

Our Economy 2019

With insights into what makes the North East competitive



Our Economy 2019

Contents

04

Welcome and overview

Welcome from Andrew Hodgson, Chair, North East LEP	04
Overview from Victoria Sutherland, Senior Economist, North East LEP	05

06

Section 1 Introduction and overall performance of North East economy

Introduction	08
Overall performance of the North East economy	10

12

Section 2 Update on the Strategic Economic Plan targets

16

Section 3 Strategic Economic Plan programmes of delivery: data and next steps

Business growth	18
Innovation	26
Skills, employment, inclusion and progression	32
Transport connectivity	42
Investment and infrastructure	46

50

Section 4 What makes the North East competitive

Introduction	52
Innovation and creativity	52
Business sophistication	54
Technological readiness	56
Human capital	57
Labour market efficiency	60
Market size	62
Transparency and accountability	63
Quality of life	64



Welcome from Andrew Hodgson, Chair, North East Local Enterprise Partnership

Those who attended the launch of the updated Strategic Economic Plan in February will know that the health of our local economy has never been under greater scrutiny as we react to changes to the global and national economy, as well as the UK's imminent departure from the European Union.

While there will always have to be an element of fluidity in how we respond, the North East LEP is committed to up to date economic analysis, evaluation and evidence development giving us confidence that the strategy we have set and the programmes of delivery we have put in place are addressing the North East's needs and opportunities.

As such, it is a pleasure to introduce the Our Economy 2019 report, which provides an update on the performance of the North East economy and how it is changing over time.

This year's theme is competitiveness and we have considered elements such as innovation, the skills and capabilities of our people and the quality of life in the North East that give us a truly global competitive edge.

This also helps us understand our weaknesses so we can focus investment and interventions.

Our Economy helps inform the Local Industrial Strategy (LIS), which we are working on with government and the wider region.

The LIS will set out how the North East will improve productivity and living standards and contribute to the national Industrial Strategy to ensure a coordinated approach.

Our Economy is an important read and I'm grateful to everyone who has contributed and worked hard to make it such a valuable resource.

My thanks go to the North East LEP team for coordinating its publication.

Andrew Hodgson,
Chair, North East Local Enterprise Partnership

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An overview from Victoria Sutherland, Senior Economist, North East Local Enterprise Partnership

It's a real pleasure to share the second annual Our Economy report. When this was first launched last year, we outlined how the North East economy was performing against a wide range of indicators. These were selected to reflect the international evidence on what drives regional economic growth and the issues and priorities identified in the North East Strategic Economic Plan. We've now revisited these indicators to see what progress has been made.

- Despite significant uncertainty, the North East economy has continued to grow, with improvements in both the employment rate and productivity. On both measures, the gap between the North East and England excluding London has narrowed since the Strategic Economic Plan was launched in 2014
- Good progress is being made across a wide range of indicators, with almost two-thirds showing improvements since 2014 and with the North East having closed the gap with England excluding London on roughly a third of the indicators over the same time period
- Key areas of progress since 2014 include increases in the number of businesses that are scaling up, R&D expenditure and access to superfast broadband, and decreases in unemployment and in employers reporting skills gaps
- Despite significant progress on a range of indicators the North East continues to underperform England excluding London on many measures especially in relation to the size and dynamism of the business base and innovation. Other issues include the ageing of the population and a decline in the use of public transport.

In February 2019, the North East LEP published an updated Strategic Economic Plan for the region. This sets out the progress that has been made since 2014 and how areas of underperformance are being tackled.

In this year's Our Economy we have examined in greater depth what makes the North East competitive. England is one of the most competitive nations in the world and we are pleased to showcase the region's distinctive offer and the part it plays in this.

Victoria Sutherland,
Senior Economist, North East Local Enterprise Partnership

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Section 1

Introduction and overall performance of North East economy



Section 1

Introduction

The North East Local Enterprise Partnership area

The North East LEP area covers seven local authority areas:

County Durham

Gateshead

Newcastle upon Tyne

North Tyneside

Northumberland

South Tyneside

Sunderland

The North East economy was traditionally dominated by mining and manufacturing.

Whilst manufacturing remains an important part of the regional economy, this is increasingly high value, advanced manufacturing, with clusters in a number of sectors including automotive and medicines.

The North East economy has diversified over recent decades and has:

- Key assets in the energy sector, including offshore energy and subsea technologies, regional energy and demonstration and innovation
- World leading clinical research that supports a growing health and life sciences sector
- A vibrant digital community with a combination of start-up, high growth and established businesses across a wide range of specialisms
- Capabilities across a range of enabling services including education, financial, professional and business services, transport and logistics, and construction

- Significant employment in the public sector across both local services and central government back office and shared services

- A strong cultural, heritage and sports offer that supports the tourism sector.

Our Economy report

The report:

Provides an annual overview of the North East LEP area economy and how it is changing over time

Provides a resource for partners to inform decision making

Positions the North East for future opportunities, including those arising from the Industrial Strategy.

As well as providing an overview of the North East economy, this year's report assesses the region's competitiveness. A wide range of factors influence the North East's competitiveness including the innovation and creativity that takes place in the region, our business structure, our technological readiness, the skills and capabilities of our residents and how effectively we are deploying them.

The region's competitiveness is supported by the size of the market that the region's businesses serve, the quality of decision making and governance and the quality of life available to residents.

Throughout this report:

- The most recent available data has been used. This is generally for 2017, 2018 or 2017/18
- Change over time has been measured from 2014, to reflect the publication date of our Strategic Economic Plan

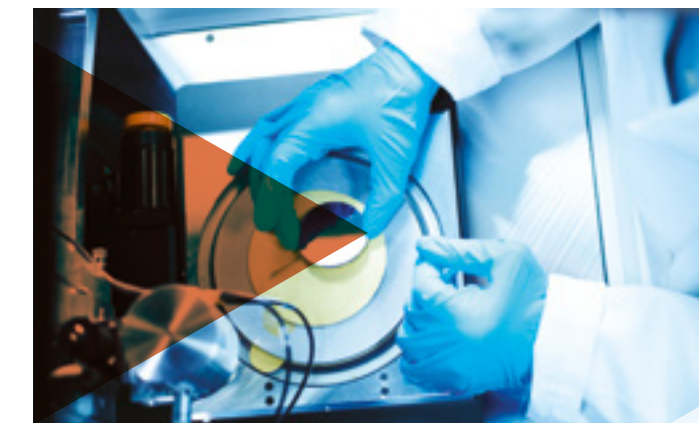
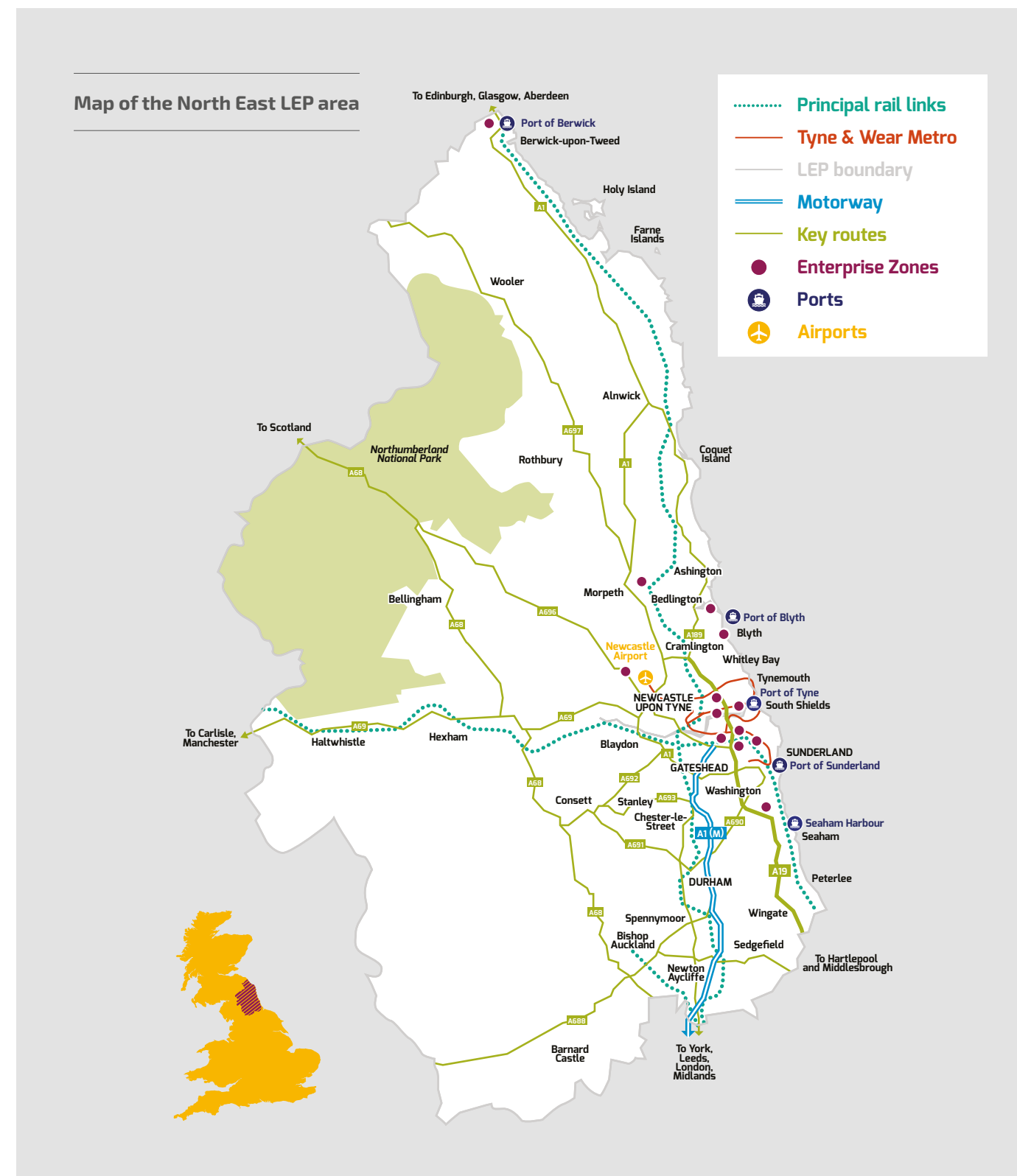
- The North East LEP area has been benchmarked against England excluding London in line with our Strategic Economic Plan targets. Where possible and it adds value, comparative data has also been provided for the other core city LEP areas. In a small number of cases, where data was not available for England excluding London, England or the UK has been used as an alternative benchmark

- Not all datasets are available at a LEP level. Where LEP level data is not available, data for the North East region as a whole, which includes the Tees Valley LEP area, has been used. To differentiate where these are used, we refer to the North East region. A clear priority going forward is to work with data providers to encourage them to publish more data at a LEP level

- Where data has a monetary value such as GVA, nominal values have been given, which means that data has not been adjusted to account for inflation

- From time to time data sources available to the North East LEP will change because of the ways in which data is collected or reported by ONS or other data providers. We will keep the data sources under review and where necessary, change the indicators we use or report in consultation with the North East Economic Evidence Forum

- Section 3 provides data for each of the programmes of delivery outlined in the North East Strategic Economic Plan. As part of the process of updating the Strategic Economic Plan during late 2018, it was decided to reorganise the programmes. We have updated the structure of Section 3 to reflect this reorganisation. The indicators considered have remained the same.



Overall performance of North East economy

This report will explore a wide range of different elements of the North East's economy. To put this in context, we will start by examining our overall economic performance and what underpins this.

Size of the North East economy

Gross Value Added (GVA) measures the value of the goods and services produced in an area, industry or sector – and is used to estimate the size of their economies. In 2017, the GVA of the North East LEP area was £40.1 billion, which is 2.6% of English GVA and 3.5% of the GVA of England excluding London.

As different areas vary in size, it can be difficult to compare regional economies using GVA. To overcome this, GVA is divided by the number of people living in the area to allow comparisons to be made across geographies of different sizes.

In 2017, the GVA per head of the North East LEP area was £20,338. This is below the GVA per head of England excluding London (£24,181) and England as a whole (£28,096).

GVA per head increased by 8.8% between 2014 and 2017 in the North East LEP area, a larger rate of increase than for England excluding London (8.0%).

Care must be taken in interpreting this increase, as inflation will mean the rate of growth is much lower in real terms.

Gross Value Added (GVA) per head (£), North East LEP, England excluding London and England, 2014 and 2017



Source: Regional Gross Value Added (balanced approach) (ONS)



In 2017, the GVA of the North East LEP area was £40.1 billion, which is 2.6% of English GVA

Understanding the North East's performance

In How Regions Grow (2009), the Organisation for Economic Co-operation and Development (OECD), outlined the key factors that underpin the size of a region's economy. These are:

- The size and structure of the region's population
- The proportion of the region's population that are in employment
- The productivity of those in employment.

In relation to the North East, the key issues that underpin our lower level of GVA per head compared to England excluding London are:

- A lower proportion of population that are in employment
- A lower level of productivity.

However, both have increased since 2014 and the gap between the North East LEP area and England excluding London on the employment rate has narrowed on both measures.

Components of GVA

$$GVA = Population \times \frac{Working\ age\ population}{Population} \times \frac{Economically\ active}{Working\ age\ population} \times \frac{Employment}{Economically\ active} \times Productivity\ per\ worker$$

Overall performance of North East LEP area economy

Indicator	Most recent data	Change since 2014	North East as % of England excl. London	Performance improved compared with England excl. London
GVA per head	£20,338 (2017)	Increased by 8.8%	84	Yes - gap closing
Population	1.97 million (2017)	Increased by 1.0%	-	-
Working age population as % of total population	63.0% (2017)	Decreased by 0.8 percentage points	102	No - gap closing
Economically active as % of working age population	75.8% (Jan 2018 to Dec 2018)	Increased by 0.8 percentage points	96	No change
Employment as % of working age population	72.1% (Jan 2018 to Dec 2018)	Increased by 3.2 percentage points	95	Yes - gap closing
Productivity (GVA per hour worked)	£29.95 (2017)	Increased by 8.6%	96	Yes - gap closing

Notes: 1. 'Employment as % of working age (16 to 64) population' used instead of the OECD measure of 'employment rate as % of economically active population' as this is the more commonly used (and understood) measure in UK and is used in the SEP targets. 2. To ensure that seasonal factors are not affecting comparison, the same time periods are used for both the most recent year and the 2014 benchmark year for each indicator. For example, the most recent Annual Population Survey data is for the period Jan 2018 to Dec 2018 – so Jan 2014 to Dec 2014 is used as the comparator. 3. Productivity (GVA per hour worked) is nominal unsmoothed. 4. 'No change' is an increase or decrease of less than 0.5 percentage points.

Section 2

Update on the Strategic
Economic Plan targets



Section 2

Update on Strategic Economic Plan targets

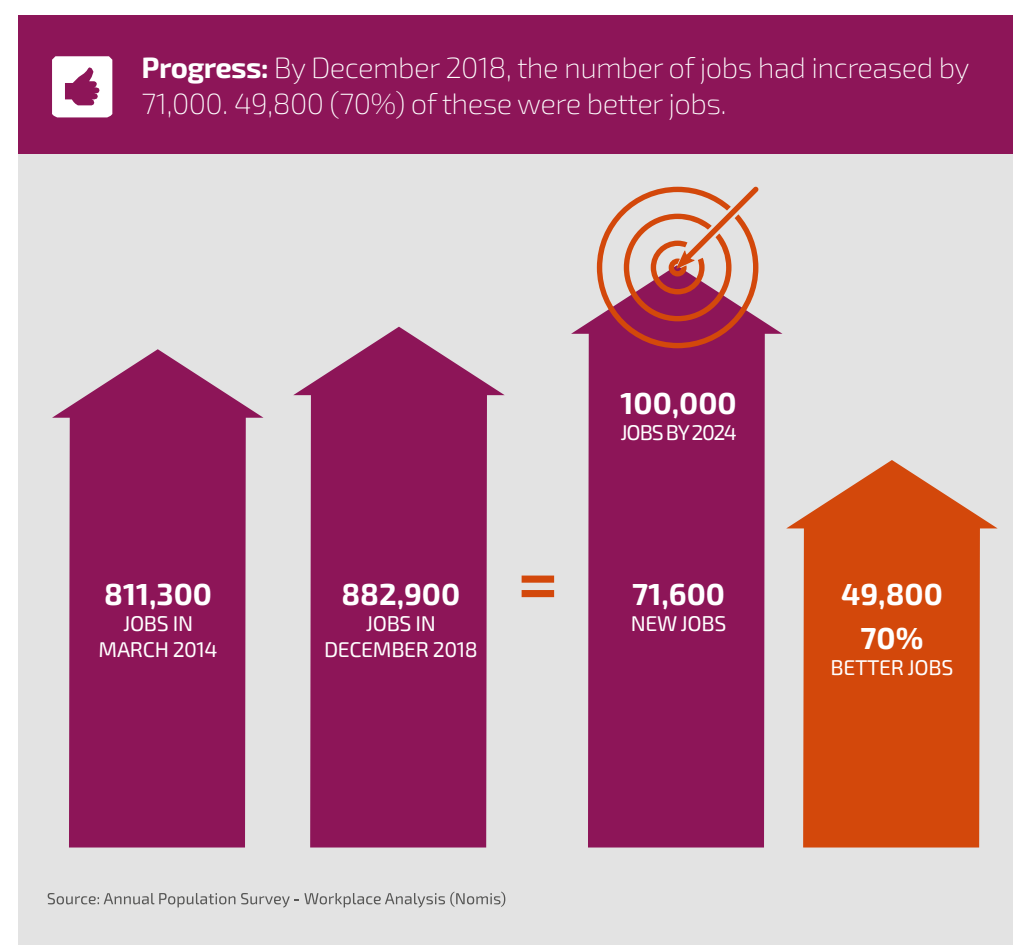
The Strategic Economic Plan sets out six targets for the region to achieve between 2014 and 2024.

Our headline targets are to create more and better jobs in the North East LEP area.

More and better jobs

In 2014, there were 811,300 jobs in the North East LEP area. We have set a target to increase this by 100,000 to 911,300 by 2024.

In addition, we have set a target that 70% of the additional 100,000 jobs are 'better jobs'. Better jobs are defined as managers, directors and senior officials; professional occupations (such as civil engineers and doctors); and associate professional and technical occupations (such as laboratory technicians and graphic designers).



We also have four targets that compare the North East LEP area performance with England excluding London.

Employment rate

It is important that residents in the North East LEP area are benefiting from the additional jobs created. One way of measuring this is the employment rate. In 2014, the North East LEP area had a lower employment rate than England excluding London. We have set a target to close the gap between the North East's employment rate for 16-64 year olds with England excluding London by 100% by 2024.

Economic activity rate

The economic activity rate measures the proportion of people aged 16 to 64 who are participating in the labour market, including those employed and those out-of-work but actively seeking a job. We want to reduce the gap between the North East's economic activity rate and England excluding London by 50% by 2024.

Private sector employment

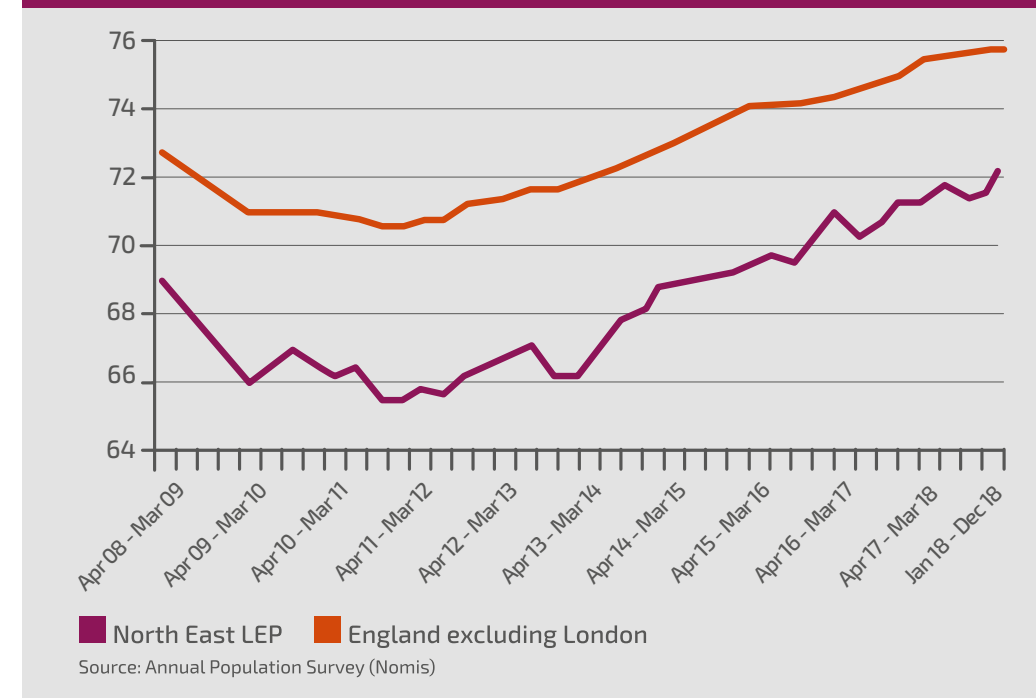
There are fewer private sector jobs per head (16 to 64 population) in the North East than in England excluding London and the target is to reduce this gap by 50% by 2024. Continuous data is only available from 2015 so we are using this as a baseline year rather than 2014.

Gross Value Added per hour worked

Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or UK region. GVA per hour worked is a way of measuring productivity. We previously defined productivity as GVA per full time equivalent job, but due to changes in the underlying datasets, we are now using GVA per hour worked. This brings us in line with the Industrial Strategy. We aim to reduce the gap between the North East and England excluding London on GVA per hour worked by 50% by 2024.

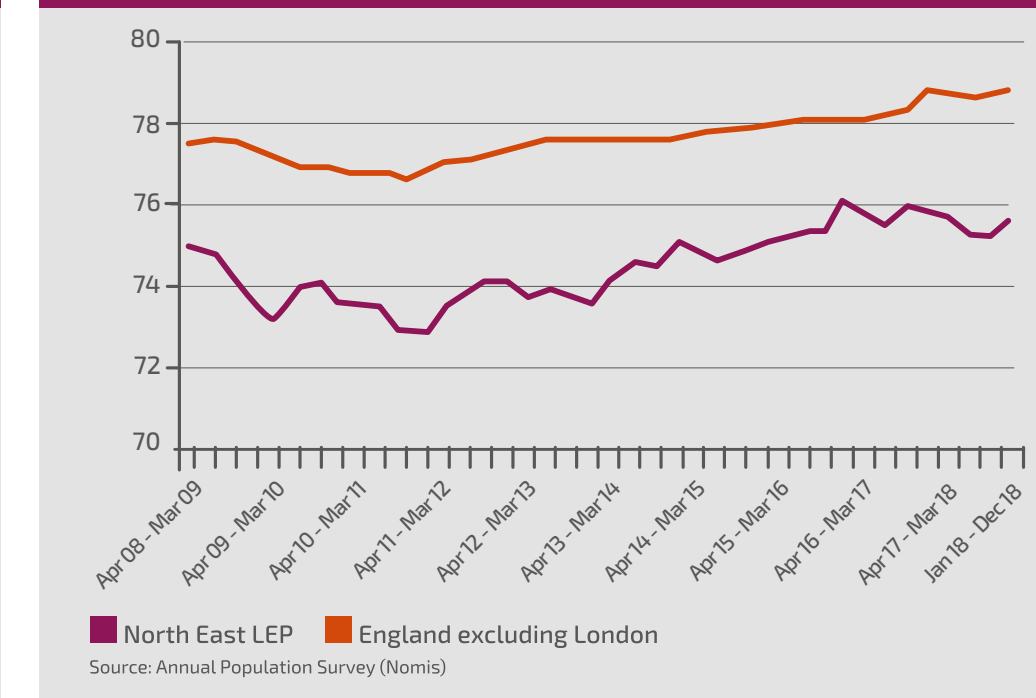
Employment rate

Progress: By December 2018, the gap between the North East LEP area and England excluding London had reduced by 34%.



