THE PRODUCTIVITY INSTITUTE

UKRI Economic and Social Research Council

Investment in Places series

Framing a place-based investment strategy for Cumberland

Authors:

Marianne Sensier[x]
Kate Penney[x]
Michael Francis[x]
Abhi Sharma[x]
Alfonso Silva Ruiz[x]
Philip McCann[x]

Date:

March 2026

The Productivity Institute
Productivity Insights Paper No. 079

University of Cambridge · Cardiff University · ESCoE Economic Statistics Centre of Excellence · University of Glasgow · King's College London · Manchester 1824 The University of Manchester · National Institute of Economic and Social Research · Queen's University Belfast · The University Of Sheffield. · Warwick The University of Warwick

[x]The Productivity Institute

Key words
Place, investment, labour productivity, infrastructure, transport.

Authors' contacts
marianne.sensier@manchester.ac.uk
kate.penney@manchester.ac.uk

Acknowledgements

We would like to thank Darren Crossley, Nik Hardy, Sarah Mitchell, Diane Ward and Ginny Murphy along with the North West Productivity Forum for their insights. We would like to recognise the value that has been added to our report from stakeholder's participation in the workshop and interviews.

Copyright
© M. Sensier, K. Penney, M. Francis, A. Sharma, A. Silva Ruiz, P. McCann (2026)

Suggested citation

M. Sensier, K. Penney, M. Francis, A. Sharma, A. Silva Ruiz, P. McCann (2026) *Framing a place-based investment strategy for Cumberland.*, Productivity Insights Paper No. 079, The Productivity Institute.

The Productivity Institute is an organisation that works across academia, business and policy to better understand, measure and enable productivity across the UK. It is funded by the Economic and Social Research Council (grant number ES/V002740/1).

The Productivity Institute is headquartered at Alliance Manchester Business School, The University of Manchester, Booth Street West, Manchester, M15 6PB. More information can be found on The Productivity Institute's website. Contact us at theproductivityinstitute@manchester.ac.uk

Abstract

Cumberland benefits from strong social capital, active community networks, and growing institutional capacity, particularly with the creation of the Cumbria Combined Authority, which will bring new funding and strategic powers. Cumberland has lower productivity levels than the North West and weaker physical and financial capital, despite having high employment rates and notable strengths in clean energy, manufacturing, agriculture, and natural capital. Challenges such as poor transport infrastructure, fragmented investment, and an ageing population constrain growth.

Opportunities for improvement lie in leveraging Cumberland's natural assets, emerging innovation hubs, and clean-energy specialisms to foster a more resilient and diverse economy. Strategic priorities include improving transport infrastructure, enhancing digital connectivity, fostering university-industry collaboration, and expanding training in green, digital and rural skills. The study emphasises integrated planning across land use, skills, infrastructure, and innovation, alongside targeted regeneration in deprived areas and stronger place-marketing to reposition Cumberland as a hub for sustainable investment. By aligning natural capital with economic objectives and strengthening institutional collaboration, Cumberland can move from stagnation toward inclusive and sustainable long-term growth.

Contents

Executive Summary

We examine how place-based investment strategies can improve productivity and wellbeing in Cumberland, in the North West of England. We apply the "capitals framework" that includes physical, human, social, financial, intangible, institutional and natural assets. Cumberland faces persistent challenges such as low productivity growth, poor transport infrastructure, and fragmented investment, but also possesses significant strengths, including natural capital, community engagement, and emerging innovation hubs. The study combines quantitative data analysis with qualitative insights from a workshop and interviews to identify barriers and opportunities for inclusive growth.

Key Findings on Productivity and Economic Structure

Cumberland's labour productivity is lower than the North West, at £32.1 GVA per hour compared to £39.3 for the region and £41.9 for the UK, with minimal growth since 2008. Economic output growth, income levels and sector diversification have been limited, and the area ranks poorly for physical and financial capital. However, employment rates are high, and there are strengths in clean energy, manufacturing and agriculture.

Sectoral Strengths and Capital Assessment

Cumberland shows strong specialisation in clean energy and digital technology sectors, supported by nuclear industry investment and green energy initiatives. Natural capital is a major asset, placing Cumberland in the top 30% nationally, yet it is underutilised in economic planning. Intangible capital, including innovation and digitalisation, is improving but still ranks in the bottom 40%. Social capital is strong, with active community networks and volunteer engagement, though child poverty and educational disparities persist. Institutional capacity is growing, aided by local government reorganisation and the forthcoming Cumbria Combined Authority, which will bring new funding and strategic powers.

Challenges and Strategic Priorities

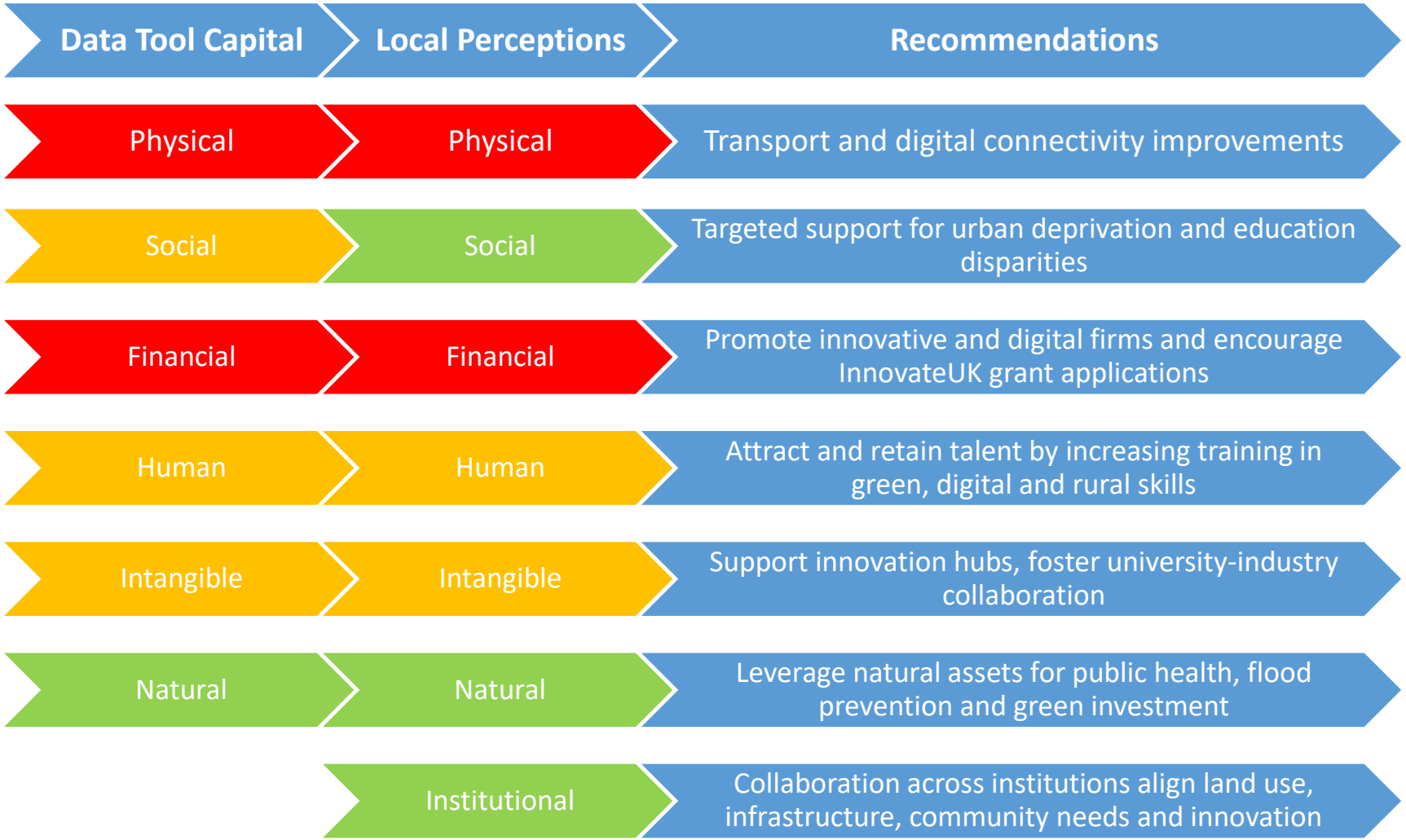
Key barriers include poor transport and broadband infrastructure, fragmented policy, and demographic pressures from an ageing population. Health indicators reveal high inactivity due to illness and rising preventable diseases, increasing demand for care services. Addressing these issues requires integrated planning across land use, infrastructure, skills and innovation. The report stresses the need to reframe Cumberland's narrative, diversify its economy, and leverage natural capital for flood prevention, public health, and green investment. Enhancing digital connectivity and creating co-working hubs are critical to supporting remote work, entrepreneurship and inclusive growth.

