North East
Local Enterprise Partnership

Inclusive Productivity

Lessons from around the world

November 2023

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Introduction

Two of the key challenges facing the North East are closing the productivity gap with the national average, and creating an inclusive economy where the benefits of economic growth are felt by everyone who lives, works, studies in, and visits the region. These challenges are combined in the concept of inclusive productivity.

This report presents case studies which explore what regions around the world might be able to teach the North East about inclusive productivity. Selecting regions with similar economic positions to the North East in 2008, we have looked at how these regions have changed since to find cases with exemplary performance, and considered how regional policy has contributed to their inclusive productivity growth. The case studies help us understand how these regions have balanced the needs of economic growth with inclusive opportunities.

The research was produced for the North East Local Enterprise Partnership's *Our Economy 2023*, which examines the current state of the North East region's economy and explores broader themes of inclusive productivity. *Our Economy 2023* (and previous editions) can be accessed on the North East Evidence Hub here.

What is inclusive productivity?

Inclusive productivity combines the two established concepts and policy aims of productivity growth and inclusive growth. Before unpacking this definition further and discussing why inclusive productivity is important to the North East, this section first recaps what we mean by productivity and inclusive growth.

Productivity

In 1990, the economist Paul Krugman wrote that "productivity isn't everything, but in the long run it is almost everything" (Krugman, 1990). This mantra has remained established and economic policy generally acknowledges that the more productive an economy is, the greater its prosperity.

The term productivity is used to measure the rate at which inputs, such as capital and labour time, are transformed into outputs, such as goods and services (Martin and Riley, 2023). Productivity is not only a determinant of economic growth, but it is argued that it is also "necessary to sustain increases in living standards" (Rincon-Aznar et al, 2022).

Metrics and indicators used to measure and benchmark productivity therefore look at how much output, expressed as Gross Domestic Product (GDP) or Gross Value Added (GVA), is produced by inputs.

One of the most common measures of productivity is 'output per hour worked', which is calculated by dividing GDP or GVA by the number of hours worked. For example, in 2019, output per hour worked in the UK was lower than in four of the G7 nations: Italy, France, Germany and the US (ONS, 2022a). Other measures include 'output per unit of labour' (economic output produced by a unit of labour, usually per head) and 'total factor productivity' (TFP) (taking into account the capital and infrastructure inputs used to generate output as well as time and labour).

Inclusive growth

Inclusive growth is often used interchangeably with terms such as "shared growth", "pro-poor growth" and "broad-based growth" (Ianchovichina and Lundstrom Gable, 2012). While there is yet to be a consensus on a universally accepted term, the notion of inclusive growth is broadly defined as:

"Economic growth that is distributed fairly across society and creates opportunities for all" (OECD, 2023a)

The importance of understanding inclusive growth has accelerated. While there has been a fall in absolute poverty, there has been recognition of the fact that the rapid economic growth at the heart of these reductions is not always meeting the needs of the poor (Alexander, 2015) and there has been a slowdown in emerging economies and developing countries (OECD, 2023b). Traditional measures of economic development, such as GVA and employment rates, do not tell the full story of who is involved and who benefits from growth and the associated societal and environmental outcomes (WMCA, 2018). Inclusive growth approaches recognise that high levels of inequality weaken economic performance – and that by addressing inequality through the process of growth itself, we can deliver stronger economies that more people have a stake in (Scottish Government, 2022).

To enact inclusive growth it is often argued there is a requirement for large scale transformational change and the contribution of resources and engagement of various stakeholders (Dua et al, 2021). While inclusive growth must be quick to address poverty rates, the growth must also be sustainable. This is achieved by ensuring it is inclusive of a large part of the labour force and is broad-based across sectors (Ianchovichina and Lundstrom Gable, 2012). To this effect there are a growing number of inclusive growth strategies and frameworks, covering broad themes from income and employment through to the liveability of a place and the wellbeing of individuals.

Here in the North East, North Tyneside Combined Authority's (NTCA's) inclusive economic policy statement puts forward an ambition to "create opportunity for all, removing the barriers which make it difficult for people to take up employment and training opportunities. We want to empower our people with the skills and resources they need to take ownership of their futures and secure good jobs with fair living wages" (NTCA, 2019).

The aims of NTCA's inclusive economic policy match the themes commonly used by organisations defining and measuring inclusive growth. These cover a range of economic measures such as income; living costs; labour market inclusion; output growth; employment (Beatty et al, 2016), and a wider range of wellbeing measures such as housing; health; neighbourhood/environment; local facilities; skills and education; community spirit; good transport; good services (Oxfam, 2013).

To compare NTCA's inclusive economic policy against international, national and regional approaches, see the following examples:

- OECD The Framework for Policy Action on Inclusive Growth (OECD, 2018a)
- IMF Inclusive Growth Framework (Kireyev and Chen, 2017)
- Inclusive Growth: What Does it Look Like, Scottish Government (Scottish Government, 2022)
- West Midlands Combined Authority Inclusive Growth Framework (WMCA, 2018)
- Inclusive Growth Leeds 2023–2030 (Leeds City Council, 2023).

Inclusive productivity

Growing productivity is crucial to the development of regional economies, but this will only improve the lives of local people if it is considered alongside inclusivity and wellbeing within regions (Tilley et al, 2023). In this investigation into inclusive productivity, we focus more on the links between productivity, employment, wages, and inequality than the wider aspects of inclusive growth and wellbeing. At the regional level, we would say inclusive productivity means increasing the productivity of the region while decreasing economic inequalities. This means achieving productivity growth and inclusive growth.

"Low pay is a critical social issue and low wage sectors contribute to the productivity gap between the UK and comparable countries" (Green et al, 2018)

Thus, inclusive growth means growing productivity in a way that disseminates the benefits of productivity growth through wage growth at all occupation levels, and an increase in quality and security of jobs. This definition of inclusive productivity builds on that of the IMF:

"Measures to boost productivity and at the same time make sure that higher growth doesn't come at the expense of equality" (IMF, 2018)

How we think about inclusive productivity can also depend on the geographical scale we look at. We consider national level or firm level outcomes as well. At a national level the

UK experiences regional disparity, with some parts of the country experiencing high productivity and prosperity levels, while many other parts lag behind. Without addressing the causes of disparities between regions then national productivity growth could well increase the regional productivity gap. Therefore, at a national level, inclusive productivity requires the less productive regions to grow faster to catch up with the already productive regions (Schwab and Wortmann, 2022).

At the individual firm level, the focus is on the employees and employer, with inclusive productivity meaning the benefits of productivity growth are spread across the firm at different wage levels. Additionally, inclusive productivity means that as firms become more productive and profitable, new job opportunities are accessible to all communities. There is also evidence that diversity in the workforce can have positive effects on productivity (Cecchinato, 2023).

Productivity and inequality

The productivity puzzle

Productivity in the UK has seen slow growth in recent years, raising awareness around the wider impacts on the UK economy. As one of the most pressing and deeply embedded challenges in regional policy (Tilley et al, 2023), the productivity gap continues to widen.

Low productivity growth is a challenge that many developed economies currently face, however the UK has experienced particularly low levels recently, especially in comparison to these other similar economies. In broad terms the productivity slowdown can be attributed to two categories of factors. Firstly, supply-side factors, which include skills shortages and lack of investment in research and development. Secondly, demand-side factors, which include reduced public investment and financial crises (Ilzetzki, 2020).

There are several common drivers which contribute to low productivity in the UK, such as:

- A rise in self-employment, precarious work and low-paid jobs
- International factors such as stalling globalization
- Imbalanced flows of investment
- Skills shortages
- Low levels of research and development (R&D)
- Lower worker wellbeing and weaker management performance
- Low levels of technology adoption resulting “in a long tail of low productivity firms which co-exist with high productivity firms in the same sectors” (McCann, 2018).

Looking at regional divergence in productivity more generally, evidence suggests this is happening alongside regional and firm-level divergence in the diffusion and adoption of technology. Whereas the most productive firms in the most productive regions are at the frontier of technology adoption, diffusion to all firms within countries is slowing, with regions with more firms lagging behind also seeing overall lagging productivity (Andrews et al, 2019).

Some of these issues play out in the North East, contributing to the region’s comparatively low productivity.

“The North East has a longer tail of low-productivity businesses than the other Northern areas and Great Britain as a whole, while there are also larger shortages in managerial skills” (Cambridge Econometrics, 2019)

For the North as a whole, the Northern Powerhouse Independent Economic Review (NPIER) identifies lack of agglomeration as one of the main causes behind the region's productivity gap relative to the England average. Agglomeration effects are the benefits to local economies of businesses, supply chains, knowledge and skills being concentrated in a place, or "melting pots" of economic activity. This leads to the question of whether low agglomeration also applies to the North East specifically. In the North East, urban and rural productivity are at similar levels, indicating weak agglomeration economies (Cambridge Econometrics, 2019). Recent research from the Centre for Cities on hotspots of new economy firms supports this argument, reporting that the North East is the only English region where places with hotspots have lower productivity than places without hotspots (Evans, 2023).

Other factors contributing to the low productivity experienced by the North East region include (Ferguson, 2023):

- Prevalence of low productivity firms
- Lack of investment in R&D and skills
- Inadequate regional connectivity
- The North East was among the least resilient regions to the 2008 global financial crisis
- The North East has been significantly affected by Brexit, due to its reliance on EU markets for trade.

Productivity and inequality

Inequality describes the uneven distribution of wealth, resources and opportunities which increase wealth and health disparities between certain groups. Inequality can shape lives and communities and its impacts are far reaching. For example, children who experience poverty are at greater risk of unemployment during adulthood which creates costs to society and an estimated loss of earnings of £12.3 billion (Hirsch, 2023).

The UK has witnessed a slowdown in productivity growth since the financial crisis, which has also been accompanied by rising income and wealth inequality (McSorley, 2018). Regional inequality has grown rapidly in recent years in the UK. The relationship between productivity and inequality is not straightforward and is dependent on factors such as the specific places, sectors, companies, and occupations that are seeing growth.

"The slowdown in productivity growth and increase in inequality that have occurred over a number of years now has affected many advanced economies" (Arestis, 2023)

It is argued (Stansbury et al, 2023) that the UK's regional economic inequality problem is best characterised by productivity differentials, more specifically the underperformance of cities (excluding London). The reasons for the underperformance in the productivity of cities can be explained by numerous factors, including industry mix, skills availability, lower paid jobs and access to opportunities.

There has been some debate in recent years about the relationship between productivity growth and wages. In general terms, it is productivity growth which drives wage growth, and there is a clear correlation between productivity and wages at the regional level in the UK and across sectors in the North East

This is, however, dependent on the scale at which productivity is achieved. For example, it is said that an increase in productivity at a firm level results in a marginal increase in

wages (Ciarli et al, 2018). Other research has also concluded that “raising productivity in low productivity firms and low-wage sectors will not be enough by itself to drive up pay” (Innes, 2018).

This has resulted in academic debate about whether the relationship between productivity and wage growth has become weaker due to a so-called decoupling of productivity and wages. Writing in 2018, the OECD says 24 OECD countries “experienced a slowdown in real average wage growth relative to productivity growth, which has been reflected in a falling share of wages in GDP”. The OECD research suggests this decoupling predominantly affects low and middle wages which have been lagging behind average wage growth, contributing to rising wage inequality (OECD, 2018b). This trend is attributed to the fact that firms at the frontier of productivity growth and technology adoption are growing faster and increasing wages than others.

Between 1997 and 2008, there was a strong correlation between median hourly wage and labour productivity in the UK, with a rise in both. However, 2008 appeared to mark a break in this trend, as the relationship between median hourly wage and productivity became weaker. Although this relationship is weaker since the 2008 financial crisis, “it is evident that productivity still influences real wage growth for the median UK worker” (Brocek, 2019).

In the UK, evidence suggests there is no net decoupling with real GDP and wage growth growing at a similar rate between 1981 and 2019. However, this hides disparities. Median wage growth has decoupled from productivity growth, with median wages falling during the period from 2007 to 2013, a period of stagnant or marginal rises in productivity. During this time, productivity rose by 87% but median employee wages only rose by 62% – a 25 percentage point “overall decoupling” between productivity growth and median wage growth. This is partly driven by a rise in low-paid self-employment and employment, as well as growth in non-wage compensation (Teichgräber and Van Reenen, 2021). Therefore, when growth in productivity drives increasing wages, there is a danger of this not feeding through to other forms of income, hence rising inequality as lower earners are left behind (Brewer et al, 2023a).

This inequality is not just between earnings from different types of employment. For example, historically the UK saw economic growth between 1983 and 1989, meanwhile pensions were left behind, resulting in soaring pensioner poverty (from 14 to 41 per cent in the same period) (Brewer et al, 2023a). Today 11 million individuals live in working-age households where wages from work form less than half of household income, with benefit income making up the rest. When wages rise across the country, these groups benefit proportionately less in terms of overall income because the majority of their income – from benefits – does not change (ibid.).

Inequality can also impact on productivity

As well as impacting on those individuals and families, inequality can act as a drag on economic growth due to not maximising the economic potential of the population. In fact, OECD research has found that “high levels of inequality may impact growth negatively by causing a lack of investment in human capital among low-income families”, which can also affect productivity growth (Ramos, 2016).

Income inequality has remained high in the UK since the 1980s and is at a high level compared to other OECD countries (Brewer and Wernham, 2023). It is estimated that income inequality will reach its highest level by 2027–28 due to increased investment

income among the wealthiest households (Brewer et al, 2023b). In 2022, the incomes of the poorest 14 million people reduced by 7.5% whereas the wealthiest fifth saw an increase of 7.8% to their income (ONS, 2023).

A study of the decline of income growth in the US identified inequality as a potential barrier to optimised economic and productivity growth (Furman and Orszag, 2018). Productivity and inequality are interchangeably related, and it is argued that there is a common cause between rising inequality and declining productivity growth, namely reduced competition and reduced dynamism caused by specific policy changes (in the US context) (ibid.). Another study in the US found that the regions with higher rates of social mobility between 2010 and 2015 also had higher productivity and economic growth as a result. The study discovered that if Atlanta (a metropolitan area with low mobility) had the same economic mobility as Washington, DC (a metropolitan area with high mobility), its GDP would increase by $18 billion (Florida, 2017). This demonstrates the two-way relationship and shows that advancements in mobility can boost inclusivity and therefore productivity growth.

"Greater equality of opportunity yields greater growth" (Parilla, 2017)

In the face of the cost-of-living crisis the Office for Budget Responsibility (OBR) predicted a 7% drop in household incomes between 2022 and 2024, which is the largest reduction on record (OBR, 2022). The increased pressure on household incomes has led to an increase in poverty with a projected additional 800,000 people living in absolute poverty in the UK from 2022 to 2023 (Brewer et al, 2023b). There have also been increases in fuel poverty (DESNZ, 2023) and deepening experiences of poverty (JRF, 2023), 3.8 million people experiencing destitution in 2022 (Fitzpatrick et al, 2023). Experiencing poverty has impacts on people socially, emotionally and in terms of their health and wellbeing.

Falling levels of healthy life expectancy highlight the worsening health of the population. Analysis of ONS Annual Population Survey data shows that long-term sickness accounts for 26.5% of economic inactivity nationally, and has been increasing since the Covid-19 pandemic.

"Addressing health inequalities in the North of England would increase productivity by an estimated £20.2 billion in GVA" (Thomas, 2021)

Poverty in working households (where at least one person is in work) has increased over the last two decades and in 2020/21 61% of adults experiencing poverty were from a working household (JRF, 2023). Another indication of in-work poverty is the number of workers claiming Universal Credit to top up their low income. The level of in-work poverty highlights the low wages of workers which are clustered in certain sectors. Accommodation and food, arts and recreation, and retail are the industries with the highest number of low earners. Most low earners are young (aged between 16 and 21) and are more likely to work in elementary, sales and customer service, and caring, leisure and other occupations (ONS, 2022b).

Low-wage sectors are one of the largest contributors to the UK's productivity problem, especially in comparison to its competitors (including Germany, France and the Netherlands), with workers in their low-wage sectors producing more outputs in four days than British workers do in five days (Innes, 2018). Policies to address poor productivity in low pay sectors should therefore be designed to boost the proportion of workers undertaking on-the-job training; improve management practices; increase the use of ICT; and reduce the share of temporary workers.

There are gender, ethnicity and disability employment and pay gaps in the UK with women, people from a minority ethnic background, and people with a disability being paid less than their counterparts. The gender pay gap has been reducing over time but is still 14.9% (ONS, 2022c) and is highest for older workers. Women are also underrepresented in management and senior roles within organisations. Increasing female employment and reducing the gender pay gap will rely on creating better quality work (such as flexible and hybrid working) and wider societal support (such as accessible and affordable childcare). Importantly, this will increase productivity.

Diverse workforces are more productive with studies finding companies who had more gender and ethnicity diversity had a larger likelihood of financial outperformance compared to the least diverse (McKinsey, 2022).

As well as achieving productivity growth, in order to achieve inclusive productivity, firms should also establish inclusive growth.

One of the biggest contributors to increased productivity within firms is pay, in which a "higher rate of pay can spur worker satisfaction and motivation, thus leading to higher levels of productivity" (Irvine, 2020)

To do this, the workplace is the crucial domain which must deliver 'fair work'. This encompasses the key elements of inclusive growth: workers having opportunities to participate on equal terms in work, workers having a constructive role, and workers being able to derive benefits from the distribution of the value created by participation (Irvine, 2020).

Why is inclusive productivity important for the North East?

To assess the importance of inclusive productivity in the North East, performance relative to England must be considered. In this section we focus on the North East LEP area, rather than the wider regional definition used in the OECD data.

In terms of labour productivity, in 2021, GVA per hour worked was £32.02 (11% below the level in England excluding London). It increased between 2019 and 2020 due to Covid-19 causing fewer hours to be worked in less productive sectors but decreased between 2020 and 2021 due to issues surrounding the automotive sector, which represents one of the most productive sectors in the North East. The gap between GVA per hour worked in the North East and England excluding London was the largest recorded since 2008[1].

Similarly, with regards to human capital (defined as the stocks of skills, knowledge and experience of an individual or population which can productively be applied in the economy), in 2018 real human capital per head in the North East was indexed at 83.4 (UK=100), lower than all but one comparator region (ONS, 2020).