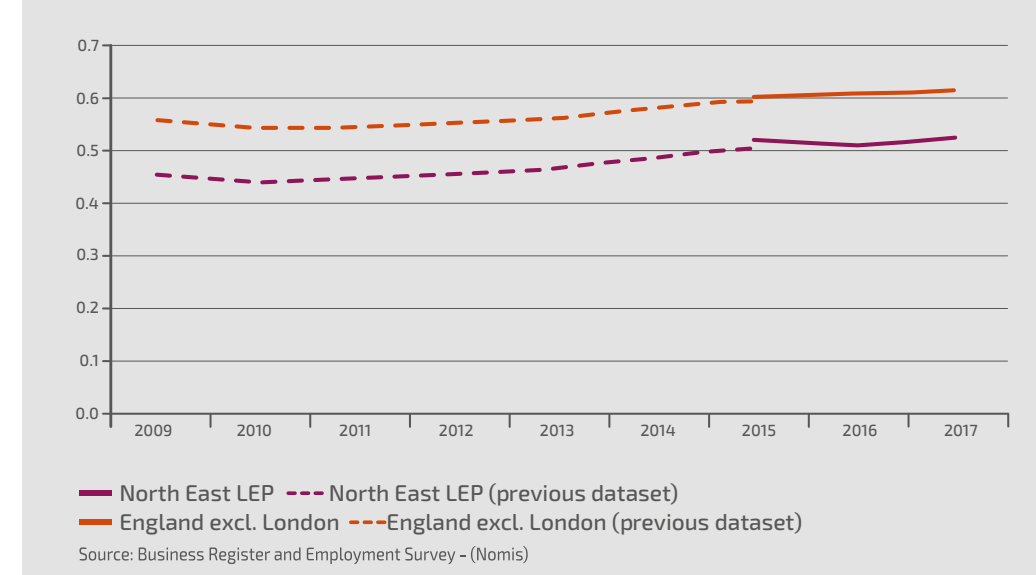
Economic activity rate

Progress: By December 2018, the gap between the North East LEP area and England excluding London had reduced by 15%.



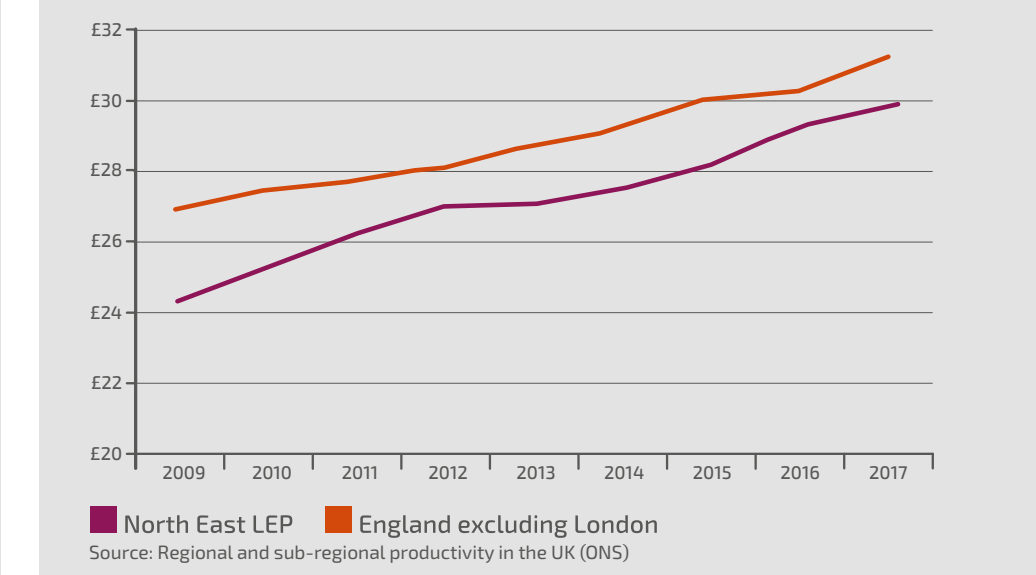
Private sector employment

Progress: Between 2015 and 2017, the gap had widened by 5% on this measure. This reflects a 3.2% increase in private sector employment across England excluding London, compared to a 1.5% increase in the North East LEP area.



Gross Value Added per hour worked

Progress: By 2017, the gap between the North East LEP area and England excluding London had reduced by 29%.



Section 3

Strategic Economic Plan
programmes of delivery:
data and next steps

The North East Strategic Economic Plan sets out
five programmes of delivery. These are:

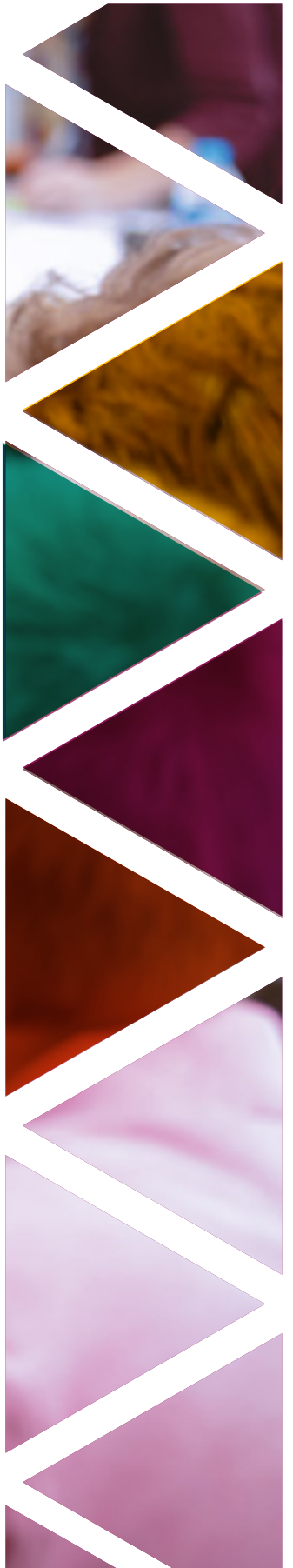
Business growth

Innovation

Skills, employment, inclusion and progression

Transport connectivity

Infrastructure and investment



Section 3

Business growth

Why is this important?

The Enterprise Research Centre (2013) estimates that between 2007 and 2010 growth businesses accounted for 59% of job creation, with 'high growth' businesses accounting for 22% of job creation despite being just 1% of job creating firms.

Business growth is aligned with the Strategic Economic Plan targets to increase the number of jobs in the North East by 100,000 and to reduce the gap in private sector job density with England excluding London by 50% by 2024.

The importance of high growth businesses is reflected in the Industrial Strategy and the establishment of the Scaleup Task Force.

What does the data tell us?

- The North East LEP area has fewer businesses per head than England excluding London and fewer business births and deaths. Whilst the North East underperforms on these measures, it has made progress against each of them since 2014 – suggesting the business base is growing and becoming more dynamic
- Whilst business growth (for both start-ups and existing businesses with a turnover of £1-£2 million) is slightly below the English rate, the gap is relatively small and the North East outperforms a number of other core city LEPs. This suggests that the smaller business base is not adversely affecting the North East's ability to generate growth businesses

- The value of goods exports per adult in the North East region is higher than across England excluding London. The value of goods exports has increased since 2014. Whilst the value of service exports per adult is lower in the North East region than across England excluding London, it increased between 2014 and 2016
- In 2017/18, the North East LEP area had one and a half times more jobs per person created or safeguarded due to foreign direct investment (FDI) projects than England excluding London.



Business growth in the North East LEP area economy

Indicator	Most recent data	Change since 2014 (except where stated)	North East as % of England excl. London	Performance improved compared with England excl. London
Private sector enterprises per 10,000 adult population	318 (2018)	Increased by 42 enterprises per 10,000 adults	67	No change
Business births per 10,000 adult population	44 (2017)	Increased by 1 birth per 10,000 adults (since 2015)	67	No change
Business deaths per 10,000 adult population	40 (2017)	Increased by 5 deaths per 10,000 adults (since 2015)	65	No - gap widened
% of start-ups scaling turnover from less than £500,000 to £1 million in 3 years	1.7% (2014-17)	Decreased by 0.1 percentage points (since 2012-15)	89 (England)	No - gap widened (England)
% of scaling survivors increasing turnover from £1-2 million to £3 million in 3 years	7.4% (2014-17)	Increased by 2.0 percentage points (since 2012-15)	99 (England)	Yes - gap narrowed (England)
Value of exports in goods per adult (North East region)	£6,054 (Jan-Dec 2018)	Increased by £233 per adult	109	No - gap narrowed
Value of export in services per adult (North East region)	£1,950 (2016)	Increased by £381 per adult	67	Yes - gap narrowed
Jobs created and safeguarded through Foreign Direct Investment projects per 10,000 adult population	18 (2017/18)	Increased by 8 jobs per 10,000 adults (since 2013/14)	155	Yes - gap widened (compared with 2015/16)

Sources: UK Business Counts (Nomis), Business demography (ONS), UK Local Growth Dashboard (Enterprise Research Centre), HMRC Regional Trade Statistics, Regionalised estimates of UK service exports (ONS) and Department for International Trade.
 Notes: To ensure that seasonal factors are not affecting comparison, the same time periods are used for both the most recent year and the 2014 benchmark year for each indicator. For example, the most recent HMRC Regional Trade Statistics data is for the period Jan-Dec 2018 – so Jan-Dec 2014 is used as the comparator.
 Changes in methodology mean that some datasets do not have comparable statistics back to 2014:
 For business births and deaths, 2015 is the earliest comparable data and for business survival rates it is 2012-15. There is no published estimate of jobs created or safeguarded for England exc London before 2015/16

Wider commentary

Business base

In 2018, there were 51,845 private sector enterprises in the North East LEP area.

- This is equivalent to 318 private sector enterprises for every 10,000 adults in the North East
- If the North East LEP had the same rate of private sector enterprises per head as England excluding London, there would be an additional 25,500 enterprises

Looking at the private sector enterprises in the North East LEP area in more detail:

- In common with the national picture, the majority are micro-enterprises (employing between 0 and 9). There are 45,260 enterprises in this category, accounting for 87% of all private sector enterprises
- 5,475 enterprises are small (employing 10 to 49), 910 are medium (employing 50 to 249) and 200 are large (employing 250 or over). A slightly higher proportion of enterprises in the North East LEP area are medium or large than in England excluding London (2.1% compared to 1.8%)

Business births and deaths

In 2017, there were 7,130 business births in the North East LEP area. This is equivalent to 44 births for every 10,000 adults in the region.

If the North East had the same business birth rate as England excluding London, there would have been approximately 10,600 business births in 2017 - almost 3,500 more.

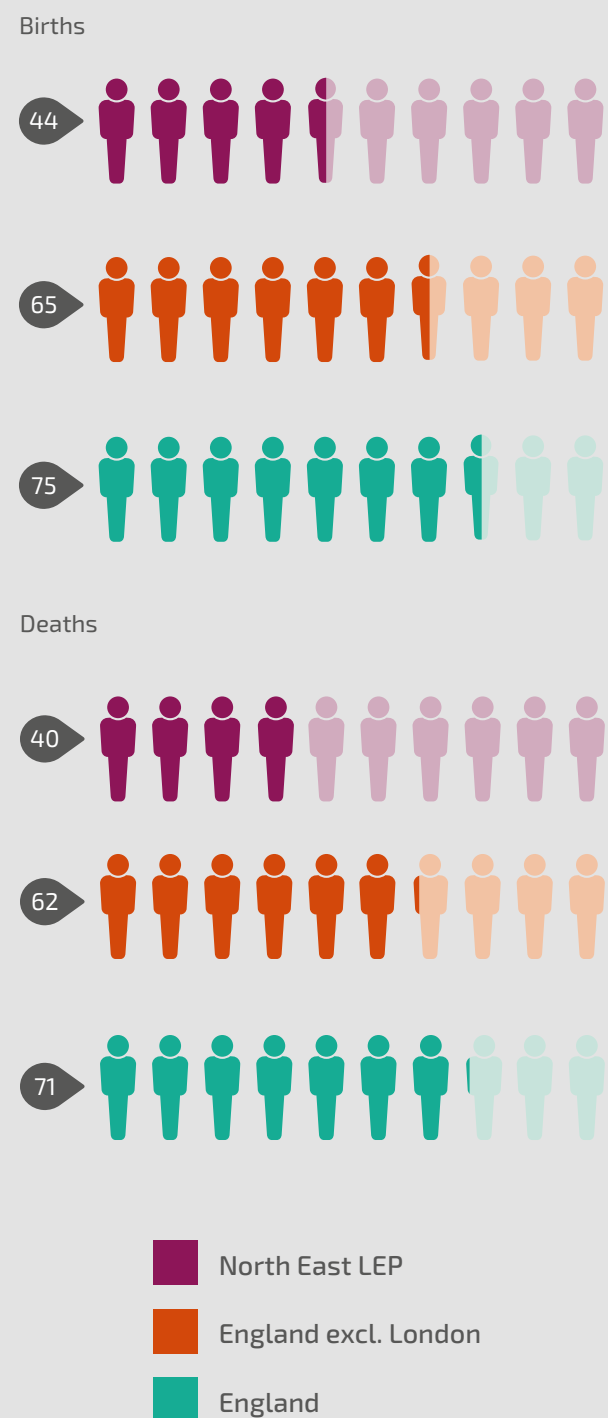
6,530 businesses closed in the North East LEP area during 2017. This is equivalent to 40 closures for every 10,000 adults in the region. Again, this is below the England excluding London equivalent (62 per 10,000 adults).

Whilst this would initially appear to be a positive finding, research has shown that the most dynamic and successful regions have both high birth and death rates.

There is a strong connection between high birth rates and high death rates for two reasons:

- Approximately one quarter of start-ups close in the first two years
- Some start-ups displace existing companies, for example, by introducing better products or processes.

Business births and deaths per 10,000 adult population, North East LEP, England excluding London and England, 2017



Source: Business demography (ONS)



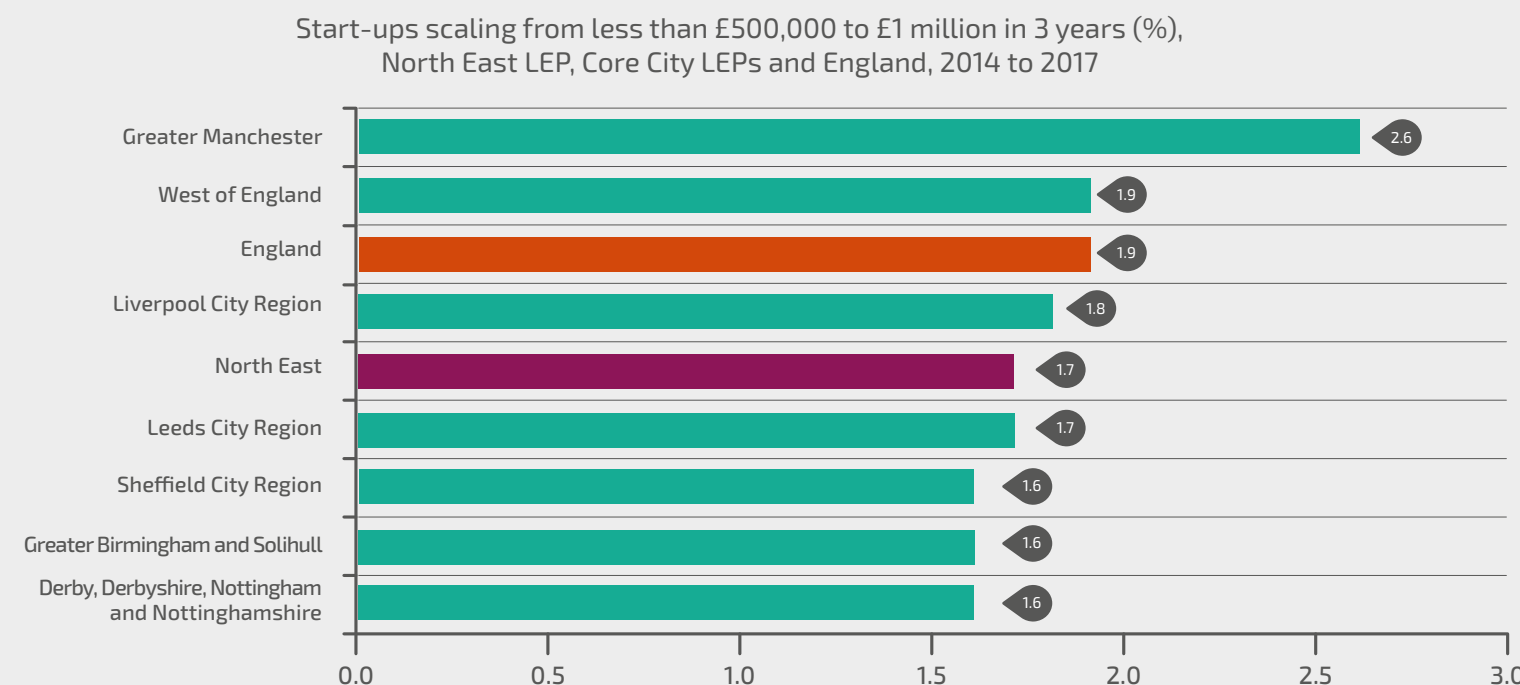
Number of private sector enterprises in the North East LEP area in 2018

51,845

Business growth

The proportion of 2014 start-ups in the North East LEP area that survived to 2017 and were generating more than £1 million in revenues in 2017 was 1.7%, below the English average (1.9%).

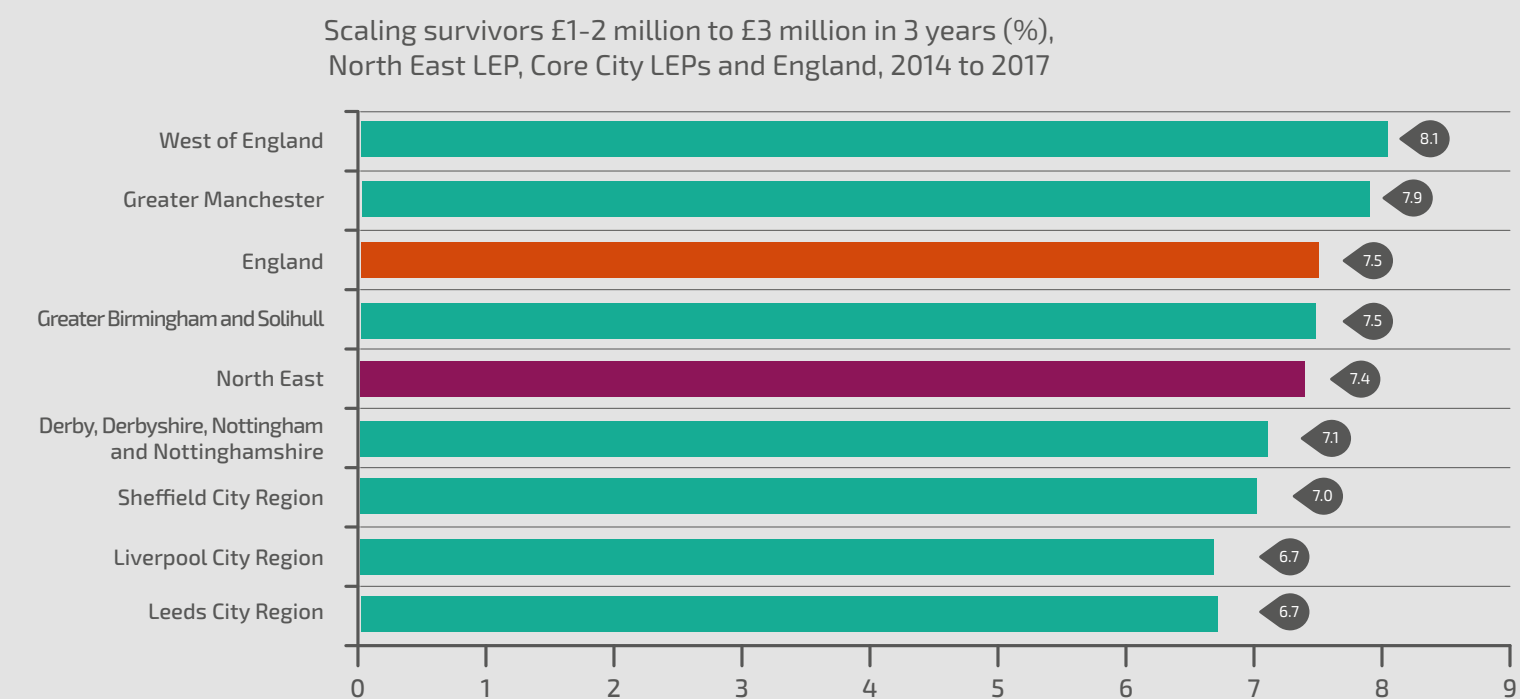
The North East is ranked joint fourth out of the eight core city LEAs.



Source: UK Local Growth Dashboard 2017 (Enterprise Research Centre)
Note: England excluding London data not available

The proportion of businesses within the North East LEP area with a turnover of £1 million to £2 million in 2014 that increased turnover to £3 million or more by 2017 was slightly below the English average (7.4% compared to 7.5%).

The North East LEP was ranked fourth out of the eight core city LEAs on this measure.



