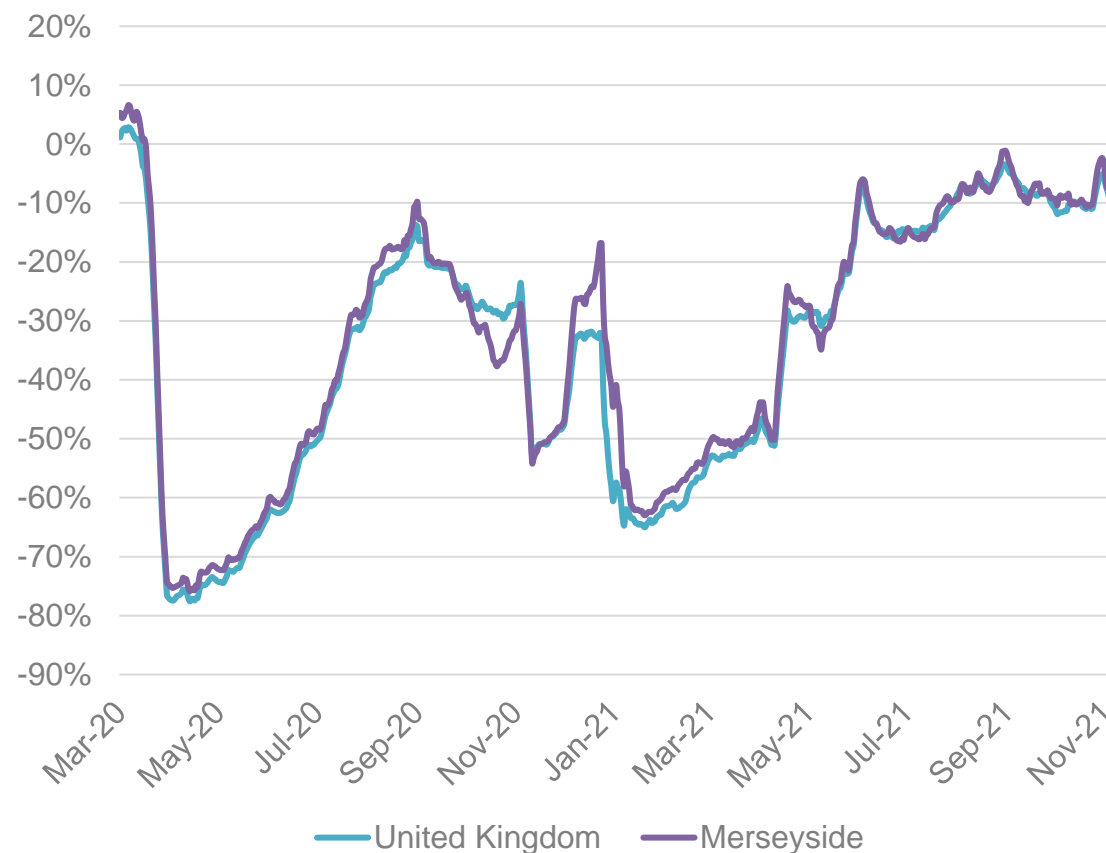
Source: Google Mobility Data

The visitor economy and creative sector have both been hit hard by Covid, but are showing signs of recovery

The visitor economy and creative sector have been impacted most by Covid in terms of GVA. However, both sectors have recovered to roughly the same levels of GVA as before the pandemic.

Change in GVA Since January 2020, UK, May 2021

Legend:
— Accommodation and food services activities
— Arts, entertainment and recreation
— Total GVA
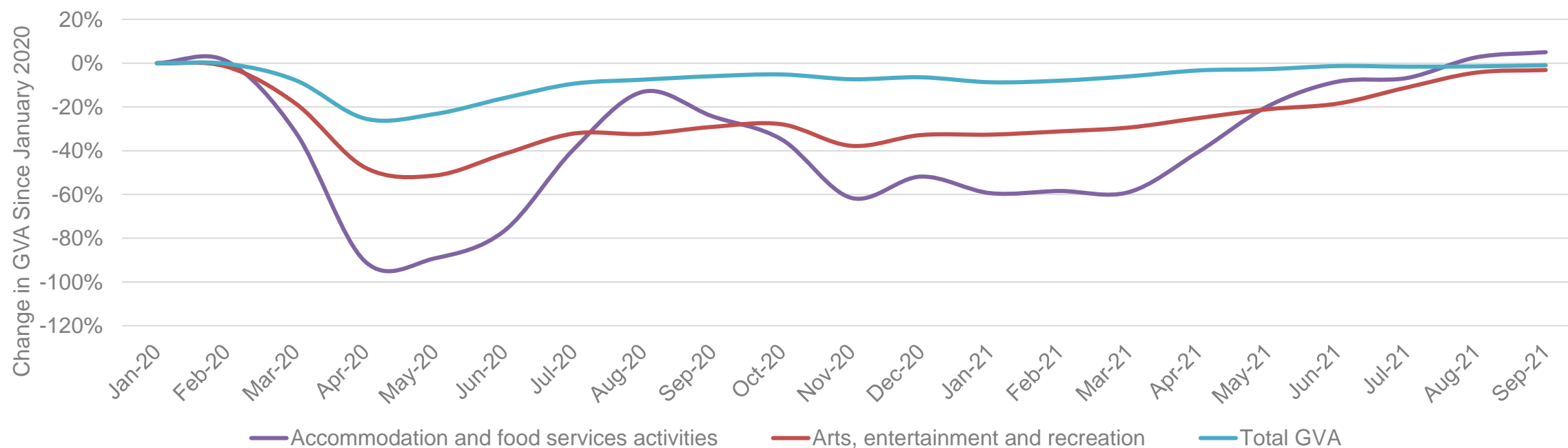
Source: ONS GDP Monthly Estimates

Covid's impact on employment has disproportionately impacted the creative and visitor economy

Nationally, arts, entertainment and recreation, and accommodation and food services have seen large decreases in employment.

Without a strong recovery for the creative sector, there is a risk that many of those who previously worked in it will find new opportunities and talent will be lost.

Change in PAYE Employment Since January 2020 by Sector, UK, November 2021
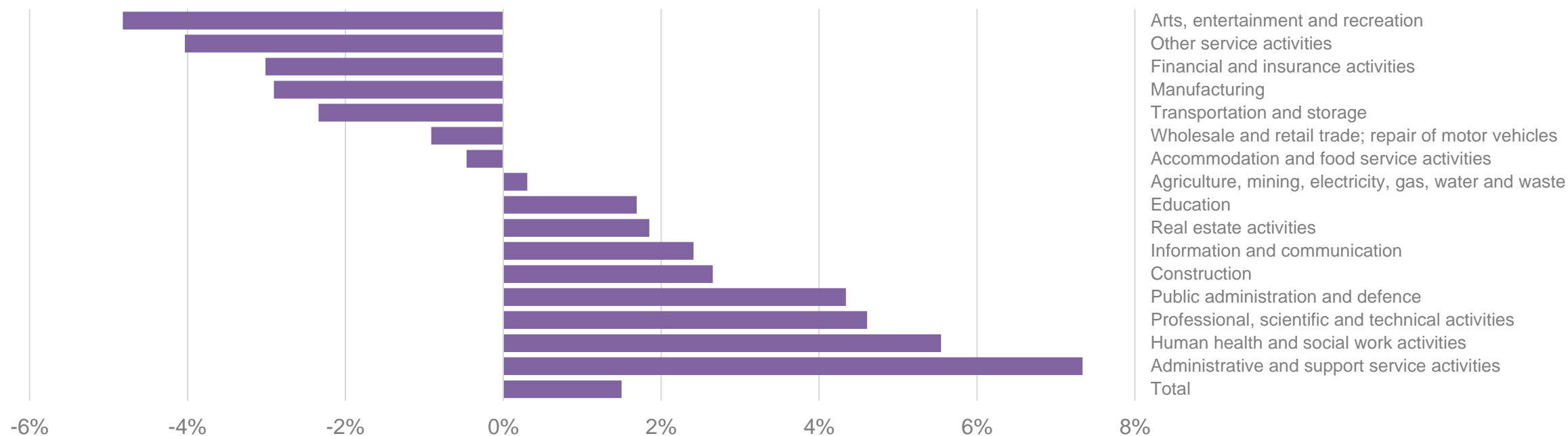
Source: HMRC PAYE Real Time Information, 2021