The average gross weekly pay for full-time employees working in the North East LEP area in 2022 was £580, 89% of the England equivalent at £646. For part-time work, average gross weekly pay was £230 which is marginally higher than the England equivalent of £228. The North East full-time figure was the joint lowest among the eight core city areas[2] and was lower than Tees Valley. The pay gap between the North East and the rest of the UK is the greatest within professional occupations, with the most significant gap being in

[1] Further analysis of labour productivity, including a breakdown at sub-regional level, can be found on the North East Evidence Hub here.
[2] Birmingham, Bristol, Liverpool, Leeds, Manchester, Nottingham, Newcastle and Sheffield.

the financial sector (£841 in the UK, £517 in the North East). Given this sector is one of the UK's most productive, this pay differential suggests the North East has less productive activity in this sector[3].

In 2022/23, economic inactivity in the North East is at the highest level since 2012/13 and at the largest gap between England excluding London since 2004/05. The North East exhibits the second highest level among the eight core city areas. ONS data on personal wealth levels shows that from April 2016 to March 2018, the North East had the second highest Gini coefficient of 0.64 (where 0.0 is perfect equality and 1.0 maximum inequality) after London at 0.69, while also having the lowest value for aggregate total wealth (ONS 2020). Economic activity is higher for women than men in the North East, but women are more likely to work in low paid, part-time jobs[4].

Between 2014/15 and 2016/17, housing costs (as measured by the median household weekly private rent) accounted for 22.9% of median weekly equivalised household income in the North East. This compares fairly well to other regions, however over this period weekly private rent rose in the North East and the North East is below the UK average for disposable household income adjusted for household size and composition, even after accounting for lower housing costs (ONS, 2020).

A focus on inclusive productivity involves two complementary policy objectives; improving productivity in the North East to move closer to the national average while reducing (or at least, not increasing) income and wealth inequalities. The aim would be to close the productivity gap between the North East and the rest of England in a way that disseminates the benefits of productivity growth through wage growth at all occupation levels. Achieving a 'recoupling' of productivity and wages requires increasing productivity in low wage sectors to drive wage increases while increasing the number of highly productive high-paying firms. Inclusive productivity growth in the North East will mean that more people have access to and benefit from more and better jobs.

[3] A further breakdown of salary data can be found on the North East Evidence Hub here.
[4] A further breakdown of economic activity by reason can be found on the North East Evidence Hub here

Identifying case studies

Case studies were identified in three stages. The first stage established a longlist of potential case studies of regions that were historically similar to the North East in performance against three key indicators of inclusive productivity, drawing on analysis of data from the OECD Regional Database (comparisons were not restricted to OECD member countries, but included all regions for which data was available). The second stage looked at more recent data to produce a shortlist of regions that showed similar or exceptional performance compared to the North East, from which policy lessons might be learned. The final stage involved desk research to identify those regions from which policy lessons were available and pertinent; these regions and policy lessons form the basis of the case studies.

The indicators used in analysis were chosen to represent key aspects of inclusive productivity, for which data was consistently available for most OECD regions (other indicators were rejected because data was not available for a large number of reigons). The indicators used were:

- Gross Domestic Product per head (GDP per head), in constant prices and constant purchasing power parities – a measure of productivity that takes account of the differences in inflation rates and spending power between countries[5]
- Economic activity rate – a measure of regional differences in labour market participation among the working age population
- Disposable household income per head, in constant prices and constant purchasing power parities – a measure of income inequality that takes account of the differences in inflation rates and spending power between countries[6].

The first stage of identifying case studies looked at each region's performance in the period 2003 to 2008, and their position in 2008. This gave us two measures for each indicator (a trajectory, and a point-in-time estimate), or six measures in total. The period 2003 to 2008 was chosen to represent a suitably historic period against which more recent performance could subsequently be compared, with the endpoint of 2008 roughly coinciding with the global financial crisis (the start point of 2003 was chosen because earlier data is not consistently available).

This first stage was entirely informed by data analysis. As definitions of regional boundaries used internationally do not include the North East LEP region, we compared performance to North East England including Tees Valley, defined among OECD's Territorial Level 2 (TL2) regions. Other TL2 regions whose performance was close to (within ten percentiles of) North East England on two or more of our six measures were longlisted as potential case studies.

This process identified a longlist of 136 regions in 28 countries. The longlist included a mix of regions with similar trajectories to North East England over the period 2003 to 2008, as well as regions whose position in 2008 was similar. The appendix (page 65) shows longlisted regions.

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[5] GDP per hour worked is often preferred, because it takes account of the differences in average working patterns between regions and countries. Data was not available for sufficient global regions for the purposes of our analysis.

[6] OECD report this per head, to take account of differences in average household size between countries. We considered other indicators relating to income inequality (Gini coefficient, S80/S20 income quintile share ratio)

The second stage of identifying case studies looked at longlisted regions' performance in the period 2008 to 2018, compared with North East England. This period was chosen to identify regions that had either shown similar performance to or outperformed the North East on key inclusive productivity indicators since the global financial crisis, with the cut-off point of 2018 chosen to avoid the risk of skewing the analysis due to the more recent impacts of the Covid 19 pandemic and the lag in data reflecting recovery. Regions which include capital cities, and regions without a similar mix of large conurbations and rural areas to that in the North East, were excluded. This process identified 13 regions in 7 countries, constituting the shortlist for potential case studies. Shortlisted regions are highlighted in the appendix (page 65).

The final stage of selecting case studies was more iterative, involving desk research into the availability of policy documents from these 13 regions, and discussion of which regions would add most value as case studies. Five case studies were selected, and these are presented later in this report. Before the case studies, the following section presents analysis of the three key indicators used for longlisting and shortlisting, as well as analysis comparing relative poverty in the North East and European regions, and analysis of headline indicators which compare health inequalities in the North East with global regions.

How does the North East compare to other regions?

This section looks at the performance of the North East compared to other global regions on several measures relating to inclusive productivity. Data is drawn mainly from the OECD Regional Database[7], supplemented with data from Eurostat (The European Union's official data agency)[8] and official UK sources where OECD data is not available.

Gross Domestic Product per head

Gross Domestic Product (GDP) measures the monetary value of goods and services produced in a region. GDP per head is a proxy measure of productivity (GDP per hour worked is often preferred, but this is not available from OECD), allowing comparisons between regions. It is reported in US dollars, standardised to account for differences in interest rates and purchasing power between countries.

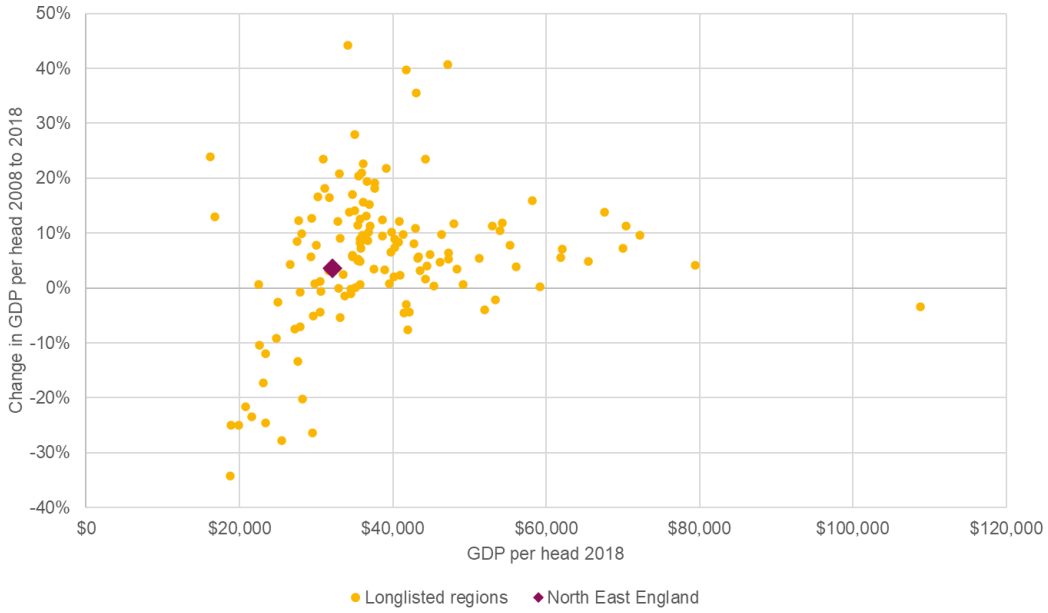
Figure 1: Gross Domestic Product per head, 2008 and 2003 to 2008

Source: OECD

Figure 1 compares GDP per head in North East England in 2008 (horizontal axis) and change in GDP per head between 2003 and 2008 (vertical axis) with longlisted regions and other OECD regions[9]. In 2008, GDP per head in North East England was in line with the average among all regions, and 92% of the average among longlisted regions. Between 2003 and 2008, GDP per head in North East England rose by 6%, compared with average growth of 12% among all regions and 6% among longlisted regions.

[7] See https://www.oecd.org/regional/regional-statistics/
[8] See https://ec.europa.eu/eurostat
[9] We use this term to refer to all regions for which data is available from the OECD Regional Database. It includes regions among OECD members as well as non-member countries.

Figure 2: Gross Domestic Product per head, 2018 and 2008 to 2018



Source: OECD

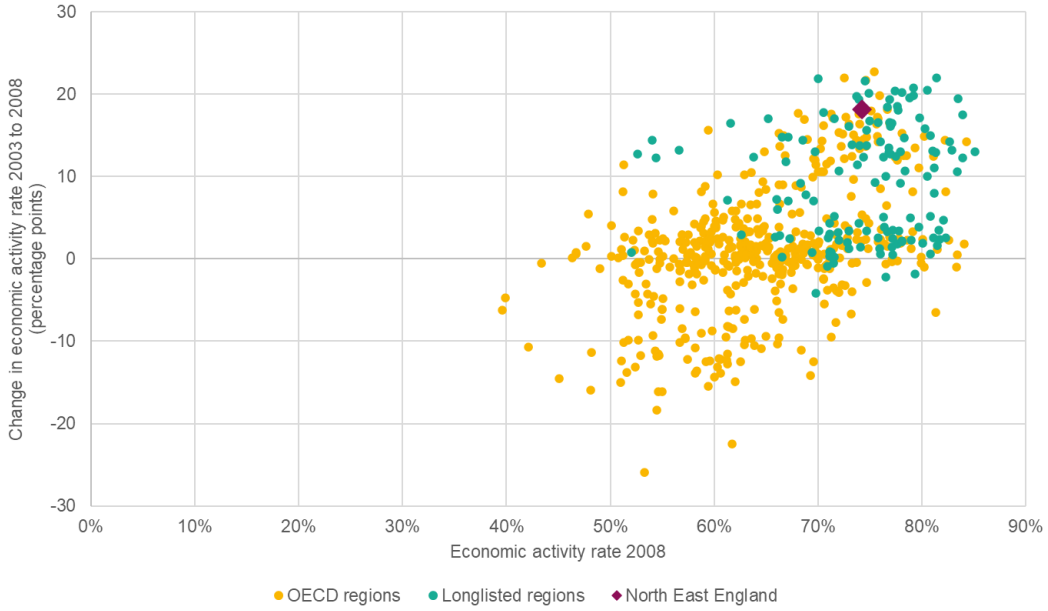
Figure 2 shows the same comparisons for the period 2008 to 2018, focusing on longlisted regions. Between 2008 and 2018, GDP per head in North East England rose by 4%. This was a slower rate of productivity growth than the average among longlisted regions (8%). The productivity gap between North East England and the average therefore widened. In 2018, GDP per head in North East England was 89% of the average among longlisted regions.

Economic activity rate

The economic activity rate measures the proportion of the working age population who are in employment or actively seeking work, and is therefore a useful measure of labour market participation.

Figure 3 compares the economic activity rate in North East England in 2008 (horizontal axis) and change in the rate between 2003 and 2008 (vertical axis) with longlisted regions and other OECD regions. The economic activity rate in North East England was 74% in 2008, comparing well with other regions. Between 2003 and 2008, the economic activity rate in North East England rose by 18 percentage points, compared with an average rise of 1 percentage point among all regions and 6 percentage points among longlisted regions.

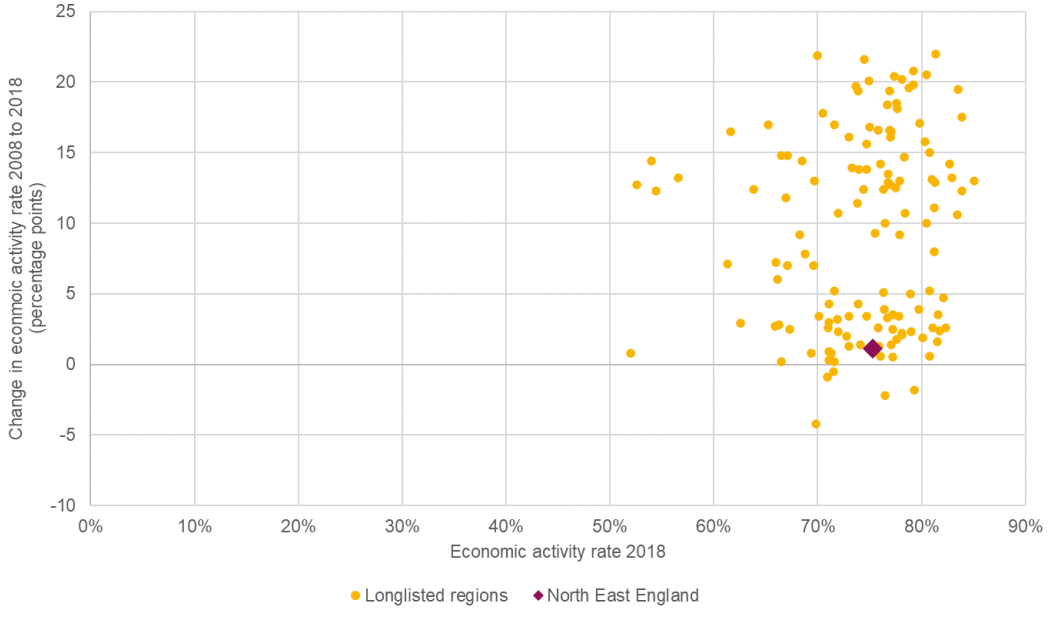
Figure 3: Economic activity rate, 15 to 64 year olds, 2008 and 2003 to 2008



Source: OECD

Figure 4 shows the same comparisons for the period 2008 to 2018, focusing on longlisted regions. Between 2008 and 2018, the economic activity rate in North East England rose by 1 percentage point, compared with an average increase of 3 percentage points among longlisted regions. However, it is notable that within this period the economic activity rate in North East England and longlisted regions fell between 2008 and 2011, reflecting the impacts of the global financial crisis, before recovering in the period to 2018.

Figure 4: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



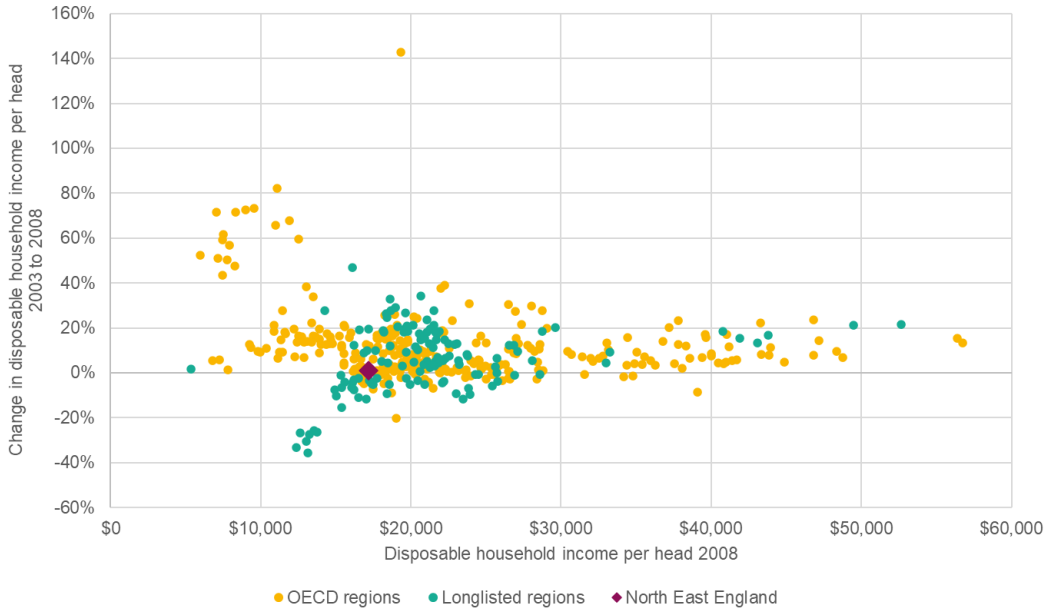
Source: OECD

The economic activity rate in North East England was 75% in 2018, broadly in line with the average among longlisted regions (76%). Taken alongside the fact that GDP per head is below the average, this underlines the inclusive productivity challenge facing the North East.

Disposable household income per head

Disposable household income is a proxy measure of individuals' quality of life. It is measured on a per capita basis by OECD, to take account of differences in average household sizes between countries. Like GDP per head, it is reported in US dollars, standardised to account for differences in interest rates and purchasing power between countries.

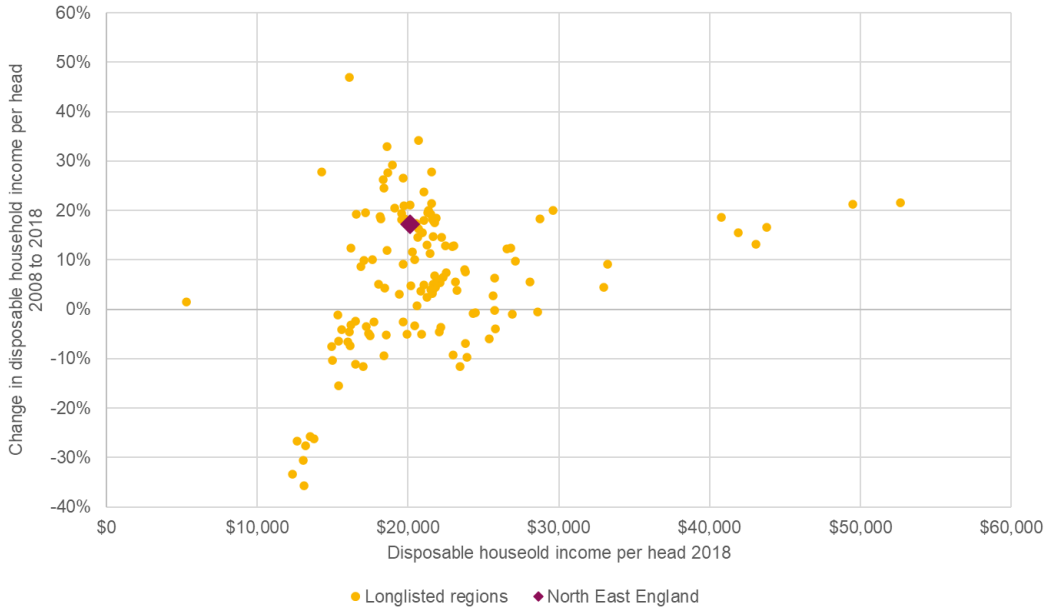
Figure 5: Disposable household income per head, North East England, 2008 and 2003 to 2008



Source: OECD

Figure 5 compares the disposable household income per head in North East England in 2008 (horizontal axis) and change between 2003 and 2008 (vertical axis) with longlisted regions and other OECD regions. In 2008, disposable household income per head in North East England was 92% of the average among all regions and 85% of the average among all regions. Between 2003 and 2008, disposable household income rose by 1% in North East England, compared with an average increase of 7% among longlisted regions and 8% among all regions.