Source: UK Local Growth Dashboard 2017 (Enterprise Research Centre)
Note: England excluding London data not available

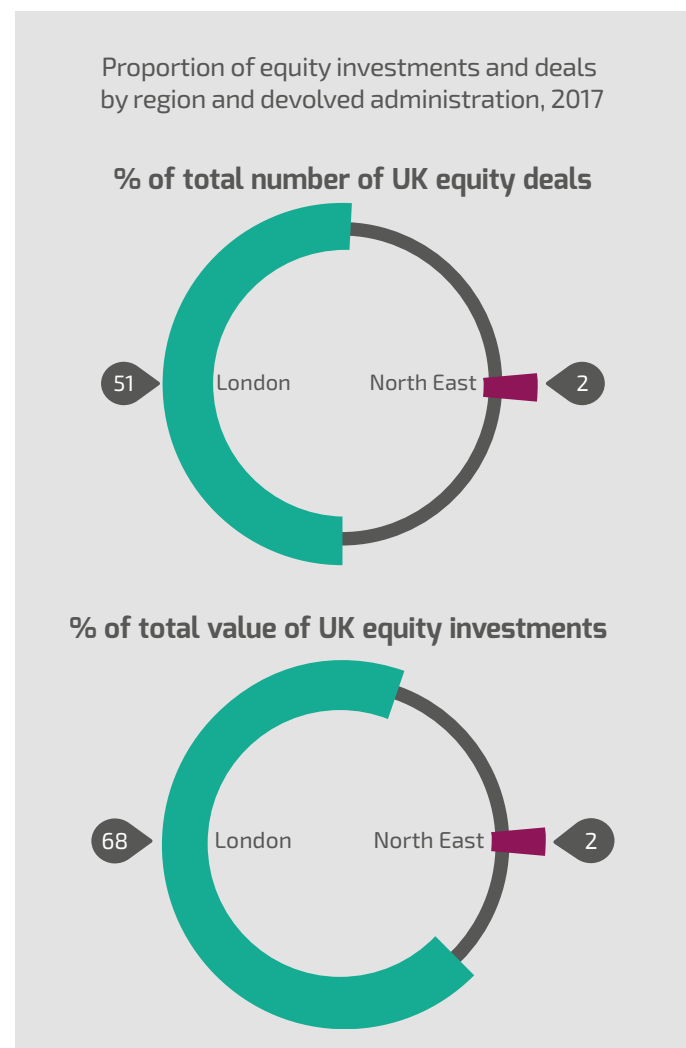
Access to finance

Equity finance

In 2017, the North East region accounted for 2% of UK equity investment by value and 2% of UK equity deals.

- Half of equity deals in the North East region in 2017 involved Government funds, the highest percentage of any English region
- Software is a key sector for North East region equity investments. Software accounted for almost a quarter of all equity investment in 2017 in the North East.

One of the key factors that underpins the lack of equity investment in the North East region is the limited presence of private sector equity investors with just eight venture capital (VC) investors based in the region.



Source: Small Business Finance Markets (British Business Bank)

North East Fund

Launched in April 2018 and managed by The North East Fund Limited, the North East Fund invests in businesses throughout the North East LEP area, and builds on the success of the Finance for Business North East Fund which invested in over 900 businesses from 2010 to 2016. The £120m programme is divided into five loan, equity and mezzanine funds managed by four locally based fund managers. Investing through to 2023, the fund is expected to provide finance, including leverage, in excess of £250m to over 600 SMEs.

The primary objectives of the fund are to:

- Support both start ups and growth plans
- Create new jobs
- Leverage private sector capital
- Generate portfolio returns to create a recyclable legacy fund

Stakeholders in the fund are the European Investment Bank (EIB), European Regional Development Fund (ERDF) and legacy monies via North East Access to Finance (NEAZF). Given that the Fund has been operating for just a year, data is currently limited. In future years, we will report on the funds invested.

Number of unique equity investors by region, 2017

	Venture capital listed as one investment strategy	Venture capital listed as primary investment strategy
London	531	305
South East	42	26
East of England	34	25
North West	27	15
West Midlands	18	11
East Midlands	9	8
North East	8	4
South West	8	4
Yorkshire and Humber	7	4

Source: Small Business Finance Markets (British Business Bank)



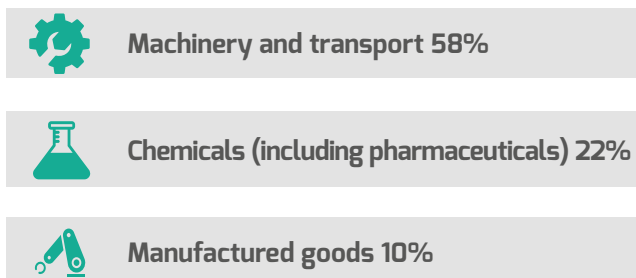
International trade



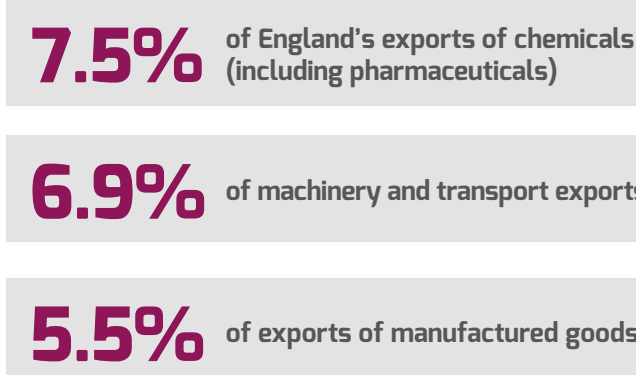
Exports in goods

- In 2018, 60% of the North East region's exports in goods were to the EU and 40% were to non-EU countries
- The trends across these two markets since 2014 have varied with:
 - North East exports in goods to the EU having increased in value by 10% between 2014 and 2018, from £7.1 billion to £7.9 billion
 - North East exports in goods to non-EU countries having decreased in value between 2014 and 2018, from £5.4 billion to £5.3 billion (a fall of 2%)
- The North East accounted for 5.3% of the value of all English exports in goods in 2018. Within this, the North East accounted for a larger proportion of English exports to the EU (6.4%) than to non-EU countries (4.2%).

Almost 90% of the value of goods exported from the North East region comes from three commodities:



By value, the North East region is responsible for:



A number of studies looking at specific industries have suggested that HMRC data may underestimate the scale of exports from the North East region. Goods exports are allocated on the proportion of the exporting business' employees in the region. Where this is not an accurate proxy for the proportion of exports from the region, the North East will be unrepresented.

Exporters of goods

In 2018, there were 3,376 exporters of goods in the North East region. This was 3.3% of the total in England (some were based in more than one region). The number of exporters in the region increased by 6.0% between 2015 and 2018, although this was a smaller percentage increase than in England as a whole (6.7%).

Exports in services

In 2016 the value of service exports from the North East region was £4.2 billion.

- This is an increase of £0.8 billion or 25% compared to 2014

- The North East accounted for just 1.9% of the value of England's service exports in 2016. This is a much smaller proportion than for trade in goods (5.3%).

Inward investment

In 2017/18, the North East LEP area secured 68 foreign direct investment (FDI) projects. These investments:

- Secured almost 1,400 new jobs
- Safeguarded almost 1,500 existing jobs.

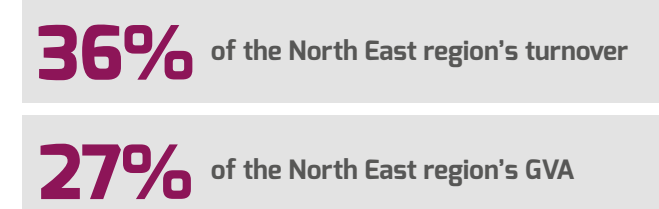
In addition, there were 17 new UK inward investments in the North East creating almost 300 new jobs. The number of jobs created and safeguarded through FDI in the North East in 2017/18 was 78% higher than four years earlier but was lower than in any of the intervening years.

The North East LEP area significantly outperforms the national average on securing FDI – with one and a half times more jobs per person created or safeguarded due to FDI projects than across England excluding London in 2017/18.

Foreign-owned businesses

Over 3,600 businesses in the North East region are foreign-owned, equivalent to 4.7% of all businesses, a higher proportion than England excluding London (3.5%) and the highest percentage of any English region.

Foreign-owned businesses account for:



These are both higher than for England excluding London (32% and 26%, respectively). About 45% of the North East region's foreign-owned businesses have an EU-based owner, 32% have an owner from the Americas, 15% from Europe outside of the EU and 6% from Asia. All of these percentages are similar to England as a whole.



What next?

The North East is performing well across a number of indicators but there is still more to be done to increase the size and dynamism of the business base and to increase the proportion of businesses that are growing.

Looking forward, our key priorities for developing our evidence base include improving our understanding of the:

- Factors underpinning our low business birth rate
 - Firm-level aspirations in the North East and how more businesses can be encouraged to have ambitions to grow and develop
 - Levels, drivers and variations in firm-level productivity in our region
 - Impact and effectiveness of our interventions, with a particular focus on understanding which delivery models are most effective.
- In terms of our programme of delivery, priorities include:
- Ensuring North East people and businesses have simplified access to the support required to start, scale and improve
 - Encouraging high potential start-ups through a new programme of support for this key target group
 - Building on Supply Chain North East to encourage more North East businesses to trade outside the region to improve both resilience and productivity
 - Ensuring North East businesses are able to access information and support to prepare for changing economic circumstances, including the UK leaving the EU.



Innovation

Why is this important?

By bringing forward new products and processes, innovation plays a key role in improving the North East's productivity and competitiveness.

Sources of data available on innovation are limited and focus on those aspects of innovation that are measurable, such as business expenditure on research and development (R&D) and patents approved.

There are limited data that capture the importance of networks, relationships and the diffusion of innovation. Most data on innovation are only available for the North East region.

What are the key findings from the data?

- 42% of businesses report they are innovation active, compared to 51% in England excluding London
- Business expenditure on R&D and patents granted per head are low compared with England excluding London but both have increased since 2014
- The North East region has a slightly lower per capita spend on R&D undertaken by higher education institutions than England excluding London, but a much lower per head spend on R&D undertaken by government bodies

- Science, research, engineering and technology professionals account for 4.4% of the North East LEP's employment with a further 1.8% employed in science, engineering and technology associate professional roles. The North East had a smaller proportion of its employment in these occupations compared to England excluding London. The numbers employed in science, research, engineering and technology professional roles in the North East LEP area have increased since 2014 and the gap has closed.



Innovation in the North East LEP economy

Indicator	Most recent data	Change since 2014	North East as % of England excl. London	Performance improved compared with England excl. London
% of businesses that are innovation active	42.0% (2014-16)	Not available	83	Not available
Business expenditure on R&D per 10,000 adult population	£1.8m (2017)	Increased by £0.5 million per 10,000 adult population	36	Yes - gap closing
Business employment in R&D per 10,000 adult population	23 (2017)	Increased by 4 jobs per 10,000 adult population	47	Yes - gap closing
Higher education expenditure on R&D per 10,000 adult population	£1.1m (2017)	No change	90	No - gap widened
Government expenditure on R&D per 10,000 adult population	£0.2m (2016)	Not available	54	Not available
Patents granted per million adult population	23.0 (2017)	Increased by 2.6 patents per million adult population	38	No - gap widened
% employed in science, research, engineering and technology professional roles	4.4% (Jan 2018 to Dec 2018)	Increased by 0.4 percentage points	82	Yes - gap closed
% of employment as science, engineering and technology associate professionals	1.8% (Jan 2018 to Dec 2018)	Decreased by 0.1 percentage points	84	No - overtaken

Sources: UK Innovation Survey (BEIS) Annual Population Survey Workplace Analysis (Nomis), Business Expenditure on R&D (ONS), Country and regional breakdown of expenditure on R&D in the UK (ONS) and Patents (Intellectual Property Office)

Wider commentary

Innovation activity in businesses

42% of North East businesses report they were innovation active between 2014 and 2016 – a lower proportion than for England excluding London. North East region businesses defined as ‘broad innovators’ are more likely than non-innovators in the region to:

- Export
- Employ science and engineering graduates
- Employ other graduates.

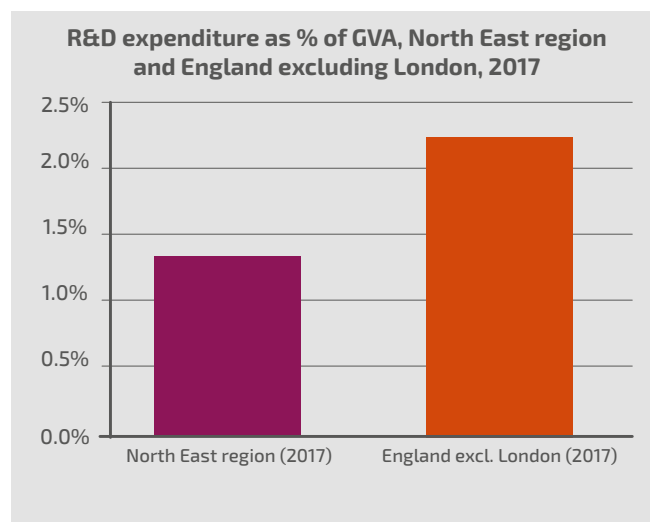
The North East region lags the UK on all three measures. North East region innovative businesses are five times or more likely than non-innovators in the region to employ individuals with the following skills:

- Engineering / applied sciences
- Graphic arts / layout / advertising
- Design of objects or services.

Total expenditure on R&D

In 2017, expenditure on research and development (R&D) within the North East region was £707 million, equivalent to 1.3% of GVA. This is a lower proportion than across England excluding London.

The government has set a national target that R&D expenditure will be 2.4% of GVA by 2027.

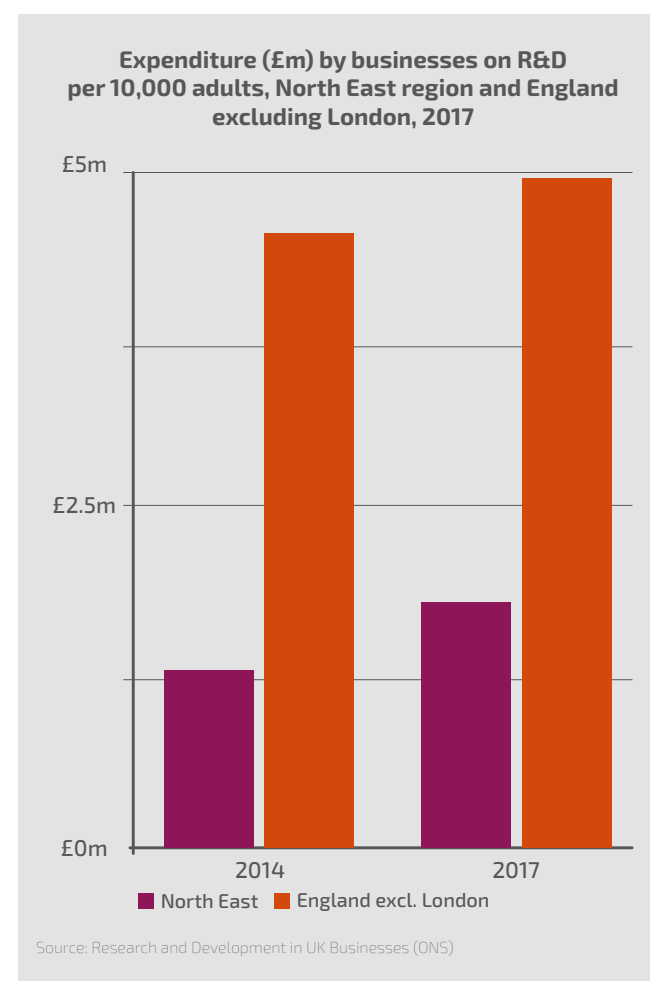


Business expenditure and employment on research and development

Expenditure on R&D by North East region businesses was £384 million in 2017.

- This is 2.1% of total expenditure on R&D by businesses in England excluding London
- £1.8million was spent on R&D by North East region businesses for every 10,000 adults. This compares to £4.9 million across England excluding London and is about a fifth of the rate of expenditure in the best performing region (East).

Over a half (54%) of North East expenditure was by businesses, compared with almost three quarters (74%) in England excluding London. When measured on per adult basis, business expenditure on R&D in the North East region is lower than the national comparator but the gap has closed since 2014.



Source: Research and Development in UK Businesses (ONS)

5,000 full-time equivalents were employed in R&D in businesses in the North East region in 2017.

- This is 2.8% of total employment in R&D in England excluding London
- There were 23 individuals employed in undertaking R&D within businesses in the North East region for every 10,000 adults. This is lower than other regions and devolved administration and less than half of the English excluding London average of 47.

Employment in science, research, engineering and technology

4.4% of employment in the North East LEP area is in science, research, engineering and technology, professional roles

- Science
- Research
- Engineering
- Technology

Whilst this is below the rate in England excluding London (5.4%), the gap has decreased since 2014.

The number employed in these roles in the North East LEP area increased by 5,100 between 2014 and 2018 to 38,900. In addition, there are 15,500 people employed as associate professionals in these areas, although this number has fallen slightly (by 600) since 2014.

Source: Annual Population Survey Workplace Analysis (Nomis)



Patents, trademarks and designs

The North East region has the lowest rates in England (per adult) of:

- Patents granted
- Trademarks registered
- Designs registered.

The North East region also has the lowest rates of approvals for patents and designs. However, about 55% of the difference between the North East and England excluding London in the rate of patents granted is due to the lower level of North East applications. For designs registered the equivalent proportion is almost 90%.

Research specialisms

Analysis of funding distributed by the UK Research Councils and Innovate UK over the last 10 years has found that the research subjects for which the North East region has secured

the most funding are energy, information and communications technologies, astronomy – observation, civil engineering and built environment and materials science.

Combined, the region has secured £165.2 million in funding in those five areas.

Looking at those subjects where the North East region has secured a disproportionate share of UK funding (measured using a location quotient), energy, astronomy – observation, civil engineering and built environment, geosciences, chemical synthesis, astronomy – theory, superconductors, magnetic and quantum fluids, and environmental engineering all have a location quotient of 1.5 or above.

This means the North East region has 50% or more funding that would have been expected if funding was evenly distributed throughout the UK.



Patents granted by region, 2017

	Patents granted	Patents granted per million adults
East of England	461	92.5
West Midlands	360	76.4
London	530	75.6
South East	534	72.7
South West	311	67.9
England	2,831	62.9
England exc London	2,301	60.6
East Midlands	173	44.5
Yorkshire and The Humber	188	42.6
North West	224	38.1
North East	50	23.0

Sources: Patent data, trademark data, design data (Intellectual Property Office), Gateway to Research (UKRI). Analysis by Technopolis

Top 20 research subjects by funding awarded, North East region, 2007 to 2017

	No. of projects	Funding (£ millions)	% of UK funding	Location quotient
Energy	79	46.2	7.50	2.56
Information and communications technologies	134	40.5	3.14	1.07
Astronomy – observation	58	29.9	9.02	3.07
Civil engineering and built environment	46	28.7	10.51	3.58
Materials sciences	80	19.9	3.67	1.25
Geosciences	143	18.0	7.03	2.40
Particle physics – experiment	27	15.6	3.79	1.29
Chemical synthesis	52	11.5	4.56	1.56
Atomic and molecular physics	23	11.0	4.09	1.40
Medical and health interface	39	10.0	3.01	1.03
Astronomy – theory	17	9.4	20.38	6.95
Optics, photonics and lasers	21	8.1	3.11	1.06
Superconductors, magnetic and quantum fluids	23	8.0	4.52	1.54
Process engineering	33	7.5	3.91	1.33
Tools, technologies and methods	80	6.5	1.92	0.65
Environmental engineering	19	6.5	16.86	5.75
Chemical measurement	29	6.4	3.88	1.32
Mathematical sciences	45	5.7	1.43	0.49
Catalysis and surfaces	46	5.7	2.57	0.88
Climate and climate change	77	4.8	2.62	0.89

Source: Analysis by Technopolis based on RCUK Gateway to Research



What next?

Since 2014, the North East has seen an improvement across a range of different measures of innovation, including on R&D expenditure and employment in science and research-related occupations. However, the North East continues to underperform England excluding London on most indicators so there is much more to be done.

A key issue is that the available innovation datasets do not reflect the issues that are most important to the North East and they lack detail to allow detailed planning.

To help address these, the North East LEP has commissioned research to identify the key innovation sectors, assets and competencies in the region. This will help inform the development of innovation delivery partnerships, a new model of delivery that will enable us to accelerate the commercialisation of ideas in our niche areas of competency.

Over the next year, we will also work with partners to explore how the data available could be developed to provide more useful insights and narratives on North East innovation.

The priority for programme delivery is to increase business engagement with and investment into innovation. The North East LEP is currently developing an innovation framework with partners that will outline how we will achieve this, with key elements including an innovation business support programme, a prioritised pipeline of innovation projects, the development of innovation delivery partnerships, coordination activity through the Innovation SuperNetwork and preparing the region for early adoption of 5G.

We will also work with partners to implement the findings of the Science and Innovation Audit into the application of digital technologies in advanced manufacturing.

Skills, employment, inclusion and progression

Why is this important?

Investment in skills helps individuals access available employment opportunities and helps drive productivity growth and social mobility.

However, skills are only part of what is needed to help individuals access these opportunities with wider measures required to ensure inclusion and progression.

What are the key findings from the data?

- The key challenge that the North East LEP area faces is that there are fewer employment opportunities per head than England excluding London. The Strategic Economic Plan has prioritised this by setting a target to increase the number of jobs by 100,000 by 2024
- The proportion of the North East LEP area population that is working age (that is defined as 16 to 64) is slightly above that of England excluding London

- Whilst the North East LEP area has lower rates of economic activity and employment than England excluding London, these rates have increased since 2014 and the gap with England excluding London has narrowed on the employment rate
- The working age population of the North East has a lower qualifications profile than England as a whole with more individuals having no qualifications and fewer with high level qualifications (NVQ level 4 or above). However, the North East LEP area has made progress on this since 2014, with the proportion with high level qualifications increasing and the proportion with no qualifications decreasing
- Fewer employers in the North East LEP than across England excluding London reported that they had experienced skills shortage vacancies
- Both the economic inactivity rate and the unemployment rate have fallen over the past four years. The unemployment rates for young

people (aged 16-24) and older workers (aged 50-64) have also decreased over this period

- Despite these improvements, the working age economic activity rate and unemployment rates for 16-64, and 50-64 year-olds remain above the England excluding London rates
- As the North East unemployment rates for all age groups have declined faster than elsewhere, the gap with England excluding London has narrowed
- Average (median) wages are only 88% of the English average. However, living costs are also lower within the North East. Whilst wages have increased since 2014, the North East rate of growth of 6.1% in that period has been lower than that of any other core city LEP and the gap with England has increased.



Skills, employment, inclusion and progression in the North East LEP economy

Indicator	Most recent data	Change since 2014	North East as % of England excl. London	Performance improved compared with England excl. London
Employment density per 1,000 working age population	665 (2017)	Increased by 6 jobs per 1,000 working age population (2015)	90	No - gap widened
Working age population as % of total population	63.0% (2017)	Decreased by 0.8 percentage points	102	No change
Economically active as % of working age population	75.8% (Jan 2018 to Dec 2018)	Increased by 0.8 percentage points	96	No change
Employment as % of working age population	72.1% (Jan 2018 to Dec 2018)	Increased by 3.2 percentage points	95	Yes - gap narrowed
% of working age population with Level 4+ qualifications	31.2% (2018)	Increased by 2.7 percentage points	87	Yes - gap narrowed
% of working age population with no qualifications	8.7% (2018)	Decreased by 1.1 percentage points	111	No change
% of employers with a vacancy who report skills shortages as a reason	29% (2017)	Increased by 5 percentage points (2013)	91	No - gap narrowed
% of employers reporting skills gaps	13% (2017)	Decreased by 5 percentage points (2013)	99	Yes - North East percentage was previously higher than England exc. London
% of 16-64 population that are economically inactive	24.2 (Jan 2018 to Dec 2018)	Decreased by 0.8 percentage points	114	No - gap widened
% of 16-64 economically active population that are unemployed	4.9 (Jan 2018 to Dec 2018)	Decreased by 3.3 percentage points	121	Yes - gap narrowed
% of 16-24 economically active population that are unemployed	11.5 (Jan 2018 to Dec 2018)	Decreased by 8.5 percentage points	101	Yes - gap narrowed
% of 50-64 economically active population that are unemployed	4.1 (Jan 2018 to Dec 2018)	Decreased by 1.5 percentage points	149	Yes - gap narrowed
Median gross weekly wages of full-time workers (£)	£507.90 (2018)	Increased by £29.20	88 (England)	No - gap widened (England)

Sources: Business Register and Employment Survey (Nomis), Population estimates (Nomis), Annual Population Survey (Nomis) and Employer Skills Survey (UKCES), Annual Population Survey (Nomis) and Annual Survey of Hours and Earnings workplace analysis (Nomis)
 Notes: 1.To ensure that seasonal factors are not affecting comparison, the same time periods are used for both the most recent year and the 2014 benchmark year for each indicator. For example, the most recent Annual Population Survey data is for the period January 2018 to December 2018 - so January 2014 to December 2014 is used as the comparator. Skills shortage vacancies are vacancies that are hard to fill because there is a lack of skilled or qualified people to take the job. Skills gaps are where existing staff are not fully proficient in their job role.