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The pandemic has presented opportunities for the creative and visitor economy, and the CA has run successful cultural programmes throughout this period

The pandemic has put pressure on our already struggling town centres: IPPR's report for our Town Centres Commission has highlighted the role of arts and culture in revitalising town centres and fostering a sense of place and belonging in our communities.

Education and wellbeing have been damaged by Covid: Evidence from DCMS and the Centre for Local Economic Strategies demonstrate a link between arts and culture and the wellbeing and educational attainment of residents. The former suggest further that the creative and night-time economy sectors should be the basis of post-pandemic economic recovery and development going forward

CA Cultural Programmes Delivered During Covid

Film Production Fund:

- The interim evaluation for this project found that the CA's investment of £1.8 million supported over 450 FTE jobs and 29 trainee positions. As a result of the project, £6.72 was spent in the City Region for every £1 invested. The report suggested that significant benefit can be derived from recapitalising the Fund to ensure a 'virtuous circle of demand' is created.
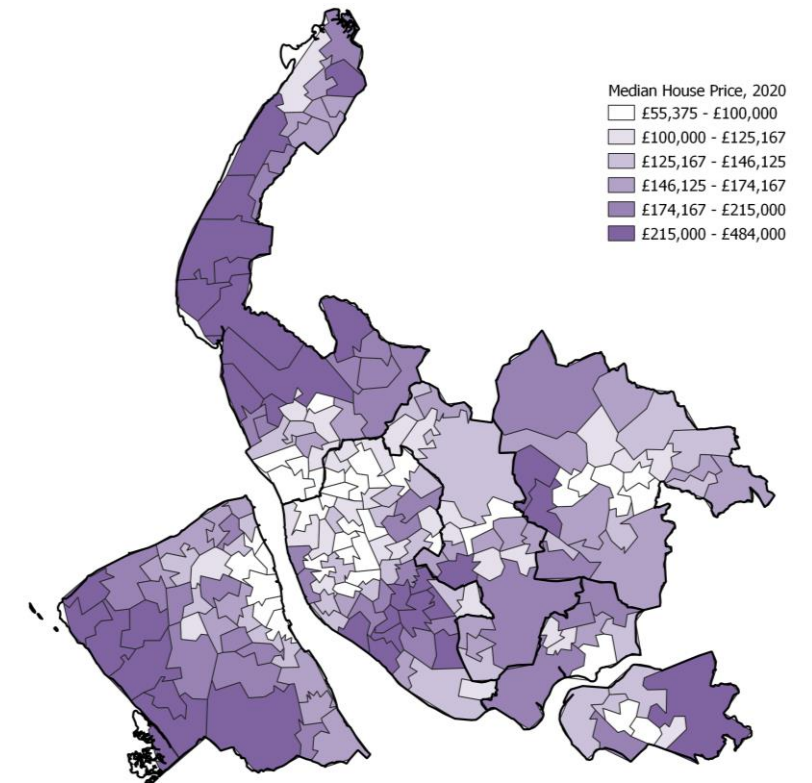
Music Support Fund:

- Part of the Music Industry Development Pilot, the Fund supported over 50 organisations with grant funding over the lockdown. Its evaluation found that, of the 90% of supported organisations that responded to the evaluation survey, all of them were still trading at the end of 2020 and that all but one agreed the fund had helped them address the challenges brought about by Covid.

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House prices are low in the City Region and the growth rate is below average

House prices in the Liverpool City Region are, on average, significantly lower than national levels. However, the picture varies across the City Region, with some parts having high median house prices.

Additionally, house price growth has been lower over the past 20 years in the City Region compared to both regionally and nationally.

Median House Prices and Growth in the Last 5, 10 and 20 Years

	Median House Price (2020)	5 Year Growth	10 Year Growth	20 Year Growth
Liverpool City Region	£158,000	19%	26%	193%
North West	£175,000	21%	35%	210%
England	£259,000	22%	40%	216%

Source: ONS Price Paid Data, 2020

Median House Prices by MSOA, 2020

Median House Price, 2020
- £55,375 - £100,000
- £100,000 - £125,167
- £125,167 - £146,125
- £146,125 - £174,167
- £174,167 - £215,000
- £215,000 - £484,000

This reflects the quality of our quality housing stock

Our current housing choice is characterised by a **higher than average proportion of lower value houses** (Council Tax Bands A and B) than that found nationally

This **limited housing choice offer** has implications for quality of life and attracting/retaining skilled labour to the City Region.

Housing Stock by Council Tax Band, 2020

Source: Valuation Office Agency Council Tax: Stock of Properties, 2020

However the affordability of housing compared to wages is significantly better in the City Region than the national average

The City Region benefits from good levels of housing affordability, especially when compared to the national average.

The latest data suggests that the average house costs around 5 times more than the average full-time earnings of a City Region worker; nationally house prices are over 8 times higher than average wage levels.

Additionally, housing affordability has remained relatively stable over recent years, in contrast to the national trend. **Combined with the low house prices, this level of affordability could make the City Region an attractive proposition for potential workers.**