Figure 6: Disposable household income per head, North East England, 2018 and 2008 to 2018



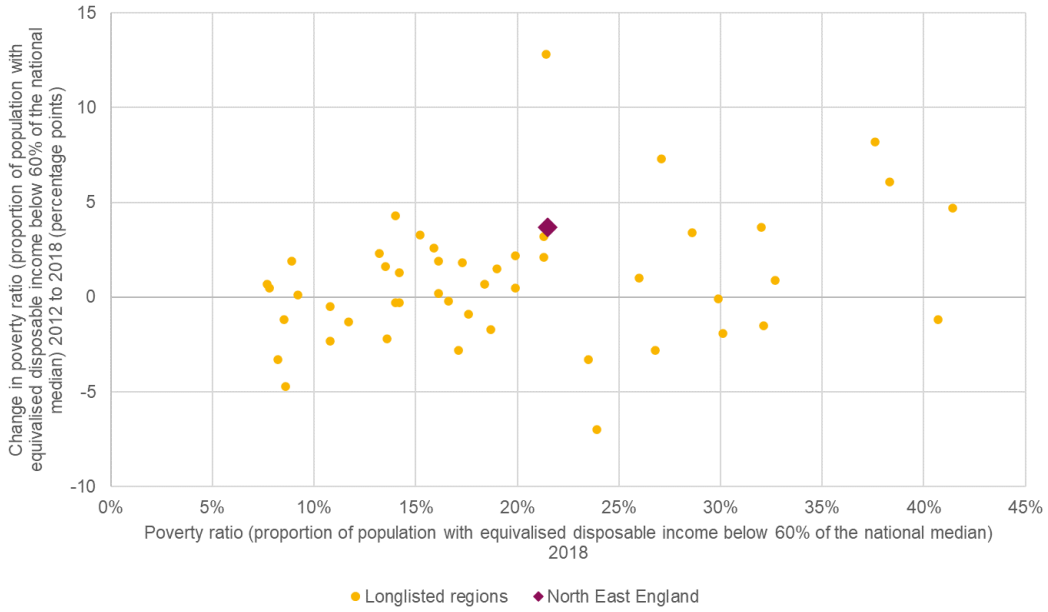
Source: OECD

Figure 6 shows the same comparisons for the period 2008 to 2018, focusing on longlisted regions. Between 2008 and 2018, disposable household income per head in North East England rose by 17%, with a particularly notable rise between 2017 and 2018, compared with average growth of 12% among longlisted regions. This brought disposable household income per head in North East England from 92% to 97% of the average among longlisted regions.

Relative poverty

Relative poverty is a measure of the proportion of the population with equivalised household disposable income below 60 per cent of the national median. As data is not available from OECD, our analysis draws on data for UK regions and those European Union regions for which data is available from Eurostat. Figure 7 compares relative poverty in North East England in 2018 (horizontal axis) and change between 2012 and 2018 (vertical axis) with longlisted regions.

Figure 7: Relative poverty (proportion of the population with equivalised household disposable income below 60 per cent of the national median), 2018 and 2012 to 2018



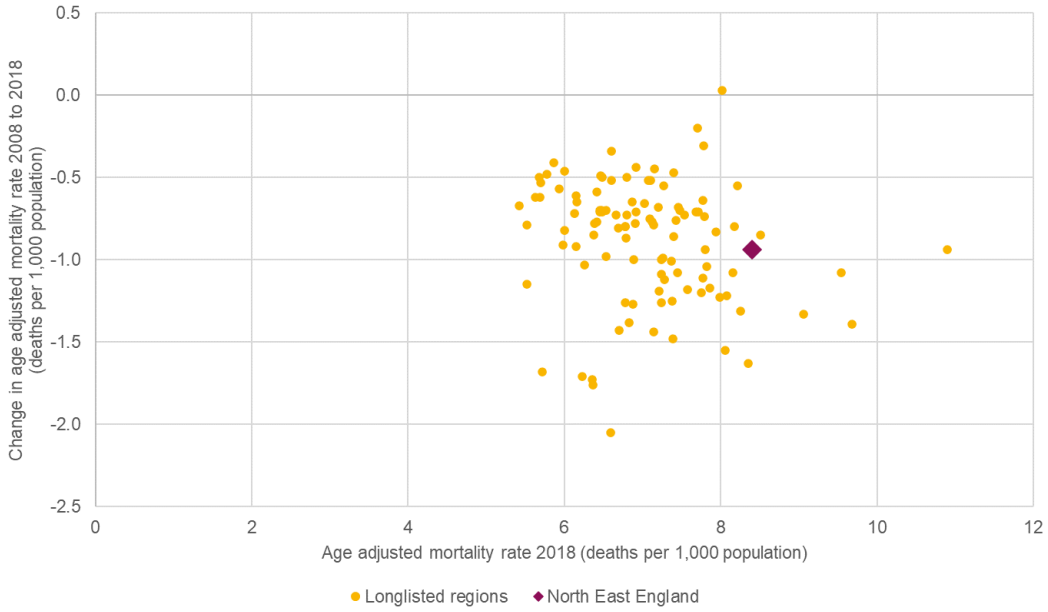
Source: Eurostat / Department for Work and Pensions

In 2012, 17% of North East England's population lived in relative poverty. Between 2012 and 2018, the proportion of North East England's population living in poverty rose by 4 percentage points, to 21%. Over the same period, the average proportion of the population living in relative poverty among longlisted regions rose by 1 percentage point, from 16% to 17%. The average trend was different to that seen in North East England, with a fall in relative poverty between 2014 and 2017. Relative poverty in both North East England and among longlisted regions rose between 2017 and 2018.

Health inequalities

A key challenge facing the North East is health inequalities and the impact these have on economic inactivity and underemployment. As shown in Figure 8, the age-adjusted mortality rate in North East England was 8.4 deaths per 1,000 people in 2018, down from 9.3 in 2008. This was above the average among longlisted comparator regions (7.0 deaths per 1,000 people in 2018), which saw a similar improvement over this period.

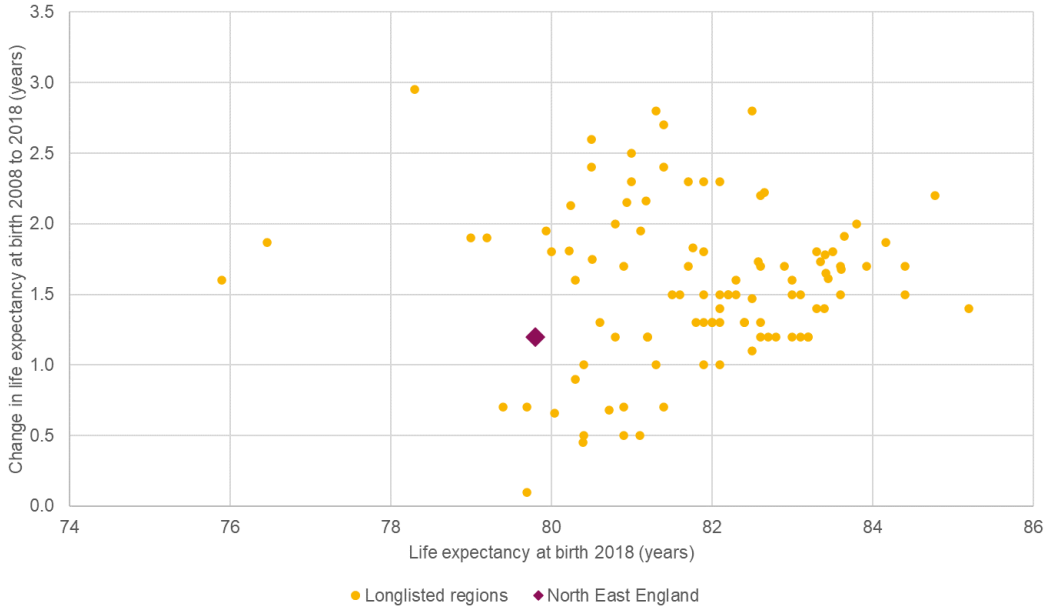
Figure 8: Age-adjusted mortality rate (deaths per 1,000 population), 2018 and 2008 to 2018



Source: OECD

Reflecting this difference, life expectancy at birth was lower in North East England than the average among longlisted regions: 79.8 years in 2018 as shown in Figure 9, compared with the average 81.9 years. Between 2008 and 2018, North East England saw a slightly smaller improvement in life expectancy at birth (1.2 years) than longlisted regions (an average 1.5 years).

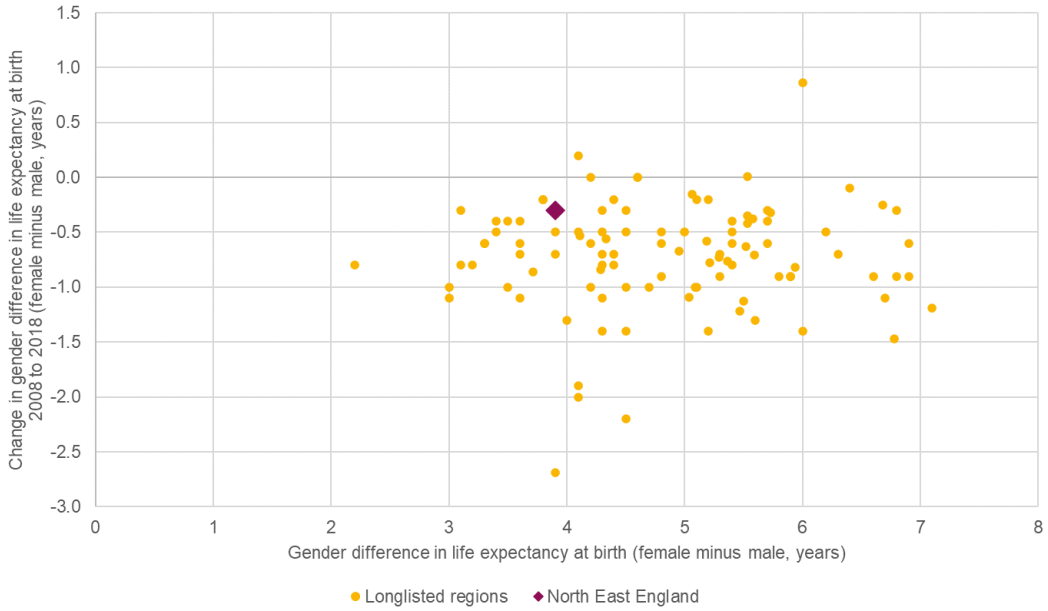
Figure 9: Life expectancy at birth, 2018 and 2008 to 2018



Source: OECD

The gender gap in life expectancy at birth, nevertheless, is smaller in North East England than the average among longlisted regions. In 2018, women in North East England could expect to live 3.9 years longer than men as shown in Figure 10, compared with a difference of 4.6 years among longlisted regions. Between 2008 and 2018, the gender gap in life expectancy at birth narrowed by 0.3 years in North East England, compared with 0.9 years among longlisted regions.

Figure 10: Gender difference in life expectancy at birth (female minus male, years), 2018 and 2008 to 2018



Source: OECD

During the 2008 to 2018 period there has been a growing interest in 'Health In All (HIA) Policies' in Europe, with the European Commission saying in 2006 that poor health means "employers lose worker productivity and citizens are deprived of potential length and quality of life". Within our case study regions, Saxony-Anhalt embeds HIA in law by requiring public health services to contribute to all planning processes (Ståhl et al, 2006). Meanwhile health reforms in the Basque Country "are credited with development of one of the most successful integrated care strategies in Europe" (Robbins, 2021). A key driver of this success is the focus of Health Policy for the Basque Country 2013–2020 (HPBC) on health, social determinants, and implementation (Basque Government, 2013). This places tackling health inequalities at its core, with accompanying quantitative outcome targets. It is important to note that these approaches to addressing health inequality – like the policies for increasing productivity and inclusivity described in the case studies – are enabled by a greater degree of regional autonomy.

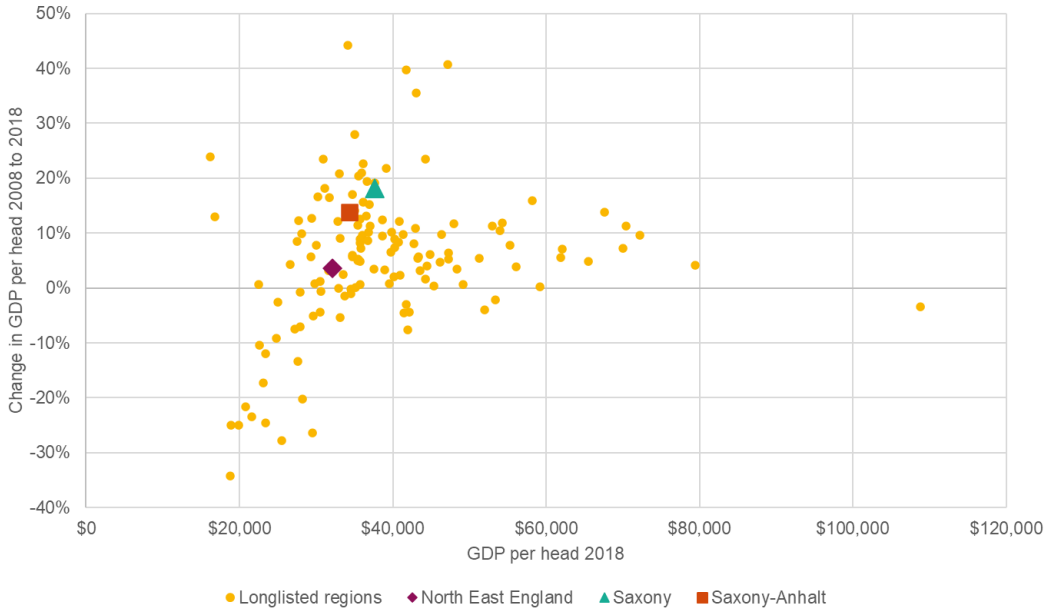
Regional case study: Saxony and Saxony-Anhalt, Germany

Saxony and Saxony-Anhalt are neighbouring regions in east Germany with a combined population of 6.2 million people. Leipzig is the most populous metropolitan area across both regions, located in Saxony roughly 100 miles south of Berlin, with a population of around 600,000 people. Other urban areas include Dresden, Magdeburg and Halle (Saale). Both regions also have large rural areas and are largely composed of hilly and mountainous country. Although the Saxon economy suffered severe cutbacks after unification, especially in manufacturing, it remains one of the largest economies in east Germany and one of the few in which 'new economy' sectors such as microelectronics have experienced considerable growth. Though agriculture in Saxony-Anhalt dominates much of the landscape it plays a modest role in total output and employment. Key institutions across both regions include Technische Universitat Dresden, Universitat Leipzig and Technische Universitat Chemnitz, Martin-Luther-Universitat Halle-Wittenberg, Otto-von-Guericke-Universitat Madgeburg and Hochschule Merseburg.

Performance on key indicators

Productivity in 2008 was broadly similar in North East England to both Saxony and Saxony-Anhalt. North East England's GDP per head was 97% of Saxony's, and 103% of Saxony-Anhalt's. Between 2008 and 2018, GDP per head rose by 14% in Saxony-Anhalt and by 18% in Saxony, compared with an increase of 4% in North East England. This productivity growth means that by 2018, North East England had fallen behind, to 94% of GDP per head in Saxony-Anhalt and 85% in Saxony, as reflected in Figure 11.

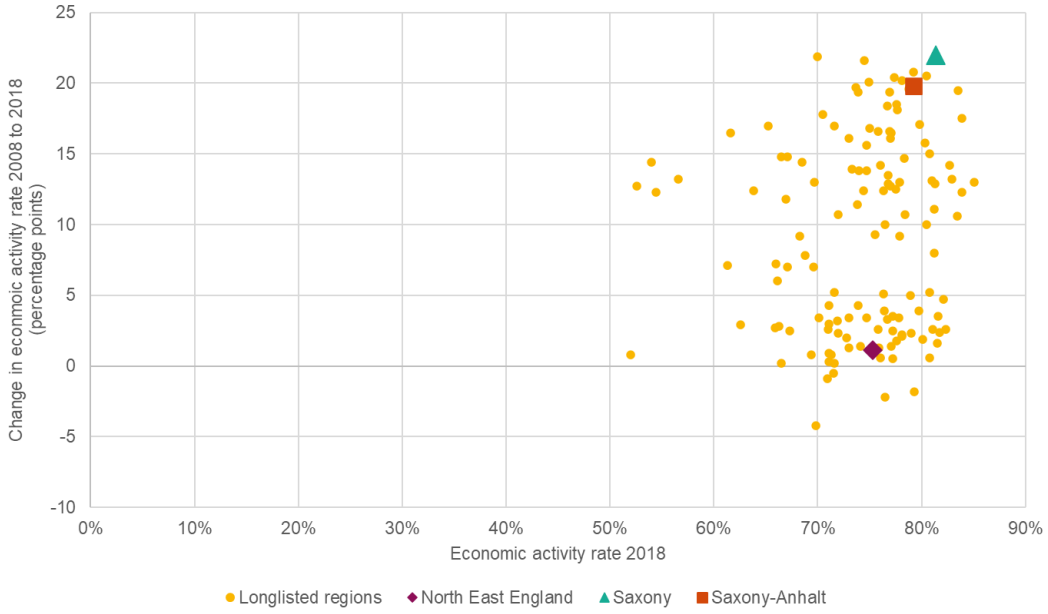
Figure 11: Gross Domestic Product per head, 2018 and 2008 to 2018



Source: OECD

Over the same period, the economic activity rate rose by 20 percentage points in Saxony-Anhalt and by 22 percentage points in Saxony, compared with a rise of 1 percentage point in North East England. Despite starting the decade with a much lower proportion of the working age population in employment or seeking work, by 2018 the economic activity rate was higher in both German regions: 79% in Saxony-Anhalt and 81% in Saxony, compared with 75% in North East England, as shown in Figure 12.