Wider commentary

Skills

Demographics

The proportion of the population that are of working age (aged 16 to 64) in the North East LEP area (63.0%) is similar to that of England excluding London (61.9%) and England (62.8%). However, the North East LEP area has an older age structure than the comparators with:

- A larger proportion of its population in the 50-64 and 65+ age bands.
- A smaller proportion of its population in the 0-15 and 25-49 age bands

Looking forward, the North East LEP area population is projected to grow by 2.1% over the 10 year period from 2017 to 2027.

- This is below the rate of growth projected for England excluding London (5.2%) and the lowest of the core city LEPs
- 16-24 and 65+ are the only age bands projected to grow in the North East LEP area over the next 10 years

- The population is projected to decline in the 25 to 49 and 50 to 64 working age population groups in the North East LEP area, with only 0.5% growth in the 16 to 24 age group. Combined, this will result in there being 32,000 fewer individuals of working age in the North East LEP area in 2027 than in 2017 if recent trends continue. This would result in just 60.2% of the population in North East LEP area being of working age which would be lowest percentage of any core city LEP.

Qualifications

Working age people in the North East have a lower qualifications profile than England excluding London with:

- A higher proportion with no or low (Level 1 and 2) qualifications
- A lower proportion with high (Level 4+) qualifications.

Among the eight core city LEPs, the North East has the lowest percentage of 16 to 64 year olds qualified to level 4 and above and the highest percentage with no or low level qualifications. The qualifications profile of the North East is beginning to change.

Since 2014, the proportion of 16 to 64 year olds qualified to level 4 and above has increased by 2.7 percentage points, although this is a smaller change than that for England excluding London (3.1).

Young people have a higher qualifications profile than older age groups with, for example, 39.3% of 30-39 year olds in the North East LEP area having Level 4+ qualifications, compared to 28.6% of 50-64 year olds.

The North East has had a higher percentage point increase than England excluding London in the number of 20 to 24 year olds and 30 to 39 year olds qualified to this level but a lower rate of growth among other age groups.

Digital skills

According to the 2018 Lloyds Bank UK Consumer Digital Index, in the North East region:

- 71% of adults had full basic digital skills
- 12% had zero basic digital skills
- 14% of the working population did not have full digital skills.

These were all worse than the percentages for the UK as a whole (79%, 8% and 10%, respectively) and relate to the ability to complete tasks in the five categories of managing information, communicating, transacting, problem solving and creating. More positively, the survey also highlighted that, in the North East region:

- 62% of respondents felt that their digital skills had improved in the previous year
- 73% say that using the internet helps them to save money
- 48% say that they use the internet to manage and improve their health
- 82% of those age 60+ are online.

These proportions are all higher than the UK as a whole (60%, 69%, 47% and 72%, respectively).

Skills provision

Further education

The North East LEP area has nine colleges:

- Bishop Auckland College
- Derwentside College
- East Durham College
- Gateshead College
- Newcastle College
- New College Durham
- Northumberland College
- Sunderland College
- Tyne Coast College.

There were 102,360 adult learners (19+) participating in government-funded further education (including apprenticeships) in the North East LEP area in 2017/18. This is a decline of 21% compared to 2014/15, a slightly larger decrease than the 17% fall across England as a whole over the same period. Of these:

- 14% were on full level 2 courses
- 16% were on full level 3 courses.

The total number of adult learners in the North East LEP area achieving a government-funded further education qualification in 2017/18 was 76,230. The number achieving a qualification has fallen by 24% since 2014/15, compared to a fall of 21% in England as a whole. No data is currently available on the subjects being studied. However, previous analysis has suggested the most popular subject areas include:

- Engineering and manufacturing technologies
- Health, public services and care
- Arts, media and publishing.

Apprenticeships

Apprenticeships are a key element of skills provision, helping individuals to develop job-related skills while in employment. Apprenticeship training is delivered by colleges and training providers. In 2017/18, there were 16,580 apprenticeship starts in the North East LEP area. 47% of apprenticeship starts were at intermediate level, 41% at Advanced and 13% at Higher. Over 80% of North East apprenticeship starts were in one of four subject areas:

- Business, administration and law
- Health, public services and care
- Engineering and manufacturing technologies
- Retail and commercial enterprise.

Although the North East LEP area is home to just 3.6% of England's working age population the proportions of apprenticeship starts in 2017/18 were higher:

- 4.4% of all apprenticeships in England
- 4.8% of intermediate apprenticeships

- 4.1% of advanced apprenticeships
- 4.3% of higher apprenticeships

In particular, the North East had

- 6.7% of all apprenticeship starts in construction, planning and the built environment
- 5.8% of higher apprenticeship starts in engineering and manufacturing technologies
- 5.8% of higher apprenticeship starts in information and communication technology

Universities

The North East LEP area is home to four universities:

- Durham University
- Newcastle University
- University of Northumbria at Newcastle
- University of Sunderland.

In 2017/18, the North East universities had:

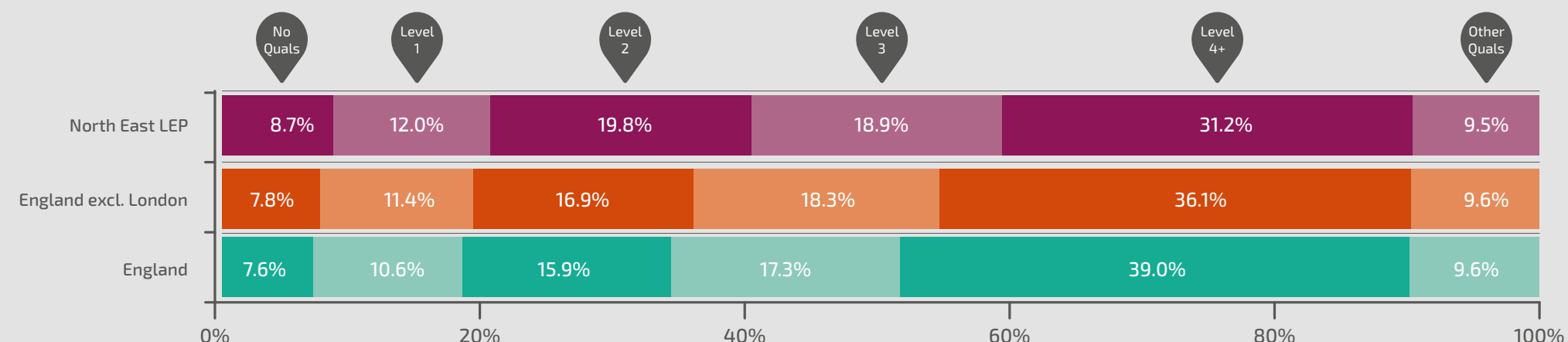
- 66,165 undergraduate students (4.6% of all undergraduates at English HE providers)
- 19,355 postgraduate students (4.1%).

The most common subjects being studied at undergraduate level are business and administrative studies, social studies, subjects allied to medicine, biological sciences, languages and engineering and technology.

The North East is particularly overrepresented compared to England as a whole in the number of undergraduates studying architecture, building and planning; languages; physical sciences; and medicine and dentistry. The most common subjects being studied at postgraduate level are business and administrative studies, education, subjects allied to medicine and engineering and technology.

The North East is particularly overrepresented compared to England as a whole in the number of postgraduates in computer science; languages; agriculture and related subjects and law.

Highest qualification (% of 16-64 population), North East LEP, England excluding London and England, 2018



Source: Annual Population Survey (Nomis)
 Note: Definition of qualifications levels:
 No qualifications: No formal qualifications held. NVQ level 1 equivalent: e.g. fewer than 5 GCSEs at grades A-C, foundation GNVQ, NVQ 1, intermediate 1 national qualification (Scotland) or equivalent.
 NVQ level 2 equivalent: e.g. 5 or more GCSEs at grades A-C, intermediate GNVQ, NVQ 2, intermediate 2 national qualification (Scotland) or equivalent. NVQ level 3 equivalent: e.g. 2 or more A levels, advanced GNVQ, NVQ 3, 2 or more higher or advanced higher national qualifications (Scotland) or equivalent. NVQ level 4 equivalent and above: e.g. HND, Degree and Higher Degree level qualifications or equivalent. Other qualifications: Includes trade apprenticeships (which are split 50/50 between NVQ Levels 2 and 3) and any other qualifications that are not elsewhere classified including foreign qualifications and some professional qualifications

Student enrolments at North East LEP area universities, 2017/18

	Undergraduate	Postgraduate	Total
Business and administrative studies	10,785	4,305	15,090
Subjects allied to medicine	7,245	1,750	9,000
Social studies	7,450	1,300	8,745
Biological sciences	6,755	1,170	7,935
Engineering and technology	4,340	1,495	5,835
Languages	4,435	860	5,295
Physical sciences	3,765	690	4,460
Creative arts and design	3,525	610	4,135
Law	3,100	920	4,025
Computer science	2,680	1,020	3,700
Education	1,360	2,275	3,625
Historical and philosophical studies	2,690	575	3,265
Architecture, building and planning	2,215	735	2,950
Medicine and dentistry	1,995	810	2,805
Mathematical sciences	1,645	160	1,810
Mass communications and documentation	1,190	530	1,730
Combined	655	0	655
Agriculture and related subjects	320	140	460
Total	66,165	19,355	85,515

Job-related training

Employers also make a significant investment in developing the skills of their workforce.

- When surveyed in 2017, 45% of North East LEP area businesses had a training plan in place and 35% had a budget for training. Both are similar to England excluding London (46% and 35%)
- 63% had funded or arranged training for their employees in the last 12 months (a slightly smaller proportion than England excluding London, 66%)
- The most common types of training funded or arranged by North East employers were job specific training (provided by 87% of employers who funded or arranged training), health and safety and/or first aid training (75%) and basic induction training (67%). In addition, almost half (48%) provided training in new technologies.

Of North East residents aged 16 to 64 surveyed in 2018, about 9.0% had received job-related training in the previous four weeks and 17.0% had received job-related training in the previous 13 weeks.

The North East had a lower proportion of residents receiving job-related training than England excluding London (10.0% and 18.6%) and had the second and third lowest proportions receiving training in, respectively, the most recent four and 13 weeks among core city LEPs.

In 2018



9.0% of North East LEP working-age people had received job-related training in the previous four weeks



17.0% had received job-related training in the previous 13 weeks

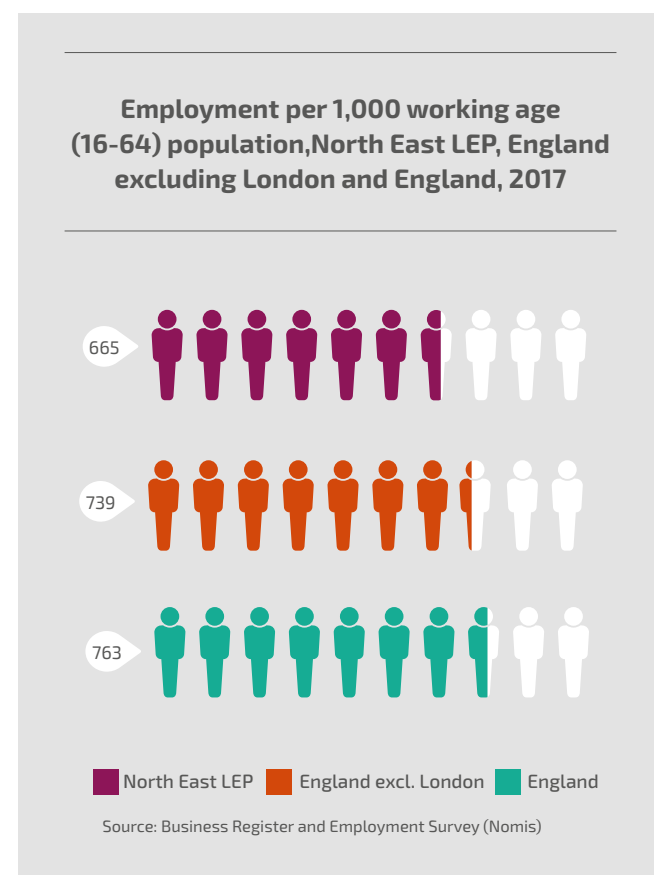
These proportions were lower than in England excluding London (10.0% and 18.6%)

Employment

VAT/PAYE registered organisations employed 826,000 in the North East LEP area in 2017.

This is equivalent to 665 jobs per 1,000 working age population - a measure known as employment density.

If we had the same employment density as England excluding London, there would be 919,000 jobs in the North East, an additional 93,000 jobs.



The largest employing sectors in the North East LEP area are:



Employment by sector

	% of total employment
Health	14.5
Manufacturing	11.3
Retail	10.2
Accommodation and food services	9.1
Business administration and support services	8.8
Education	8.8
Public administration and defence	6.3
Professional, scientific and technical	4.7
Construction	4.5
Arts, entertainment, recreation and other services	4.4
Transport and storage (including postal)	3.9
Information and communication	2.9
Wholesale	2.8
Financial and insurance	2.3
Mining, quarrying and utilities	1.6
Property	1.5
Motor trades	1.3
Agriculture, forestry and fishing	1.2
Total	100.0

Alignment between labour demand and supply

To have a well-functioning labour market, there must be a strong alignment between labour supply and demand - people need to have the skills employers need.

One way to measure this is to establish if any employers have hard-to-fill and skills shortage vacancies. When surveyed in 2017, 16% of North East LEP area employers had at least one vacancy in the last 12 months (compared to 19% across England excluding London).

Of these:

- 37% had a hard-to-fill vacancy (compared to 43% across England excluding London)
- 29% had a skills shortage vacancy (compared to 32% across England excluding London).

Among the eight core city LEPs, the North East has the highest percentage of skills shortage vacancies in high-skill occupations (52%). This highlights that more needs to be done to help ensure individuals are developing the skills required by employers and to encourage skilled workers remain in or to relocate to the region.

Looking at the existing workforce, 13% of employers in the North East LEP area reported having skills gaps. Whilst this is the same percentage as England excluding London, a smaller proportion of staff in the North East LEP area than nationally are considered 'not fully proficient' by their employers (4.1% compared to 4.6% across England excluding London).



Inclusion

Economic inactivity

Economic inactivity measures those that are not in work or actively seeking employment.

Individuals can be economically inactive for a wide range of reasons including that they are in education, have health issues or disabilities that prevent them from work, have caring responsibilities or have retired.

Between January 2018 and December 2018, 24.2% of the North East LEP's working age population was economically inactive.

- This is above England excluding London rates (21.2%) and around the third highest rate among the eight core city LEPs

- The North East's economic inactivity rate has decreased from 25.0% in 2014. This is a smaller decline than England excluding London but is the fifth largest amongst the core city LEPs.

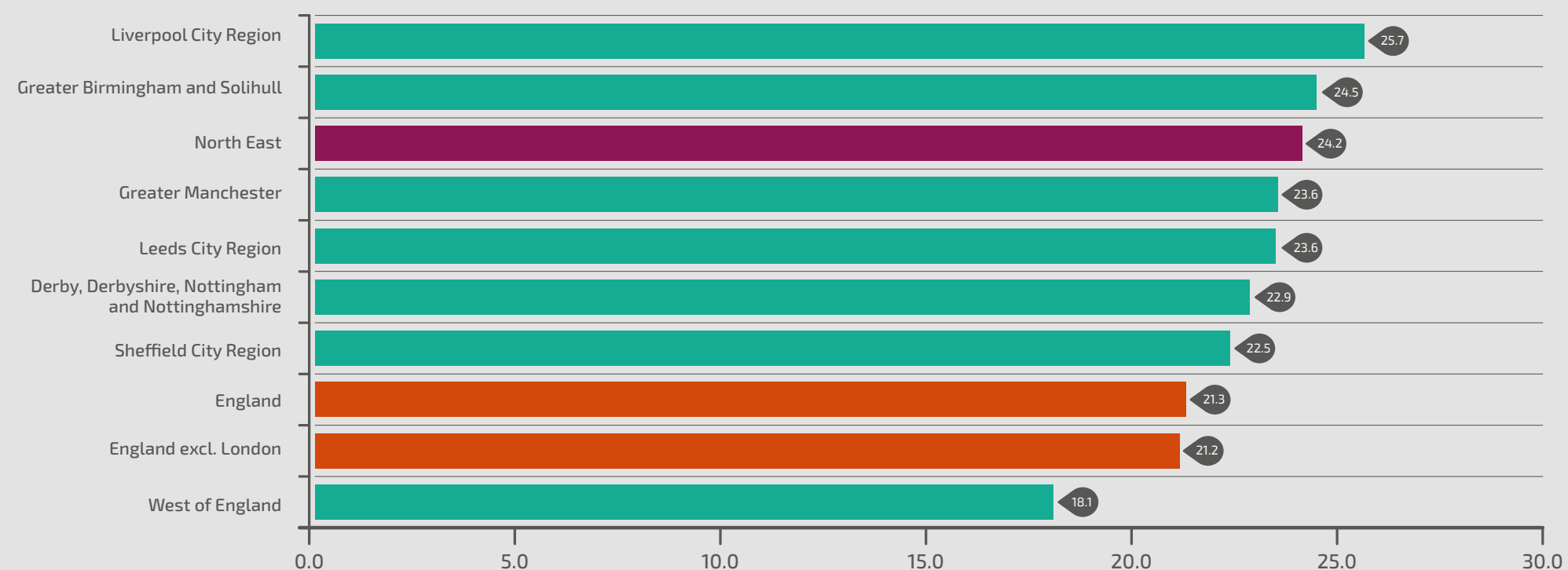
Looking at economic inactivity in the North East LEP area in more detail:

- Some groups are much more likely to be economically inactive than others. 46.4% of 16-64 year olds with a core or work-limiting disability are economically inactive, compared to 16.6% of those without a disability. Similarly, 52.5% of those with a health condition or illness lasting 12 months or more are economically inactive
- The largest group within the working age economically inactive in the North East are those with long-term sickness (27.5%),

followed by students (26.1%), those looking after family or home (21.8%) and retired (12.0%). The proportion of the economically inactive that are long-term sick is much higher in the North East LEP area than across England excluding London (22.9%)

- Just over a fifth (20.6%) of the working age economically inactive population in the North East LEP area want a job. This is the same proportion as England excluding London.

Economic inactivity rate (% of 16-64 population), North East LEP, Core City LEPs, England excluding London and England, January 2018 to December 2018



Source: Annual Population Survey (Nomis)

Unemployment

The International Labour Organisation (ILO) unemployment rate measures the proportion of the working age population that are out of work and actively seeking work.

The ILO unemployment rate for 16-64 year olds in the North East between January 2018 and December 2018 was 4.9%.

- The North East's unemployment rate has decreased from 8.2% in 2014
- The 3.3 percentage point decrease was the second largest among the core city LEPs and larger than the decrease in England excluding London (2.1 percentage points)

The SEP highlights the need to tackle youth unemployment and unemployment amongst the 50+ population.

Two broad trends can be observed:

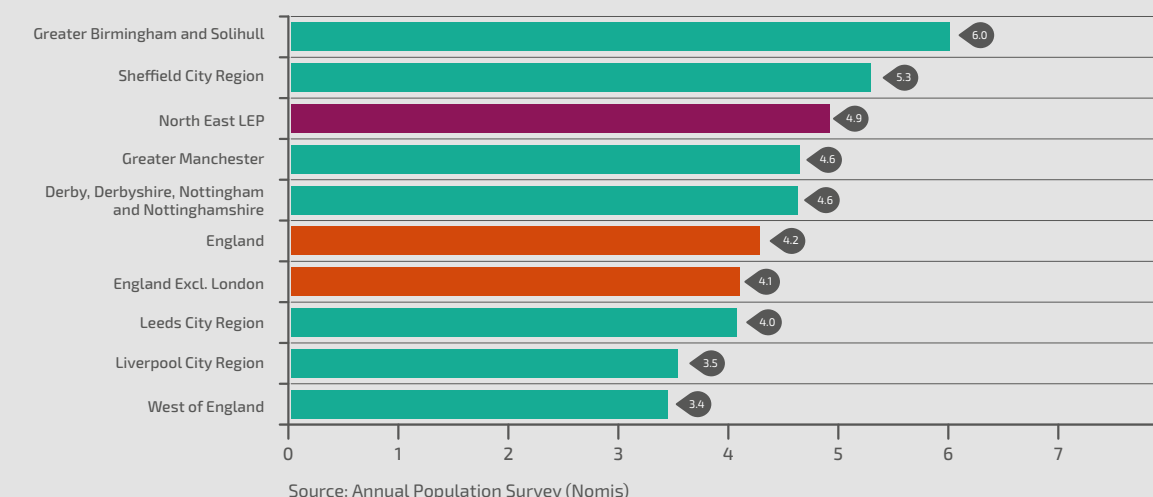
- Unemployment rates are highest for young people and decline with age. The exception to this is the 50 to 64 age band which has a higher unemployment rate than the 35 to 49 age band
- For each age band except 20 to 24, the unemployment rate is higher in the North East LEP area than in England excluding London.