Recommendations and Future Outlook

The report recommendations include: improving transport and digital infrastructure, fostering university-industry collaboration and supporting innovation hubs. Workforce development through training in green, digital, and rural skills is essential to attract and retain talent. Inclusive regeneration models, targeted interventions in deprived areas, and strategic marketing to reposition Cumberland as a hub for sustainable investment are also recommended. By aligning natural capital with economic objectives and strengthening institutional collaboration, Cumberland can transition from "falling behind" to "catching up," positioning itself as a resilient, forward-looking region capable of driving inclusive and sustainable growth.

Cumberland Strength of Capitals

The first column is from the capitals data tool with green for authorities ranking 1-120; amber for those ranking 121-240 and red for those ranking 241-361. Local perceptions gauge the strength of capitals from the qualitative workshop and interviews.



Cumberland Recommendations

Key to action: short term (within the next year); medium term (1-5 yrs); long-term (5-10yrs)

The recommendations cut across a number of different areas and need investment simultaneously to improve productivity:

Barriers to Productivity	What Needs to Be Transformed	Recommendations	Capitals
Economic Outcomes Low productivity and slow growth. Poor digital and transport infrastructure. Low intangible capital (innovation, patents). Limited sector diversification.	Economic output and business dynamism. Connectivity and accessibility. Innovation ecosystem and R&D capacity Economic resilience and identity.	**Short-term:** identify sector champions (e.g. clean energy, digital), deepen the role of the sector clusters to increase business dynamism, entrepreneurship and export potential. **Medium-term:** invest in high-speed broadband and improve rural transport links to enable remote work and labour mobility. **Long-term:** foster university-industry collaboration, increase InnovateUK grant uptake and promote digital and innovative firms. Promote sector diversification, reposition Cumberland's narrative to attract varied investment and skilled workers.	Physical Financial Human Intangible
Better Welfare Outcomes Child poverty and educational disparities. Ageing population and shrinking workforce.	Social inclusion and early years development. Workforce development and retention.	**Short-term:** target interventions in deprived areas, improve outcomes for children on free school meals and expand rural education support. **Medium-term:** attract and retain talent through training (in green, digital and rural skills), apprenticeships and inclusive co-working hubs; support older workers' participation.	Human Social Institutional
Reframing Common Purpose Fragmented investment and siloed policy. Underutilised natural capital.	Strategic planning and coordination. Recognition of natural assets as economic drivers.	**Short-term:** develop integrated land-use and investment frameworks that align natural, economic and social goals. **Medium-term:** reframe natural capital as a strategic asset for flood prevention, health, and green investment; promote biodiversity and sustainable land use.	Physical Natural Institutional
Wellbeing Outcomes High inactivity due to illness	Greater collaboration between governing bodies.	**Short-term:** utilise natural assets for preventative health measures. **Medium-term:** further develop co-working hubs and support networks.	Natural Human Social Institutional

1. Introduction

Cumberland has an immense array of natural assets and a strong sense of community which is highly adaptable and provides a range of support services. Many of the challenges surround mobilising these natural assets to improve prosperity and distribute this equally across urban and rural areas with very different socio-economic contexts. Local plans and stakeholders recognise these challenges and are keen to address them through increasing engagement with local businesses on their skills needs, working with local education providers on supplying the population with higher levels of skills and how to retain talent. Cumberland is proactively collaborating and coordinating with other local areas and with the central Government on the future of devolution and policy making in the area.

Cumberland has several strategic strengths that position it well for long-term development. Regular social investment from the nuclear sector provides a stable funding base[1], while the region's natural assets and industrial capacity offer strong potential for sustainable energy and green investment. With strategic assets such as natural capital, industrial capacity, and strong community engagement, the region has the potential to lead in inclusive and sustainable growth. In addition, the recent local government reorganisation has also created space for clearer strategic planning, and Carlisle's regeneration adds further momentum as a compact, attractive urban centre.

Cumberland has knowledgeable and dedicated leaders and teams across a range of its key assets. This includes businesses that prioritise community-driven development in their regeneration models, demonstrating how this approach can boost productivity, especially in economically challenged places. This provides valuable insights into how to drive regeneration in areas often overlooked by commercial developers due to perceived financial risks. Cumberland also benefits from a range of specialists in rural and natural capital who are aware of the challenges but also the opportunities that could be better leveraged across the region. It appears that greater recognition of the regions' natural capital as a vital economic and social asset, not just a scenic or recreational amenity, is an important area that could be developed. For example, well-managed natural environments can deliver measurable benefits like flood prevention, infrastructure protection, and improved public health.

Poor transport connectivity is reported as a barrier to service delivery, employment, and investment, particularly in more rural and coastal parts of the region, and funding models often overlook the complexities of rural logistics. It was suggested this limits commuting options and reinforces a pattern of localised living and working where residents often rely on nearby employment due to inadequate transport links. Addressing these infrastructure gaps is essential to improving labour mobility, economic integration, and regional productivity. As well as poor transport connectivity, improvements to digital infrastructure are required as noted in the Scorecard (Table 2) with 5G and fibre connectivity provision lower than the North West average. By investing in high-speed broadband, particularly in rural and semi-rural communities, increased opportunities for remote work could be established, which may diversify opportunities, and reduce dependence on physical commuting.

[1] For example, see https://socialimpact.sellafieldsite.co.uk/- .

The age profile of the population presents both challenges and opportunities. Whilst retirees can support local economies, a retired working-age population poses challenges for the workforce. Implementing strategies to attract talent and promote workforce development can help ensure a balanced community that benefits all age groups.

What is Productivity?

Productivity is measure of how efficiently an area or organisation can transform its resources into beneficial outcomes. Labour productivity is the output that each worker produces per hour, and places that are able to raise their worker productivity can be observed to have proportionally higher standards of living and wellbeing. Productivity growth can be achieved in a number of ways, including greater investment associated with technological change and skills. However, productivity is also a result of how well organised a place is, and so productivity promotion requires a solid understanding of how the assets interact to enhance productivity. [2]

The concept of "inclusive growth" is crucial where, as per our definition in the Productivity Primer (The Productivity Institute, 2024), three things matter:

- Broad-based access to resources (the capitals).
- "Efficient" methods to transform resources to outputs, including technology, innovations, organisational and social changes that reduce waste (financial, time, people's capabilities, environmental damages, etc).
- Distribute the gains widely across society so that in the process of "structural change" (economically and socially) people are brought along.