Ratio of Median House Prices to Median Gross Full-Time Earnings, 2014 - 2020
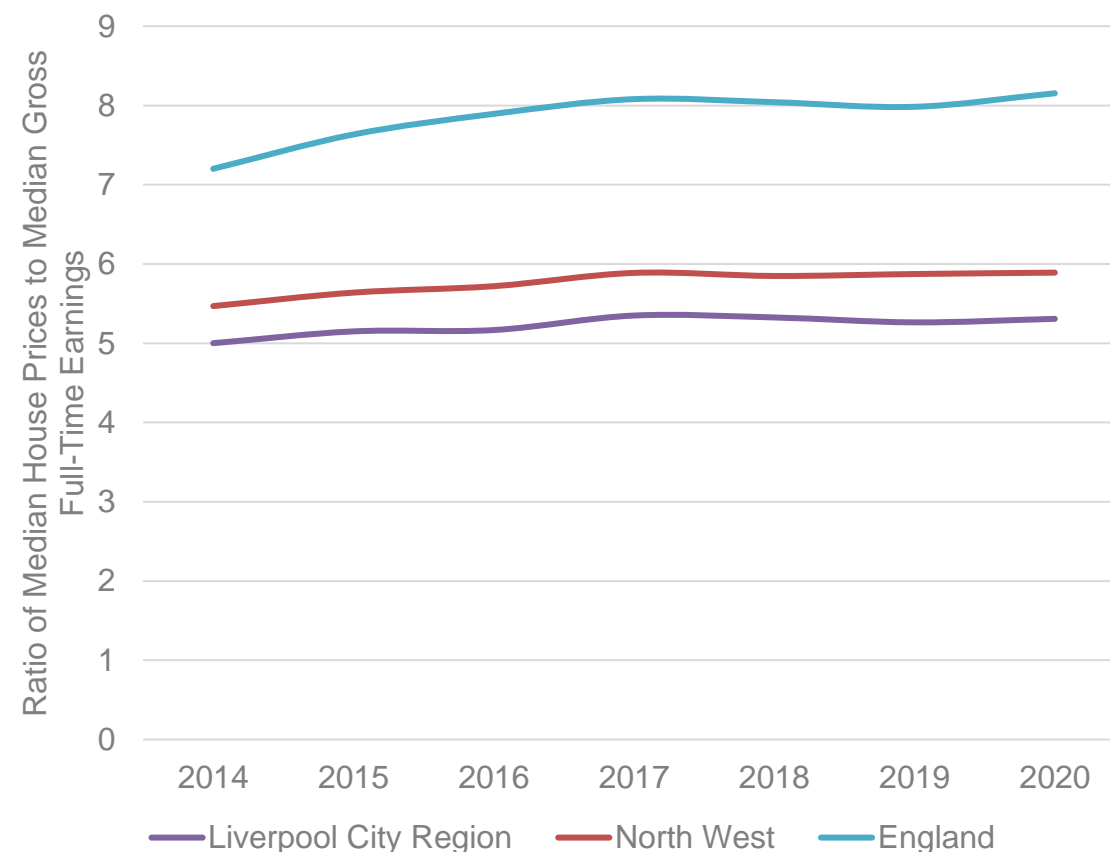
Source: ONS and Annual Survey of Hours and Earnings, 2020

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Many neighbourhoods are characterised by significant levels of multiple deprivation

LCR has a significant number of neighbourhoods characterised by deprivation. A third of all City Region lower super output areas (LSOAs) are in the most deprived decile in the UK.

The scale of deprivation, and the impact this has on economic growth and productivity, **underlines the need to regenerate these neighbourhoods.**

 Our growing social economy will also be important in improving the opportunities for residents in our most deprived communities.

Number of LCR Neighbourhoods in each National Decile (Overall)
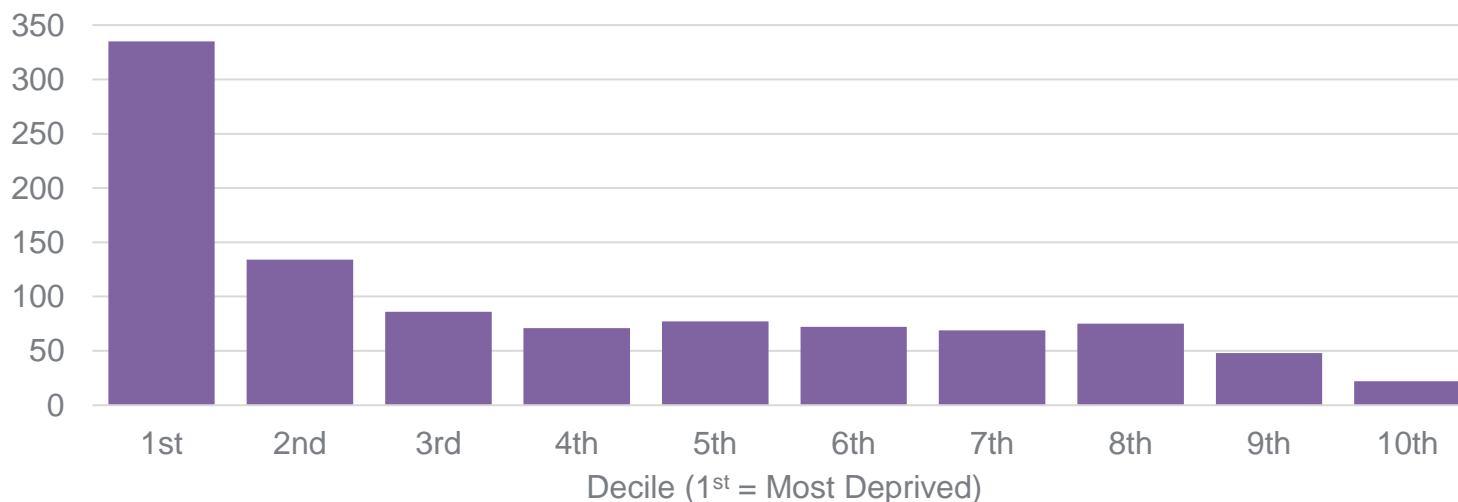
Source: MHCLG Index of Multiple Deprivation, 2019

Most Deprived Areas in the Liverpool City Region (Overall), 2019

Contains OS data © Crown copyright and database right 2018
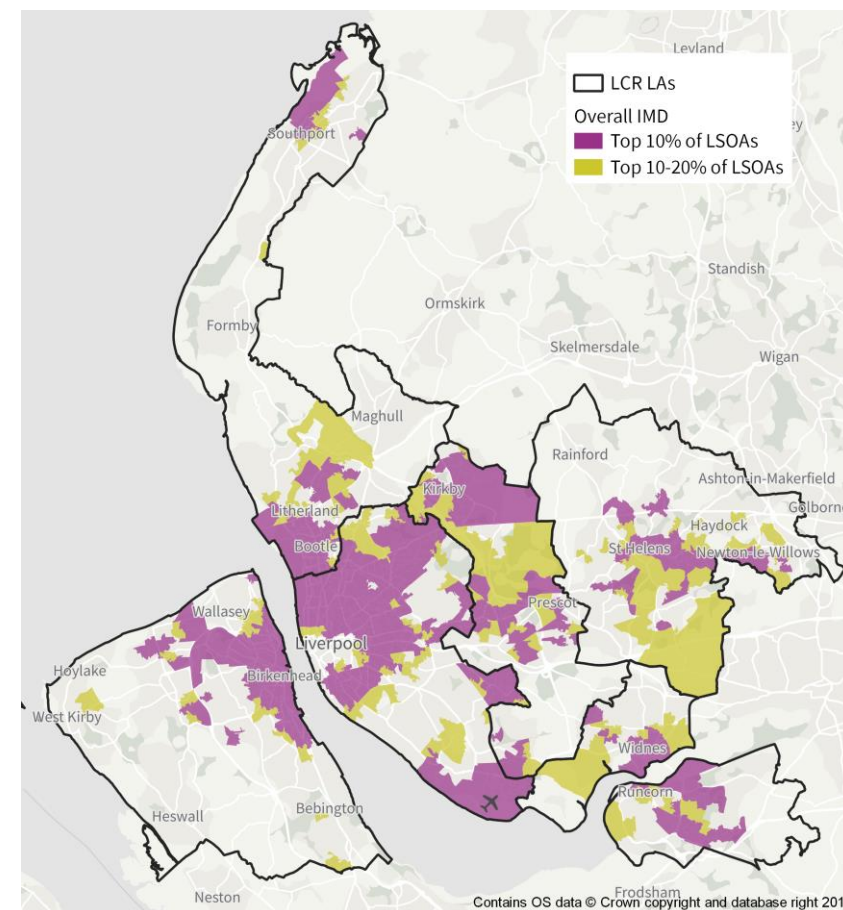
And these challenges have been persistent over a long period