Since 2014, unemployment rates among the youngest and oldest working-age people in the North East LEP area have decreased:

- Among the broader age group for young people (16 to 24) the North East unemployment rate decreased from 20.0% in 2014 to 11.5% in 2018. This improvement has brought the rate for this age group into line with the England excluding London average (11.3%)

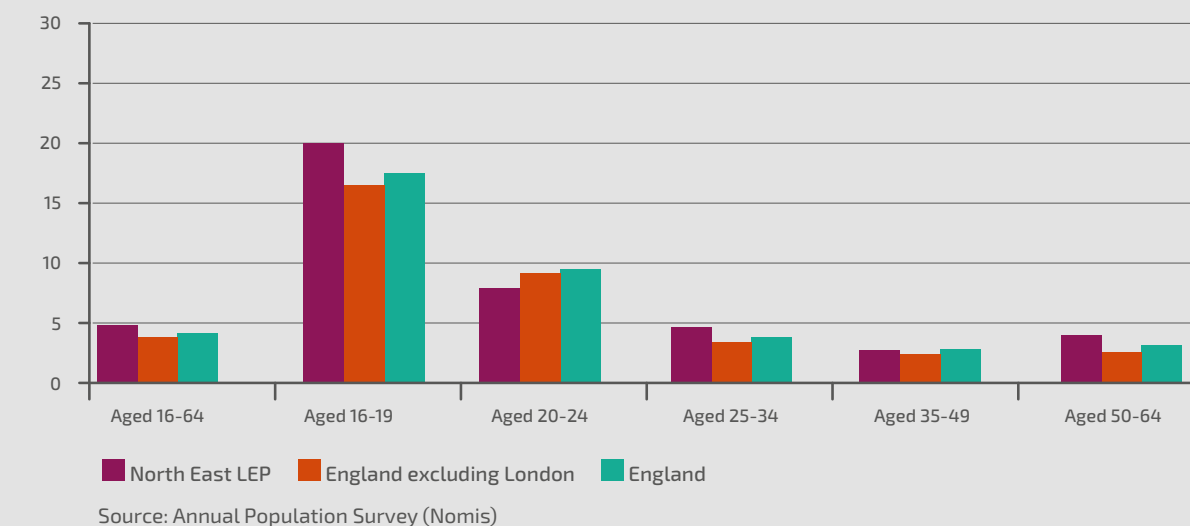
- The unemployment rate for the 50 to 64 population in the North East LEP area decreased from 5.6% in 2014 to 4.1% in 2018. However, although the gap for this age group has narrowed slightly, the rate is still well above that of England excluding London (2.8%).

Unemployment rate (% of 16-64 economically active population), North East LEP, Core City LEPs, England excluding London and England, January 2018 to December 2018



Source: Annual Population Survey (Nomis)

Unemployment rate by age band (%), North East LEP, England excluding London and England, January 2018 to December 2018



Source: Annual Population Survey (Nomis)

Household poverty

Looking at relative household poverty in the three year period 2015/16 to 2017/18:

- 19% of people in the North East region were living in households with below 60% of median household income before housing costs. This compares to 16% across England as a whole and means that about 500,000 individuals in the North East are living in households in poverty
- 24% of people in the North East region were living in households with below 60% median household income after housing costs. This compares to 22% for England as a whole and is equivalent to about 600,000 individuals in the region living in households in poverty
- Using the before housing costs measure for the North East region, 25% of children, 18% of working-age adults and 16% of pensioners were living in households in poverty. This compares to, respectively, 20%, 15% and 17% for England as a whole
- If housing costs are included, in the North East region 35% of children, 23% of working age people and 15% of pensioners lived in households in poverty, compared to, respectively, 31%, 21% and 16% for England as whole.

Whilst the reasons for poverty are complex, a number of sources including from the Annual Survey of Hours and Earnings and the Family Resources Survey provide insights into potential reasons for higher rates of household poverty in the North East including:

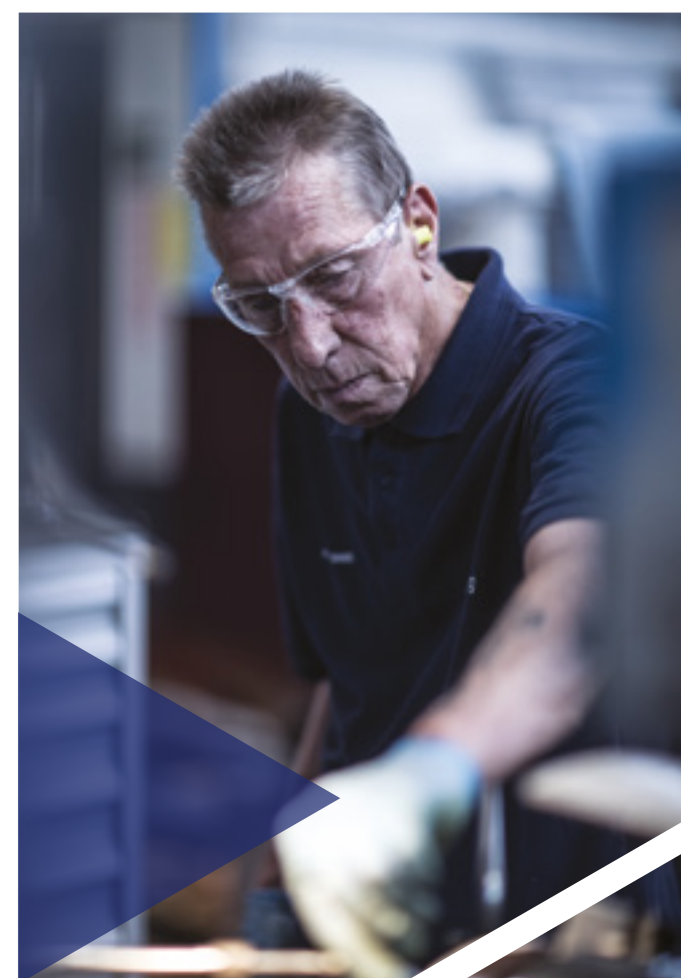
- Average wages for a full-time worker in the North East LEP area are below the English level (£507.90 per week, compared to £574.90) and are the joint lowest of the eight core city LEPs. Whilst wages have increased by 6.1% over the period 2014 to 2018, this is below the rate of growth observed nationally and the lowest percentage change of the core city LEPs. In addition, inflation has been relatively high over this period meaning the increase in wages will have been offset by increases in the costs of goods and services

- Wages and salaries (57%) and income from self-employment (8%) account for a smaller percentage of total household income in the North East region than across England as a whole (64% and 10%, respectively). In contrast pension income and benefits account for a larger proportion of household income than across England
- The incidence of disability is higher in the North East region than England, with 25% of the North East population having a disability, compared to just 20% across England. A person is considered to have a disability if they have a long-standing illness, disability or impairment which causes substantial difficulty with day-to-day activities.

Quality of employment opportunities

A final topic worth considering in this section is the quality of employment opportunities in the North East.

- Between January 2018 and December 2018, 5.1% of those living in the North East LEP area and in employment were in a temporary job. This is above the England excluding London rate (4.5%) and is the third highest of the eight core city LEPs
- Over the same time period, 74.6% of working age people in employment in the North East LEP area were working full-time. This is just above the England excluding London rate (74.3%) and the fourth highest rate amongst the core city LEPs
- In the last quarter of 2018, 41,000 individuals in the North East region were employed on a zero-hours contract. This is equivalent to 34% of those in employment – the highest rate amongst English regions
- The Low Pay Commission estimates that, in 2018, about 74,000 employees in the North East LEP area were paid at or below the National Living Wage (NLW) or equivalent for their age group. This is 9.3% of all employees, a higher percentage than England (6.8%) and England excluding London (7.5%)
- An estimated 22,000 jobs in the North East region (including Tees Valley) were paid below the National Minimum Wage (NMW) or equivalent in 2018, about 2.0% of the total. This is the highest percentage of any English region.



Median gross weekly pay of full-time workers (£), North East LEP, Core City LEPs and England, 2014 and 2018

	2014	2018	% Change 2014 to 2018
Greater Birmingham and Solihull	494.20	554.60	12.2
West of England	522.60	576.10	10.2
Leeds City Region	479.50	528.40	10.2
England	523.50	574.90	9.8
Liverpool City Region	492.60	538.10	9.2
Greater Manchester	481.60	521.60	8.3
Derby, Derbyshire, Nottingham and Nottinghamshire	488.30	526.30	7.8
Sheffield City Region	474.20	507.90	7.1
North East	478.70	507.90	6.1

Source: Annual Survey of Hours and Earnings (Nomis)
Notes: 1. Earnings in workplaces in the selected geographies 2. Data is not available for England excluding London.

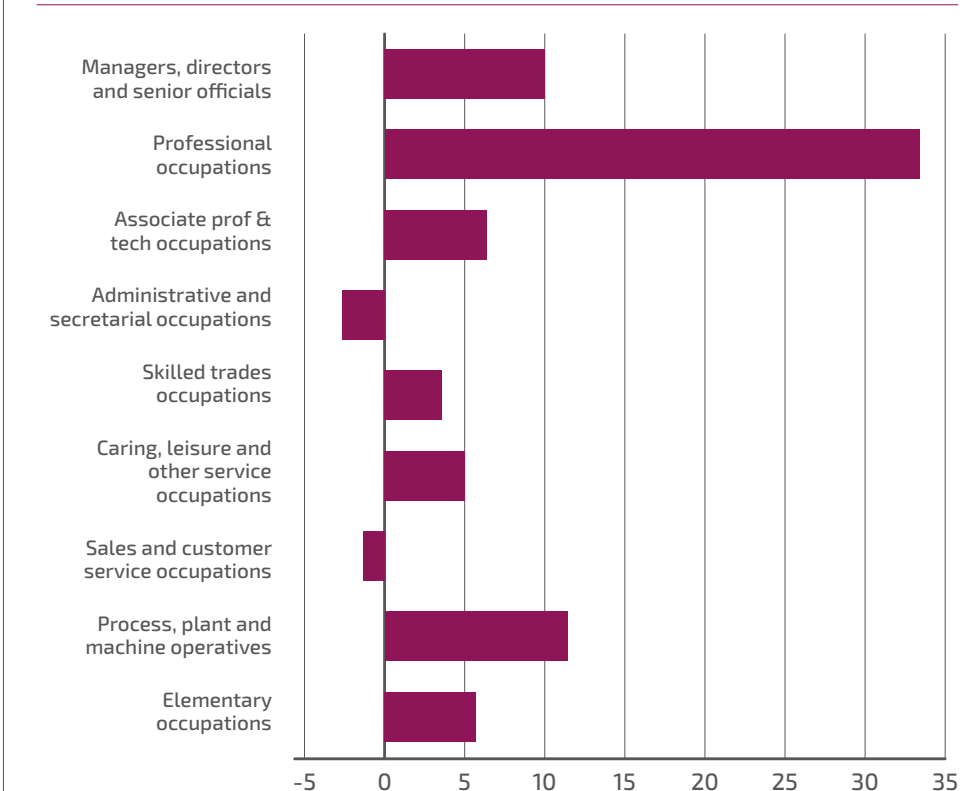
Progression

Between 2014 and 2018 employment in professional occupations in the North East LEP area increased by 33,600. This was a 25% increase compared to 11% across England excluding London.

The number of North East managers, directors and senior officials increased by 15% (up 9,900) and there was also large net growth in the number of process, plant and machine operatives (up 11,600 or 20%).

The growth in higher level occupations has provided opportunities for individuals to progress in work.

Net change in employment (000s) by occupation, North East LEP area, 2014 to 2018



Sources: Annual Population Survey - Workplace Analysis (Nomis) Annual Population Survey (Nomis)



What next?

The North East continues to make progress, with increasing employment and qualification levels and declines in unemployment rates and skills gaps.

The North East has recently established a Skills Advisory Panel (SAP). The key task of the SAP is to examine the data on employment and skills and make recommendations about future provision. There will be a major programme of work over the next year to develop this evidence base. Key priorities will include developing a better understanding of:

- Current and future skills needs
- Outcomes for different groups and what underpins these, with a particular focus on older workers and ethnic minority communities
- Skills provision in the region, mapping current assets and resources and assessing the extent to which these can meet future needs and opportunities.

Priorities for programme delivery include:

- Building on the learning from our pilot activities to roll out improved careers provision at primary, secondary and further education levels across the region
- Encouraging employer engagement with the region's high level technical provision, including the new Institute of Technology
- Ensuring progression and development opportunities are available across the region, helping deliver the Taylor Review's ambition of 'good work'. The establishment of the National Retraining Scheme and devolution of the adult education budget to the North of Tyne Combined Authority will enable new approaches to be developed and we will work with partners across the region to ensure these are maximised.

Transport connectivity

Why is this important?

Links within and between regions are fundamental for facilitating economic growth. For example, transport connectivity allows businesses to move their goods to markets and allows individuals to access employment opportunities.

What are the key findings from the data?

- Public expenditure on transport per head in the North East region is below the England excluding London averages. Whilst spend per head has increased in the North East since 2014/15, the rate of increase has been faster in the rest of England, meaning the gap has widened.
- Usage of public transport is high in the North East, with 36.4 million passenger journeys by Metro, 139.2 million passenger journeys by bus and 15.2 million entries and exits at North East railway stations in 2017/18. The rates of Metro journeys and bus passenger mileage per head are higher than in England excluding London but both have decreased since 2014/15.
- The volume (tonnage) of freight being transported by road from the North East region per head is higher than the national average but has decreased since 2014.

Transport connectivity in the North East LEP economy

Indicator	Most recent data	Change since 2014	North East as % of England excl. London	Performance improved compared with England excl. London
Public expenditure on transport per head	£320 (2017/18)	Increase of £86 per head	86	No - gap widened
Metro (light rail and tram) passenger journeys per head	32.3 (2017/18)	Decreased by 2.0 journeys per head (Tyne and Wear)	234 (Areas with light rail or tram systems)	No - gap narrowed
Metro (light rail and tram) passenger mileage per head	175 (2017/18)	Decreased by 7 miles per head (Tyne and Wear)	236 (Areas with light rail or tram systems)	No - gap narrowed
Bus passenger journeys per head	70.6 (2017/18)	Decreased by 7.5 journeys per head	155	No - gap narrowed
Bus mileage per head	32.5 (2017/18)	Decreased by 3.7 miles per head	172	Yes - gap widened
Goods lifted (tonnes) by GB-registered heavy goods vehicles per head	26 (2017)	Decreased by 3 tonnes per head	108	No - gap narrowed

Sources: Country and regional analysis (HM Treasury); Light rail and tram statistics (Department for Transport); Bus statistics (Department for Transport); Road freight statistics (Department for Transport) and Connected Nations (Ofcom)
 Notes: Data for public expenditure and freight lifted are for North East region.

Wider commentary

Public investment in transport

In 2017/18, public expenditure on transport in the North East region was £320 per head. This compares to £372 across England excluding London.

- Public expenditure on transport is much higher in London (£1,019 per head) than in the rest of England.
- The North East is the English region with the fourth lowest public expenditure on transport per head in 2017/18 (after the East Midlands, the South West and Yorkshire and the Humber).

In the Budget 2017, the Government announced an investment of £337 million for fleet replacement on the Tyne and Wear Metro.

Metro

There were 36.4 million passenger journeys on the Metro during 2017/18, with a total distance of 197.1 million passenger miles. In terms of reliability, the percentage of trains on the Tyne & Wear metro arriving on time is the proportion arriving within three minutes later than scheduled or within 29 seconds earlier than scheduled. In 2018/19, the proportion was 79.6%, slightly lower than in 2014/15 (80.5%).

Bus

In 2017/18, there were 139.2 million passenger journeys on local bus services in the North East LEP area, with local bus services operating 64.2 million vehicle miles. In terms of punctuality and reliability, in 2017/18:

- The average excess waiting time for frequent services was 0.8 minutes in the Tyne and Wear Integrated Transport Authority (ITA) area. Data is not available for any recent years for Durham, Northumberland or England as a whole. However for comparison, the average 2016/17 excess waiting times were 1.3 minutes in Merseyside ITA and 2.1 minutes in West Midlands ITA.
- 90% of non-frequent bus services in the Tyne and Wear ITA, 93% in Durham and 85% in Northumberland ran on time. This compares to 83% across England as a whole.

Sources: Country and regional analysis (HMT); Light rail and tram statistics, England (DfT); Tyne & Wear Metro reliability data (Nexus); Annual bus statistics (DfT); Bus reliability and punctuality (DfT)





Rail

In 2017/18:

- There were 15.2 million entries and exits in stations in the North East LEP area, three quarters of which were in Newcastle (8.8 million) and Durham (2.7 million)
- A further 11 North East stations had more than 100,000 entries and exits each, headed by Berwick-Upon-Tweed (570,000), Sunderland (450,000) and Morpeth (420,000)
- The total of 15.2 million was 7% higher than in 2014/15 and in both Newcastle and Durham the totals were almost 9% higher. Among the other main 11 stations there was a 25% rise in Morpeth, increases of 11% to 14% in Bishop Auckland, Seaham and Alnmouth but decreases of 7% to 9% in Hexham, MetroCentre, Prudhoe and Wylam.

In 2017, measured on a 'typical Autumn weekday':

- Newcastle station had over 200 rail services arriving carrying over 24,000 passengers, with similar numbers departing. These were the second lowest totals among the eight core cities
- About 18% of arrivals in Newcastle were between 7am and 10am while 25% of departures were between 4pm and 7pm. These were the lowest percentages of any core city
- The number of passengers arriving at Newcastle station increased by 8% between 2014 and 2017, the third highest percentage increase among the core cities. However, the number of arrivals between 7am and 10am was unchanged.

Road freight

In 2017, 51 million tonnes of freight were lifted by GB-registered heavy goods vehicles in the North East region.

- The North East accounted for 4.5% of all freight (by tonnage) lifted in England during 2017
- 37% of freight lifted was transported out of the region in 2017, with the rest moved within the region
- The number of tonnes lifted in the North East

(region) has decreased from 57 million in 2014. This is an 11% decrease, compared to the 6% increase for England excluding London

In 2017, the North East region was the origin of 5,978 million tonne kilometres of freight moved by GB-registered heavy goods vehicles. This was 4.9% of the total for England excluding London.

Air transport

In 2018:

- 5.3 million passengers travelled through Newcastle Airport. This was 71% of all passengers in English airports outside of the five in the London area and is 18% higher than in 2014
- Most passengers (67%) were en route to and from non-UK airports within the EU and about a fifth (22%) were on UK domestic flights. 1.8 million passengers were travelling to and from Spain, but, outside of Europe, over 240,000 people travelled on the Newcastle to Dubai service.
- Newcastle Airport handled 5,524 tonnes of freight. Newcastle accounts for just 1.1% of freight handled by English airports outside of London airports. However, this reflects the dominance of East Midlands and Manchester which handle 90% of freight in these airports.

Ports

In 2017, the North East's ports handled 5.29 million tonnes of freight, 2% of all freight handled in England excluding Thames and Kent. Within this:

- 1.83 million tonnes of handled freight was outwards
- 3.46 million tonnes was inwards

Between 2014 and 2017 the North East total decreased by 38%, with the inwards total falling by 49% while the outward total increased by 8%. In England excluding Thames and Kent, the equivalent totals all decreased (by 8%, 11% and 2%, respectively). In addition, 621,000 ferry passengers traveled through the Port of Tyne in 2018, about 8% of all UK passengers outside of the Thames and Kent region. The Port of Tyne total was 10% higher than in 2014 in comparison to a 8% fall in the UK as a whole.



What next?

The North East has good internal and external transport connectivity, with high usage of public transport and a diverse port and airport offering. Whilst public expenditure on transport per head in the North East has increased since 2014, this still lags behind the national position and, as expenditure has increased more rapidly elsewhere, the gap is widening.

In terms of developing the evidence base in relation to transport connectivity, our key priorities are:

- Collating and analysing the data to inform the Regional Transport Plan
- Exploring how the massive increase in data availability (for example, from sensors) can be best used to increase our planning, delivery and maintenance of transport infrastructure and services and to stimulate business growth and innovation.

Priorities for programme delivery include:

- Ensuring effective delivery of current investment programmes, including the upgrading of Metro infrastructure
- Securing additional investment into the region, including through the Transforming Cities Fund, and to improve external connectivity
- Influencing upgrade of the East Coast Mainline between Newcastle and York, including diversionary routes, so there is sufficient resilience and capacity when Northern Powerhouse Rail and Highspeed 2 trains use the route from 2033
- Developing a new Regional Transport Plan and a pipeline of future priority projects for investment.

Investment and infrastructure

Why is this important?

Infrastructure helps enable economic growth by providing premises for growing businesses and homes for workers. Investment is required to help deliver this infrastructure and other regional priorities.

What are the key findings from the data?

- There were 8.1 net additional dwellings per 1,000 dwellings in the North East LEP area in 2017/18. This was lower than the England excluding London rate but was an improvement on 2014/15 with the North East LEP area having gone from 79% of the England excluding London rate to 87%
- The North East has a comparable volume of floor space per adult to England excluding London. However, its rateable value is lower. There has been no change in these measures between 2014/15 and 2015/16 (the latest available data)
- There are fewer major development planning applications approved per adult in our area than across England excluding London. The rates for the North East and England excluding London are both the same as in 2013/14.
- There have been improvements in access to superfast broadband, with six of the seven local authorities in the North East LEP area, now above the English average in terms of the proportion of premises with access. Access to 4G varies across our area.

Investment and infrastructure in the North East LEP economy

Indicator	Most recent data	Change since 2014	North East as % of England excl. London	Performance improved compared with England excl. London
Net additional dwellings per 1,000 dwellings	8.1 (2017/18)	Increased by 2.4 net additional dwellings per 1,000 dwellings	87	Yes - gap closing
Business floorspace sq.m per adult	12.6 (2015/16)	No change	99	No change
Rateable value of business floorspace per sq.m	£58 (2015/16)	No change	89	No change
Major development planning applications approved per 10,000 adults	2.6 (July 2017 to June 2018)	No change	85	No change
Proportion of premises with superfast broadband (30Mbit/s+) services available	North East LEP local authorities 91%-98% (Sep 2018)	Increases varying from 1 to 4 percentage points (May 2017)	Not available	Not available
Proportion of indoor premises receiving 4G mobile coverage from all operators	North East LEP local authorities 71-91% (2018)	Increases varying from 3 to 28 percentage points (Jul 2017)	Not available	Not available

Sources: Housebuilding; new build dwellings (MHCLG), Business floorspace and rateable value (VOA), Planning decisions (MHCLG) and Connected Nations (Ofcom)
 Notes: 1. To ensure that seasonal factors are not affecting comparison, the same time periods are used for both the most recent year and the 2014 benchmark year for each indicator. For example, the most recent Planning decisions data is for the period July 2017 to June 2018 - so July 2013 to June 2014 is used as the comparator.
 2. Data on digital connectivity are not available for LEPs, so range for the 7 local authorities within North East LEP area is provided. Consistent time series data is only available for the period from 2017.

Wider commentary

Housing

The rate of housing starts in the North East LEP area (6.5 per 1,000 dwellings) was below that of England excluding London (6.9 per 1,000 dwellings) in 2017/18, but the gap has closed since 2014/15 (when the rates were 5.3 and 6.0 per 1,000 dwellings). There were 6.0 housing completions per 1,000 existing dwellings in the North East LEP area in 2017/18. This is below the England excluding London rate (6.7 per 1,000 existing dwellings).

The North East LEP rate has increased since 2014/15 (from 5.4) - but has been overtaken by the England excluding London rate (which was 5.3 in 2014/15). In 2017/18, there were 7,362 net additional dwellings in the North East LEP area. As a rate this was below the figure for England excluding London (8.1 per 1,000 dwellings compared to 9.3). Although the rates had improved for both areas since 2014/15, the North East rate was 42% higher compared to an increase for England excluding London of 29%, meaning the gap has closed on this measure.