Investment in Productive Places Campaign

This report sets out our findings for Cumberland for the Investment in Productive Places Campaign (IPPC)[3]. We discuss how a joined-up strategy for investment can help productivity to grow in places that have the potential to improve and fully leverage investment opportunities. To deepen our understanding of how some of the most abstract and difficult-to-quantify elements of the capitals' framework are being thought about in practice, we use a mixed methods approach of both quantitative and qualitative analysis. In addition to gaining insights into how the capitals are viewed across a range of stakeholders, we are also interested in the interdependencies between the capitals. Our qualitative work involved a survey and workshop in Carlisle on 14th March 2025. Then follow-up interviews were conducted between April and September 2025.

Regional inequalities in productivity and living standards across the UK are stark and have been increasing over time (see McCann, 2020). The need to address such inequalities not only matter for the lived experiences of citizens - the quality of life for individuals and families, but

[2] For a blueprint on boosting UK's productivity see the Productivity Agenda, Coyle, et al (2023).

[3] See The Productivity Institute's Investment in Productive Places Campaign web-site: https://www.productivity.ac.uk/regions-nations/investment-in-places/.

also the levels of economic growth, development and productivity achieved by businesses and organisations that in turn support the level of goods and services that benefit the public. Although the UK is world leading across a range of sectors and with many places exhibiting high levels of productivity, innovation and good jobs, this is still overly concentrated in specific areas, and the long tail of low productivity is a prevalent issue to address.

We argue that a broad-based investment strategy across different types of "capital" is required to help to lift places out of low productivity traps and create better and lasting outcomes for their communities and businesses.

The former Government's Levelling Up White Paper (DLUHC, 2022) recognised that reducing spatial disparities would require an understanding of a number of interdependent factors and identified six capitals to address this, these included:

- Physical capital – infrastructure, machines and housing.
- Human capital – the skills, health and experience of the workforce.
- Intangible capital – innovation, ideas and patents.
- Financial capital – resources supporting the financing of companies.
- Social capital – the strength of communities, relationships and trust.
- Institutional capital – local leadership, capacity and capability.

In our research we add to this list natural capital, this refers to a place's stock of natural resources and ecosystems that provide a wide range of valuable services and products for humanity. The investment in natural capital supports environmental conservation, access to green space, and contributes to net-zero targets by reducing greenhouse gas emissions.

These capitals need to be utilised as productively as possible to foster local growth, as all resources are scarce and better outcomes are required to help close the large gap in regional inequalities (TPI, 2024). The community capitals framework has been applied to US regions. Emery and Flora (2006) note that a community could become stronger by strategically increasing its capacity within each capital. As the flow of assets are connected investing in one capital can trigger positive outcomes across the other capitals. A study by Losada-Rojas et al, (2024) analyses the community capitals at the US county level for the Great Lakes Region. They find that to build community resilience there was a need to increase active partnerships among education, non-profits, community foundations, businesses and government institutions.

The Productivity Institute research on the "drivers of productivity" are discussed in Donaldson et al (2025) to understand the prosperity gap between Northern Ireland and the UK. Donaldson et al (2025) note who the primary stakeholders of the drivers of productivity are and how these map onto the capitals, this is summarised in Table 1. The HM Government (2024) Plan for Change outlined the missions and milestones of the UK Government. Table 1 notes how the components of the growth mission link to the capitals and drivers of productivity (with the exception of health and wellbeing that links into the mission to building an NHS fit for future).

Table 1: Drivers of Productivity, Stakeholders, Capitals and Growth Missions

Drivers of Productivity	Primary Stakeholders	Capitals	Growth Mission
Business performance & characteristics	Firms	Intangible Financial Social	Industrial strategy & trade + Innovation
Skills & training	Individuals in the workforce	Human	People: more people into good jobs
Policy & institutions	Government	Institutional Social	Place: devolution & reform
Health & wellbeing	Individuals in society	Human Social	Build an NHS fit for the future
Investment, infrastructure & connectivity	Business environment	Physical Natural	Investment, infrastructure & planning + Net Zero

Source: Donaldson et al (2025) Table A9.2 and HM Government (2024) Plan for Change.

The Productivity Institute's Productivity Lab (see Watson Ortega-Argilés, 2025, and McKeogh et al, 2025) has produced further scorecards and dashboards for the drivers of productivity for the North West ITL1 region and for ITL3 sub-regions (see also van Ark et al, 2025). In the next section of this report we produce a scorecard for Cumberland's drivers of productivity compared to the North West. We also include details of the experimental data tool for Cumberland and the other local authorities in the Borderlands Growth Deal. The data tool includes variables for human, social, financial, physical, intangible and natural capitals[4].

The structure of the report is as follows. First, we discuss Cumberland's geography and demography, policy context and recent investments. In the second section we discuss the labour productivity metrics and the drivers of productivity. The third section sets out the sector strengths within Cumberland, highlighting the strength of the Government's Industrial Strategy eight priority sectors. The fourth section describes the capitals and the indicator variables within the experimental data tool. The fifth section focuses on the qualitative findings from the study and presents a word cloud from the workshop discussion and the themes that have emerged. The final section concludes, setting out our recommendations.

Cumberland Geography and Demographics

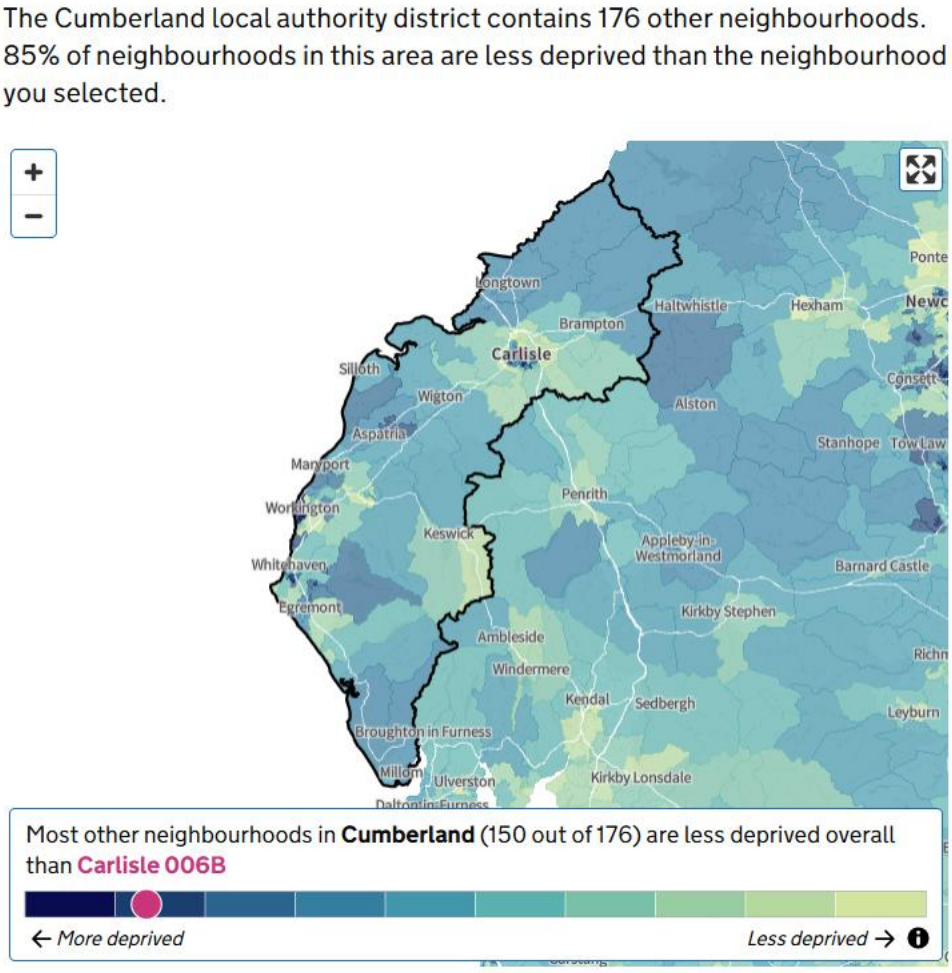
Cumbria is a largely rural county with a beautiful natural capital, including two World Heritage sites and three Areas of Outstanding Natural Beauty[5], creating the most extensive protected landscape in the country. Cumbria has many small to medium settlements, each with its own identity. Carlisle is the only city in Cumbria with large towns including Workington Whitehaven, Keswick, Maryport and Millom (in Cumberland) and Barrow-in-Furness, Kendal, Penrith and Ulverston (in Westmorland and Furness).