There are neighbourhoods of the City Region that have been some of the most deprived areas of the country for decades. There has been relatively little change over the last nine years. Worryingly there has been a **slight increase in the proportion of LSOAs in the 20% most deprived LSOAs nationally.**

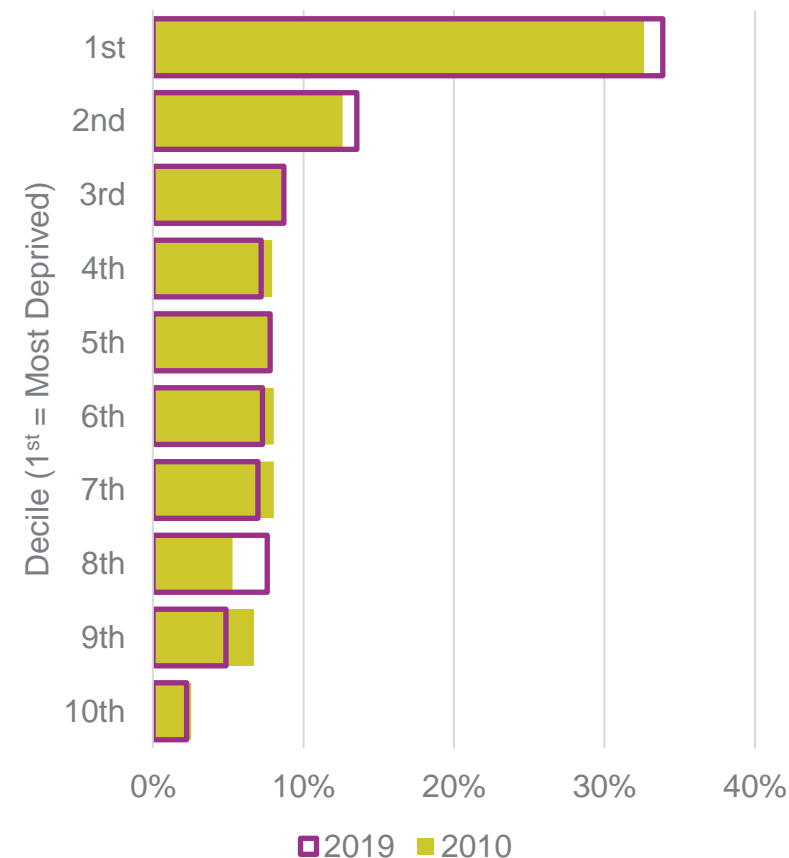Most Deprived Areas in the Liverpool City Region (Overall), 2019
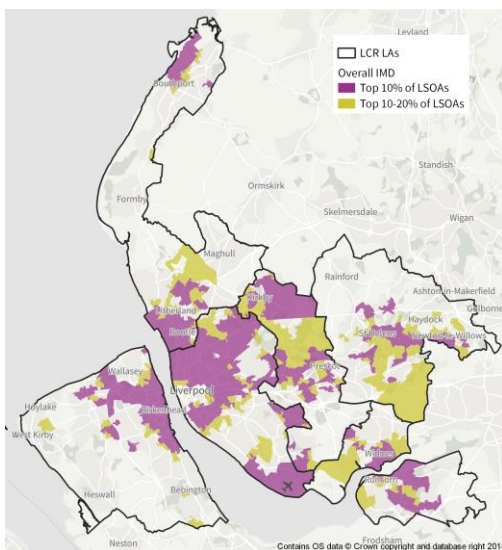
Most Deprived Areas in the Liverpool City Region (Overall), 2010
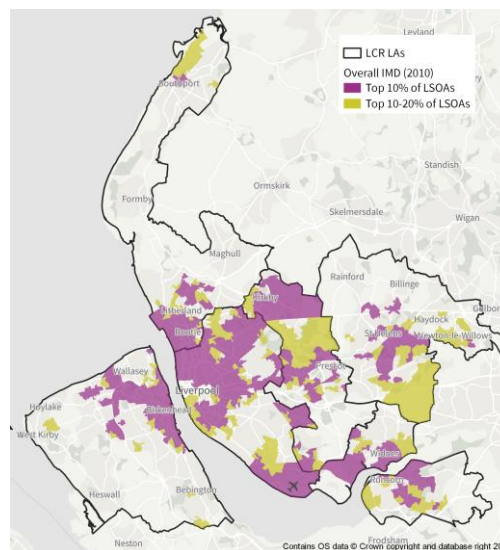
Share of LCR Areas in each National Decile (Overall)

Source: MHCLG Index of Multiple Deprivation, 2019

LCR has particular problems relating to certain domains of deprivation

The Liverpool City Region has a greater prevalence of deprivation than the national average across all domains except for barriers to housing and services (reflecting lower house prices in the City Region).

There are particularly high levels of deprivation in terms of **health deprivation and disability, employment and income**, which underpin the overall index of multiple deprivation scores.

Knowsley and Liverpool have particularly high rates of deprivation across many domains**.**

Deprivation levels across the Liverpool City Region Ranked by Decile, 2019
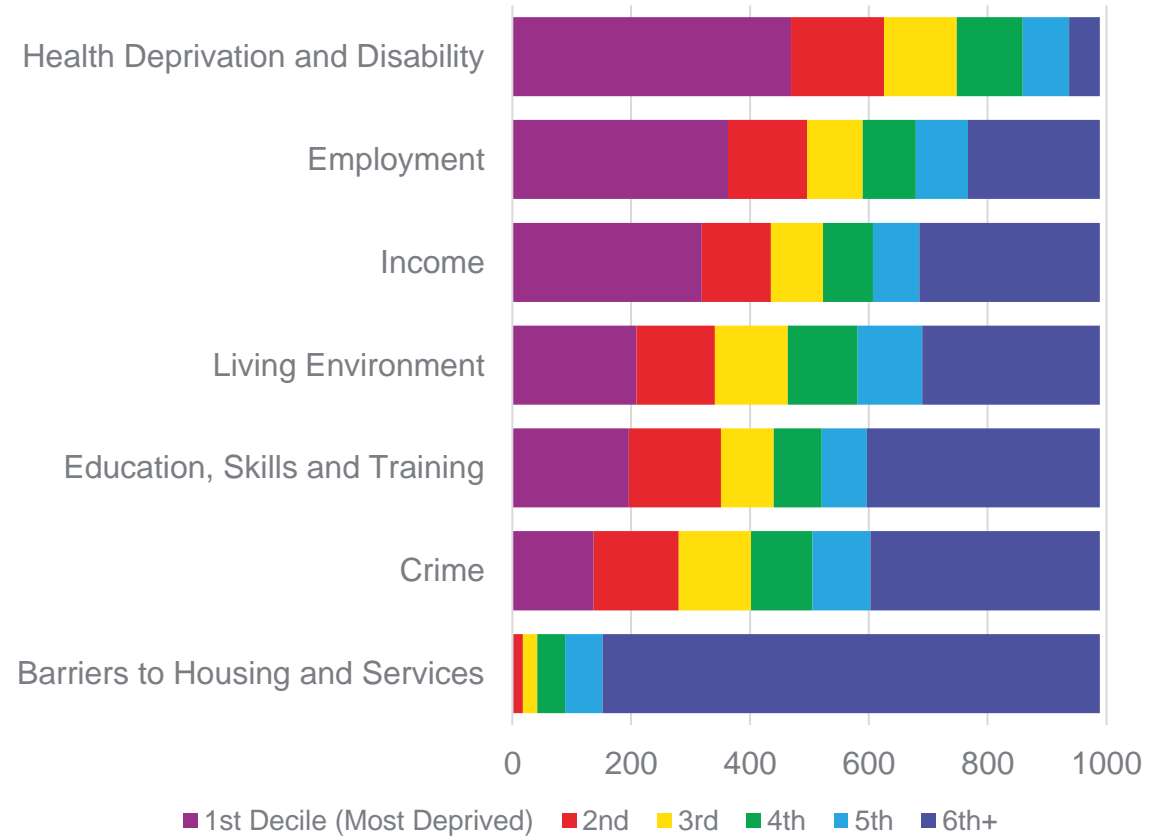
Source: MHCLG Index of Multiple Deprivation, 2019