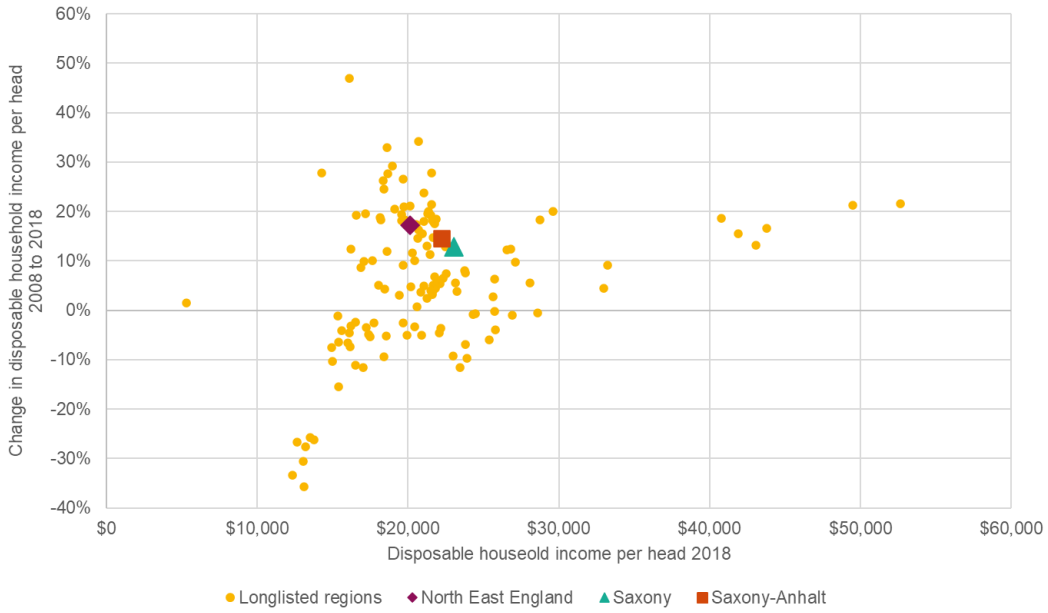
Figure 12: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



Source: OECD

Disposable household income per head was lower in North East England than in either German region in 2008: 84% of the level in Saxony and 89% of the level in Saxony-Anhalt. Between 2008 and 2018, disposable household income per head rose by 17% in North East England. This was faster than in Saxony (13%) or Saxony-Anhalt (15%), bringing the North East closer into line with income levels in both regions, though the North East still lagged behind, as shown in Figure 13. In 2018, disposable household income per head in North East England was 89% of the level in Saxony, and 91% of the level in Saxony-Anhalt.

Figure 13: Disposable household income per head, 2018 and 2008 to 2018



Source: OECD

Policy priorities

Following German reunification in 1990, a strong case is made that a united Germany, despite turbulences, adjusted well to a post-Cold War world and found its niche as a medium power, gradually making its political influence commensurate with its economic expansion (Pond, 1996). Despite high unemployment and low growth in the early 2000s, Germany experienced an increased growth trajectory in the later part of the decade. Germany has a strong and effective structure for boosting the regional economy through compensation of differences in economic structure and environments for growth across regions. Germany's Constitution features a commitment to reducing regional disparities and places the joint responsibility of regional development on federal government and the *Länder* or regional states (OECD, 2019a). In both regions, the Landtag of Saxony and the Landtag of Saxony-Anhalt are the legislatures of the regional states, and they govern jointly with the federal government as unicameral assemblies exercising legislative competence.

Both Saxony and Saxony-Anhalt were formerly part of East Germany and during reunification both regions experienced deindustrialisation and considerable declines in employment rates. For example, in Leipzig the employment rate in pre-existing industrial jobs declined by 80% (Frick and Prenzel, 2023).

Saxony-Anhalt experienced rural challenges such as depopulation and high unemployment, subsequently becoming one of Germany's poorest states by the early 2000s. In Saxony, the Leipzig metropolitan area experienced significant rates of out-migration post-reunification, leading to it being nicknamed a "shrinking city" (ibid.). Overall, reunification had initial negative impacts on the two regions, particularly at city level. Deindustrialisation, unemployment and population decline were linked to low levels of R&D expenditure in an SME-dominated economy, and underutilisation of a "crumbling" housing stock (ibid.).

Population decline and policy

The population decline seen in Saxony and Saxony-Anhalt is rare among OECD regions, with average population density across all regions increasing during the period 2008 to 2018.

Where population decline is seen, it is not restricted to Europe. For example, net migration from Jeolla in South Korea to other regions in Korea saw population decline and an ageing population in 16 out of 17 rural districts and 2 out of 5 cities. This means that four areas have not declined and have seen growth, which according to the OECD coincides with these places being the only ones in Jeolla to benefit from specific government interventions of an 'Innovation City' development (in Naju), a Free Economic Zone (Gwangyang Bay) an 'Enterprise City' development and a new provincial government seat (Muan). Evidence of a direct causal link between investment in these enterprise zones and population is lacking, however this example does support the view that job creation and clustering is one factor attracting people to live in the area (OECD, 2021).

Looking at Saxony and Saxony-Anhalt in a little more detail, we seen an interesting picture which has relevance to recent trends in the North East. As a whole, Saxony and Saxony-Anhalt have both seen regional population decline between 2008 and 2018 (by 138,890 and 189,390 respectively). The working age population in both regions has also declined over the same period by 290,290 in Saxony and 233,740 in Saxony-Anhalt. The fact economic growth has happened while the population has fallen shows the importance of getting the most out of the labour force. Demand-led and targeted childcare and child education policies may be key to this.

Interestingly, despite the decline in regional population in Saxony, in Leipzig specifically employment has grown, unemployment has declined, and population increased by 116,000 between 2005 and 2020. This shows the extent to which investing in cities like Leipzig has driven economic and productivity growth.

There are similar population changes seen in the North East. Since the 2011 Census, the population has decreased within three broad age groups (16 to 24, 35 to 44 and 45 to 54 year olds). The 10-year percentage growth in the North East population (1.8%) was less than a third of that of England excluding London (6.4%) (North East Evidence Hub, 2023). A decrease in working age population could be a barrier to growth without measures to increase economic activity and employment – such as better childcare, improving health outcomes, and age-friendly recruitment and employment.

Policy interventions and aims

The policy focus in response to the challenges described above was to boost business growth and employment prospects while contributing to sustainable development. Policies delivered were a mix of city level, regional, and specific rural interventions.

City level (Leipzig, Saxony): The policy interventions outlined in this section came as a result of the Reunification Project in Germany. For Leipzig, the policy interventions aimed at attracting people and businesses to the city through interventions focused primarily on urban regeneration. This involved targeting the inner-city buildings which were in a poor condition following out-migration. Numerous regeneration strategies were implemented such as a strategic process known as 'New Founder Epoch' which aimed to improve the quality of life and attractiveness of inner-city areas by increasing greenspace and reducing

density. This was implemented alongside a dedicated housing plan for housing and urban renewal.

In attempting to attract businesses to Leipzig and tackle unemployment, interventions focused on the role of priority clusters (automotive and suppliers, healthcare and biotech, energy and environment, logistics, and media and creativity) and attracting investors (Frick and Prenzel, 2023). For example, 'Autoland Saxony' was used by Saxony Trade & Investment to promote the automotive industry.

Rural Development Programme: Rural Development Programmes (RDPs) for both Saxony and Saxony-Anhalt were enacted throughout the period of 2008 to 2018 with each region having its own specific goals.

The 2007–2013 RDP for Saxony aimed to increase the value and competitiveness of the production, processing, and marketing of agricultural and forestry products to create and preserve jobs (ENRD, 2010a). Saxony-Anhalt's 2007–2013 RDP was based on improving the living conditions and economic situation in rural areas, as well as taking into consideration the importance of nature and environmental protection (ENRD, 2010b).

The RDPs for Saxony anticipate increases in economic growth, labour productivity, and numerous environmental benefits (ENRD, 2010a). The more recent programmes prioritise the promotion of social inclusion, poverty reduction and economic development in rural areas, and restoration, preservation, and enhancement of ecosystems related to agriculture and forestry (European Commission, 2022). For Saxony-Anhalt the RDP works to increase economic performance and improve the employment situation, while considering the protection of nature and environment (ENRD, 2010b).

European Regional Development Fund (ERDF): Both Saxony and Saxony-Anhalt benefitted from ERDF funding. The Saxony and Saxony-Anhalt programmes aimed to address the underlying challenge of the insufficient R&D expenditure of the SME-dominated economy through strengthening research, technological development and innovation, and enhancing the competitiveness of SMEs (European Commission, 2020a; European Commission, 2020b).

Funding for childcare and child education was enhanced in Saxony and Saxony-Anhalt with additional demand-based funding to providers, which was not universal across Germany. Increased childcare and child education coverage helps parents enter and remain in the labour market. The OECD reflections of Germany in 2018 note how better childcare and early childhood education can reduce poverty and raise the labour supply (OECD, 2018c).

The ERDF programmes aimed to create 1,400 new jobs in 250 supported enterprises in Saxony, and 3,775 new jobs in 1,842 supported enterprises in Saxony-Anhalt with a transition to a low carbon economy, contributing to a reduction in annual greenhouse gas emissions (European Commission, 2020a; European Commission, 2020b).

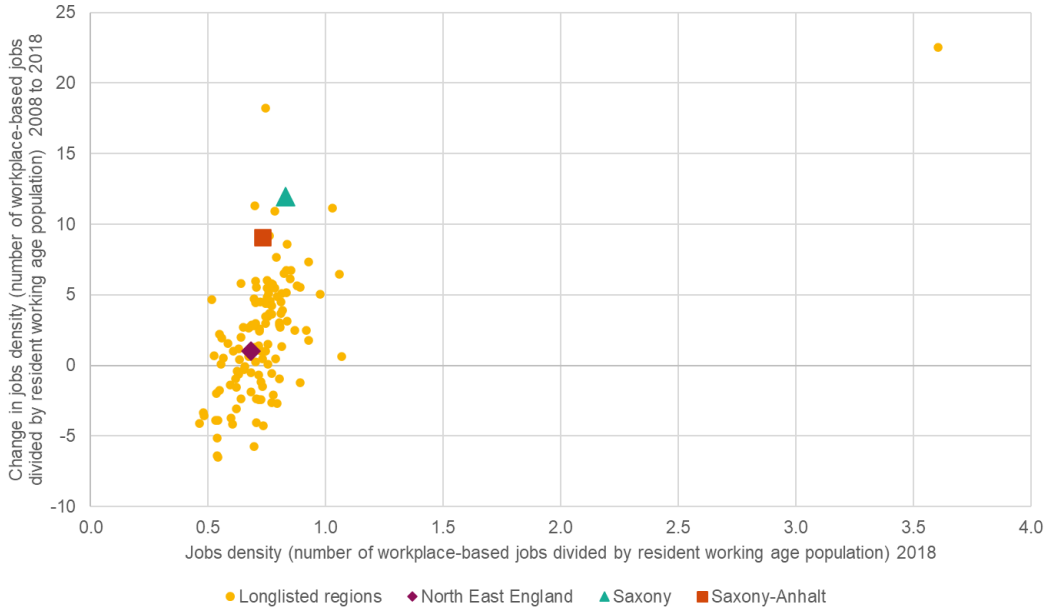
What has changed since 2008

Leipzig has emerged as one of the most promising urban areas in German city rankings. Between 2005 and 2021, employment increased by 90,000, unemployment has declined, and the population increased by 116,000 between 2005 and 2020. A key lesson is that Leipzig's transformation was partly driven by attracting large companies such as Amazon, BMW and Porsche, and developing a comprehensive supply chain in the region. This was

underpinned by investment in childhood education and programmes to increase innovation and productivity in SMEs.

In 2008, there were 0.71 jobs per resident in Saxony, but only 0.64 in Saxony-Anhalt. By 2018, this had increased to 0.83 and 0.73 jobs per resident, respectively. By comparison, there were 0.67 jobs per resident in North East England in 2008, rising to 0.68 in 2018, as shown in Figure 14.

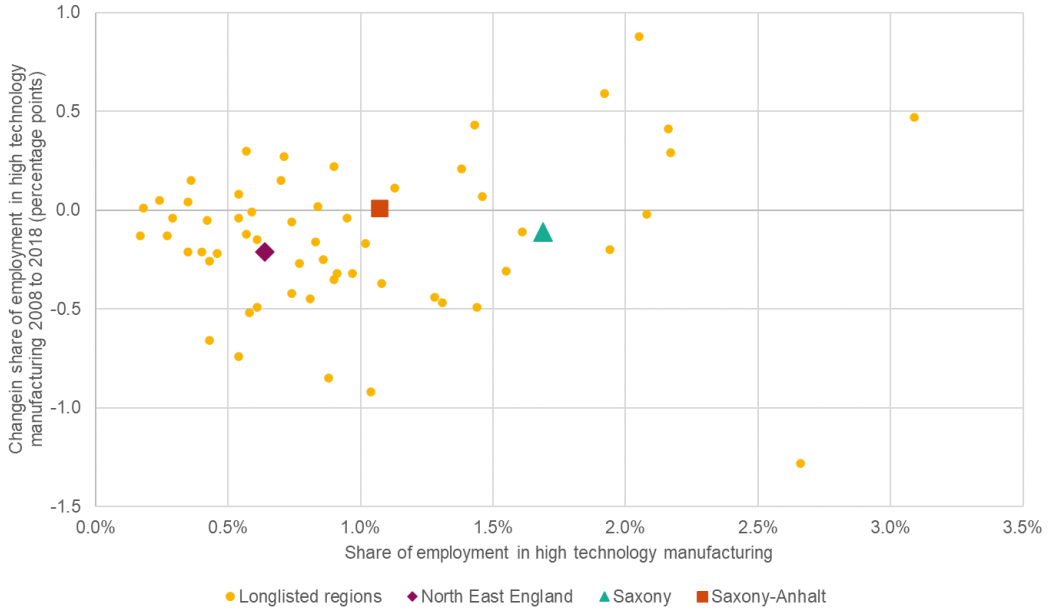
Figure 14: Jobs density (number of workplace jobs per working age resident), 2018 and 2008 to 2018



Source: OECD

1.8% of people in employment worked in high-technology manufacturing in Saxony in 2008, and 1.1% in Saxony-Anhalt. The proportions were similar in 2018, at 1.7% and 1.1% respectively. In North East England, 0.9% of people in employment worked in high-technology manufacturing in 2008. As shown in Figure 15, this proportion had fallen to 0.6% by 2018.

Figure 15: Proportion of employment in high-technology manufacturing, 2018 and 2008 to 2018



Source: OECD

Caveats and considerations

It is important to consider the political structure of Germany, in which regional development is mainly the responsibility of the regions themselves (OECD, 2019b). Also, the policy interventions in Saxony and Saxony-Anhalt happened at a time when recovery and regeneration were fundamental to the Reunification Project regionally and nationally (Frick and Prenzel, 2023). The Reunification Project is said to have cost up to €2 trillion between 1990 and 2014. For comparison, the UK's Levelling Up fund is £4.8 billion in total (Enenkel, 2021). Finally, the German economy itself is globally strong and this will have aided the regional growth realised in Saxony and Saxony-Anhalt.

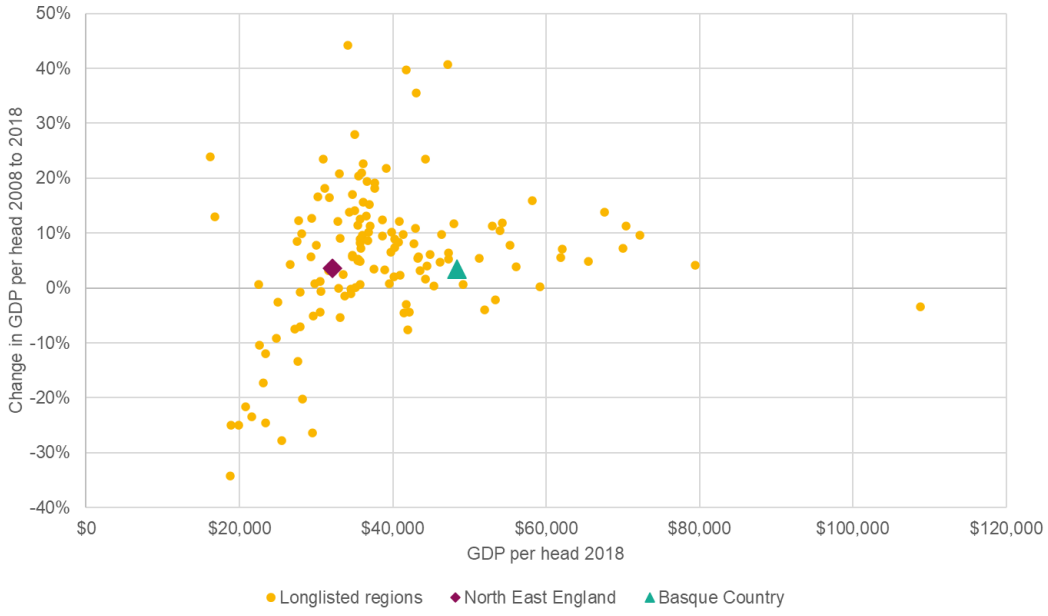
Regional case study: Basque Country, Spain

The Basque Country in the north of Spain is home to approximately 2 million people. The largest cities are Bilbao, Vitoria-Gasteiz and San Sebastián with populations of 347,000, 253,500 and 188,000 respectively. The region has a mix of rural and urban areas because of rapid industrialisation. The Basque Country was chosen as a North East comparator due to its similar productivity trend, despite the poorer performance of the Spanish economy overall. It has industrial similarities to the North East with key sectors including energy, mobility (including automotive, aeronautics, maritime and railroad), advanced machinery, electronics/ICTs and biohealth (Spanish Government, 2023). The region is home to the University of the Basque Country which accounts for 90% of research carried out in the region.