[4] IPPC interactive data tool: https://lab.productivity.ac.uk/insights/tpi-local-authority-capitals-dashboard/

[5] UNESCO World Heritage sites are the Lake District National Park and Hadrian's Wall. The areas of outstanding natural beauty and nature reserves are listed here: https://www.cumberland.gov.uk/planning-and-building-control/conservation/areas-outstanding-natural-beauty-and-nature-reserves

Cumbria had a population of 500,729 people in the 2021 Census, with an increase of 0.2% since 2011. The population of Cumberland in the Census 2021 stood at 273,788, with the ONS 2024 mid-year estimate at 280,495[6]. Figure 1 shows a map of the Index of Multiple Deprivation (IMD) for Cumberland. The IMD measures relative levels of deprivation with the darker shading indicating the most deprived neighbourhoods, it is from the Ministry of Housing, Communities and Local Government (MHCLG, 2025). Cumberland is made up of 176 neighbourhoods (or Lower Super Output Areas, LSOA) with 18 LSOAs in the top 10% of the most deprived LSOAs in England (or 10% of the total, see MHCLG, 2025). This ranks Cumberland as the 91st most deprived English local authority out of 296 (based on the rank of local authorities with the most 10% deprived LSOAs in England).

Figure 1: Cumberland, Index of Multiple Deprivation Map, 2025



Source: Index of Multiple Deprivation 2025, overall measure from the Ministry of Housing, Communities and Local Government. The neighbourhood Carlisle 006B is where Cumbria House council offices are located in Carlisle with postcode CA1 1RD. See MHCLG.

[6] See Nomis https://www.nomisweb.co.uk/reports/lmp/lad/1778384956/report.aspx?town=Cumberland and ONS Population estimates for England and Wales: mid-2024.

Population projections suggest a population decline by 2028[7], particularly among children and working-age adults, while the 65+ age group is expected to grow significantly. This demographic shift implies increased demand for health and social care services amid a shrinking workforce. The borough is predominantly white and UK-born, with very low ethnic and religious diversity compared to the national averages. Deprivation is unevenly distributed, with some areas among the most and least deprived in England, highlighting the complexity of targeting social support.

Health indicators reveal concerning trends, including rising mortality rates from preventable causes like cancer, cardiovascular disease and liver disease. Childhood obesity is above regional and national averages, and hip fractures among older adults are notably high. Socioeconomic factors such as child poverty and educational disparities—especially among children receiving free school meals—pose long-term health risks. While homelessness rates are lower than average, domestic abuse incidents are increasing. These challenges underscore the need for targeted public health interventions, early prevention strategies, and support systems tailored to an ageing and socioeconomically diverse population.

Research by Wilson and Morris (2023) has shown the importance of social capital and trust to Cumberland communities. The Connected Communities research project in Moorclose, Workington involved residents in co-designing interventions and connected people to strengthen social networks and community capital through analysing well-being, capacity, citizenship, and social value. Strong connections were found among family, friends, and neighbours (bonding social capital), but connections with organisations and services (bridging and linking social capital) were weaker. The study highlights the importance of partnerships, adaptive leadership, and community-led initiatives in addressing social challenges and building resilient communities[8].

Cumberland Policy Context

Cumberland Council is a unitary council and was formed in April 2023 along with Westmorland and Furness Council in Cumbria. Cumberland Council covers the former council areas of the Allerdale Borough Council, Carlisle City Council, and Copeland Borough Council. Westmorland and Furness Council covers the former districts of Barrow-in-Furness, Eden and South Lakeland. Cumberland and Westmorland and Furness councils have merged some service provision that previously were divided between the six districts and Cumbria County councils. Westmorland and Furness Council has adopted previous Local Plans[9]. Cumberland Council set a plan for 2023-27 as a placeholder for open discussion[10].

[7] Information is from the Cumbria Intelligence Observatory, and Local Authority Health Profiles - Data | Fingertips | Department of Health and Social Care (phe.org.uk)

[8] Also see: https://peoplespowerhouse.org.uk/latest/community-participation-in-local-government/

[9] https://www.westmorlandandfurness.gov.uk/localplan

[10] https://www.cumberland.gov.uk/your-council/council-documents/council-plan/how-we-will-do-cumberland-approach

The Local Enterprise Partnerships (LEP) across England ceased to exist in March 2024. The Cumbria LEP was replaced by Enterprising Cumbria[11]. In 2024 the councils and Enterprising Cumbria gathered stakeholder's views on a Cumbrian economic strategy in consultation with MetroDynamics. Cumbria's Economic Strategy (Going for Growth) was published in July 2025[12]. The strategy lists the sectors and clusters that have strengths in Cumbria including advanced manufacturing, robotics, defence, clean growth and the visitor economy. The strategy addresses the constraints on growth and barriers to investment in Cumbria. Areas to focus on include: infrastructure, supporting businesses to innovate, increasing local spending in defence and energy supply chains, enhancing nature, innovating public service delivery and accelerating large housing developments.

The Cumbria Combined Authority[13] was established in February 2026, covering both Cumberland Council and Westmorland and Furness Council. In its first year it will be led jointly by the leaders of the two councils. A Mayoral election is planned for May 2027. The Mayor-led strategic authority will have access to a Cumbrian Mayoral Investment Fund of £333 million over the next 30 years. The authority will have defined areas of competence, set out in law, covering: transport and local infrastructure; skills and employment support; housing and strategic planning; economic development and regeneration; environment and climate change; health, wellbeing and public service reform; and public safety. Mayoral authorities will also have a seat on the Council of Nations and Regions and the Mayoral Council.

Cumberland Investments

The Borderland's Inclusive Growth Deal was signed with the Government in 2021, providing £452m of investment into the Borderlands region[14]. The geography of the Borderlands covers Cumbria, Northumberland and the South of Scotland. The policy ambition is for the region to reach its potential for everyone, delivering green growth and attracting new businesses and investment. The deal also aims to improve connectivity, deliver skills and innovation, and improve places in the region to support their longer-term resilience.

The Borderlands projects in Cumbria include the Carlisle railway station redevelopment programme securing £20m from the Borderlands deal working with the councils, Network Rail and Avanti West Coast to improve the station as a regenerated entrance to Carlisle and improve connectivity. The Carlisle Citadels (group of Grade 1 listed buildings on the site of a former modern fortress) project is working to relocate some University of Cumbria facilities[15] to the building. The redevelopment of the Citadels site is part of the shared 'Vision for Carlisle in 2030', which aims to develop the area into a thriving centre for business, residents, education and culture. This wider investment plan will see over £100m being invested in the

[11] See https://www.cumberland.gov.uk/news/2024/enterprising-cumbria-board-members-announced.
[12] See https://heyzine.com/flip-book/GoingForGrowth#page/1
[13] https://www.cumberland.gov.uk/news/2026/cumbria-combined-authority-officially-created
[14] The Borderlands Inclusive Growth Deal covers Cumberland, Westmorland and Furness, Northumberland, Dumfries and Galloway and the Scottish Border councils. For more information on the deal see: https://www.borderlandsgrowth.com/
[15] https://www.cumbria.ac.uk/t2030/carlisle-citadels-campus/

regeneration of Carlisle city centre over the next five years. The Citadels will include new facilities such as a multi-use lecture theatre, café, exhibition space and The Carlisle Business Exchange. The Citadels project complements the neighbouring development of Carlisle Station and investment through the Carlisle Town Deal[16] and Future High Street Funding.