Health deprivation is widespread across the City Region

LCR has a problem with health deprivation and disability. This reflects low life expectancy across the City Region and a greater prevalence of work-limiting illnesses or disabilities.

45% of LCR LSOAs are in the top 10% most deprived nationally indicating a significantly greater prevalence of health deprivation in LCR compared to the UK. These issues are particularly stark in Liverpool and Knowsley where over three quarters of neighbourhoods are in the most deprived quintile of national neighbourhoods in terms of health deprivation.

Many of these areas also face challenges across other domains of deprivation and it will be important to tackle these issues.

Most Deprived Areas in the Liverpool City Region (Health), 2019
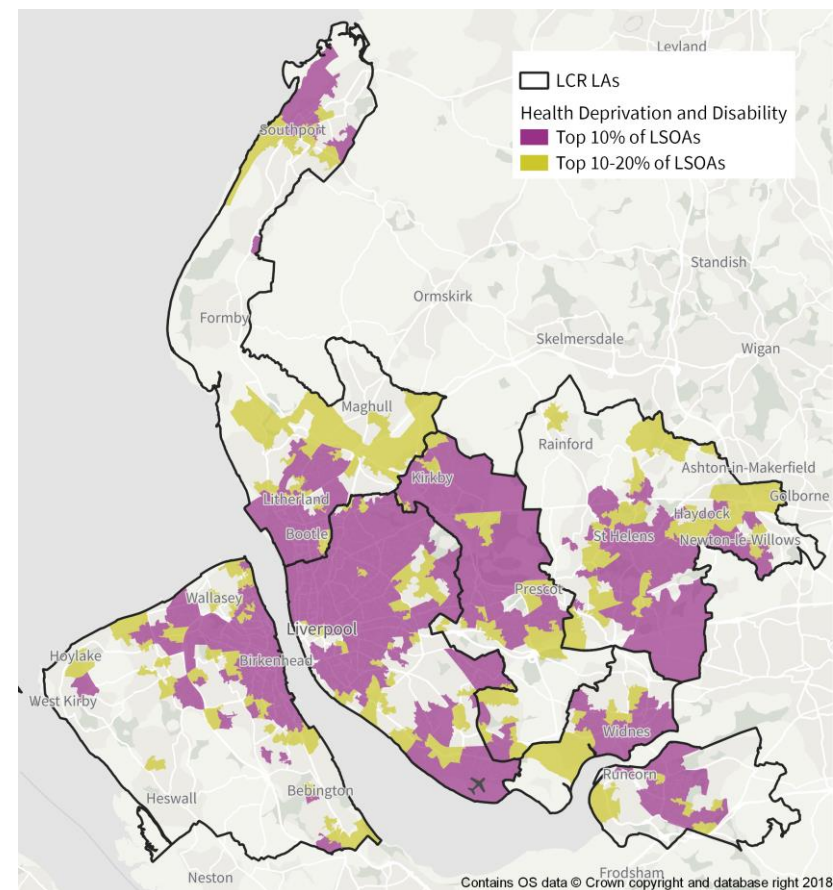
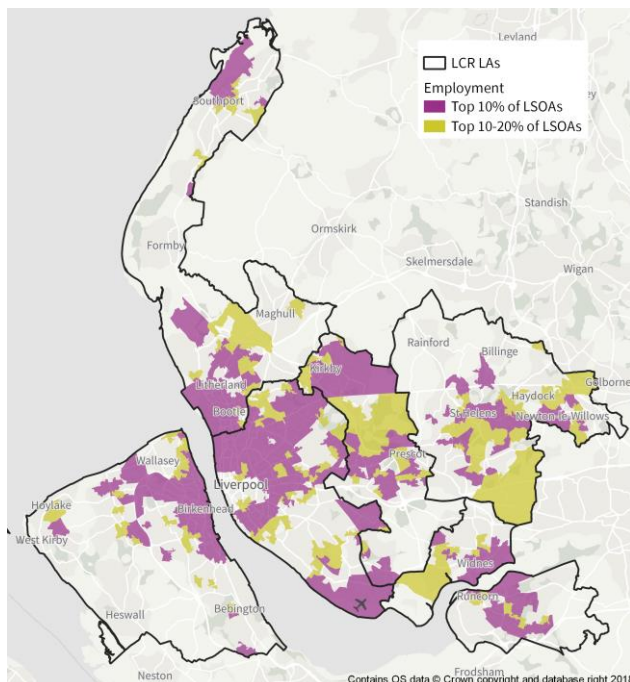Source: MHCLG Index of Multiple Deprivation, 2019

And many of our communities face challenges around employment and income

Many LCR neighbourhoods have high levels of employment and income deprivation among residents. This reflects the high prevalence of worklessness or people requiring benefits support.

Around a third of LSOAs are in the most deprived 10% nationally in terms of both employment and income. Again, these issues are particularly stark in Liverpool and Knowsley.

Most Deprived Areas in the Liverpool City Region (Employment), 2019

Most Deprived Areas in the Liverpool City Region (Income), 2019
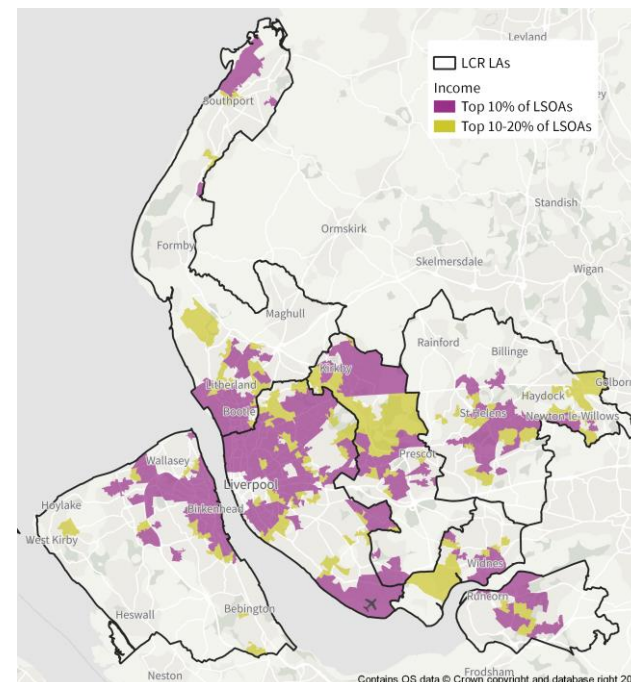
Source: MHCLG Index of Multiple Deprivation, 2019

# Children in Liverpool City Region are more likely to live in low income households than the national average

In 2019/20, **17% of the City Region's children lived in households with absolute low income** and **21% lived in households in relative low income.** Research has shown that living in low income impacts children's educational and health outcomes.