Performance on key indicators

Productivity in North East England lagged well behind the Basque Country in 2008. GDP per head in North East England was 66% of the level in the Basque Country. Both regions saw similar levels of productivity growth between 2008 and 2018 (3.6% in North East England and 3.4% in the Basque Country), resulting in the North East continuing to lag behind at a similar level in 2018, as shown in Figure 16.

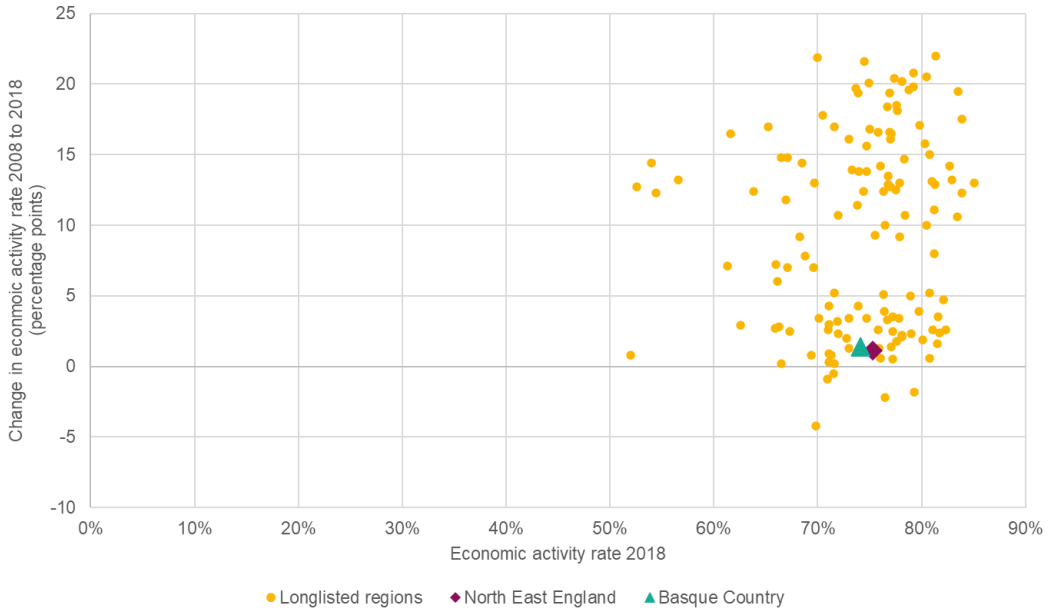
Figure 16: Gross Domestic Product per head, 2018 and 2008 to 2018



Source: OECD

The economic activity rate was slightly higher in North East England (74%) in 2008 than in the Basque Country (73%), with similar improvement in both regions between 2008 and 2018. As shown in Figure 17, the economic activity rate remained slightly higher in North East England in 2018 (75%) than in the Basque Country (74%).

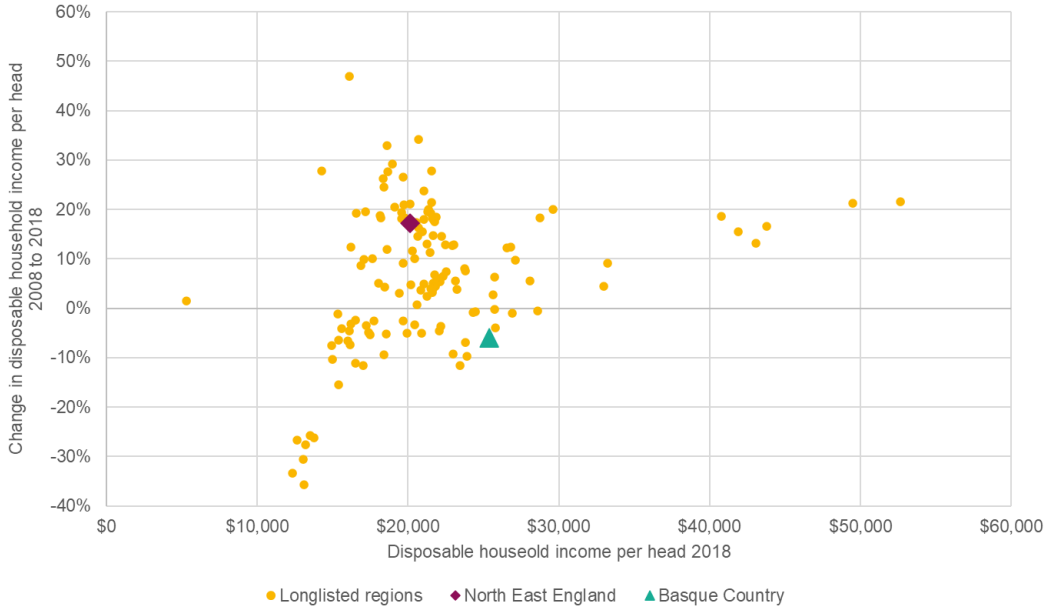
Figure 17: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



Source: OECD

Disposable household income per head was in North East England in 2008 was 68% of the level in the Basque Country. While disposable household income per head rose by 17% in North East England between 2008 and 2018, it fell by 6% in the Basque Country over this period. Despite this, disposable household income per head in North East England continued to lag behind in 2018 as shown in Figure 18, at 79% of the level in the Basque Country.

Figure 18: Disposable household income per head, 2018 and 2008 to 2018



Source: OECD

Policy priorities

With extensive devolved powers since 1979, the Basque Country has its own parliament and government with a high level of autonomy regarding education, industry, culture, health, law enforcement and social services, and its own tax system. This autonomy provides the region with key levers to address the social and economic challenges it has encountered.

During the end of the 20th century the region experienced industrial decline and high unemployment, and more recently GDP fell in the wake of the global financial crash in 2008. Policy responses are centred on an industry-focused territorial strategy.

In terms of inclusive productivity, policy priorities included building sustained resilience and combatting social exclusion, addressing health inequalities, and developing specialisation through science and technology. This was in the context of decarbonisation and addressing climate change.

Policy interventions and aims

Following several decades of industry-focused territorial strategy the focus of the Basque regional strategy between 2008 and 2018 “had evolved to competitiveness in solidarity through innovation, leveraging public-private collaboration spaces to facilitate a systemic and participative strategy” (Aranguren Querejeta et al, 2021). The strategy aimed to further develop specialisation which was informed by two science, technology, and innovation plans.

The 2015 Science, Technology and Innovation Plan (2011) focused on key markets and transversal capabilities to develop existing strengths and complementary capacities. The 2020 Science, Technology and Innovation Plan (2014) outlined a framework for a smart specialisation strategy with three strategic priorities complemented by four niche opportunities, and four transversal areas: internationalisation, skills, new business models, and entrepreneurship.

During these periods, the Basque region’s approach included:

- Investment in digital and HLT infrastructure: compared to the rest of Spain, the Basque region invested less in physical infrastructure and focused its efforts on digital and industry 4.0 such as two cyber security centres, a digital innovation hub, and several sector specific research centres.
- Improvement of skills and a better alignment between the skills system and the smart specialisation strategy: there has been an increased recognition by Basque universities of their role within local economic development, for example the 4GuneCluster. The vocational training system has continued to develop with a focus on addressing small business needs and challenge-based learning through collaborations between educators and business.
- Rising consciousness of weaknesses in non-technological innovation alongside a reorganisation of the Basque Science, Technology, and Innovation Network: The Basque government recognised a need to develop non-technological innovations to increase productivity and piloted programmes such as one to increase advanced management skills.
- Maturing the public sector alongside local institutionalisation: the public sector in the Basque region was consolidated during this time and a series of public/private

collaborations processes were successfully developed (Aranguren Querejeta et al, 2021).

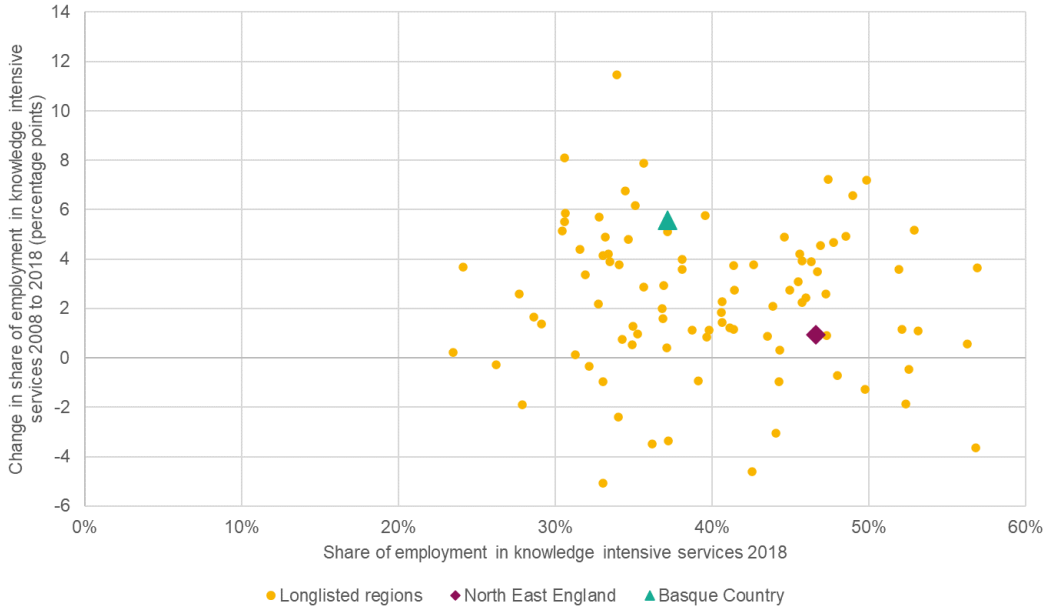
- Creative and cultural sector development. Following the European Commission's 2010 *Green Paper: Unlocking the potential of cultural and creative industries* (European Commission, 2010) the Basque Government set about doing that. In the coming years, a concerted effort was made to understand the size of the sector and how institutions could help it develop, with the Basque Culture Observatory leading the analysis. In 2014 the Basque Country began leading the Regional Initiative for Culture and Creativity (an informal network of 25 countries) and was one of six EU regions to be part of the EU Smart Specialisation Creative Districts/CREADIS3 project. In 2016 San Sebastián in the Basque Country was European Capital of Culture, 19 years after the Guggenheim Museum opened in Bilbao.

Health reforms in the Basque Country "are credited with development of one of the most successful integrated care strategies in Europe". A key driver of this success is the focus of the Health Policy in the Basque Country 2013–2020 (HPBC) on health, social determinants, and implementation. This places tackling health inequalities at its core, with accompanying quantitative outcome targets.

What has changed since 2008

The focus of the Basque Country's regional policy has been on developing clusters of higher-tech and higher-GVA sectors.

Figure 19: Proportion of employment in knowledge intensive services, 2018 and 2008 to 2018



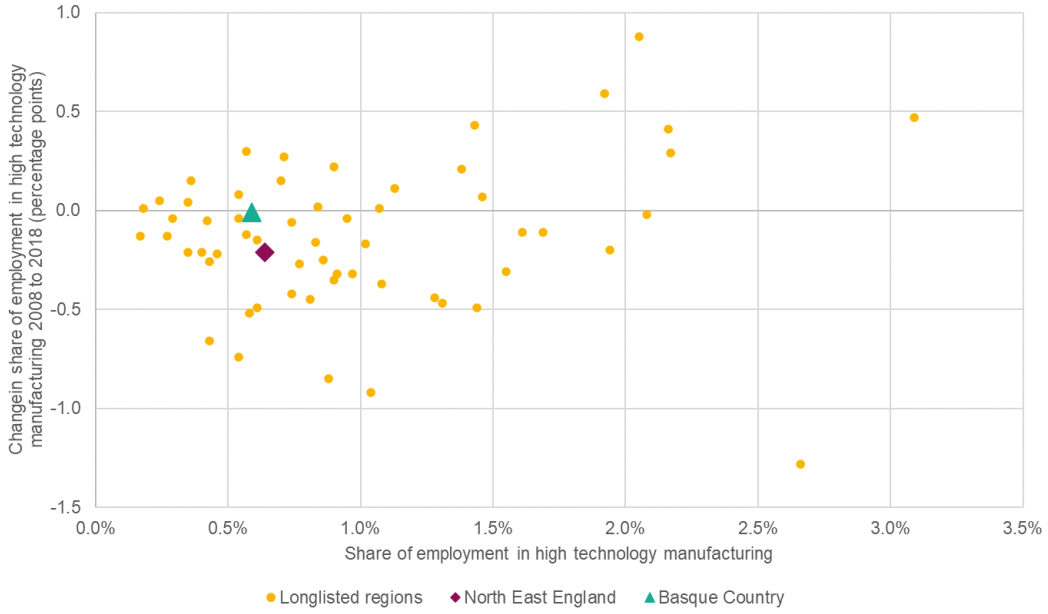
Source: OECD

Between 2008 and 2018, the proportion of people in employment who worked in knowledge intensive service in the Basque Country rose by 5.6 percentage points, from 31.6% to 37.2%. By comparison, the proportion of people in employment who worked in

knowledge intensive services in North East England rose by 0.9 percentage points over the same period (from 45.7% to 46.6%), as shown in Figure 19. Knowledge intensive services include research and development, information and communication services, human resource management, tax services and other services related to legal compliance, accounting and marketing.

0.6% of people in employment in the Basque Country worked in high technology manufacturing in 2008, and this proportion was unchanged in 2018. Between 2008 and 2018, the proportion of people in employment who worked in high technology manufacturing in North East England fell from 0.9% to 0.6%, as shown in Figure 20.

Figure 20: Proportion of employment in high technology manufacturing, 2018 and 2008 to 2018



Source: OECD

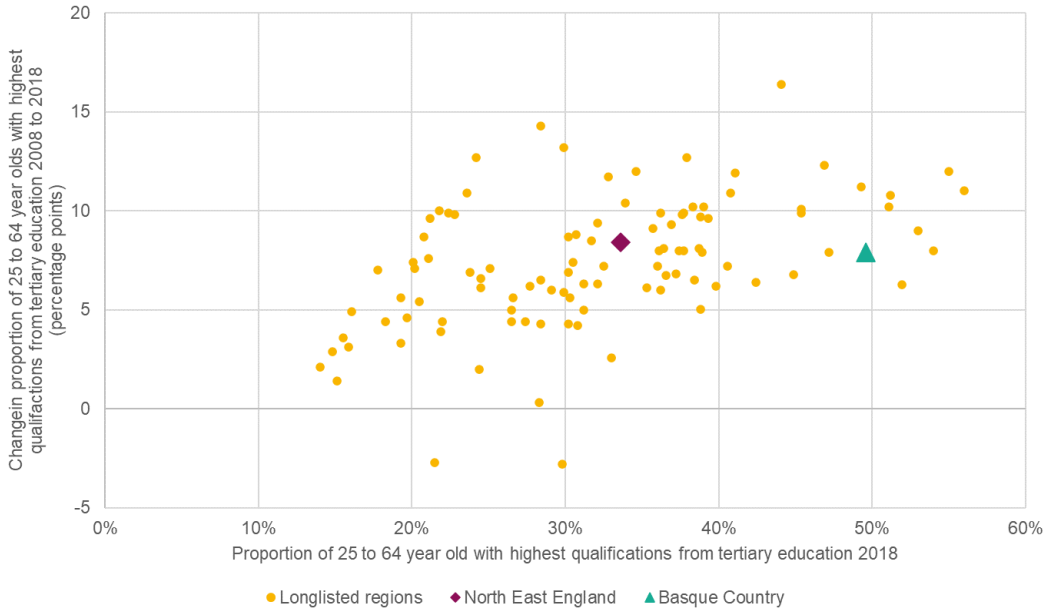
Following the period of economic decline the Basque Country witnessed remarkable economic growth since the millennium which led to the transformation towards it becoming an internationally competitive, innovation-oriented, and economically successful region (Aranguren Querejeta et al, 2021). The strategy implemented in the period 2008 to 2020 has generated continued socioeconomic development and has allowed for progressively resilient competitiveness. GDP bounced back by 2019 and inequality reduced. R&D investment increased.

Success in the Basque Country shows that clear innovation policy which speaks to all actors (public sector, business, universities/R&D, and those who work in between) is key to a successful strategy internally and externally (e.g. internationalisation). The Basque Country's innovation strategies built on existing strengths while looking forward in complementary areas to diversify the region's economy and create resilience. The 2004 Basque Competitiveness Forum, combining public and private actors and organisations to help inform policy, is regarded as an important milestone (Gray, 2023).

There is also recognition of the importance of upskilling and reskilling current and future workers and ensuring that the skills system can provide the talent pipeline the labour

market requires particularly in its niche areas. Between 2008 and 2018, the proportion of 25 to 64 year olds in the Basque Country with qualifications from higher education rose from 42% to 50%, partly enabled by growth in employment in knowledge intensive services. The proportion of 25 to 64 year olds with higher education qualifications in North East England rose from 25% to 34%, as shown in Figure 21.

Figure 21: Proportion of 25 to 64 year olds with qualifications from higher education, 2018 and 2008 to 2018



Source: OECD

The long-term strategy that has been in place has generated five main lessons:

1. Orientation and inclusive competitiveness – ensuring that economic development aims have not been pursued at the expense of social aims, thus maintaining social cohesion
2. Proactiveness – investing in assets that would build from existing strengths
3. Focus – focus on industry to further strengthen activities, both in terms of technological innovation and non-technological innovation to boost productivity in unproductive firms
4. Policy capabilities – the development of broad-based policy capabilities for strategic thinking and implementation has various dimensions
5. Openness – through inside openness by involving the population with development, and outside openness, through building internationalism (Aranguren Querejeta et al, 2021).

Caveats and Considerations

The Basque Country is also known as the Basque autonomous community, reflecting the breadth of devolved powers and resources available. A notable difference to the UK is that the Basque has extensive fiscal autonomy. The regional government is responsible for collecting taxes.