The Nuclear Decommissioning Authority (NDA) has a legal duty under the Energy Act (2004) to have regard for its impact on communities living near their nuclear sites. In the NDA socio-economic report for 2023/24[17], they detail how £14 million has been invested across the UK, with case studies reflecting how they work with communities, stakeholders and colleagues to use the funding. The NDA works in collaboration with Sellafield Ltd, Nuclear Waste Services and Nuclear Restoration Services. The Sellafield site invests most of this socio-economic funding to projects in Cumberland. There is also the additional investment to the local economy of procurement contracts from Sellafield[18].

The NDA announced £1m of funding in November 2025[19] to develop the masterplan for a clean energy development on land adjacent to Sellafield, known as Pioneer Park. The funding will enable local development company BEC to produce a detailed masterplan, setting out how clean energy technologies and AI and data centre infrastructure could come together to drive long-term economic growth and jobs, taking into account Sellafield's existing requirements. This announcement follows the co-ordinated work led by Cumberland Nuclear Futures Board, chaired by Josh MacAlister MP, and involving the NDA, Cumberland Council, Sellafield Ltd and the Department for Energy Security and Net Zero (DESNZ). This site may host nuclear (Small Modular Reactors), wind or solar power[20]. It is noted that this site will be key to diversification of the local economy.

As noted in the last Cumbria LEP Annual Report in 2023, Barrow was identified as the new 'Powerhouse of the North' given BAE Submarine Systems' planned expansion of its build programme. This presents an opportunity not only for Barrow but for the whole of Cumbria due to the manufacturing and other supply chain opportunities that it will generate.

In terms of developing skills for Net Zero the Lakes Further Education College, Workington[21] has opened a Green Energy and Skills Centre which features low carbon experience bays designed to develop the skills needed for air and ground source heat pumps, solar photo voltaic and battery storage, solar thermal, retrofit, electric vehicle charging and low carbon heating.

[16] https://www.cumberland.gov.uk/planning-and-building-control/regeneration-project/carlisle-city-centre-projects

[17] https://www.gov.uk/government/publications/nda-socio-economic-report-2023-to-2024/nda-socio-economic-report-2023-to-2024

[18] For example see: https://www.placenorthwest.co.uk/trio-sign-3bn-sellafield-infrastructure-contract/.

[19] https://www.gov.uk/government/news/nda-announces-1-million-funding-to-accelerate-clean-energy-in-west-cumbria

[20] https://www.placenorthwest.co.uk/govt-tees-up-cumbria-site-for-nuclear-future/

[21] https://www.in-cumbria.com/news/24752087.green-energy-skills-centre-opens-lakes-college-workington

The Lake District National Park has key responsibilities to achieve sustainability and net zero. It has a Partnership Management Plan for 2020-25 and outlines actions to respond to each of United Nation's Sustainable Development Goals[22].

The Local Skills Improvement Plan has been developed by the Cumbria Chamber of Commerce[23]. The Chamber provided an overview of activity including:

- Promoting and explaining training options, funding sources and pathways to employers (including Bootcamps).
- Visiting schools, colleges and providers to engage students in career and learning opportunities and employer needs.
- Supporting the employer-led development of an advanced manufacturing apprenticeship pathway.
- Chamber events on key areas of focus including AI and Automation, customer service and sustainability.

The key infrastructure assets within Cumbria are the M6 motorway (North to South), the A66 road (East to West), and the West Coast mainline station in Carlisle, which links Scotland to the north and Manchester, Birmingham, and London to the south. The Cumbria West coastline has a railway link (between Carlisle and Barrow) which is currently being upgraded, and there is also a rail line between Lancaster and Barrow.

Cumberland Council provided an update on a major infrastructure project, the Carlisle Southern Link Road[24]. This will connect Junction 42 of the M6 with the A595 to the west. The route will include new junctions linking existing radial routes into Carlisle and St Cuthbert's Garden Village[25]. The route will include bridges over two main railway lines and the Caldew and Petteril rivers, a network of footways and cycle ways and an extensive programme for landscaping and environmental mitigation. The 8km long road will provide vital infrastructure to relieve congestion in Carlisle and provide the access and network capacity to enable the successful and accelerated delivery of the Garden Village. This is a development that could provide up to 10,000 new homes.

A number of Government grants have been awarded to Cumberland Council to improve the public realm. The town of Maryport[26] has received funding from the Future High Streets fund and Historic England and has improved the sea front. Further redevelopment includes the Maritime Museum and a former cinema as an events space (The Carlton).

Workington received Town Deal funding of £23.1m[27] for improvement of the town centre public realm and connectivity. Further projects include redevelopment of the football and

[22] https://www.lakedistrict.gov.uk/caringfor/lake-district-national-park-partnership/management-plan/delivering-sustainable-development-goals

[23] For an update on the LSIP see: https://www.cumbriachamber.co.uk/local-skills-improvement-plan-update-2/

[24] https://www.cumberland.gov.uk/parking-roads-and-transport/streets-roads-and-pavements/road-maintenance-closures-and-improvements/carlisle-southern-link-road-cslr-project

[25] https://www.stcuthbertsgv.co.uk/

[26] https://www.cumberland.gov.uk/planning-and-building-control/regeneration-project/maryport-regeneration-projects

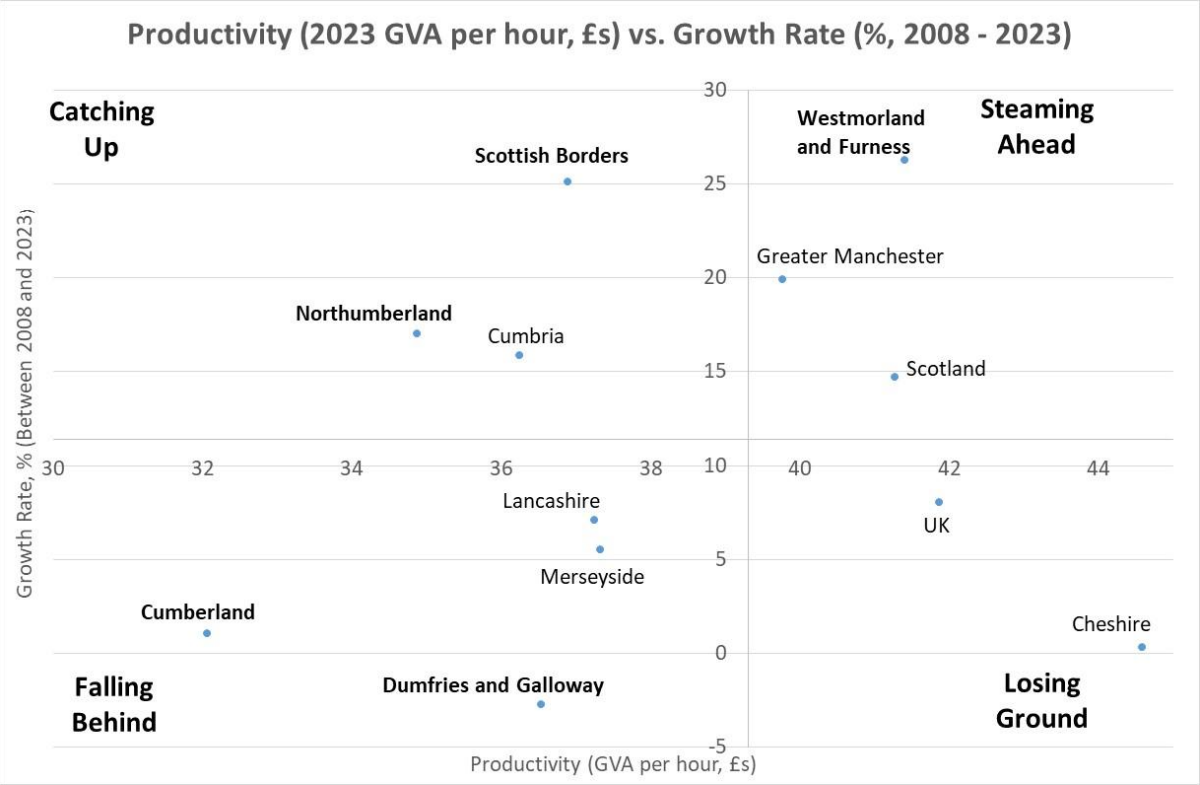
[27] https://www.cumberland.gov.uk/planning-and-building-control/regeneration-project/workington-projects