Liverpool had the highest rate of children in low income, closely followed by Knowsley.

Proportion of Children (Aged Under 16) in Absolute Low Income by Area, 2019/20
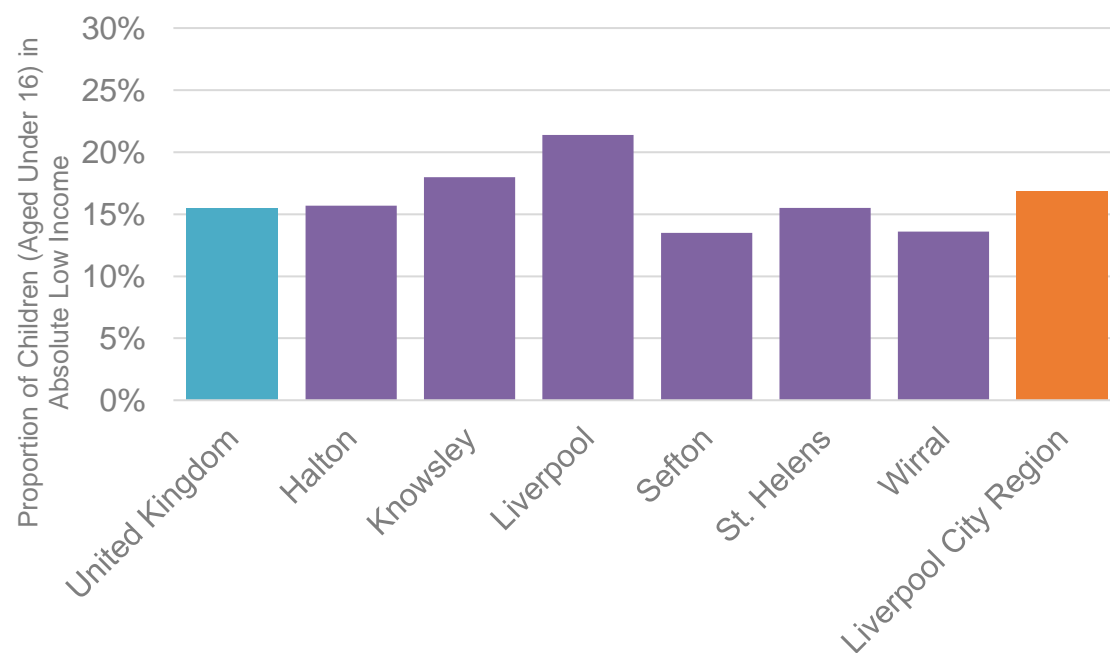
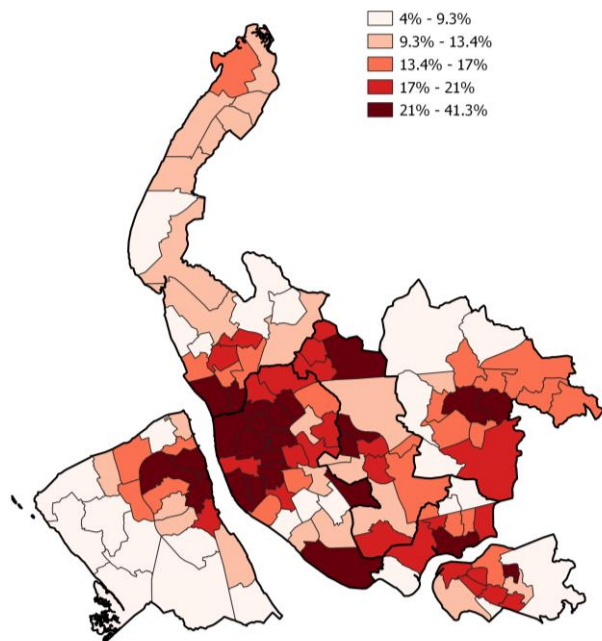Proportion of Children (Aged Under 16) in Relative Low Income by Area, 2019/20
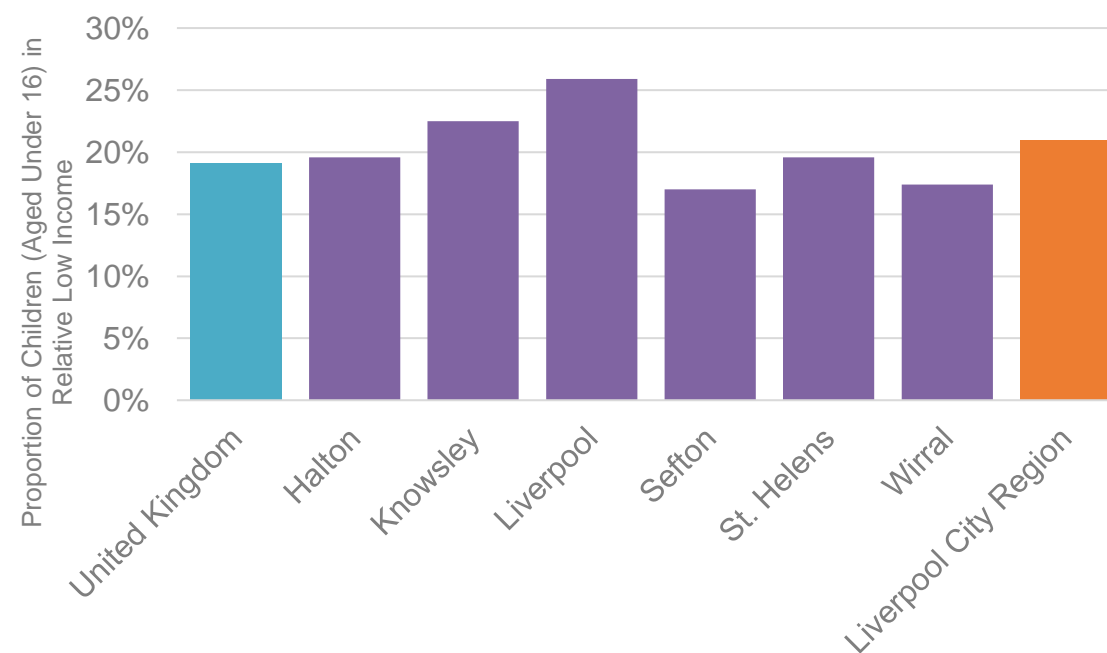
Source: HMRC and DWP Children in Low Income Families

Within some wards of the City Region, 4 in 10 children live in households in absolute low income and almost half live in households in relative low income
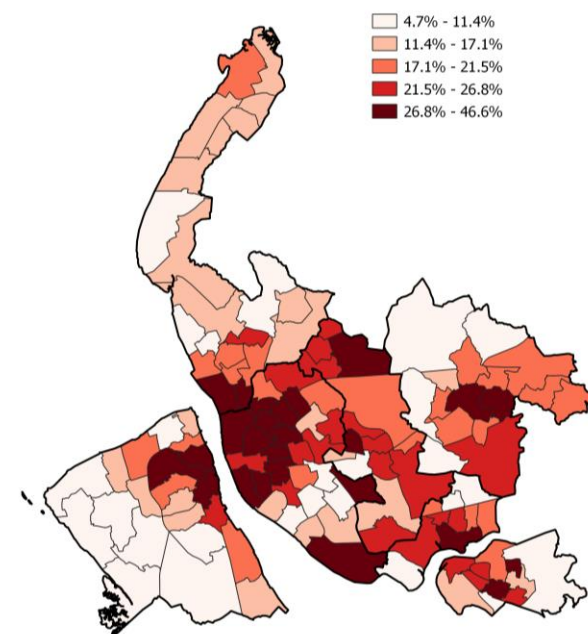
Wards with particularly **high rates of children living in low income are mainly within north Liverpool, south Sefton and east Wirral,** mirroring the general picture of deprivation across the City Region.