Future investment in economic assets and infrastructure

Analysis of the National Infrastructure and Construction Pipeline by the Infrastructure and Projects Authority (2018) has identified that:

- There will be an annual per capita investment in infrastructure in the North East region of £1,013 between 2018/19 and 2020/21
- This is the second highest figure among the nine English regions, behind the South West (£1,105)
- However, only 26% of this planned North East investment is from central and local government, an annual per capita value of £262. This is the lowest proportion and value of any English region
- More positively, the North East has a projected annual per capita investment from private sources of £751 during this period, second only to the South West (£784).



North East Enterprise Zones



North East Enterprise Zones were created to support economic growth by developing sites with key attributes to help businesses start-up, grow and expand.

Since their initial launch in 2012, the sites have attracted businesses and investors keen to take advantage of the generous financial incentives on offer, as well as the strategic locations available for development.

 21 sites

 296 hectares of land

 Will deliver over 750,000 sq.m of new workspace



Sources: Housebuilding statistics (MHCLG), Net additional dwellings (MHCLG), Analysis of National Infrastructure and Construction Pipeline (IPA)

Fixed broadband coverage, local authority areas within North East LEP area, North East LEP and England excluding London, 2018

	% of premises with superfast broadband (30Mbit/s+) services available	% of premises with full fibre broadband services available	% of premises unable to receive download speed of 10Mbit/s+
North Tyneside	98.1	0.5	0.8
South Tyneside	98.1	0.3	0.3
Newcastle upon Tyne	97.1	6.9	0.5
Sunderland	96.9	0.4	0.8
Gateshead	96.2	1.5	1.0
North East LEP area	95.0	1.9	1.5
England exc London	94.1	5.1	1.9
County Durham	92.6	1.1	2.0
Northumberland	91.3	1.9	3.5

Source: Connected nations (Ofcom)

Mobile coverage (% of indoor premises receiving coverage from all operators), local authority areas within North East LEP area, urban and rural areas in England and England, 2018

	Voice	Data	4G
Newcastle upon Tyne	99	100	91
Gateshead	99	100	86
North Tyneside	97	100	89
England Urban	97	100	83
South Tyneside	97	100	77
Sunderland	96	100	85
England	93	98	78
County Durham	88	98	71
Northumberland	88	95	74
England Rural	67	89	42

Source: Connected nations (Ofcom) rounded to the nearest percentage point

Note: There are four UK operators: Telefónica UK (O2), EE (formerly T-Mobile and Orange), Vodafone and 3 (Hutchison 3G UK Limited)

Digital connectivity

Individuals and businesses increasingly rely on access to high quality fixed-line and mobile communications. Ofcom publish data on access to communications services. Although fixed broadband data at a LEP level can be calculated from the Ofcom release this is not true for mobile data. In addition, sub-regional variations make it important to present data for the seven North East local authority areas.

In relation to fixed broadband coverage:

- The majority of premises have access to superfast broadband - 95% in the LEP area as a whole. This is higher than for England excluding London (94%) and ranges from 91% in Northumberland to 98% in North and South Tyneside.
- Only 2% of premises in the area have access to full fibre broadband, compared to 5% in England excluding London, with only Newcastle (7%) having a higher percentage
- Only a few premises within our area (1.5%) are unable to receive a download speed of 10 Mbit per second with only Northumberland (3.5%) performing noticeably worse than England excluding London (1.9%) on this measure.

Looking at mobile coverage:

- The proportion of premises that are able to receive voice signal from all four operators ranges from 88% in Northumberland to 99% in Newcastle and Gateshead
- The proportion of premises that are able to receive a data signal from all four operators ranges from 95% in Northumberland to 100% (to the nearest 1%) in the five Tyne and Wear local authorities
- 4G is particularly important for businesses due to the increase of usage of cloud-based software and teleconferencing. The proportion of premises that are able to receive a 4G signal from all four operators has a much wider range than the other mobile indicators - from 71% in County Durham to 91% in Newcastle.

Across all of the mobile coverage, a clear pattern emerges with five of the seven local authorities performing better than England as a whole. This reflects a wider national trend of rural areas having lower rates of coverage than urban areas. Those with underprovision - County Durham and Northumberland - are the two more rural authorities in our area but both perform much better than rural areas as a whole across England.



Source: Connected nations (Ofcom)



What next?

The Strategic Economic Plan sets out a plan for maximising investment into the North East, including around the development of infrastructure. Whilst some of the indicators on this are positive, especially around digital connectivity and future investment, the North East still lags on many indicators.

In terms of the evidence base, our key priorities are:

- To develop our understanding of the North East property market, with a focus on identifying what current and future needs are not being met and how these can be overcome
 - To develop the evidence base required to develop a pipeline of regional priority projects for investment
 - Ongoing horizon scanning for potential funds to help maximise investment into the region and to improve access to finance.
- Priorities for programme delivery include:
- Ensuring we deliver existing investment and infrastructure project as planned
 - Accelerating the development of Enterprise Zone sites as these will be key assets for the region
 - Developing a pipeline of regional priority projects for investment
 - Securing further investment into the region.

Section 4

What makes the
North East competitive



Section 4

What makes the North East competitive

Introduction

The European Union Regional Competitiveness Index 2016 defines regional competitiveness as "the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work."

This definition aims to balance the goals of business success with those of personal well-being over both the short and long term.

Section 3 outlines our performance across the North East Strategic Economic Plan's programmes of delivery. Many of the indicators considered there also contribute to our competitiveness and this section builds on these further.

In this section, we assess the North East's competitiveness across a range of different dimensions that contribute to regional competitiveness including:

- Our innovation and creativity
- The structure of our economy and how businesses are operating
- The extent to which we make use of new technologies
- The skills and capabilities of our people and how effectively we make use of this resource
- The size of the market businesses can serve from the North East
- The transparency and accountability of our institutions
- The quality of life the North East offers our residents, with this helping attract and retain both individuals and businesses.

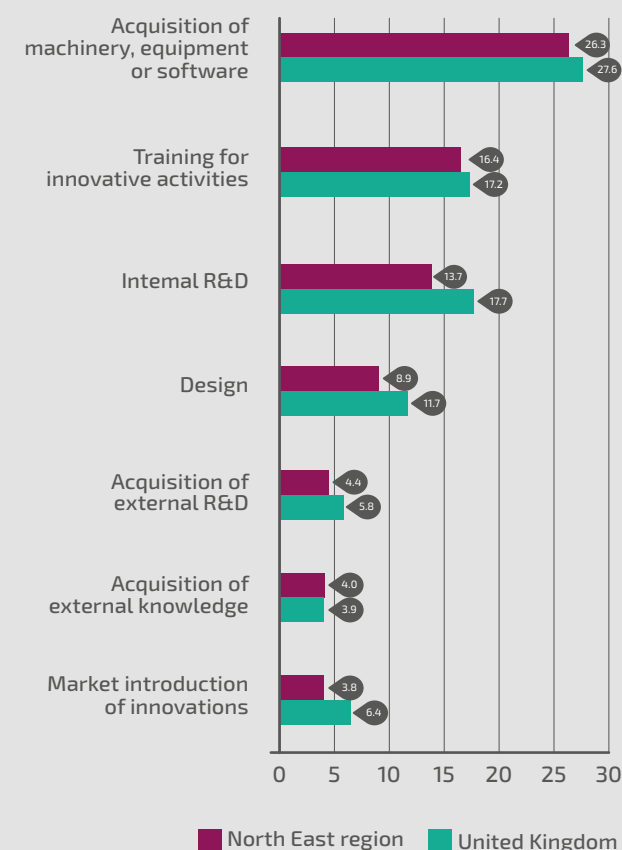
Innovation and creativity

Business engagement in innovation activities

Innovation is a key source of productivity and competitive advantage. 42% of North East businesses with 10 or more employees were innovation active between 2014 and 2016, with businesses that are innovation active being more likely to be exporting and more likely to employ graduates.

Looking at innovation in more detail, the main types of innovation activity undertaken by North East businesses between 2014 and 2016 were the acquisition of machinery, equipment or software for innovation, training for innovative activities and internal R&D.

Proportion (%) of businesses engaging in various innovation activities, North East region and UK, 2014 to 2016



Source: UK Innovation Survey 2014 to 2016 (BEIS)a

Businesses in the North East region were also asked about their engagement in wider innovation activities.

19% Had adopted new business practices

14% Had adopted new methods of organising work responsibilities

9% Had adopted new methods of organising external relationships

10% Had made changes to marketing concepts or strategies

Whilst this engagement in wider innovation activities is positive, it is worth noting that a smaller proportion of businesses in the North East than in the UK as a whole had engaged in each of these types of wider innovation activity. In addition, the North East is the English region with the lowest proportion of businesses engaging in each of these types of innovation activity except 'adopting new methods of organising external relationships' where the North West is lower.

A key impact of the innovation activities being undertaken by North East companies is on turnover. Between 2014 and 2016:

7% of turnover was from goods or services that were 'new to market'

11% of turnover was from goods or services that were 'new to business'

12% of turnover was from goods or services that were 'significantly improved' due to innovation

Again, whilst these are positive findings, a smaller proportion of turnover in the North East than across the UK was from goods and services that were 'new to market', 'new to business' or 'significantly improved' due to innovation.

The North East had the lowest proportion of turnover coming from these three sources of all English regions. In particular, the proportion of turnover from 'new to market' goods and services was double the North East rate in the best performing English regions (East Midlands, London and South East).

Other innovation activities

Earlier in this report, we highlighted the North East region's success in securing funding from the UK Research Councils. The majority of this was secured by the region's universities. Our universities also make a number of other important contributions to innovation in the region. One of these is the creation of spinouts and other businesses.

Since 2000, the four universities within the North East LEP area have generated:

86 spinouts (based on university IP)

11 start-ups (formed by university staff and students but not based on university IP)

9 others (such as not-for-profit organisations or student businesses)

Source: Spinouts UK

The North East is also home to a number of other innovation assets.

Catapult Centres

- Digital
- Energy Systems
- High Value Manufacturing
- Offshore Renewable
- Satellite Applications

National Innovation Centres

- National Innovation Centre for Ageing
- National Innovation Centre for Data

The catapults and national centres for innovation are central parts of the government's approach to boosting innovation activity across the UK.

Although they operate in different ways, in both cases they aim to work with businesses and researchers to further develop and deploy new ideas which will grow businesses in areas where the UK has a competitive advantage.

The presence of these facilities in the North East benefits our local businesses by providing easier access to nationally significant support infrastructure, improving global links for key areas and both reflects and raises wider awareness of areas where the North East is specifically well placed to contribute.

In addition to the presence of the catapults and the national innovation centres, the North East is home to a wide range of innovation assets in the form of test and demonstration facilities, supporting infrastructure, networks and research capabilities. A number of these assets are located

in our two innovation clusters at NETPark in County Durham and the Newcastle Helix site.

Of these a number of diverse projects have received investment from the North East LEP including:

- National Formulation Centre (CPI)
- The Biosphere
- Hope Street Xchange
- Low Carbon Energy Centre
- PROTO: The Emerging Technology Centre
- National Centre for Healthcare Photonics (CPI)
- Medicines Manufacture and Medical Technologies Innovation Centre (CPI)
- 5G Testbed
- Centre for Innovation and Growth
- Tyne Subsea and hyperbaric chamber
- Explorer Building (NETPark)



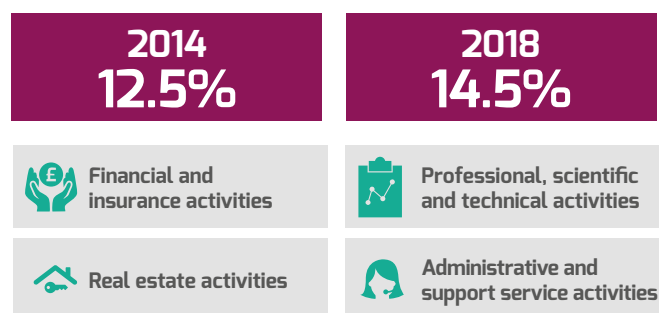
Business sophistication

The business practices being utilised by a firm – i.e. the specific strategies and operations they adopt and their wider networks – are critical to their competitiveness. These are particularly important in more developed economies such as the UK where there is limited scope to drive productivity growth and improved competitiveness from more basic forms of competitiveness such as skills and infrastructure.

Limited data is available for the region on elements of business sophistication. One area where data is available is in relation to the availability of business support services that can help support firms to improve their business practices – including financial and insurance activities, professional scientific and technical activities, real estate activities and administrative and support service activities.

Employment in these business services is growing in the North East LEP area, from 12.5% in 2014 to 14.5% in 2018.

Employment in selected business services, North East LEP area, 2014 and 2018

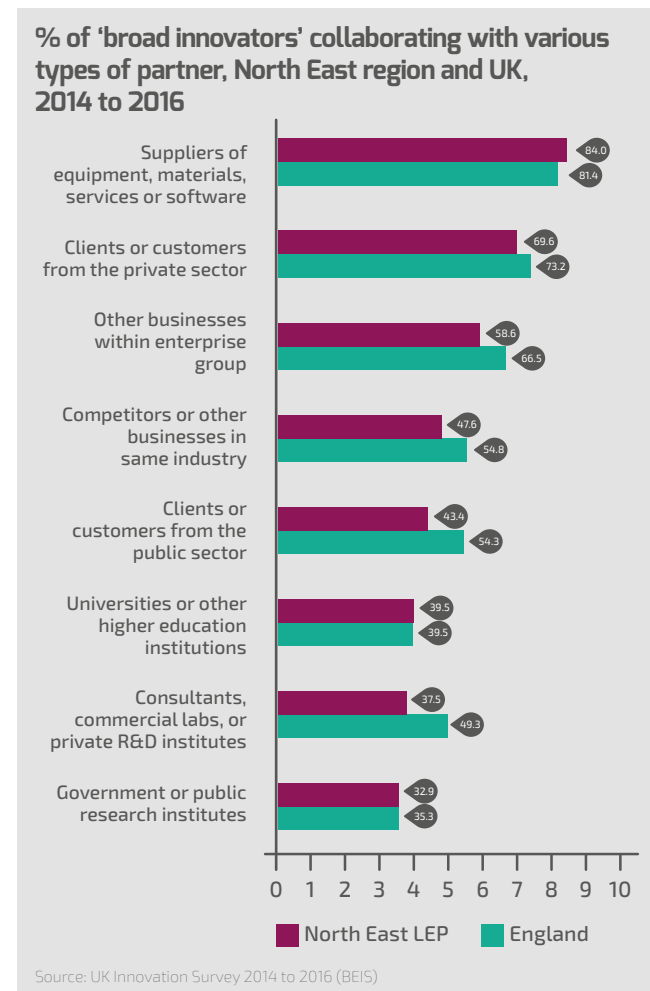


A higher proportion of employment in the North East LEP than in England excluding London is in these business services and the region has experienced faster growth than England excluding London between 2014 and 2018. However, the proportion of GVA accounted for by this sector is below the England excluding London rate (25% compared to 29%), with the proportion remaining constant between 2014 and 2017.

Not all of these business services will be supporting other businesses within the North East economy. For example, the North East has a wide range of professional service businesses (such as accountancy and legal firms) that serve national and international markets. In addition, the region has been successful in attracting contact centres, back office and shared service centres. No data is available on the extent to which local businesses

make use of these services but their presence is a potential source of competitive advantage.

Another key element of business sophistication is collaboration and networking between businesses. For example, innovation can be a complex process and often requires businesses to work with each other or to seek external information, advice or support. Virtually all of the businesses in the North East that were 'broad innovators' between 2014 and 2016 had engaged in external collaborations.



Compared to the UK as a whole, businesses in the North East region were:

- More likely to collaborate with suppliers
- Equally likely to collaborate with universities
- Less likely to collaborate with clients, other businesses in same group, competitors or consultants and research institutes.

Another source of business competitiveness is having clusters of activity where businesses and their suppliers plus other enabling services are in close physical proximity. This encourages

competition, collaboration, innovation and spillovers and reduces costs and risks. One way to look at this is to examine the sectors that are overrepresented within a region and to identify the extent to which these are interconnected. Location quotients measure the geographic concentration of industries.

- A location quotient of 1 means that the area has the same share of employment in the industry as its share of national employment.

- A value greater than 1 means the region has a higher share of employment in the industry than its share of national employment. For example, if an industry accounted for 3% of employment in England excluding London but 6% in the North East LEP area, it would have a location quotient of 2.

The table opposite sets out all of the industries where the location quotient is 1.2 or above (i.e. the industry is at least 20% overrepresented in the North East LEP area compared to England excluding London) and it employs at least 250. Some clear patterns emerge including:

- A concentration of advanced manufacturing industries and their supply chains, with particular concentrations in relation to automotive and other vehicles, pharmaceuticals and chemicals and offshore and subsea technologies

- A range of activities in relation to energy, transport and construction.

These are reflected in the sectoral areas of strategic importance (advanced manufacturing and energy) and enabling services (transport and storage and construction) highlighted in the North East Strategic Economic Plan.

The Strategic Economic Plan also identifies a number of other priorities including health and life sciences, digital, education and financial, professional and business services. Health and life sciences and digital both reflect wider ecosystems with, for example, research being undertaken in the North East's universities and NHS being key strengths and we would not expect these to be highlighted by this type of analysis (or, in the cases of health and life sciences and digital, where the way industries are classified can act as a barrier to identifying in this way) The North East Local Enterprise Partnership has commissioned research into the sectors, assets and competencies in the North East, with a particular focus on those identified in the Strategic Economic Plan, and will publish this later in the year.

North East industrial specialisms, 2017

	Employment in North East LEP area	Location quotient (North East / England excluding London)
Mining of hard coal	250	21.60
Manufacture of batteries and accumulators	500	10.37
Transport via pipeline	500	8.64
Manufacture of railway locomotives and rolling stock	1,000	5.76
Satellite telecommunications activities	800	5.18
Demolition and site preparation	3,000	4.57
Sawmilling and planing of wood	700	3.63
Manufacture of parts and accessories for motor vehicles	6,000	3.17
Compulsory social security activities	4,000	3.14
Manufacture of pharmaceutical preparations	3,000	3.11
Manufacture of wiring and wiring devices	1,250	2.95
Forging, pressing, stamping and roll-forming of metal; powder metallurgy	2,000	2.88
Manufacture of motor vehicles	8,000	2.88
Landscape service activities	7,000	2.79
Activities of call centres	6,000	2.78
Manufacture of other special-purpose machinery	3,000	2.51
Manufacture of paints, varnishes and similar coatings, printing ink and mastics	1,250	2.49
Manufacture of electric lighting equipment	1,250	2.31
Remediation activities and other waste management services	800	2.30
Other human resources provision	1,000	2.16
Electric power generation, transmission and distribution	5,000	2.03
Administration of the State and the economic and social policy of the community	37,000	1.99
Manufacture of agricultural and forestry machinery	450	1.94
Non-specialised wholesale trade	4,500	1.91
Manufacture of electronic components and boards	1,250	1.91
Water collection, treatment and supply	2,000	1.79
Waste treatment and disposal	2,500	1.75
Other passenger land transport	9,000	1.72
Repair of fabricated metal products, machinery and equipment	4,500	1.67
Development of building projects	4,000	1.65

Source: Business Register and Employment Survey (BRES) (Nomis)
Notes: 1. Based on three-digit Standard Industrial Classifications 2. Includes all industries with a location quotient of 1.2 or above and employing 250 or more in the North East LEP area

	Employment in North East LEP area	Location quotient (North East / England excluding London)
Activities of other membership organisations	8,000	1.65
Renting and leasing of personal and household goods	800	1.60
Beverage serving activities	26,000	1.56
Manufacture of products of wood, cork, straw and plaiting materials	3,000	1.52
Materials recovery	1,000	1.52
Manufacture of structural metal products	3,500	1.51
Treatment and coating of metals; machining	6,000	1.48
Creative, arts and entertainment activities	2,500	1.47
Combined facilities support activities	7,000	1.46
Manufacture of tanks, reservoirs and containers of metal	450	1.46
Other telecommunications activities	6,000	1.45
Business support service activities not elsewhere classified	13,000	1.45
Installation of industrial machinery and equipment	1,000	1.44
Passenger air transport	1,750	1.42
Manufacture of other general-purpose machinery	3,500	1.40
Manufacture of glass and glass products	900	1.37
Higher education	17,000	1.33
Manufacture of general purpose machinery	2,500	1.32
Social work activities without accommodation for the elderly and disabled	11,000	1.31
Manufacture of other chemical products	800	1.30
Manufacture of basic pharmaceutical products	250	1.30
Gambling and betting activities	3,000	1.30
Cutting, shaping and finishing of stone	300	1.30
Manufacture of other fabricated metal products	2,250	1.30
Manufacture of computers and peripheral equipment	300	1.30
Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	1,250	1.25
Monetary intermediation	9,000	1.24
Retail sale in non-specialised stores	44,000	1.23
Other education	8,000	1.22
Construction of residential and non-residential buildings	12,000	1.22



Sources: Micro-businesses Britain Survey (ERC), Internet Users (ONS), ICT usage and e-commerce (Eurostat)

Technological readiness

Technology is an increasingly important driver of productivity and competitiveness.

Technological readiness is about the openness within a country or region to adopting new technologies.

For businesses, it is critical that they are not only open to new technologies but also have the ability to apply them in a way that allows them to develop new products or services or to improve existing products, to open up new markets or to drive improvements in processes.

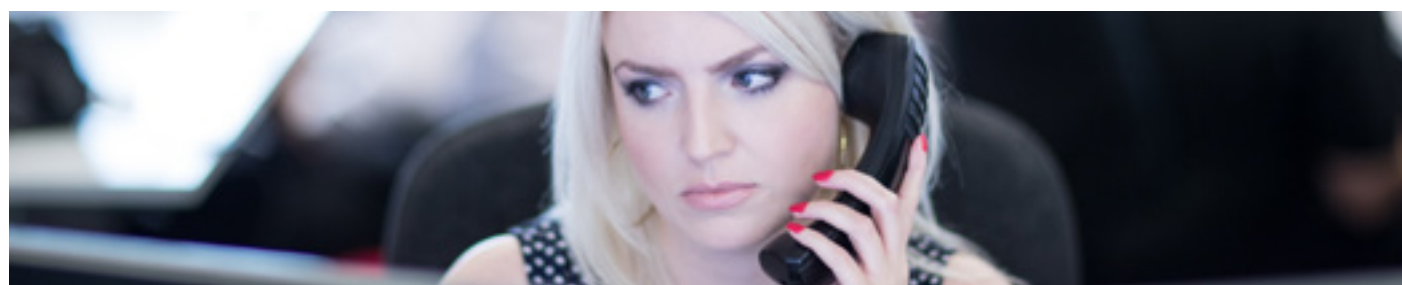
The North East LEP area benefits from being in one of the most highly ranked countries in the world for technological readiness.

World Economic Forum Global Competitiveness Index 2017/18.

Ranks the technological readiness of 137 countries



Sources: Global Competitiveness Index 2017/18 (World Economic Forum)



Business use of technology

Data on the use of technologies by businesses at a regional level is limited.

In the recent Micro-businesses Britain Survey, the Enterprise Research Centre (ERC) has found that on average micro-businesses were using 1.7 digital technologies from a list of seven – customer relationship management (CRM) systems, e-commerce, web-based accounting software, computer-aided design software, cloud computing, artificial intelligence and machine learning technologies.