rugby club grounds into the Cumberland Sports Village, Digital Accelerator Hub, Innovation Centre, Port of Workington Logistics and Energy Hub.

2. Labour Productivity

The Productivity Institute's North West Insights report (Penney et al, 2025) provides detailed analysis of productivity trends in the North West. We compare productivity levels[28] versus the growth rate in the Figure 2 for the Borderlands Growth Deal local authority areas, Scotland and the North West ITL3 sub-regions.

Figure 2: Borderlands Authorities Productivity Levels vs. Growth Rates (2008-2023)



Source: ONS (2025g), Table A3 for productivity levels and Table A5 for the growth rate calculation. Note the Borderland local authorities are in bold font and the chart also compares Scotland (ITL1) and North West ITL2 sub-regions.

The chart's axis is set at the North West labour productivity 2023 level of £39.3 (GVA per hour worked) and growth rate (for the constant prices productivity series) of 11.4% between 2008

[28] Please note that the ONS (2025e) have stated there are measurement issues with the Labour Force survey used to produce the labour productivity data (particularly at the lower levels of geography). This volatility in the ONS Labour Force survey is due to the low response rates during and since the COVID-19 pandemic. ONS also notes a reweighting of this series with 2021 Census population estimates. For more information on the issues see ONS (2025a), Gouma et al (2025) and Prothero (2025).

to 2023. The chart shows a four-type taxonomy[29] to describe how the local authority is progressing compared to North West. By comparing the region's productivity along these two dimensions, the taxonomy of relative productivity performance is constructed as follows:

- Falling behind: both the authority's 2023 productivity and its productivity growth (between 2008 and 2023) are below the North West of England.
- Catching up: the authority's 2023 productivity is below the North West, but its productivity growth is above the North West.
- Losing ground: the authority's 2023 productivity is above the North West, but its productivity growth is below the North West.
- Steaming ahead: both the authority's 2023 productivity and its productivity growth are above the North West.

In Figure 2 we can see that Cumberland's level of labour productivity at £32.1 (GVA/ hour) so is below the North West level of £39.3, and between 2008-2023 it has increased by 1%, below the 11.4% growth for the North West of England, so is within the falling behind quadrant. The UK level of £41.9 is included in Figure 2 with a growth between 2008 and 2023 of 8%. The other local authority within Cumbria, Westmorland and Furness, has productivity of £41.4 and growth of 26% so this is steaming ahead of the North West average and catching up to the UK. Scotland's productivity of £41.3 and growth of 14.7% is steaming ahead of the North West. The other local authorities within the Borderlands Inclusive Growth Deal area are Northumberland and the Scottish Borders, these are catching up to the North West, Scotland and the UK. Dumfries and Galloway is in the falling behind quadrant with lower productivity (£36.5) and contracting labour productivity since 2008 (-2.7%).

Cumberland Productivity Metrics and Drivers

The Productivity Institute's (TPI) research on the "drivers of productivity" are set out in TPI's Productivity Lab scorecards and dashboards for the North West sub-regions (ITL3 García et al, 2024). Cumberland is an ITL3 sub-region (with code TLD13). The Productivity Lab scorecards examine four regional productivity drivers: business performance, skills and training, health and well-being, and investment and infrastructure. We present the levels and growth rates[30] for productivity, output, income and the drivers of productivity in Table 2, comparing Cumberland to the North West (figures are in brackets). The UK labour productivity level is £41.9 (GVA/ hour) in 2023 with a fall since 2022 (-0.2% growth rate), then the CAGR of 0.7% per year in the medium term and 0.5% per year in the long term.

In the economy measures for Cumberland in Table 2 we see that productivity (Gross Value Added, GVA per hour and GVA per filled job), output (Gross Domestic Product, GDP, per

[29] The taxonomy is based on the method from Garcia et al (2024). The 2025 Scorecards and Dashboards: https://www.productivity.ac.uk/the-productivity-lab/the-2025-tpi-uk-itl3-productivity-scorecard-series/

[30] The short-term growth rate is between 2022-2023, the cumulative average annual growth (CAGR) is between 2019 and 2023 for the medium-term and the long-term growth rate is the CAGR between 2008 and 2023. The CAGR is calculated to exclude the COVID-19 disrupted years from the data series. The formula is CAGR = 100 x (((2023 Value /2019 Value)^(1/4 Years)) - 1) applied to the real series (with price effects removed).

capita) and income (Gross Disposable Household Income, GDHI, per head) are below the North West levels (in brackets). Gross median full-time wages of Cumberland residents are above the North West average. In terms of growth rates, productivity (GVA/hour) has increased in Cumberland over time but productivity per job (GVA/job) has decreased over time. Output (GDP per capita) has contracted over time, with incomes per head also contracting but growing over the long-term since 2008.

In Figure 3 we compare Cumberland productivity (GVA per hour) and its components, GVA and hours, to the North West. Cumberland's productivity (GVA per hour) only recovered its productivity level from 2008 in 2023, this is due to contracting GVA (from 2015) combined with steady hours, falling during the pandemic.

In Figure 4 we present the employment series for the North West, Cumberland and the other Borderlands local authorities. Cumberland employment grew from 2009 to 2018, but has fallen since then with an increase in 2023 (this combined with falling GVA has resulted in falling GVA/ job over time), it had grown by 8% higher since 2008. Although Westmorland and Furness recovered its 2008 employment level it contracted again in 2019 and is lower than the 2008 level. The other Borderlands local authorities have also experienced employment contractions. Figure 5 show the number of payrolled employees for the 6 former local authority districts in Cumbria, this time with base set to 100 in July 2014 (the start of the series). Employees in Carlisle have increased by 11% between July 2014 and April 2025, those in Allerdale increased by 6% and in Copeland by 4%.

In terms of business performance, we present export intensity and the rate of new businesses in the scorecard in Table 2. Export intensity is an important productivity driver as firms competing in international markets tend to increase their productivity through process efficiencies and cost reduction, so higher export performance by local firms leads to higher regional productivity. García et al, (2024) calculated export intensity by adding the nominal values of trade in good's exports and trade in service's exports and then dividing by the GDP. We report export intensity for Cumberland (ITL3) of 21.9% (share of exports to GDP) in 2023 lower than the North West share of 25.2% (ONS, 2025b). In 2023 Cumberland's traded exports amounted to £1800mn (with exports in goods of £1,256mn and exports of services £544mn).