Within both **Picton and Princes Park, 40% of children live in absolute low income, whilst close to half live in relative low income.**

Proportion of Children (Aged Under 16) in Absolute Low Income by Ward, 2019/20

Proportion of Children (Aged Under 16) in Relative Low Income by Ward, 2019/20


```
4% - 9.3%
9.3% - 13.4%
13.4% - 17%
17% - 21%
21% - 41.3%
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```
4.7% - 11.4%
11.4% - 17.1%
17.1% - 21.5%
21.5% - 26.8%
26.8% - 46.6%
```

Source: HMRC and DWP Children in Low Income Families

Every local authority area in Liverpool City Region has a lower concentration of fine particulate matter than the national average

Every local authority area in Liverpool City Region had a lower mean concentration of fine particulate matter (PM2.5) than England in 2019, this said, **there are areas of the City Region with poor air quality** in which Air Quality Management Areas have been introduced**.**

Particulate matter (PM) is used to describe the mixture of solid particles and liquid droplets in the air and is emitted during the combustion of solid and liquid fuels; PM varies in size with PM2.5 referring to smaller, or fine particulate matter. **Inhalation of these pollutants can cause adverse health effects.**

Mean Concentration of Anthropogenic PM2.5 (Fine Particulate Matter), Micrograms per Cubic Metre of Air, 2019
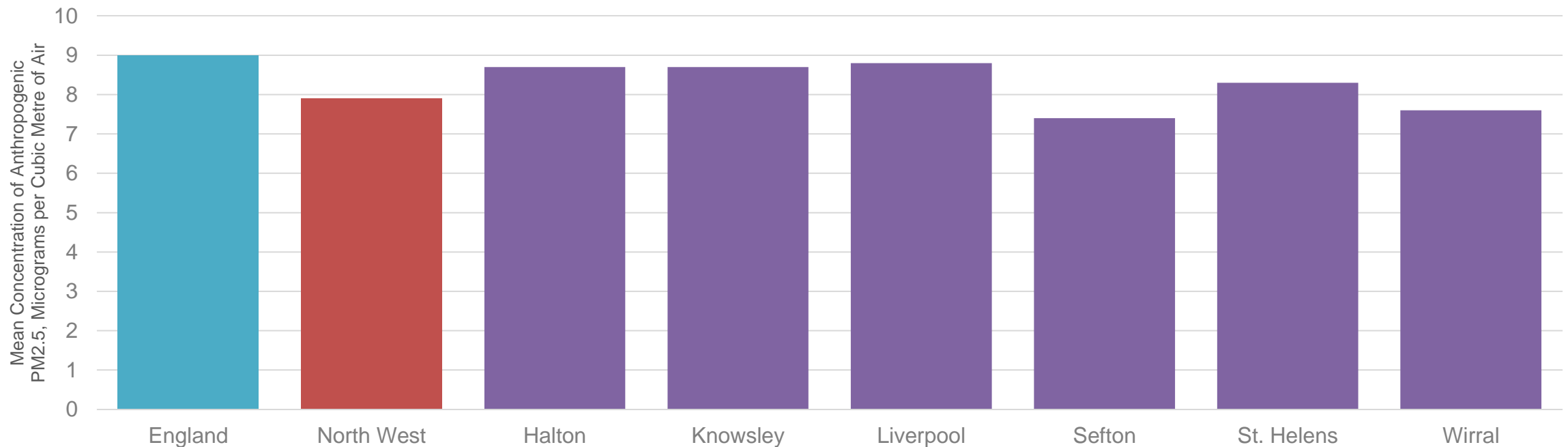
Source: Department for Environment, Food and Rural Affairs via Public Health England Fingertips

Major roads and urban centres within the City Region have higher levels of nitrogen dioxide concentration and poor air quality

Mean Concentration of Nitrogen Dioxide, Micrograms per Cubic Metre of Air, 2018

The map on the right shows the average amount of nitrogen dioxide (NO2) in the air during 2018 across the City Region.

Areas of relatively very high **concentration of NO2 within the City Region tend to be around major roads and urban centres**, with more rural areas seeing smaller concentrations of the pollutant.

NO2 is one of the pollutants that are measured to analysis air quality. It is part of a group of chemicals called nitrogen oxides, the most common and harmful of these being nitrous oxide and nitrogen dioxide (NO2).

Nitrogen oxides can cause lung irritation and can lower resistance to respiratory infections and illnesses.
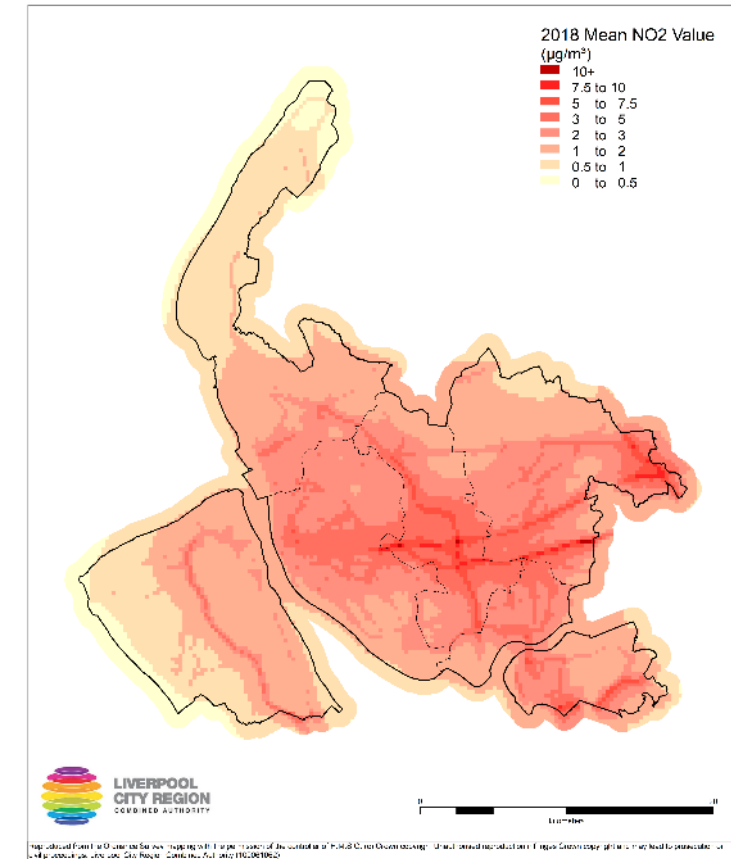
However the City Region does have large amount of natural capital

Stretching from our famous coastline to our estuaries, our urban parks and green spaces, the richness and diversity of Liverpool City Region's natural environment is unique.