Regional case study: West Midlands, UK

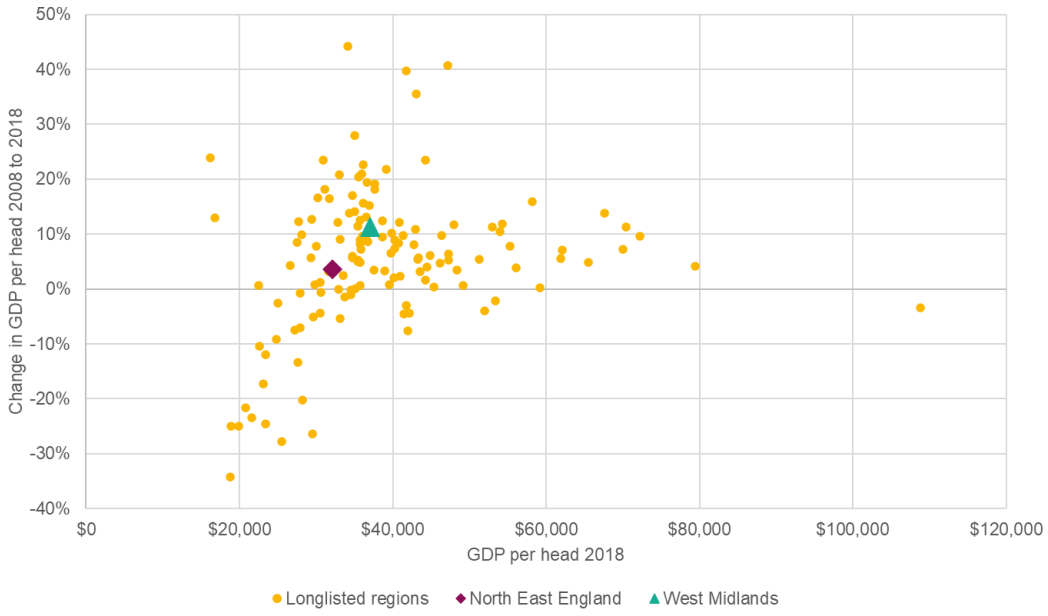
The West Midlands is comprised of Herefordshire, Shropshire, Staffordshire, Stoke-on-Trent, Telford and Wrekin, Warwickshire and Worcestershire local authorities and the West Midlands Mayoral Combined Authority area. It has a total regional population of 5,950,757 (as per 2021 Census data). It is a region of distinct nature and diversity ranging from major urban areas (MUAs) and sparsely populated zones. The diversity is also reflected in its population, with a wide range of communities, businesses, workers, and skills, which creates a large opportunity for further growth.

Birmingham is the powerhouse of the West Midlands and is the largest UK city outside London with a population of 1,144,919. The scale of Birmingham means the city plays a key role in the regional economy, as there is no route to a prosperous West Midlands that does not run through a more productive Birmingham (Brandily et al, 2023). The West Midlands economy historically is mainly specialised in manufacturing, creative design, production sectors and supply services such as transportation and education. It shares similarities to the North East in its industrial strategy, given the importance of the automotive sector.

The 2008 to 2018 period saw the transition from a single Regional Development Agency to multiple LEP areas (covering the region's county, unitary, and local authorities) and the establishment of the West Midlands Mayoral Combined Authority. This had an impact on the ownership, remit and available resource for policy development in different parts of the region.

Performance on key indicators

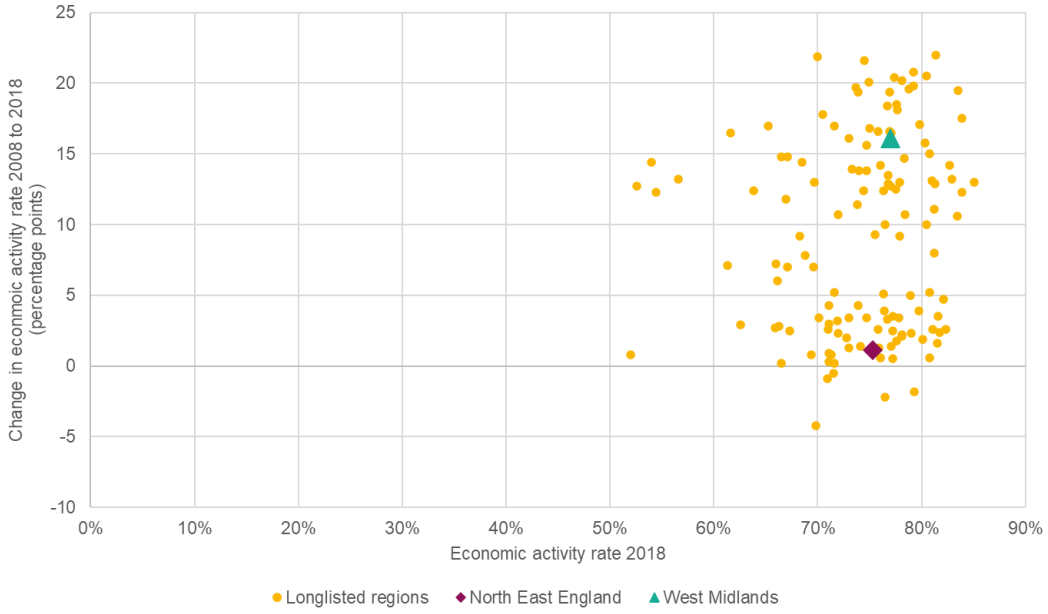
Figure 22: Gross Domestic Product per head, 2018 and 2008 to 2018



Source: OECD

North East England was less productive than the West Midlands in 2008: GDP per head was at 93% of the level in the West Midlands. Between 2008 and 2018, the West Midlands saw considerable productivity growth, with an 11% rise in GDP per head compared with growth of 4% in North East England. This means that by 2018, North East England had fallen further behind, as shown in Figure 22. GDP per head in North East England was 87% of the level in the West Midlands in 2018.

Figure 23: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



Source: OECD

The economic activity rate was slightly lower in North East England (74%) in 2008 than in the West Midlands (75%). The West Midlands saw a greater increase in labour market participation than the North East between 2008 and 2018 (an increase of 2 percentage points in the West Midlands, compared with a rise of 1 percentage point in North East England). The economic activity rate in the West Midlands (77%) therefore remained above that in North East England (75%) in 2018, as shown in Figure 23.

Disposable household income per head in North East England in 2008 was 94% of the level in the West Midlands. Between 2008 and 2018, both regions saw similar rates of improvement, with the disposable household income per head in North East England at 93% of the level in the West Midlands in 2018, reflected in Figure 24.

Figure 24: Disposable household income per head, 2018 and 2008 to 2018

Source: OECD

Policy priorities

Prior to 2008, the West Midlands was underperforming economically in comparison to UK averages, with lower productivity and slower growth rates. Since then, the region has seen growth in performance through a focus on investment in research and development, expanding links between R&D, academia and business, growing key markets through inward investment, strengthening business support and access to finance, and enhancing connectivity and mobility to develop thriving local and town centres.

Policy interventions and aims

Regional Business and Employment Strategy: The vision of West Midlands European Regional Development Fund Operational Programme for 2007 to 2013 was to achieve a significant increase in the productivity of the business base in the West Midlands, to reduce unemployment and inequalities, and ensure that the region's economic growth is achieved in a sustainable manner, which aids its transformation towards both a low-carbon and high value-added economy.

The programme aimed to assist 22,441 businesses to improve their performance, create 10,519 jobs and 2,495 new businesses and support the reduction of regional carbon emissions within the region. To do so, the Programme had the following priorities:

- Priority 1: Promoting Innovation and Research and Development – Increase regional levels of R&D expenditure and activity and knowledge transfer between research and business to generate more innovative businesses
- Priority 2: Stimulating enterprise development – Increase enterprise in the West Midlands to improve regional economic performance through the provision of tailored business support together with a limited range of integrated access to finance measures

- Priority 3: Achieving Sustainable urban development – Stimulate renaissance within key urban areas in the West Midlands by encouraging job creation and targeting communities in need to help them join the economic mainstream
- Priority 4: Developing Inter-Regional Activity – Support the three main priorities through the introduction of an inter-regional element to their work to learn how to tackle regional problems and how to maximise learning from inter-regional activity.

Regional Spatial Strategy: The Regional Spatial Strategy 2008 outlines key policy areas to inform the development of strategies and programmes of other public agencies and provides the spatial framework for the Regional Economic Strategy. The areas include:

Urban Renaissance: The creation of high quality, healthy, affordable and sustainable living and working environments, with a sufficient number and variety of employment and training opportunities, modern urban transport networks, and rejuvenating city, town and local centres to serve communities with high quality services.

Rural Renaissance: Increased choice in housing; the diversification of the rural economy; better transport links between rural areas and between rural and urban areas; improving health, education, skills training, social and community facilities.

Communities for the Future: The development of housing within and beyond MUAs and reuse of land and buildings for housing, affordable homes, and mixed communities.

Prosperity for all: Linked closely with the Regional Economic Strategy, there was a focus on three high-technology corridors (HTCs) to diversify the regional economy, linked to critical research, development capabilities, and advanced technologies. There is also a large focus on innovation and cluster development related to Research and Higher/Further Education to growth and expansion.

Transport & Accessibility: The West Midlands is at the centre of the national road and rail network, and this gives rise to competing demands between local, regional, national, and international movements. The region has developed a focus on infrastructure development and reducing the need to travel through the promotion of active travel.

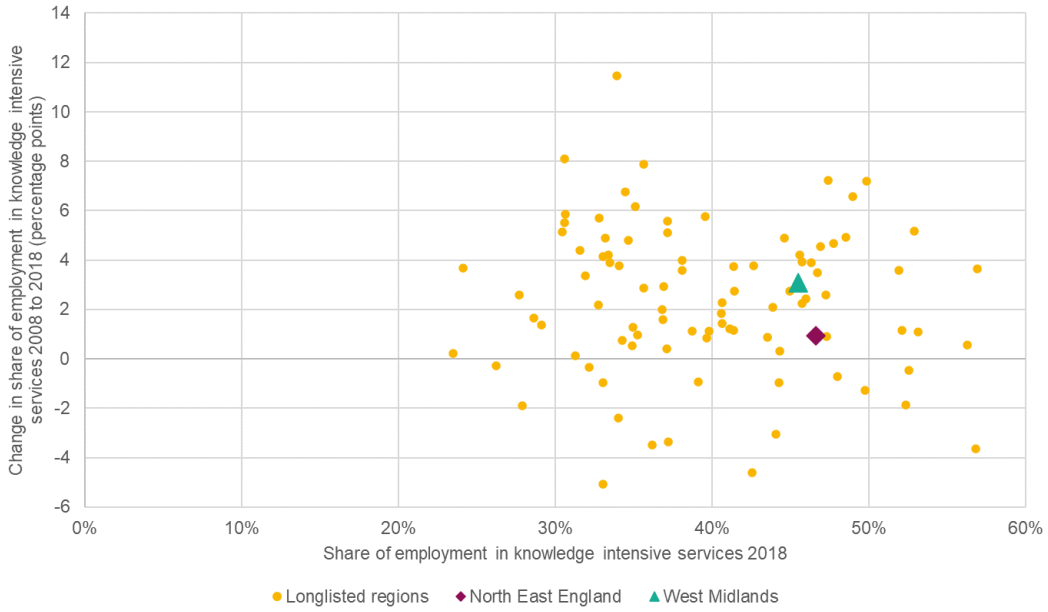
Strategy for Growth: Greater Birmingham and Solihull LEP has policy closely linked to regional level and includes a focus on sector strengths and opportunities around high growth – high added value, high volume – high job creation and high FDI potential.

What has changed since 2008

The focus of West Midlands regional policy has been on investment in R&D, increasing foreign direct investment (FDI) and exports, creating better paid and more secure jobs, and addressing pockets of high deprivation.

Between 2008 and 2018, the proportion of people in employment who worked in knowledge intensive services in the West Midlands rose by 4 percentage points, from 42% to 46%. Over the same period, the proportion of people in employment who worked in knowledge intensive services in North East England rose by 1 percentage point (from 46% to 47%), as shown in Figure 25.

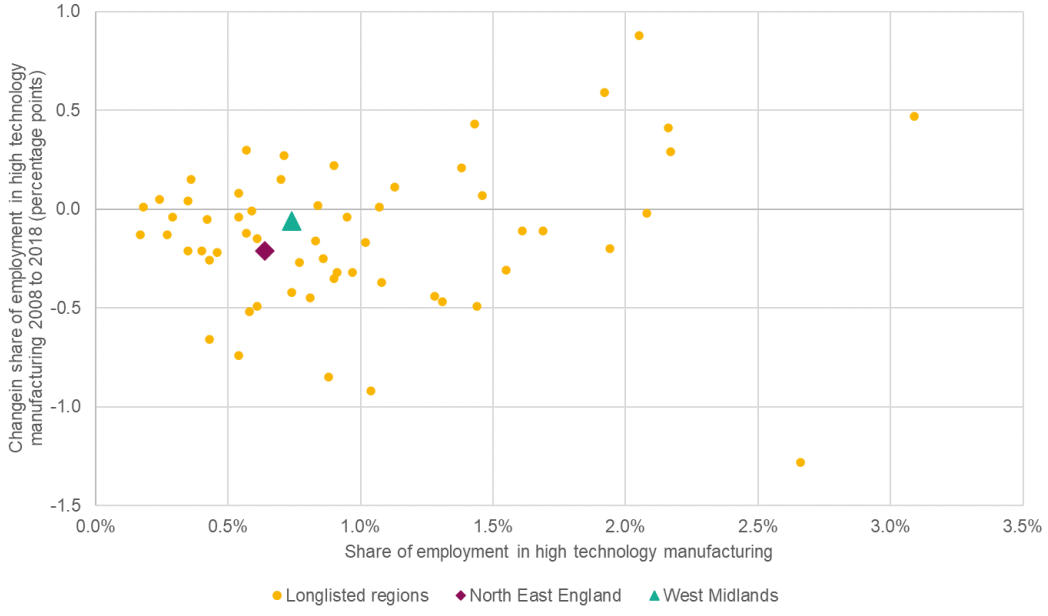
Figure 25: Proportion of employment in knowledge intensive services, 2018 and 2008 to 2018



Source: OECD

0.7% of people in employment in the West Midlands worked in high technology manufacturing in 2018, slightly down from 0.8% in 2008. Between 2008 and 2018, the proportion of people in employment who worked in high technology manufacturing in North East England fell from 0.9% to 0.6%, as shown in Figure 26.

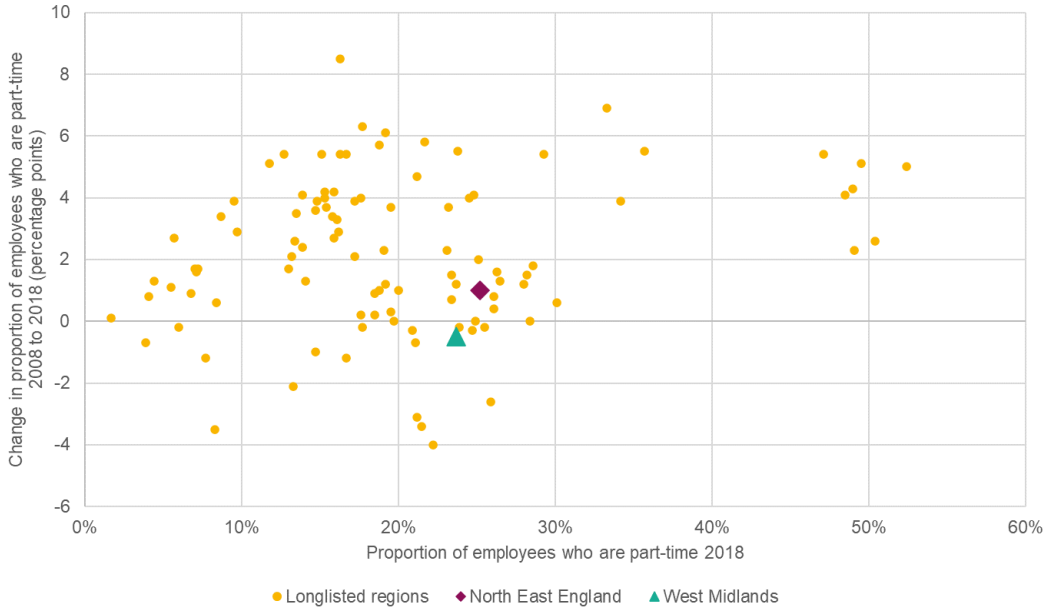
Figure 26: Proportion of employment in high technology manufacturing, 2018 and 2008 to 2018



Source: OECD

24% of people in employment in the West Midlands in 2018 were in part time jobs, the same proportion as in 2008. In North East England, the share of employment in part time jobs rose from 24% to 25% between 2008 and 2018, as shown in Figure 27.

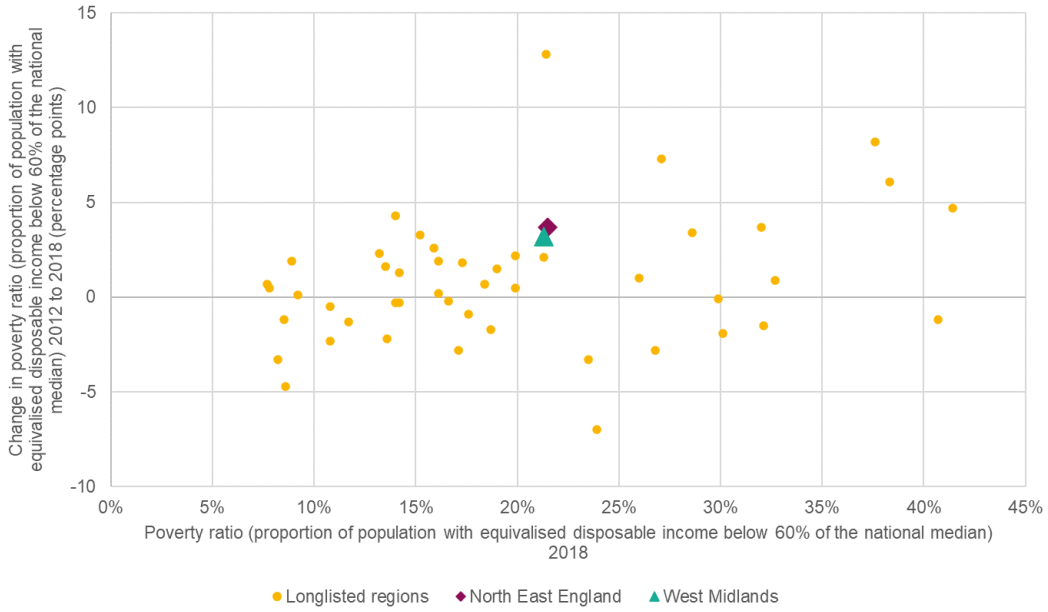
Figure 27: Proportion of employment that is part time, 2018 and 2008 to 2018



Source: OECD / Office for National Statistics

18% of the population in the West Midlands lived in relative poverty in 2008. This proportion had risen to 21% in 2018. North East England saw a similar trajectory, with an increase in the proportion of the population living in relative poverty from 17% to 21% over the same period, as shown in Figure 28.