According to García et al (2024) entrepreneurship, firm dynamicity and firm creation have been found to be important drivers of regional productivity and local prosperity. The rate of new businesses for Cumberland was 10.4% below 11.6% in the North West in 2023. We see from Table 2 that business start-ups have increased in the short and medium-term whereas they have contracted across the North West.

Measures in skills include the share of the population with high-level skills (Regulated Qualification Framework 4 plus, RQF4+, equivalent of degree level, and above) and those with low skills (this includes the 16-64 year old population with no qualifications and those with RQF1 qualifications). The academic literature has found that high-level skills can drive productivity by allowing for complex problem solving, technological adoption, greater communication and collaboration, and enhancing decision-making capabilities. A higher

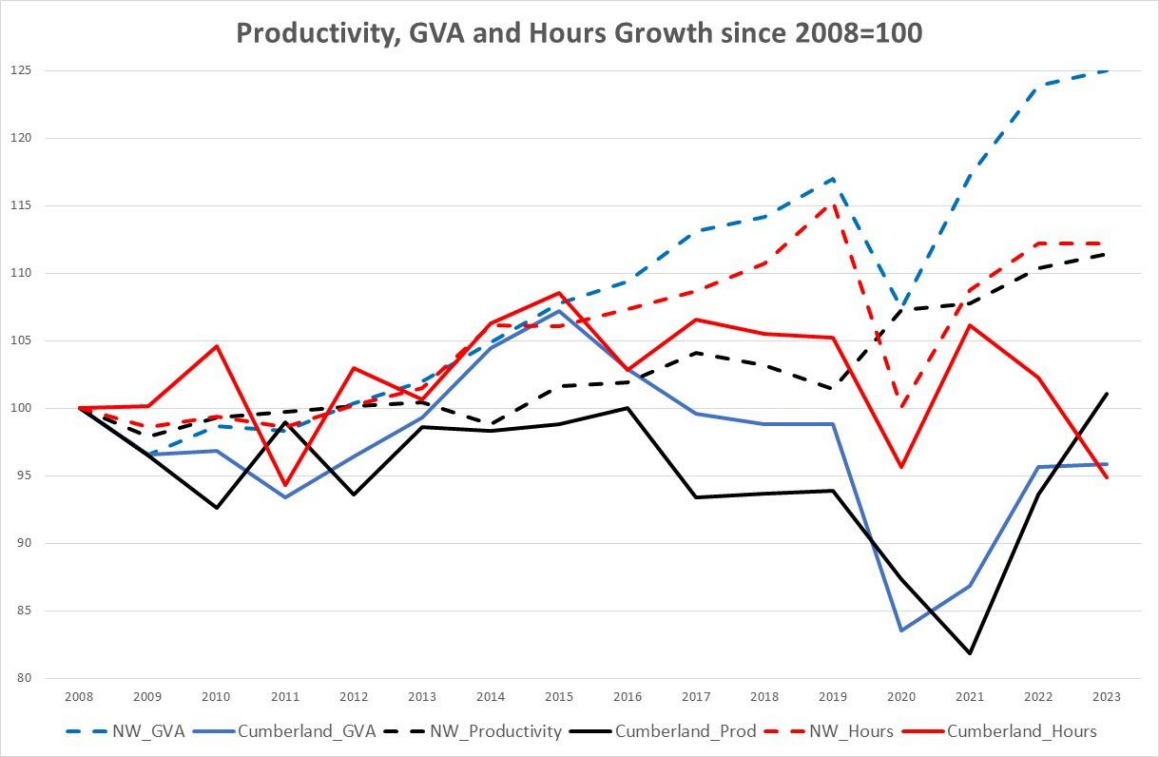
share of the working population with no qualifications is expected to be detrimental to regional productivity.

Table 2: Scorecard for Cumberland's Drivers of Productivity

Cumberland (North West)		Growth (%, CA growth rates between dates)		
Economy	2023 Level	Short term (2022-2023)	Medium term (2019-2023)	Long term (2008-2023)
UK Productivity (GVA/hour)	41.9	-0.2	0.7	0.5
Productivity, GVA/ hour (£)	**32.1** (39.3)	**8** (1)	**1.9** (2.4)	**0.1** (0.7)
Productivity, GVA/ filled job (£)	**49,203** (61,547)	**-2** (-0.3)	**-0.7** (1.4)	**-0.8** (0.7)
GDP per capita (£)	**29,664** (35,635)	**-0.4** (-0.03)	**-1.2** (0.8)	**-0.4** (0.8)
GDHI per head (2022, £)	**19,333** (19,752)	**-3.5** (-2.7)	**-1.4** (-1)	**0.2** (0.2)
Gross median weekly pay (£) (Full-time workers)	681.6 (653.3)			
Drivers of productivity				
Businesses Performance				
Export Intensity (%)	**21.9** (25.3)	**-12.7** (-8)	**-0.6** (-0.4)	-
Rate of New Business (%)	**10.4** (11.6)	**6.7** (-7.1)	**3.5** (-2.6)	-
Skills & employment				
High skilled (% RQF4+)	**34.1** (44.4)	**-9.3** (4.2)	**2** (5.3)	
Low skilled (%)	**10.3** (9.7)	**2** (-10.2)	**-16.3** (-15.7)	
Employment Rate (%)	**82.3** (73.8)	**5.4** (0.4)		
Health & wellbeing				
Activity Rate (%)	**84.5** (76.7)	**2.8** (0)	**1** (-0.3)	
Inactive due to illness (%)	**41.8** (30)	**46.7** (1.7)	**2.4** (2.5)	
Working Age (%)	**58.3** (59.4)	**0.4** (-0.6)	**-0.4** (-0.7)	
Investment, Infrastructure & Connectivity				
5G connected (%), 2025	**63.1** (89.6)	-		
Gigabit capable broadband (%), 2025	**73.2** (77.6)	-		
GFCF per job (£), 2020 (West Cumbria)	**20,234** (9,478)			
ICT per job (£), 2020	**506** (404)			
Intangibles per job (£), 2020	**1,216** (1,900)			

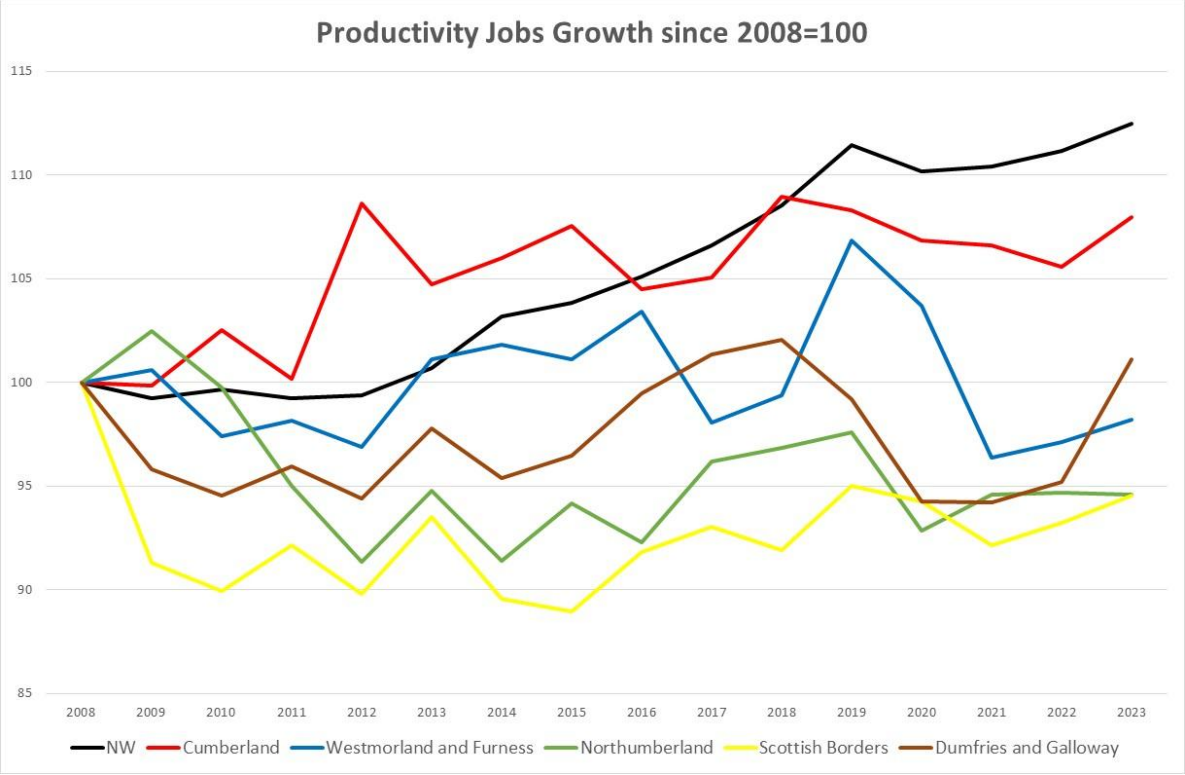
Source: ONS Local Indicators https://www.ons.gov.uk/explore-local-statistics/areas/E06000063-cumberland/indicators.