- The North East region slightly outperforms the national average, with micro-businesses in our region using 1.8 digital technologies on average
- Only London has a higher rate at 2.0, with the East of England and East Midlands having the same rate as the North East.

Household use of technology

In 2018, 87% of households in North East LEP area had used internet in the last three months. This is a similar proportion to England excluding London (90%).

Looking at usage in depth, in the North East region in 2017:

- 78% of people aged 16-74 used the internet daily
- 73% of people aged 16-74 had participated in social networks
- 64% of people aged 16-74 had used online banking
- 76% of people aged 16-74 had used e-commerce.

Generally, regions in the UK had amongst the highest rates of technology usage across the European Union.

Human capital

The Organisation for Economic Co-operation and Development (OECD, 2001) defines human capital as "the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas in market circumstances."

It is a useful measure as research has shown that countries and regions with higher levels of human capital have greater potential for economic growth, meaning it is a good indicator of an economy's future well-being.

The total value of the North East region's human capital is £680 billion. This has grown by £26 billion (3.9%) since 2014.

As with many other measures in this report, considering human capital per head helps compare our performance with other regions.

The North East is the English region with the lowest human capital per head for all age bands except aged 20-24 and aged 25-29

Key factors that determine the human capital in an area include the:

- Size and structure of the population

- Health of the population, with this determines their ability to engage in economic activities
- Skills and capabilities of the population
- Wage levels within a region.

Population

As discussed earlier in this report, the North East LEP area has a population of 1.97 million, with a similar proportion of working age (aged 16 to 64) as England excluding London.

However, the North East has an older population structure, with a smaller proportion aged under 16 and a higher proportion aged 50 and over than England excluding London. Going forward, this will mean the working age population will be a smaller proportion of the total population in the North East LEP area than nationally.

This could be offset either by ensuring the region has a higher proportion of working age people active in the labour market, encouraging people to stay engaged in the labour market after 65 or attracting individuals and families to relocate to the region.

Health

Health is an important determinant of human capital, with those with poor health being less

able to engage in the labour market.

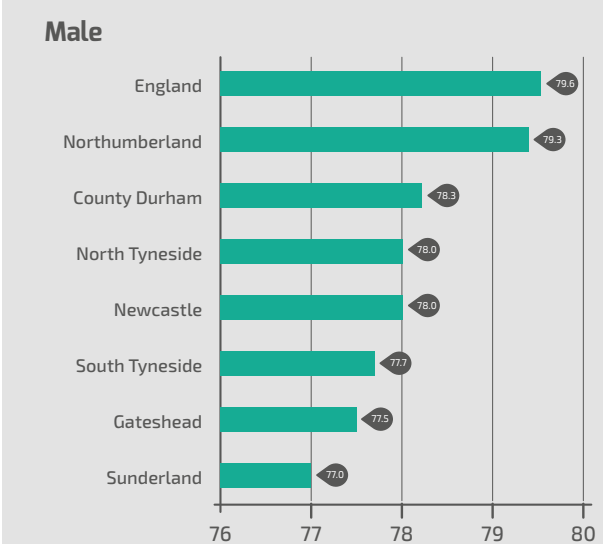
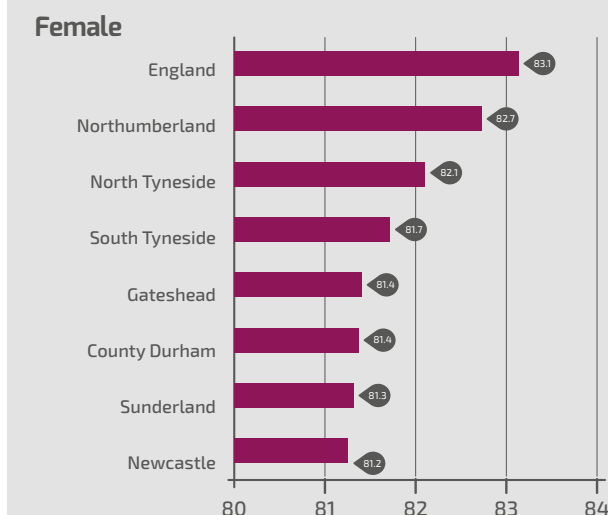
In the North East LEP area, over a quarter (27.5%) of those that are not participating in the labour market have a long-term sickness or disability.

This is a higher proportion than across England excluding London as a whole (22.9%).

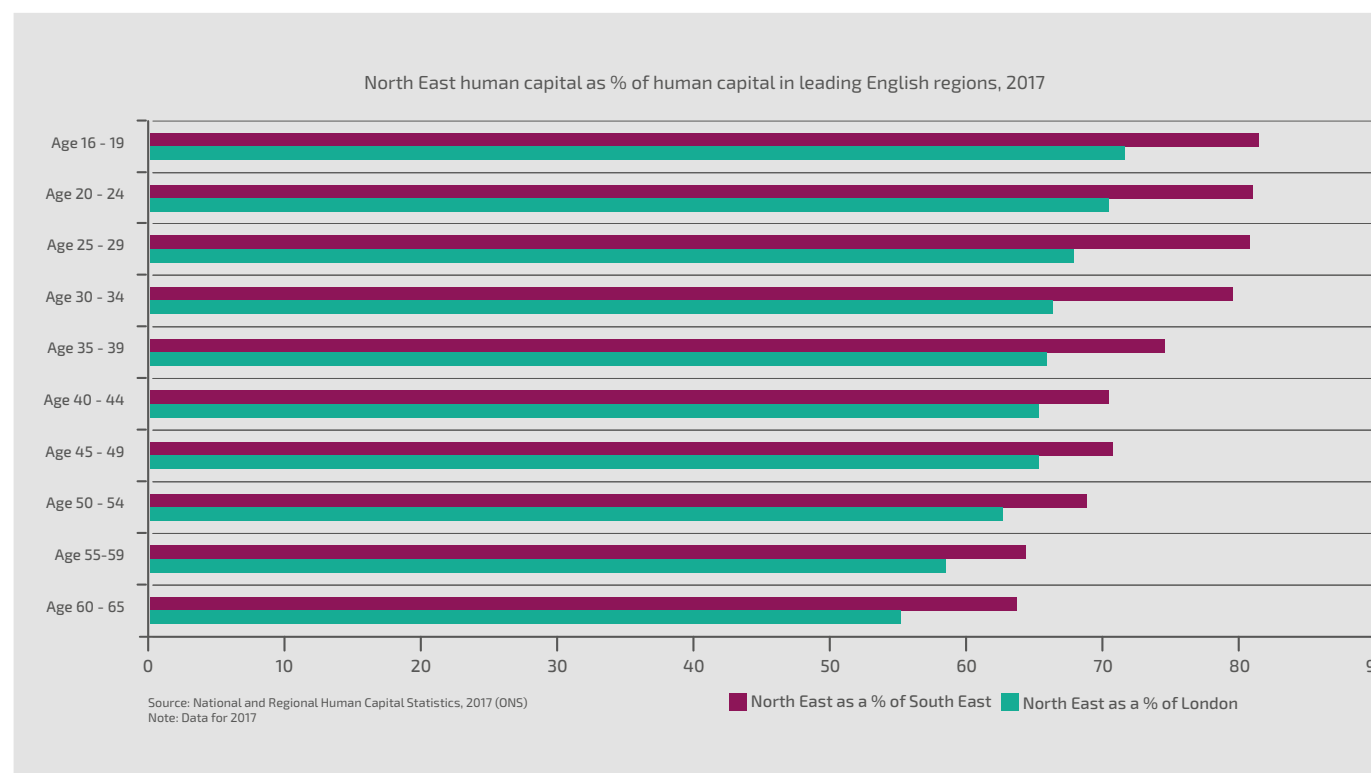
North East tends to have poor health outcomes than England as a whole (data is not available for England excluding London).

For example, life expectancy at birth is slightly lower in each of the seven local authority areas in the North East LEP area than England as a whole, for both females and males.

Life expectancy at birth, North East LEP area local authorities and England, 2015 to 2017



Source: Life expectancy at birth and age 65 by sex, UK, 2001 to 2003 to 2015 to 2017 (ONS)



Sources: Population estimates (Nomis), Annual Population Survey (Nomis)

Skills and capabilities of population

Educational outcomes

The North East has good educational outcomes in relation to both attainment and destinations.

Attainment at the end of Key Stage 4 (GCSEs) is similar to England excluding London. In 2016/17, there were over 18,200 pupils in the North East at this stage. 96% were entered for English and Maths GCSEs, with 37% achieving a strong pass (Grades 9 to 5) and 59% achieving a standard pass (Grades 9 to 4). These compare to 89%, 38% and 58% in England excluding London.

88% of students at the end of Key Stage 5 (aged 18) go into a sustained destination, a similar proportion to England as a whole (89%). Students in the North East LEP area are:

- More likely to go into an apprenticeship (10% compared to 6%)
- Less likely to go into employment (18% compared to 22%).

Young people in our region have a similar likelihood of going into education as those in England as a whole (60% compared to 61%).

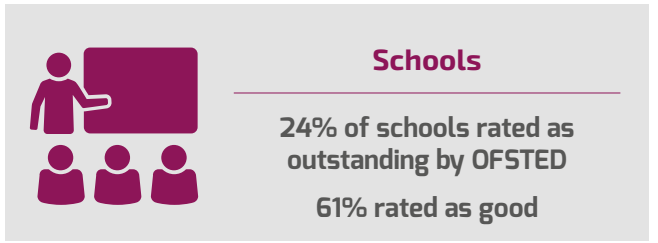
They are slightly more likely to go into further education (9% compared to 7%) and whilst the overall proportion going into higher education is similar (49% compared to 50%), a smaller proportion get into the top third of universities nationally (14% compared to 17%).

Quality and relevance of education

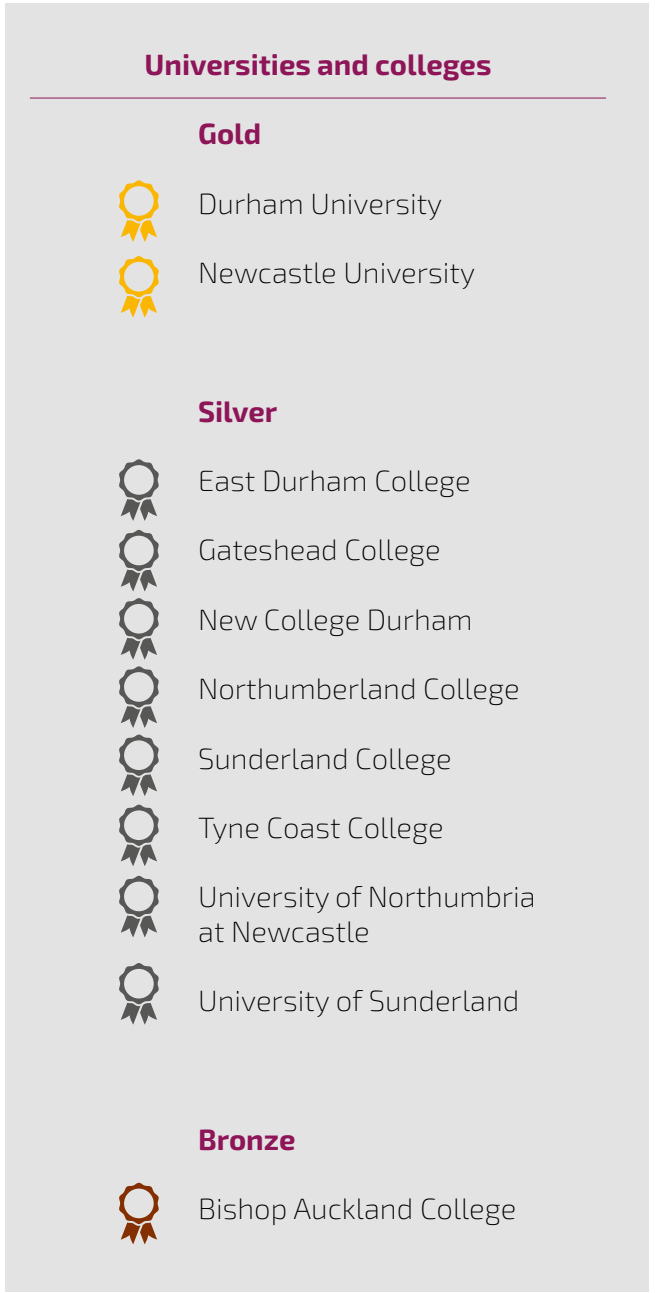
Developing a region's human capital requires having good quality educational institutions that are delivering provision that meets the needs of employers.

The Office for Standards in Education, Children's Services and Skills (OFSTED) inspects services providing education and skills for learners of all ages and inspect and regulate services that care for children and young people.

In relation to the overall effectiveness of schools, the most recent data from OFSTED show that 24% of North East LEP schools have been rated as outstanding (compared to 19% across England excluding London), with a further 61% rated as good (compared to 66%).



The Teaching Excellence and Student Outcomes Framework (TEF) assesses excellence in teaching at universities and colleges and how well they ensure excellent outcomes for their students. All four universities in the North East have been assessed, along with seven of our colleges.



In 2017/18, the most common subjects being studied at the four universities in the North East LEP were:

Undergraduate

Business and administrative studies	10,785
Social studies	7,450
Subjects allied to medicine	7,245
Biological sciences	6,755
Languages	4,435

Postgraduate

Business and administrative studies	4,305
Education	2,275
Subjects allied to medicine	1,750
Engineering and technology	1,495
Social studies	1,300

Overall, the North East's four universities account for 4.6% of undergraduate students and 4.1% of postgraduate students in England.

- 7.5% of all architecture, building and planning undergraduates, 6.5% of language undergraduates, 6.3% of physical sciences undergraduates and 5.5% of all medicine and dentistry undergraduates in England are studying at a North East university
- 6.6% of computer science postgraduates, 6.4% of language postgraduates, 6.3% of agriculture and related subjects postgraduates and 5.6% of law postgraduates in England are studying at a North East university.

These subjects are closely aligned with the region's key sectors and areas of competitive advantage.

Wage levels

Average gross weekly wages of full-time workers in the North East LEP were £507.90 in 2018. This was lower than England as a whole and the other seven core city LEPs.

Whilst wage levels play an important part in determining the value of human capital within a region, they differ from the other factors in that they are set by the market.

As such, in considering approaches that can be taken to increase the human capital and competitiveness of the North East, there is less scope to influence wages than, for example, skills levels.



Labour market efficiency

Developing the human capital of a region will only have an impact on its competitiveness if the labour market in that region is operating effectively.

Unemployment

Unemployment is a key indicator of how effectively the available labour pool is being utilised. Generally, the UK has low unemployment rates reflecting both overall strong economic performance and a relatively efficient labour market. Within this, the North East tends to have a higher unemployment rate than the national average (for example, in 2018, unemployment was 4.8% in the North East LEP area, compared to 4.1% in England excluding London, meaning it is approximately 20% higher in the North East). However, there has been a significant decrease in unemployment in the North East since 2014, reflecting the improvements in economic conditions detailed throughout this report. Unemployment has decreased across all age groups during this period.

Gender equality

It is important that regions are taking advantage of as much of the human capital within their region as possible.

Where labour markets are not equal, the skills and capabilities of some individuals will be lost.

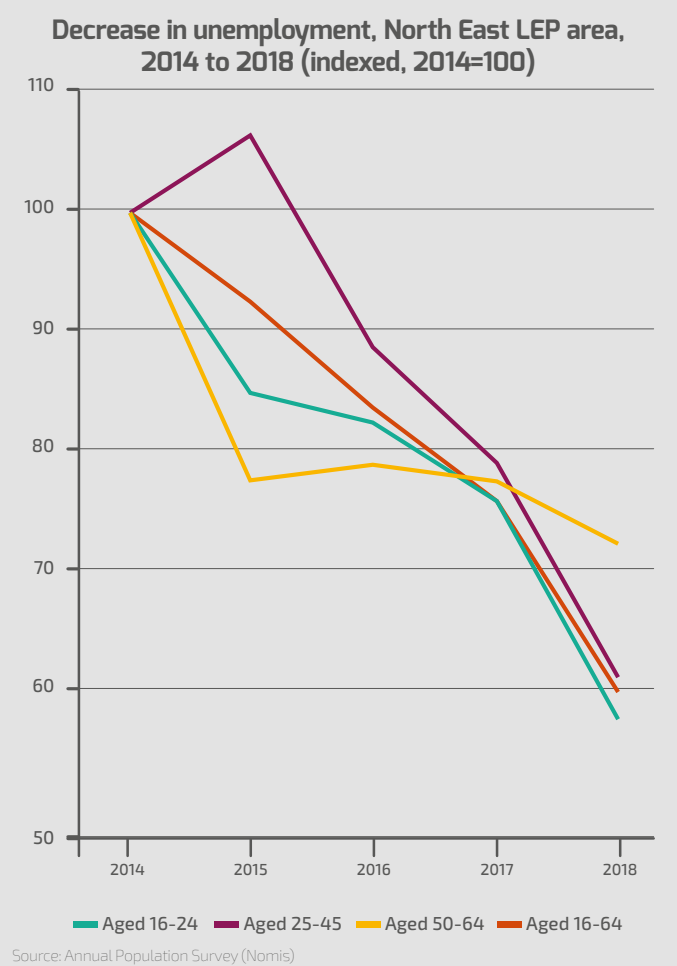
In the North East LEP area, females:

- Are less likely to be in employment than males
- Are less likely to be unemployed than males
- In full-time employment earn on average just 84% of their male counterparts.

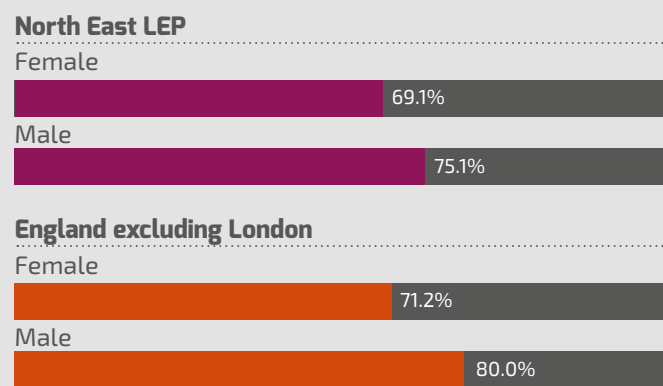
However, the gap between females and males is very similar in the North East LEP area to England excluding London, suggesting that the factors that are inhibiting greater gender equality in the labour market are national rather than local.

The exception to this is unemployment, where the unemployment rate is the same for both genders in England excluding London whilst there is a substantial difference between male and female unemployment in the North East.

The female unemployment rate in the North East is very similar to the national rate, whilst there is a large gap for males, suggesting the key to reducing North East unemployment to the national level is to reduce male unemployment.



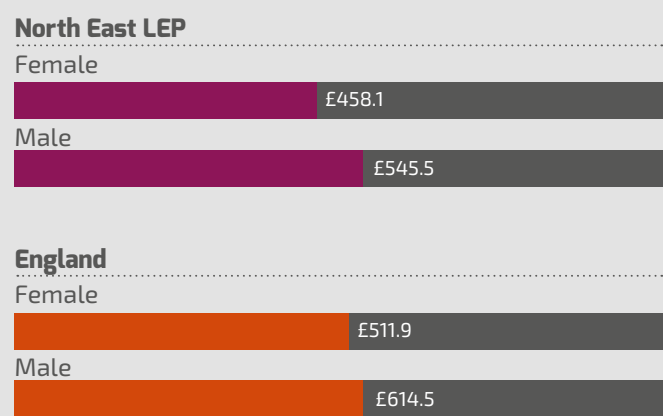
Employment rate (%) by gender, North East LEP and England excluding London, 2018



Unemployment rate (%) by gender, North East LEP and England excluding London, 2018



Average (median) gross weekly pay of full-time workers (£) by gender, North East LEP and England, 2018



Sources: Annual Population Survey (Nomis) and Annual Survey of Hours and Earnings (Nomis)

Labour productivity

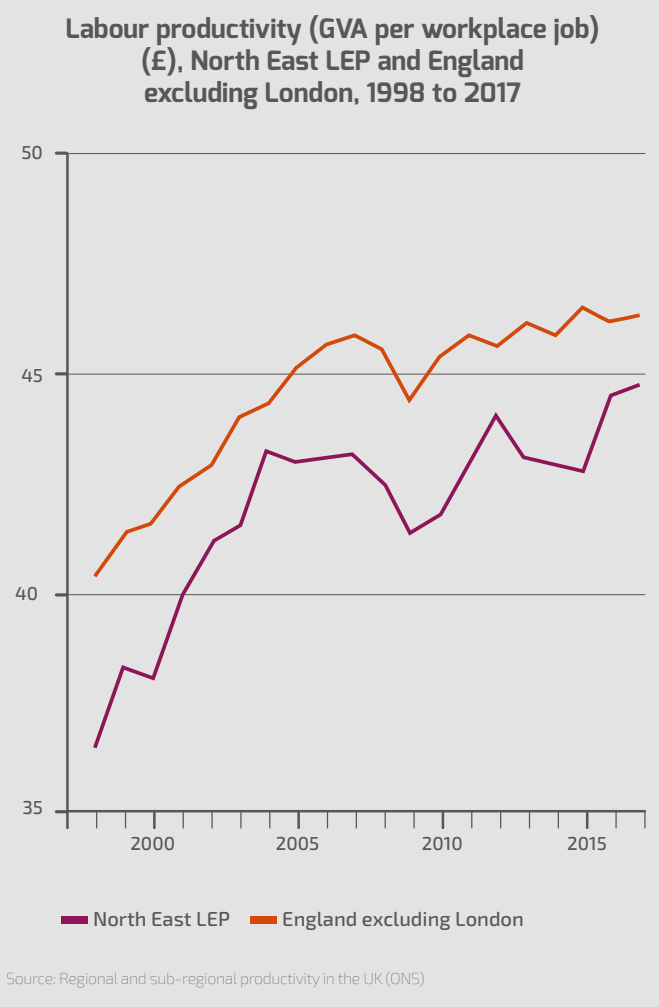
Labour productivity is a measure of the value of the goods and services produced by each unit of labour input (for example, per job, employee or hour worked).

Labour market efficiency helps ensure labour productivity by ensuring that employers are able to recruit individuals with the skills and capabilities they need.

More generally, labour market flexibility helps ensure employers are able to make best use of their workforce's skills and capabilities.

Economies with strong labour productivity growth tend to also experience high rates of economic growth and low inflation.

In 2017, the North East LEP area had a labour productivity of £44,700 per job, 4% below the equivalent result for England excluding London. The gap has narrowed since 2014.



Within the North East LEP area, the sectors with the highest labour productivity are:

Agriculture, mining, electricity, gas, water and waste

Financial and insurance activities

Information and communication

Manufacturing

Construction

In each case, the sector's labour market productivity was above the North East LEP average, with all other sectors having labour productivity below the North East LEP average.