Figure 28: Relative poverty (proportion of the population with equivalised household disposable income below 60 per cent of the national median), 2018 and 2008 to 2018



Source: Eurostat / Department for Work and Pensions

The ERDF Operational Programme for West Midlands achieved its target output of assisting 22,441 businesses to improve their performance. The programme successfully created 11,500 new jobs, exceeding the target of 10,519. As well as creating 2,590 new businesses in the region, again exceeding the target of 2,495. A mid-term evaluation of the West Midlands ERDF programme (Regeneris, 2011) identified that business and innovation had received more focus than employment support and social programmes.

Involving the region's universities in delivering large scale business and industrial innovation support was a key success factor of the 2007 to 2013 ERDF programme in the West Midlands. This included leveraging investments in demonstrators and other research-intensive activities. The partnership working with universities and businesses helped secure larger scale collaborative projects with a focus on commercialisation of innovation. Efforts were made to ensure commercialisation throughout the regional supply chain, including through specialist projects delivered by cluster organisations in the region.

The West Midlands experienced a successful decade for growth, forging a position as the fastest-growing region outside London to 2019, and breaking through the £100 billion economic output mark (WMCA, 2022). The policies in place between 2008 and 2018 contributed to this increasing economic performance of West Midlands.

Caveats and Considerations

The West Midlands Combined Authority was established in 2016, providing increased powers over economic functions, including transport, adult skills, infrastructure, housing and business support. The region's proximity to London will have a causal effect on its levels of productivity. However, with recent disruptions to growth such as the Covid 19 pandemic, the West Midlands is expected to experience below average growth over the next decade.

Regional case study: Wisconsin, USA

Wisconsin is the United States 25th largest state by land area (54,167 sqm) and 20th by population (5,892,539). Its three largest cities, Milwaukee (563,305 people), Madison (272,903) and Green Bay (106,095) comprise close to 20% of its total population and are key drivers in its economic output (US Census Bureau, 2023).

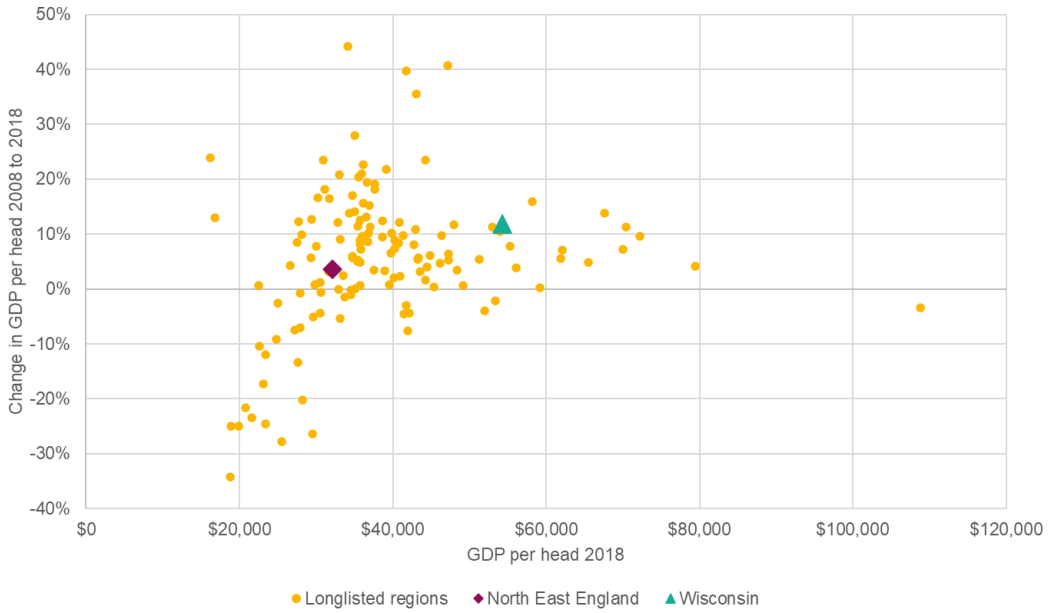
The state's diversified economy is led by its primary sectors of manufacturing. agriculture, and tourism. These sectors are facilitated by favourable climate and topography and a southern industrial manufacturing belt that includes Milwaukee, making it one of the largest manufacturing states in the US (Finley and Vogeler, 2023).

Given the size and scale of Wisconsin, economic development is delivered at different spatial levels. This case study focuses in particular on the three metropolitan areas of Milwaukee, Madison and Green Bay as well as the North Central Wisconsin region that encompasses 10 of the state's 72 counties as an example of a wider regional strategy.

Performance on key indicators

North East England was notably less productive than Wisconsin in 2008: GDP per head was at 64% of the level in the state. Between 2008 and 2018, Wisconsin saw considerable productivity growth, with a 12% rise in GDP per head compared with growth of 4% in North East England. By 2018, North East England had therefore fallen further behind, as shown in Figure 29: GDP per head was 59% of the level in Wisconsin in 2018.

Figure 29: Gross Domestic Product per head, 2018 and 2008 to 2018

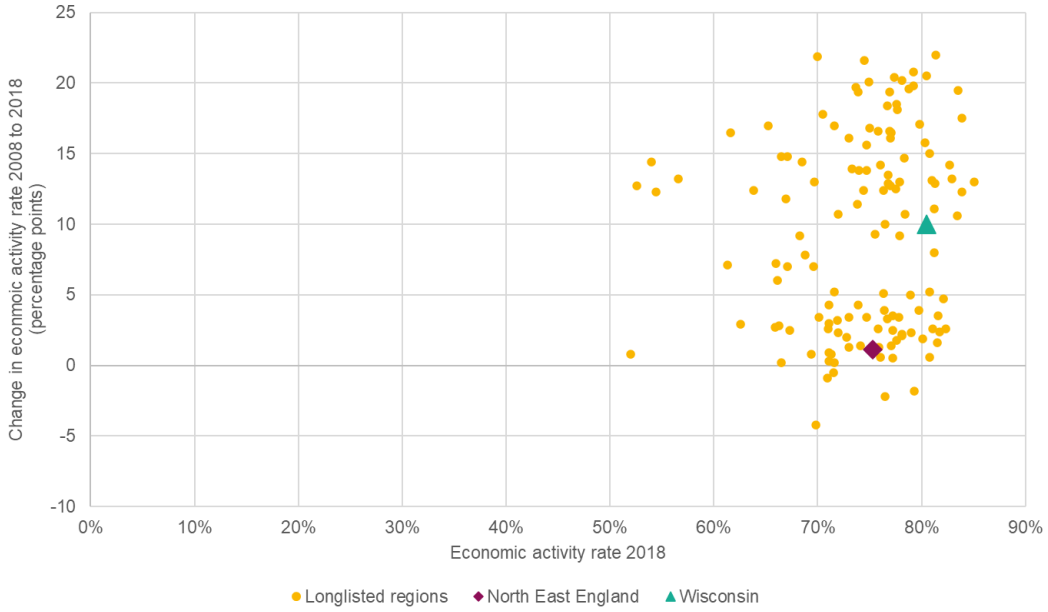


Source: OECD

The economic activity rate was lower in North East England (74%) in 2008 than in Wisconsin (81%). Between 2008 and 2018, the economic activity rate in Wisconsin remained unchanged. North East England saw a slight increase (1 percentage point, to 75%) but the economic activity rate remained below that in Wisconsin, as shown in Figure

30. This difference in economic activity rates helps explain the difference in GDP per head between Wisconsin and North East England, though longer average working hours in the US compared with the UK also contribute.

Figure 30: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



Source: OECD

Disposable household income per head in Wisconsin was more than twice that in North East England in 2008. Both saw disposable household income per head rise by 17% between 2008 and 2018, and North East England continued to lag behind Wisconsin in 2018, as shown in Figure 31.

Figure 31: Disposable household income per head, 2018 and 2008 to 2018

Source: OECD

Policy priorities

Governmental structures within Wisconsin are complex. The state has 3,096 governing authorities at different spatial levels, the 11th-most in the country, of which around 700 have been gained since the 1970s. 1,924 of these are “general purpose” governments (72 counties, 601 cities and villages, and 1,251 towns) differentiated by methods of revenue collection and their main responsibilities.

County-level bodies have responsibilities covering public safety and legal matters and health and social services while cities and villages are granted “home rule” under the state constitution, meaning they have the “broad authority…to govern themselves locally.” This allows for more autonomy in aspects not handled by state government or specifically assigned to counties, such as police, fire and emergency medical services, water, sewers, libraries and parks (Wisconsin Policy Forum, 2019).

At the state level, since the mid-1990s Wisconsin’s priorities have been generally directed towards efforts to aid small and minority businesses, add maximum value to raw materials before shipment out of state, promote tourism, and increase international trade and investment. However, development policies have varied across the wide range of governmental levels (Finley and Vogeler, 2023), as discussed in the select examples below.

Policy interventions and aims

North Central Wisconsin Regional Planning Commission Comprehensive Economic Development Strategy (CEDS) (2014): The 2014 development strategy notes that like many economies, the region’s traditional economic drivers were its agricultural and natural resources, followed by industrialisation and a more recent transition to a service-oriented market leaving the North Central area with a diverse economy.

The strategy focuses largely on the generation of an entrepreneurially supportive environment as a means to retain its business base while increasing employment opportunities and attracting new firms to the region. North Central Wisconsin's approach aims to develop emerging industry sectors, to leverage strong industry clusters and develop reliable data and transport infrastructure for businesses. The plans also incorporate the provision of financial and non-financial support to SMEs and startups such as legal advice and education on securing grant and funding opportunities (NCWRPC, 2014).

Milwaukee 7 Framework for Economic Growth 2014: Acknowledging the area's roots and an economy built on heavy industry, the 2014 framework denotes the global market shift towards knowledge intensive products and services. This change brings the threats of low growth rates, long term job losses and potential poverty to Milwaukee. Policy priorities for the city as a result are directed towards leveraging the area's strategic location and assets. The city has strong industry clusters in:

- Energy, Power and Controls – The city is home to global sectoral leaders with a recently formed energy research consortium. A rise in US manufacturing is anticipated by local government to result in higher demand and reliance on the sector.
- Water technology – With access to 21% of the world's surface freshwater, five of the eleven largest water firms in the world and a world hub of water technology research and policy, the city is well placed to capitalise on these advantages.

Alongside utilising sectoral strengths and aligning workforce development to these clusters, the framework aims to enhance SMEs' export capabilities by using large firms as mentors (Milwaukee 7, 2014).

City of Madison Economic Development Strategy (2016): Madison's Development Strategy highlights the success of the preceding decade with annual GDP growth of 6.5% from 2001 to 2012 (an increase of $16 billion). This growth in the state's capital is driven by private sector and technology dominated industry despite the high levels of public sector employment compared to the rest of Wisconsin. The strategy notes the continued deep racial disparities in economic opportunities and outcomes and the intrinsic link between a stronger and more inclusive economy. A main theme is the desire to cultivate diverse business startups and increase the opportunities and survival prospects of new firms. The approach opts for policies to break down barriers to business ownership disproportionately created through difficult and complex legal systems. A priority project to this effect is the creation of a Business Assistance Team to act as a direct point of contact to navigate challenges such as licensing and improve business ownership opportunities for people of colour in the city (City of Madison, 2016). The strategy stresses the importance of working with different groups to boost inclusivity. This includes the Women's Business Initiative Corporation, the Latino Chamber and the Black Chamber to connect minority-owned businesses to City-funded programmes, the University of Wisconsin, and micro-lending and crowdfunded finance.

Greater Green Bay Chamber Economic Development Strategic Plan (2017): While emphasis was placed on building upon the region's manufacturing base for business expansion and the attraction of inward investment, a key focus was academic institutions and countering 'brain drain'. The strategic plan highlighted the low levels of University enrolment and declines in academic R&D investment with a target of increasing enrolment by 15,000 by 2023 and R&D investment to $5 million by 2022 and $25 million by 2030. Priorities centred on encouraging University expansion (with an increased focus on R&D)

and connecting academic institutions to employers to increase pathways to work. To achieve this the Chamber proposed the development of a centre of excellence and the development of a regional anchor institution strategy. In keeping with Green Bay's strengths in manufacturing, the plan aimed to connect the two developing partnerships between colleges and manufacturing firms to meet workforce needs.

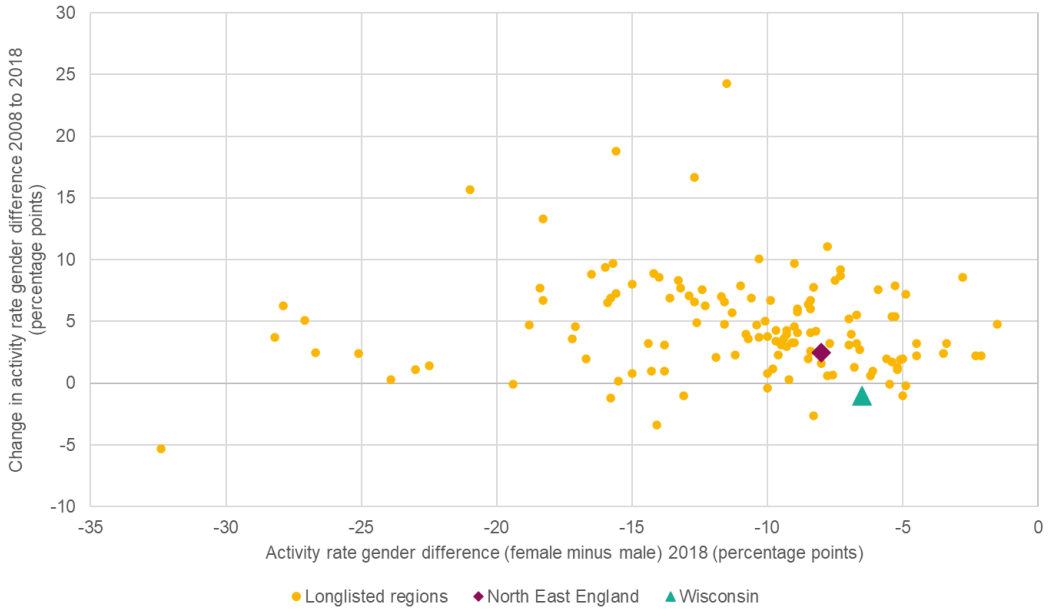
Green Bay's lack of a diverse workforce was also a prominent feature within the strategic plan. The need to raise the profile of inclusive development and diversity across the region's partner organisations was reiterated alongside increased awareness of connections to organisations that champion the needs of diverse populations. Anchors engaging in subcontracting that seeks out minority and women-owned businesses was also cited (TIP Strategies, 2017).

What has changed since 2008

Of the shortlisted areas included within this study Wisconsin has evidenced good economic performance between 2008 and 2018 on key indicators such as GDP per head and disposable income. However, the state still faces some challenges.

Between 2008 and 2018, the gap in labour market participation between men and women widened, from an activity rate gender difference (female minus male) of 5.5 percentage points to 6.5 percentage points. Over the same period, the gender gap in labour market participation in North East England narrowed by 2.5 percentage points, though the gap remained wider in 2018 (8 percentage points) than in Wisconsin, as shown in Figure 32.

Figure 32: Economic activity rate gender difference (female minus male), 2018 and 2008 to 2018



Source: OECD

The proportion of 18 to 24 year olds in Wisconsin who are not in education, employment or training (NEET) was persistently at 10% or above between 2008 and 2018, with no improvement over this period. In comparison, the proportion of 18 to 24 year olds in North

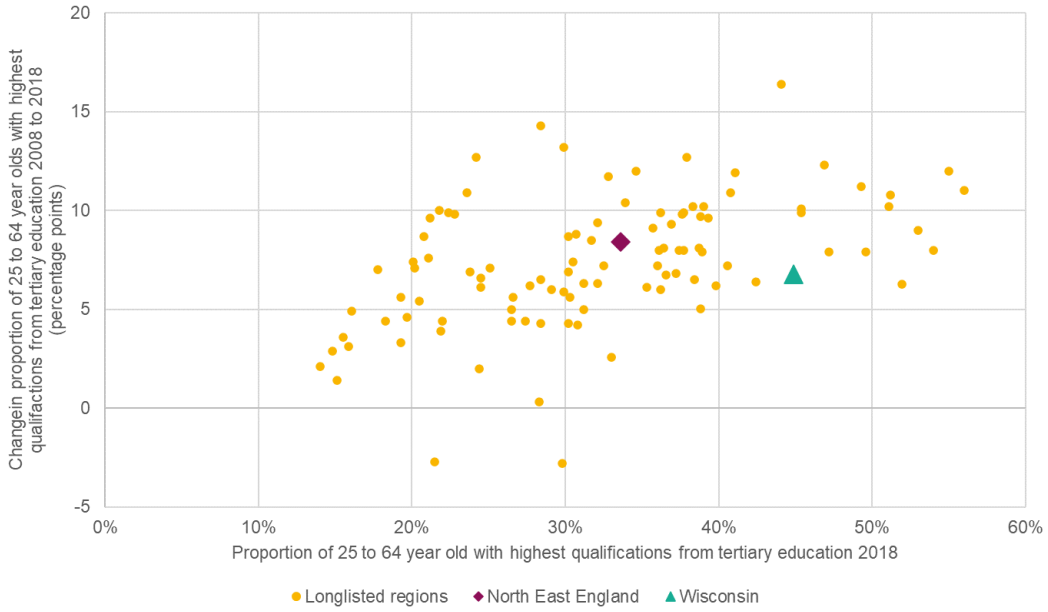
East England who are NEET fell by three percentage points, though as shown in Figure 33 it remained higher than in Wisconsin in 2018, at 16%.

Figure 33: Proportion of 18 to 24 year olds not in education, employment or training (NEET), 2018 and 2008 to 2018

Source: OECD

Wisconsin has a relatively high proportion of 25 to 64 year olds with qualifications from tertiary education compared with North East England. Between 2008 and 2018, this proportion rose from 38% to 45%. North East England saw a comparable increase (8 percentage points, compared with 7 in Wisconsin) over this period, and 34% of 25 to 64 year olds had tertiary qualifications in 2018, as shown in Figure 34.