The location of the City Region provides a wealth of important natural assets that underpin our economy, creates a strong sense of place and supports our health and well-being. **The Liverpool City Region is 80% blue/green space, this is more than any other city in the UK.**

Strategic natural assets across the City Region include:

*   Estuarine and coastal habitats and species

*   Water courses and associated wet habitats

*   Lowland heath (on sandstone in Wirral and Halton, and sand in Sefton)

*   Ancient semi-natural woodlands (mainly in Wirral and St. Helens)

*   Lowland meadows of acidic and neutral grasslands (mainly in small patches, often highly fragmented)

*   Agricultural hinterland

Blue and Green Infrastructure in the City Region

LIVERPOOL CITY REGION COMBINED AUTHORITY

METRO MAYOR LIVERPOOL CITY REGION

# Though this is not in the areas with the worst air quality

The City Region has many areas with high amounts of greenspace and natural capital that can help to regulate air quality. **However there is limited amounts capability for this around the areas of the City Region** that are most in need of reductions in poor air quality (shown here as air quality demand), such as Liverpool and east Wirral.

Areas of Air Quality Demand

Areas with High Air Quality Regulation Capability
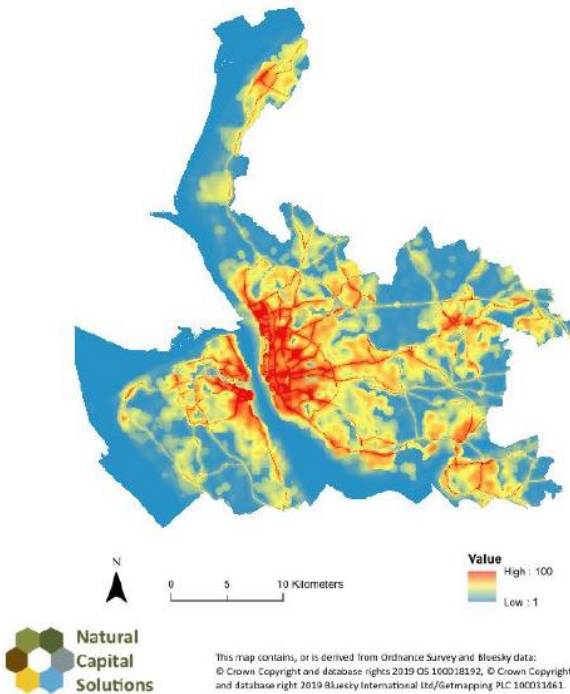
Source: *A Liverpool City Region Natural Capital Baseline*, Liverpool City Region Natural Capital Working Group
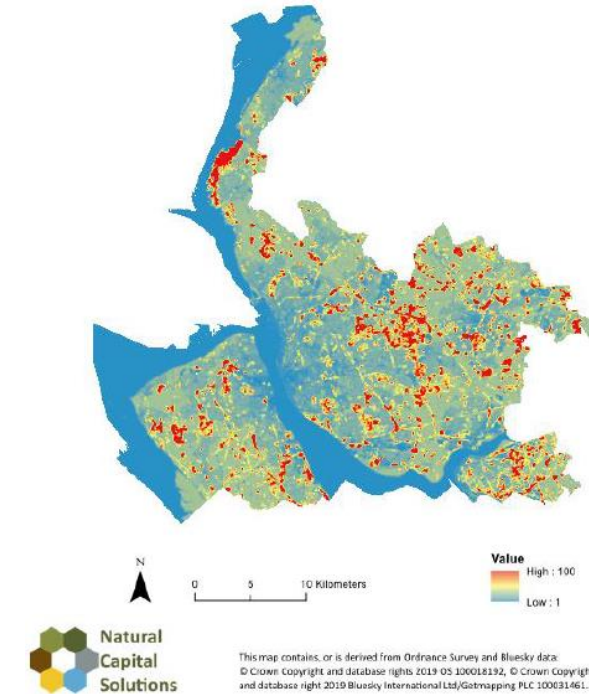
Air quality demand is based on a combination of distance to roads, population density, man made surface cover and health deprivation

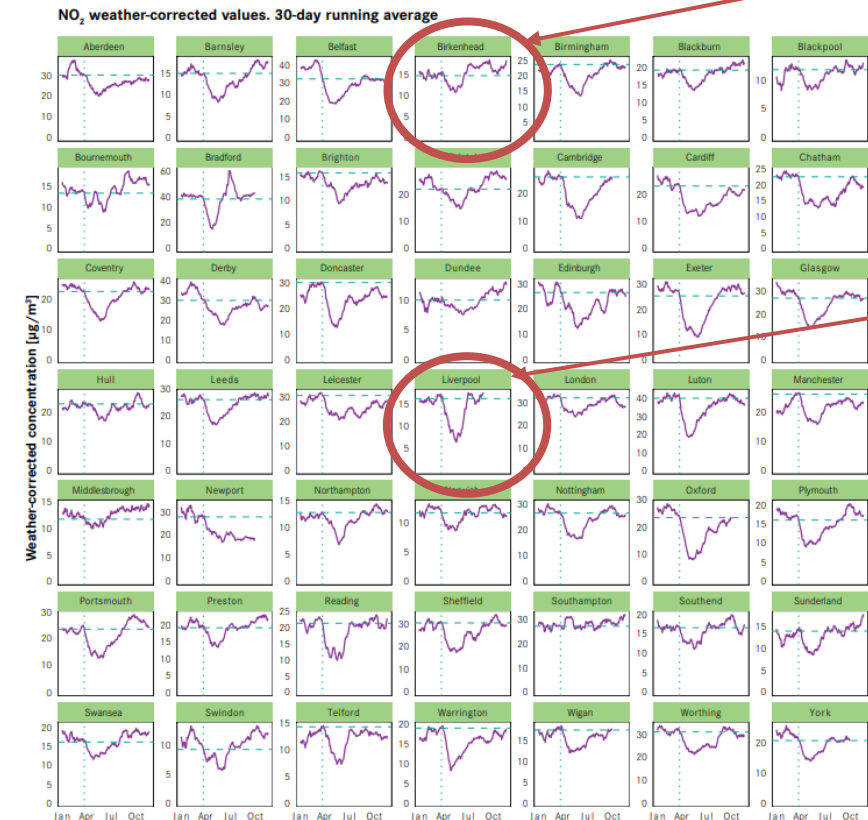# During lockdown air quality improved, however it quickly returned to pre-Covid levels

Levels of NO2 by City in 2020

Birkenhead

Liverpool

Air quality was improved during lockdown due to less vehicles being on the road emitting harmful compounds. This was the case both nationally and within the City Region.

However, in both Liverpool and Birkenhead levels of NO2 returned to pre-pandemic levels in a "V-shape" very quickly by Summer 2020.

The dotted blue line shows the average level of NO2 on the day the first national lockdown was announced

Centre for Cities (2020)

Figure 4: Evolution of NO₂ concentration levels before and after the introduction of the first national lockdown

NO₂ weather-corrected values. 30-day running average

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