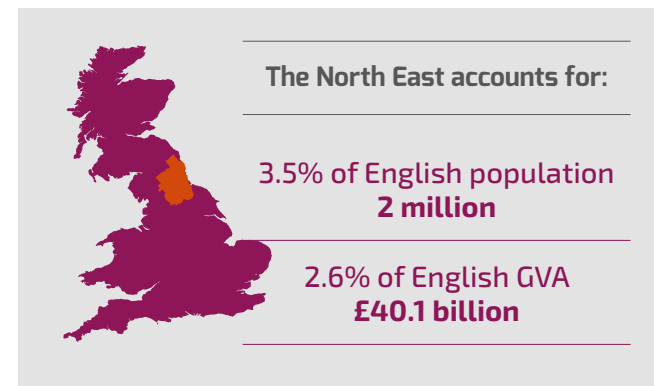
In addition, with the exception of manufacturing, labour productivity in each of these sectors was higher in the North East LEP area than in England excluding London.

Agriculture, mining, electricity, gas, water and waste productivity was around 40% higher in the North East LEP area than England excluding London and financial and insurance activities was around 20% higher.



Market size

Another factor underpinning the competitiveness of an economy is the size of the market businesses can serve. Larger markets allow businesses to exploit economies of scale. Whilst the size of local and national markets remain important, increasing global connections allow businesses to serve international markets.



In 2016, the combined disposable income of households in the North East was £31.0 billion in 2016. This is the amount of money available for spending or saving after tax. This is larger than

the disposable income available in the LEP areas of Liverpool City Region, Sheffield City Region and West of England (including Bristol).

On average, households in the North East region had a gross disposable income per head of £15,763.

Whilst this is only 85% of the England excluding London rate, this is offset by the lower cost of living.

Another key consideration is the extent to which businesses in the North East are engaging in other markets

62% of North East region businesses serve regional markets (within 100 miles)

45% serve markets elsewhere in the UK

17% serve EU markets

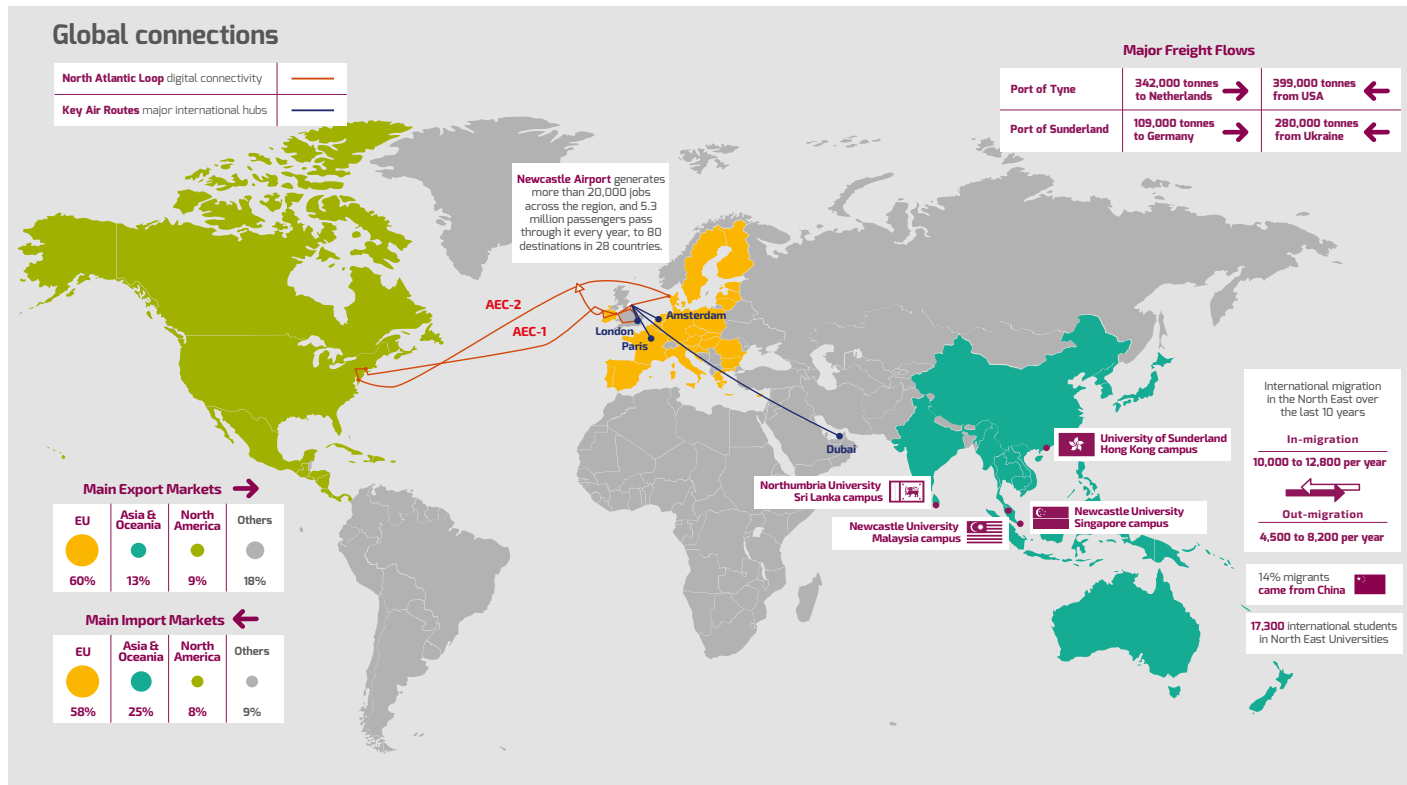
13% serve other international markets

North East businesses that are innovation active are 40% more likely to be serving the wider UK market and almost three times as likely to be serving the EU market than those that are not innovating.

20% of North East region businesses said 'entering a new market' was one of key factors that underpinned their drive to innovate between 2014 and 2016

Having strong air, rail, sea and road links and digital connectivity is critical to ensuring North East businesses are able to sell their goods and services outside the region. The map below shows some of the North East's most important global connections.

More generally, investment in infrastructure, including transport infrastructure is another key driver of productivity and competitiveness. As these are examined in depth in Section 3 they have not been revisited here.



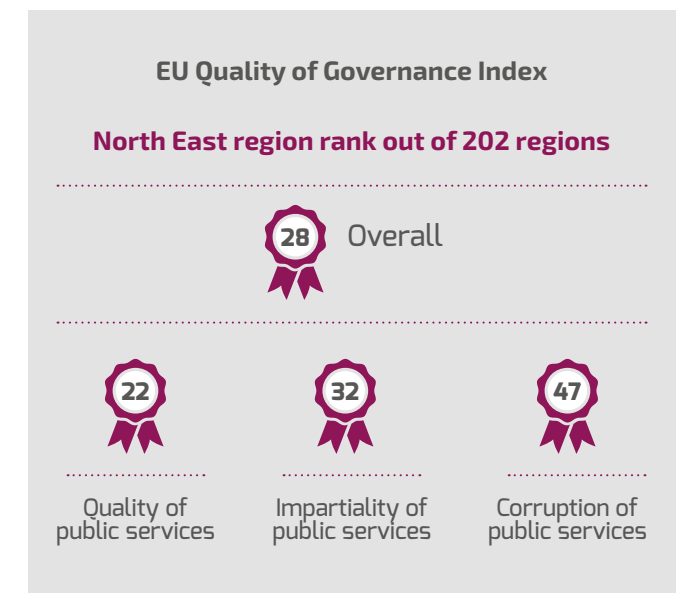
Sources: Population estimates (Nomis); Regional Gross Value Added (balanced approach) (ONS); Gross Disposable Household Income (GDHI) (Nomis); UK Innovation Survey 2014-2016 (BEIS); Regional Trade Statistics (HMRC); Port Statistics (DfT); Local Area Migration Indicators (ONS); Census 2011 (Nomis); Student numbers (HESA)

Transparency and accountability

Having strong institutions, an effective legal system and an absence of corruption are important prerequisites for a competitive economy.

The European Quality of Government Index (EQI) is based on a survey of perceptions and experiences with public sector corruption, along with the extent to which citizens believe various public sector services are impartially allocated and of good quality. In the most recent EQI in 2017, the North East region was ranked 28 out of 202 EU regions. Within the UK, only the West Midlands is ranked higher than the North East (ranked 27). Across Europe, the regions that were ranked higher than the North East were all in the Nordic countries (Denmark, Finland and Sweden), Germany or the Netherlands.

The North East performs well on all three pillars that make up the index (quality, impartiality and corruption). In particular, no region in the UK has a higher rank in the quality of public services than the North East.



Sources: European Quality of Government Index (EU), Rule of Law Index (World Justice Project)

More generally, the North East benefits from being part of the UK which performs well on a number of international rankings of good governance.

The UK is ranked 12th out of 126 countries in the World Justice Project's Rule of Law Index. This reflects a high ranking across all dimensions of the index:

Constraints on government powers	11th
Absence of corruption	11th
Open government	10th
Fundamental rights	11th
Order and security	21st
Regulatory enforcement	11th
Civil justice	18th
Criminal justice	9th

Another key measure of governance is the ease of doing business, with the UK being ranked 9th out of 190 countries in the World Bank's Doing Business 2019 report.

Despite ranking highly overall, the UK has a number of rankings on elements of doing business that whilst still high in a relative sense (with all except one in the top 20% internationally) are perhaps lower than might have been anticipated.

It will be important for the North East that the UK makes progress on these especially in relation to the ease of starting a business, getting credit and trading across borders.

Ease of doing business

UK rank out of 190 countries

- Overall: 9
- Starting a business: 19
- Dealing with construction permits: 17
- Getting electricity: 7
- Registering property: 42
- Getting credit: 32
- Protecting minority investors: 15
- Paying taxes: 23
- Trading across borders: 30
- Enforcing contracts: 32
- Resolving insolvency: 14

Source: Doing Business 2019 (World Bank)

Quality of life

Quality of life is an important factor in helping individuals decide where to live and work. Having a strong quality of life offer allows a region to attract and retain workers and, in turn, employers.

Quality of life does not determine the competitiveness of a region but is an important enabler.

Quality of life reflects a very diverse range of factors. Those presented here are just a small selection of issues that could be considered. Factors are considered here in relation to their contribution to quality of life but some will also have economic impacts (for example, as employers).

Personal wellbeing

When surveyed about their personal wellbeing, the vast majority of North East region residents report their:

- Life satisfaction, sense of the worth and happiness as being either high or very high
- Anxiety levels as being low or very low.

Residents of the North East region tend to report very similar levels of personal wellbeing as England as a whole. Data on England excluding London is not available.

However, it is notable that London is the worst performing English region on each of these measures.

As with all regions, there is variation in scores across the different local authority areas within the North East, although this is relatively limited.

Within the North East LEP area, County Durham has the highest average scores in relation to life satisfaction, sense of worth and happiness and the lowest average score for anxiety.

Newcastle has the lowest average scores in relation to life satisfaction and sense of worth and the highest average score in relation to

anxiety. Residents in South Tyneside were the least happy of the seven local authority areas.

The North East region's average scores for life satisfaction, sense of worth and happiness have increased since 2013/14, whilst the average score for anxiety has decreased. In each case, the improvement has been similar to that seen as the national level.

Average scores on key measures of personal wellbeing, 2017/18

	North East region	England
Life satisfaction	7.66	7.68
Worthwhile	7.88	7.88
Happy	7.48	7.52
Anxiety	2.92	2.90

Where the scores are:

- Life satisfaction, worthwhile and happy – low 0-4; medium 5-6; high 7-8; very high 9-10
- Anxiety – very low 0-1; low 2-3; medium 4-5; high 6-10

Cultural, heritage and natural environment

One of the key factors contributing to personal wellbeing in the North East is the wide range of cultural, heritage and natural environment assets in the region.

The National Heritage List for England is the official record of nationally designated heritage assets in England. The North East region has almost 14,000 assets – 3.5% of the total.

Nationally designated heritage assets in North East region

12,414 listed buildings	6 battlefields
1,397 scheduled monuments	1 protected wrecks
55 parks and gardens	2 World Heritage Sites

The North East is particularly overrepresented in scheduled monuments (with 7% in the North East), battlefields (13%) and World Heritage Sites with the North East having two of the 19 sites in England – Durham Castle and Cathedral (designated in 1986) and, as part of the Frontiers of the Roman Empire, Hadrian's Wall (initially designated in 1987, with some extensions in 2005 and 2008).

The North East has a diverse cultural offer including 35 Arts Council England National Portfolio Organisations:

- Amber Film & Photography Collective
- Ballet Lorent Limited
- Baltic Flour Mills Visual Arts Trust
- Beamish Museum
- Berwick Film & Media Arts Festival
- Bloodaxe Books Ltd
- Dance City
- Durham County Council
- Gem Arts
- Generator North East
- Helix Arts Ltd

National Youth Choirs of Great Britain

New Writing North

North East Theatre Trust Ltd

North Music Trust

Northern Print

Northern Stage (Theatrical Productions) Ltd

November Club

Open Clasp Theatre Company

The NewBridge Project

Queen's Hall Arts

Seven Stories, The National Centre for Children's Books

Sunderland Culture

The Bowes Museum

The Customs House

The Forge

The Lawnmowers Independent Theatre Company

The Maltings Berwick Trust Limited

TIN Arts

Tyne & Wear Archives & Museums

Tyneside Cinema

Unfolding Theatre

Vane Contemporary Art Limited

Woodhorn Charitable Trust

Workplace Foundation

Reflecting the varied offering in the North East, rates of participation in cultural activities are relatively high in the North East region with:

- 75% of adults surveyed in 2017/18 having engaged with the arts in the last 12 months
- 74% of adults having visited a heritage site in the last 12 months
- 57% of adults having visited a museum or gallery in the last 12 months.

A higher proportion of adults in the North East than in England visited both heritage sites and museums or galleries in this time period.

The North East had the highest proportion of adults visiting a museum or gallery of all English regions.

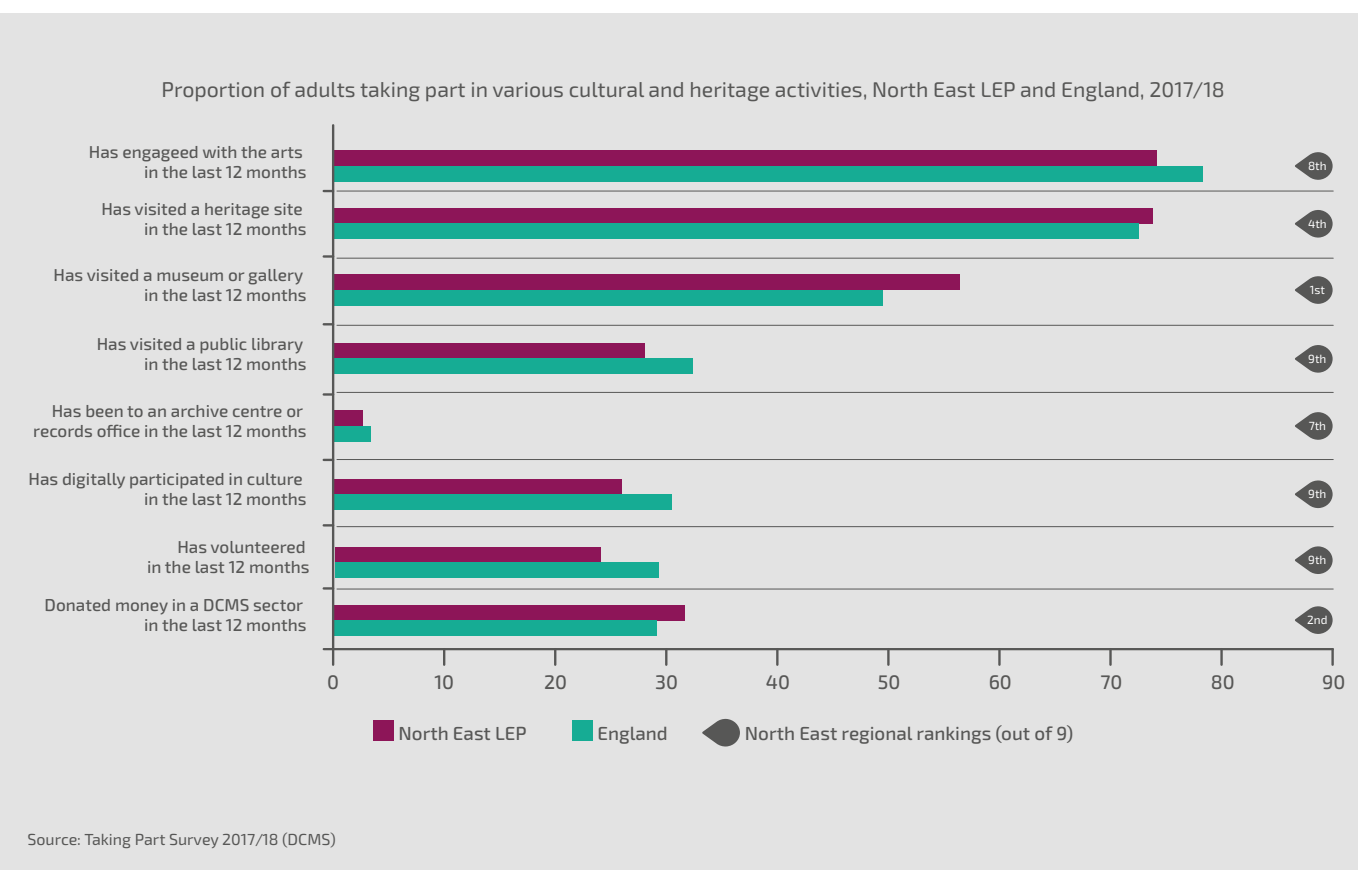
In addition, a higher proportion of adults in the North East region than in England as a whole donated money to a DCMS sector in the last 12 months, the second highest proportion of any English region.

Many of the North East's arts and heritage organisations engage internationally (for example, through touring productions, participating in art fairs, hosting visiting artists-in-residence.

These help improve the quality of life in the North East (by bringing international experiences to the region) and in raising the visibility of the North East globally.

The North East Culture Partnership undertakes a survey every two years looking at the international engagement of the sector.


- In 2017, 39 organisations reported that they were involved in 120 international partnerships.
- The USA was the most common partner country, followed by France, Sweden, Germany and Spain.



The North East LEP area is home to one National Park and two Areas of Outstanding Natural Beauty (AONB):

- **Northumberland National Park** was designated in 1958. It covers 1,048 square kilometres and contains 424 scheduled monuments, three National Conservation Areas and one Conservation Area.
- **North Pennines AONB** which is also an UNESCO Global Geopark, is the second largest AONB in the UK, covering almost 2,000 square kilometres across the local authority areas of County Durham, Northumberland, Cumbria, Carlisle, Eden and North Yorkshire
- **Northumberland Coast AONB** covers a narrow coastal strip from Berwick-upon-Tweed to Amble and includes many important sites of special scientific interest and the Lindisfarne National Nature Reserve.

More generally, the North East has a high quality natural environment.



Four wetlands of international importance designated under the Ramsar Convention



19 Special Areas of Conservation (SACs), sites formally designated by the UK government and adopted by the European Commission



20 out of our 25 coastal waters were classified as excellent in 2018

Cost of living

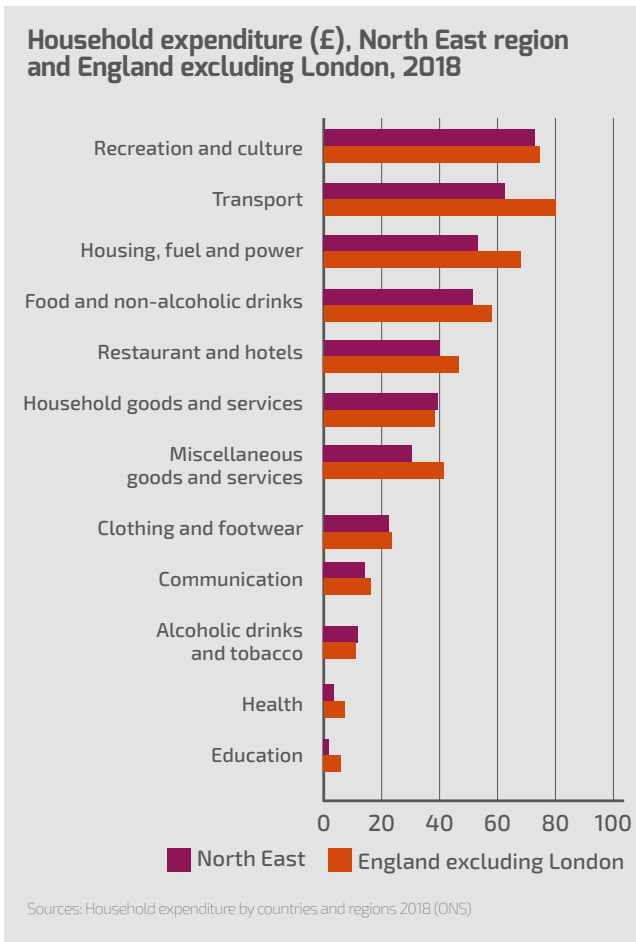
Another factor that influences quality of life is the cost of living. When costs are low, it allows people to purchase more goods and services (or to save more).

It is difficult to estimate the cost of living at the sub-national level (and efforts tend to focus on

rates of inflation in costs rather than relative costs across different geographies) so household expenditure is used as a proxy.

The North East region has one of the lowest levels of household expenditure in the UK, at £457.50 per week, compared to £565.10 across England as a whole.

Housing and transport are the second and third largest expenditures at both the national and North East levels. Given the size of these household costs, the gap between the expenditure on these two items (with the North East region being 70% and 79% of the England rate respectively) is particularly important. This allows residents to spend a greater proportion of their income on discretionary items such as recreation and culture.



What next?

Ensuring the North East is a competitive location is important so that our businesses can be successful in the global economy and our residents are able to access good quality, sustainable employment opportunities and have a high quality of living. The evidence shows that the innovation being undertaken in our region, our dynamic business structure and technological readiness and our efforts to build the skills and capabilities of our residents are all key factors underpinning our competitiveness. This is further supported by our access to markets, the transparency and accountability of our processes and the high quality of life in our region. Our Economy is intended as a summary of the region's performance as assessed using data and statistics. However, there are a number of elements of our competitiveness that it is more difficult to capture using data. In particular, partners across the region often flag that the highly collaborative nature of the North East is a distinctive strength. Looking forward, it will be important that the North East develops in more depth its understanding of specific elements of its competitiveness to better target its interventions. Key priorities for the next year include improving our knowledge of:

- Barriers to undertaking innovation activities
- Business aspirations and growth mindsets
- Our global supply chains.

We will continue to work with partners, including through the North East Economic Evidence Forum, to develop new data sources, analyse existing data and ensure the insights from the evidence base are being effectively communicated. Combined these should mean partners across the North East are able to focus their efforts on the activities that will make the greatest difference.

The region is currently working with government to develop the North East Local Industrial Strategy which will set out our joint approach to improving productivity and living standards over the next decade and the region's contribution to the national Industrial Strategy. Combined, the actions within the North East Strategic Economic Plan and the North East Local Industrial Strategy will help drive the future competitiveness of our region.



This document and a shorter executive summary report highlighting the key findings are available on our website at nelep.co.uk/oureconomy