Figure 34: Proportion of 25 to 64 year olds with qualifications from higher education, 2018 and 2008 to 2018



Source: OECD

Since the Covid 19 pandemic, Wisconsin has performed comparatively worse than most other areas of the US. As of December 2022, Wisconsin experienced some of the slowest economic growth in the country largely attributable to the shrinking of output in key sectors of agriculture, construction, manufacturing and finance. Wisconsin suffered from the fifth worst economic growth in the quarter across the 50 US states (Thomas, 2022).

In its largest metropolitan area of Milwaukee, there has been positive growth in educational attainment and the concentration of science and technology employment. However, innovation and economic metrics trail national averages, likely resulting from a high density of large enterprises with slow growth (Peterangelo, 2022).

Caveats and Considerations

Given the size of Wisconsin and the devolved approach in government there is a risk that analysis of smaller units of government may compartmentalise economic development under the assumption trends are statewide. The review of economic strategies from three separate metropolitan areas and one regional plan (and similarities in size between these metro areas and the North East) introduces different policies beneath the state level.

Regional case study: New Zealand

New Zealand and its population of 5.1 million (OECD, 2023) adopted a varied approach towards economic development from 2008 to 2018, shaped by developing international relations and unforeseen market shocks. New Zealand's trade partnership with China has always been a driver in the nation's economic performance with $21.5 billion in exports to and $16.3 billion of imports from China as of December 2021 (MFAT, 2023).

The country has also been subject to an extended period of economic turbulence. The global recession in 2008 and the subsequent Canterbury earthquakes of 2010/11 led to a sequence of economic strategies each with changing priorities. Similar to issues faced by the North East, New Zealand has also experienced significant outward migration of its large youth population, resulting from high levels of inflation (6.9%) (McClure, 2022). 1,800 people aged 18 to 24 left in the year ending March 2022 due to rising cost of living, a level of out migration not seen since the earthquakes (Singh, 2022).

As a result, this case study takes a national view with particular focus on the regions of Wellington, Northland and Canterbury over the specified time period.

Performance on key indicators

GDP per head in New Zealand was above the level in North East England in 2008 and rose considerably faster in the period to 2018: an increase of 17% in New Zealand compared with 4% in North East England, as shown in Figure 35. The gap between the two therefore widened. North East England went from 92% of the level of GDP per head in 2008 to 81% in 2018.

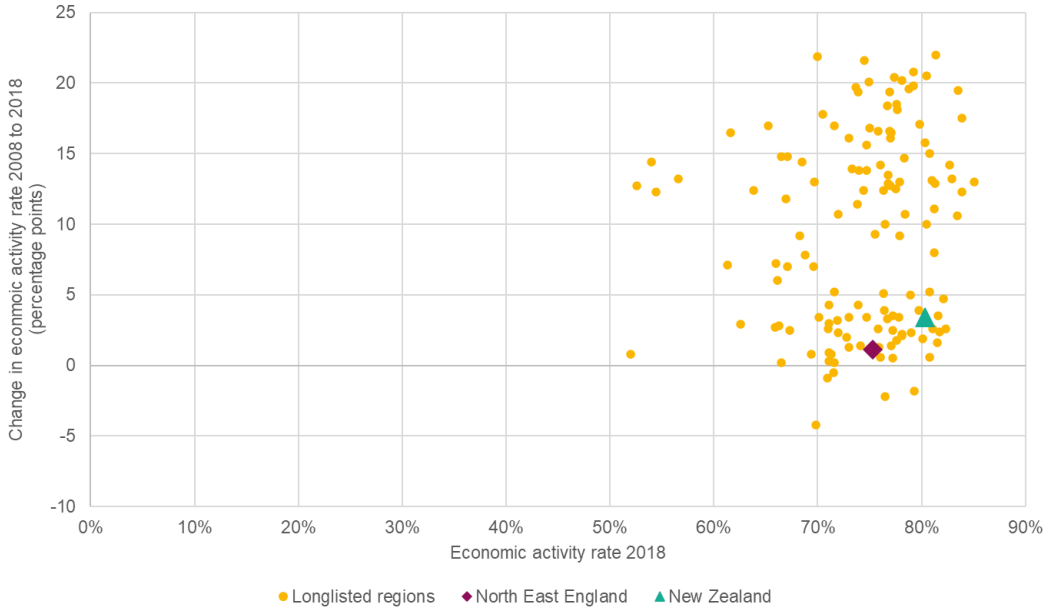
Figure 35: Gross Domestic Product per head, 2018 and 2008 to 2018

Source: OECD

The economic activity rate was higher in New Zealand (77%) in 2008 than in North East England (74%). New Zealand saw a greater increase in labour market participation than

the North East between 2008 and 2018 (an increase of 3 percentage points in New Zealand, compared with a rise of 1 percentage point in North East England). By 2018, the economic activity rate in New Zealand was 80%, compared with 75% in North East England, as shown in Figure 36.

Figure 36: Economic activity rate, 15 to 64 year olds, 2018 and 2008 to 2018



Source: OECD

Data is not available to directly compare disposable household income levels in New Zealand and North East England. According to data from Stats NZ (New Zealand's official data agency), median disposable household income in New Zealand rose by 42% between 2008 and 2018. Over the same period, OECD data suggests that disposable household income per head rose by 17% in North East England.

Policy priorities

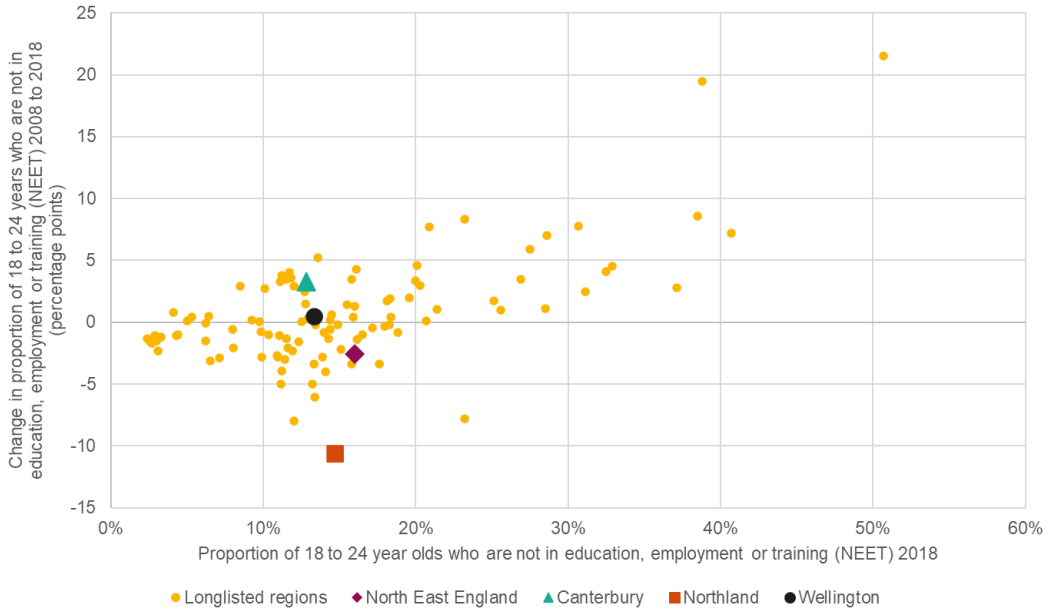
The regions of New Zealand hold substantial autonomy afforded to them through the Local Government Act. Subnational government responsibilities were redefined and autonomy increased through the 2002 Act, before its amendment in 2014 added additional clarity on regional and territorial authority responsibilities. Regional councils monitor aspects such as resource management, public transport and air and water quality while Municipal authorities are responsible for areas including community and economic development, local regulations and tourism (OECD, 2016).

Despite being one of the richest countries by the early 20th century, New Zealand's performance relative to other global developed nations declined from 1914 to the 1980s. Contributing factors such as commodity price shocks in the 1960s, weakened links with its main trading partner (the UK) and energy shocks in the 1970s, led to market-oriented policy reform between 1984 and 1991. Income grew as a result, however inequality and housing market imbalances followed (Grimes, 2023).

As a result, subsequent inclusive productivity policy priorities centred on diversifying its economy through new knowledge-based enterprises and the use of knowledge intensive services. Promoting inclusiveness, addressing skills shortages and better positioning Māori communities to build and leverage their collective resources, knowledge, skills and leadership capability were also ambitions (Saunders et al, 2009).

Regional approaches reflect this. Early strategies such as Wellington 2012 and Northland 2016 have focused on investment and sector specialisation while more recent strategies such as Canterbury 2017 and Christchurch 2018 have targeted the lowering of NEET levels and improving pathways to employment to negate the rise in educational inequalities. Between 2008 and 2018, the proportion of 18 to 24 year olds in Canterbury who were not in education, employment or training (NEET) fluctuated, with a low of 10% in 2008 and a high of 17% in 2011. In 2018, 13% of 18 to 24 year olds were NEET, as shown in Figure 37.

Figure 37: Proportion of 18 to 24 year olds not in education, employment or training (NEET), 2018 and 2008 to 2018



Source: OECD

A look at selected regional strategies with their own tailored approaches follows below.

Policy interventions and aims

Wellington Regional Strategy (2012): The strategy focused on sustainable growth, increasing inward migration of businesses and skilled migrants/students, while building on existing connections and initiatives to grow the regions skills and education base. The strategy also aimed to utilise existing investment networks to maximise business investment opportunities while attracting further international investment.

Policy approaches to this effect included the identification of investment opportunities in particular markets and sectors, including targeting specific talent and businesses in Wellington. The area also sought to take an approach that built on the region's inherent

advantages, such as design and innovation-led manufacturing while promoting the area to sectors the region would like to grow such as science and technology. This was directed in conjunction with the development of academic and research partnerships with business to increase routes to employment (Greater Wellington Regional Council, 2012).

Tai Tokerau Northland Economic Action Plan (2016): Likely attributable to the northward migration of skills, Northland largely adopted an infrastructure-based approach. The plan aims to ensure region-wide digital infrastructure is available to support key industries and develop its specialised manufacturing and industry sectors.

Having identified key areas of manufacturing capability that were a strong platform for growth, Northland aimed to increase the proportion of GDP derived from high value manufacturing and services that support key industries as well as sustaining annual GDP and employment growth from specialised manufacturing. Community engagement specifically with Māori communities was also a key priority, with a focus on retaining and engaging the Māori youth cohort and reinforcing the government's commitment to raising Māori economic performance (Northland Inc, 2016).

Canterbury Regional Economic Development Strategy 2017–2019: The development strategy highlights the 'digital divide' between urban and rural areas and outlines specific strategies to ensure the region retains and attracts an appropriately skilled and educated workforce. The strategy aimed to support youth transition to the workplace through strengthening education organisations and businesses and completing an educational blueprint for new, modified courses. Specific attention was given to the attraction of international students and leveraging government support to employ initiatives to increase community cohesion. The increased levels of inward migration were recognised by regional governments as a solution to meet rising skills needs (Canterbury Mayoral Forum, 2017) and necessary to counter the out migration resulting from the earthquake crises.

What has changed since 2008

New Zealand has experienced strong growth with an economic turnaround largely considered as a major public policy success (Michael and Thomas, 2019). With rising productivity and growing GDP (MacroTrends, 2023) it is expected to maintain a moderately prosperous society over the foreseeable future (Grimes, 2023).

Strategy implementation since 2008 has allowed the enabling of a flexible open economy and facilitated the reallocation of resource across sectors with a readiness to combat market shocks.

However, the Social Investment Policy approach adopted between 2008 and 2017 resulted in the downplaying of policies with societal benefits in favour of those evidencing fiscal outcomes. As a result, the country has experienced a rise in educational inequality and housing market imbalances. As highlighted by The Economy 2030 Enquiry, the lesson for UK and international comparators in New Zealand's policy approach is that economic progress and sustainably high wellbeing are not synonymous. The wellbeing implications are often magnified within certain ethnic groups and in the case of New Zealand particularly within the Māori community (Grimes, 2023). In Northland, which had a focus on supporting Māori youth into employment, youth unemployment has fluctuated between 2008 and 2018, and has continued to do so since although on a downward trajectory.

Similarly, in Canterbury the main city of Christchurch has lost some ground compared to New Zealand's national economy. Population and economic output have grown more

slowly than Auckland, reducing Christchurch's 'pull factor' to business, talent and investment. However, the city remains successful in achieving economic growth without losing focus on social wellbeing and inclusion.

Caveats and Considerations

It is important to note that particularly in Canterbury, the lack of attention to skills and educational policies until 2017/18 is likely as a result of the earthquakes of 2010/11. Subsequent policies shifted to prioritising infrastructure and rebuilding in the aftermath and may have overlooked inclusive aspects of growth to address immediate priorities. In contrast to the demographics of the North East, New Zealand has a young and quickly growing population that contributes to its economic performance. However, the nation suffers from geographic isolation that influences trade and migration patterns.

Conclusions

Key indicators of inclusive productivity growth demonstrate that the North East faces a challenge. Compared with global regions with similar historical performance, since 2008 North East England has had a similar level of economic activity among its residents, but the North East is less productive (has lower GDP per head) than comparable regions. This means that disposable household income in North East England is below the average among comparable regions.

A higher proportion of North East England's population live in relative poverty than the average among global regions with similar historical inclusive productivity performance, and relative poverty increased between 2012 and 2018. The age-adjusted mortality rate is above average in North East England. Reflecting this, life expectancy at birth in the North East is below average, and is improving more slowly than the average rate among similar global regions.

The case studies demonstrate several common themes aimed at addressing similar issues to those faced by the North East, such as increasing youth employment and growing the manufacturing and technology sectors. The case study regions also show that other economies – and a positive future for the North East – are possible. Starting in 2008 with similar characteristics to the North East across our comparison indicators, the case study regions have since seen overall better economic performance and growth in productivity and household income. The case studies show a trajectory the North East should be aiming for.

The policy approaches summarised in the case studies show different factors which have helped the comparison regions performance.

In Saxony and Saxony-Anhalt the main focus of the case study is creating the conditions to attract businesses and people, through place-making and with targeted interventions such as childcare and child education. In addition, Saxony and Saxony-Anhalt focused on increasing SME and supply chain productivity, capitalising on large anchor businesses and research institutions – something which was also a key part of the West Midlands' policies. The Basque Country also had a focus on making small businesses more competitive and working with universities. However here, rather than building on a historic industrial specialisation the Basque Country has made a concerted effort to develop technology clusters and create new specialisms in culture and creative, digital and tech. To this end, investment has been focused more on digital infrastructure than physical.

Physical infrastructure has been a focus of policy in New Zealand, partly, in the case of Canterbury, driven by the need to recover from the 2010 and 2011 earthquakes. The New Zealand case study also demonstrates strong on-the-ground support to engage specific demographic groups to provide the skills and access needed for them to share in economic growth. This is to complement efforts to encourage in-migration.

In summary, the policy considerations for the North East are:

- Tackling health inequalities requires social and place-based interventions as well as health with a 'health in all' policy
- Enhanced childcare provision where it is most needed is important to allow more people to access more and better jobs
- Place-making to attract new business investment and skilled workers

- Increase productivity in traditional industry through tech adoption and fostering new high-value clusters, working closely with university and innovation centres
- Increase tech adoption and non-technological improvements in low-productivity SMEs
- Work on the ground with economically excluded groups and employers to create pathways and opportunities to bring people into the labour market
- Continue efforts to support internationalisation and exports for the region's businesses as a driver of business expansion and wage growth
- Partnership working between public bodies to address health inequalities
- Enabling access to work that's reliable, pays a decent wage and encourages wellness and development, enhancing the NTCA's Good Work Pledge.

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Appendix: Longlisted and shortlisted regions

The table below shows longlisted regions. Shortlisted regions are shown in bold text.

Country	Region
Australia	Canberra region (ACT)
	South Australia
	Tasmania
Austria	Burgenland
	Tyrol
Belgium	Walloon Region
Brazil	Mato Grosso do Sul
	Rio Grande do Sul
Bulgaria	South West
Canada	Manitoba
	New Brunswick
	Nova Scotia
	Prince Edward Island
Czech Republic	Central Bohemian Region
	Southwest
Denmark	Central Jutland
	Copenhagen region
	Northern Jutland
	Southern Denmark
	Zealand
France	Bourgogne-Franche-Comté
	Brittany
	Grand Est
	Hauts-de-France
	Île-de-France

	La Réunion
	Martinique
	Normandy
	Occitanie
	Pays de la Loire
	Provence-Alpes-Côte d'Azur
Germany	Bremen
	Hamburg
	Hesse
	Rhineland-Palatinate
	Saarland
	Saxony
	Saxony-Anhalt
	Schleswig-Holstein
	Thuringia
Greece	Central Macedonia
	Crete
	Eastern Macedonia, Thrace
	Ionian Islands
	North Aegean
	Peloponnese
	South Aegean
	Thessaly
	Western Greece
Hungary	Western Transdanubia
Italy	Abruzzo
	Apulia
	Basilicata
	Calabria

	Campania
	Friuli-Venezia Giulia
	Liguria
	Molise
	Piedmont
	Province of Bolzano-Bozen
	Sardinia
	Sicily
Japan	Chugoku
	Hokkaido
	Kansai region
	Kyushu, Okinawa
	Shikoku
	Southern-Kanto
	Tohoku
	Toukai
Korea	Chungcheong Region
	Gyeongbuk Region
	Gyeongnam Region
	Jeju
	Jeolla Region
	Seoul Capital Area
Luxembourg	Luxembourg
Malta	Malta
Mexico	Quintana Roo
Netherlands	Flevoland
	Gelderland
	North Brabant
	North Holland

	South Holland
	Utrecht
	Zeeland
New Zealand	Auckland
	Bay of Plenty
	Canterbury
	Gisborne
	Manawatu-Wanganui
	Otago
	Southland
	Tasman-Nelson-Marlborough
	Waikato
Peru	Moquegua
Portugal	Alentejo
	Algarve
	Autonomous Region of Madeira
	Central Portugal
	Metropolitan area of Lisbon
	North (PT)
Slovenia	Eastern Slovenia
Spain	Andalusia
	Aragon
	Basque Country
	Canary Islands
	Cantabria
	Castile and León
	Castile-La Mancha
	Catalonia
	Ceuta

	Extremadura
	La Rioja
	Madrid
	Melilla
	Murcia
	Navarra
	Valencia
Sweden	Central Norrland
	North Middle Sweden
	Småland with Islands
Switzerland	Ticino
UK	East Midlands
	North West England
	Northern Ireland
	South East England
	Wales
	West Midlands
	Yorkshire and The Humber
USA	Colorado
	Indiana
	Maine
	Mississippi
	Nevada
	Wisconsin