Figure 3: North West and Cumberland, growth in productivity, output and hours



Source: ONS (2025d and 2025g), Local Authority GDP and Productivity.

Figure 4: North West, Cumberland and Borderlands, growth in employment

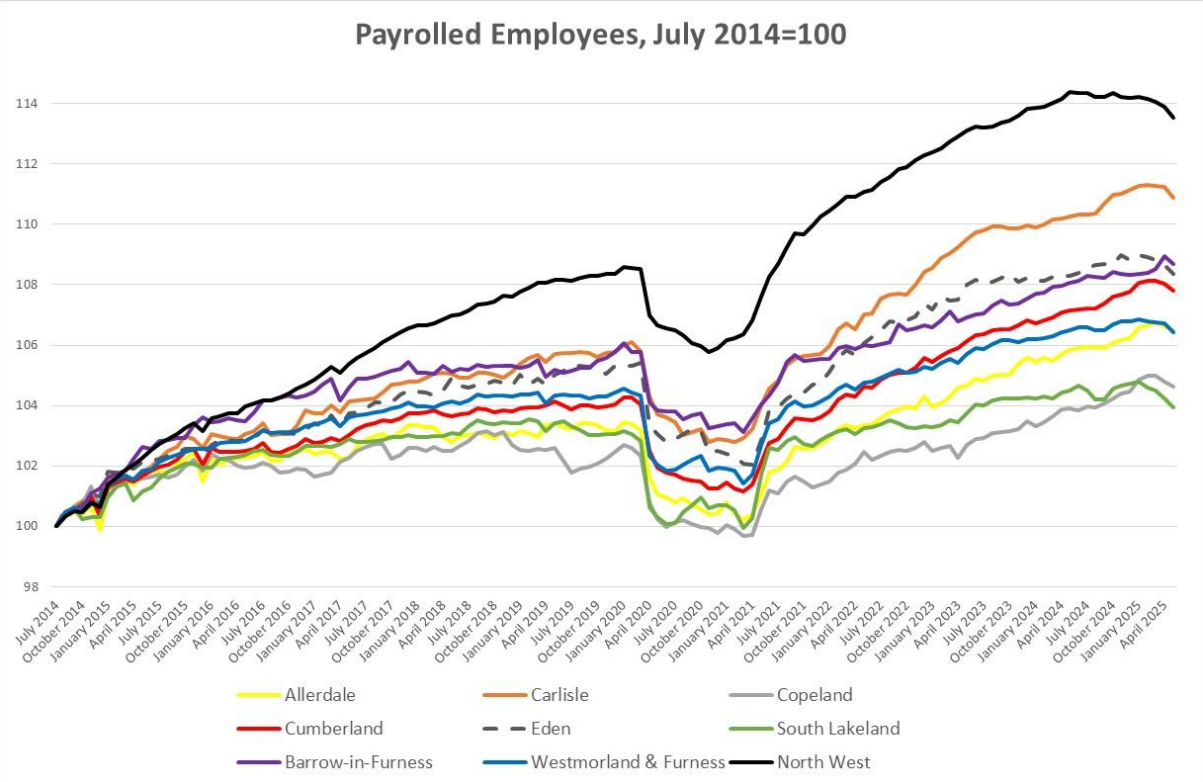


Source: ONS (2025g), ITL3 sub-regions Productivity Jobs.

The share of high-level skills in Cumberland at 34.1% of the working population (aged 16-64 years) in 2023 which is below the North West level of 44.4%, but has increased in the medium term (though fallen since 2022). The share of the working population with low skills is at 10.3% above that for North West of 9.7%. This has fallen in the medium term so both the skills measures are improving. The employment rate for Cumberland was at 82.3% in 2023 much higher than the North West at 73.8%. The Cumberland employment rate has increased in the short term. Table A3 in the appendix shows commuting patterns for workers during the 2021 Census, with Copeland (the former local authority area containing the Sellafield site) the most popular work destination for commuters from Allerdale.

Health and wellbeing indicators include the economic activity rate and then the share of the inactive population that is inactive due to illness, along with the working population share. The activity rates are calculated as those that are active in the labour market (either employed or unemployed) as a share of the working age population (aged 16-64 years). Cumberland has a higher activity rate at 84.5% compared to that of the North West at 76.7% in 2023. The active population has increased in the medium term. The share of the inactive population in Cumberland who are inactive due to long-term ill health is 41.8% in 2023, higher than 30% for the North West. This has almost doubled since 2022. The dependency ratio is (calculated as the share of population <16 and >64/ share of 16-64 year olds), is at 58.3% in Cumberland lower than 59.4% for the North West.

Figure 5: North West and Cumbria local authorities, growth in PAYE employees



Source: ONS (2025f), ITL3 sub-regions Pay As You Earn (PAYE) employees.

The final block on Table 2 notes information on investment, infrastructure and connectivity. In Cumberland and 5G and gigabit broadband coverage are below the North West average. Whole economy investment (Gross Fixed Capital Formation, GFCF) per job is for the former ITL3 West Cumbria region along with components of this include investment in Information and Communication Technology (ICT) and intangibles[31], both per job. West Cumbria is above the North West average for whole economy and ICT per job in 2020, with lower intangibles investment per job in 2020. These series are from the ONS (2022).

3. Sector Strengths

To gauge industrial strategy sector strengths in the Borderlands region we present analysis by The Data City using their Real-time Standard Industrial Classification (RTICs) codes gathered from searching firms' websites for sector keywords. Table 4 shows the specialisation in the eight priority sectors outlined in the Government's Modern Industrial Strategy 2035 for authorities within the Borderlands. The location quotients (LQ) are calculated by taking the number of operating addresses of companies classified in the sectors (company counts) as input data. A location quotient greater than one shows the local authority has a greater strength in that sector than the UK average. From Table 4 we see that Cumberland greatest specialisation is clean energy industries with a location quotient of 1.41, followed by digital and technology companies with LQ of 1.16. The life sciences sector is also above 1 LQ for Cumberland.

Table 4: Cumberland Industrial Strategy Sector's Location Quotients

IS-8 Sector	AM	CE	CI	D	DT	FS	LS	PBS
Cumberland	**0.88**	**1.41**	**0.69**	**0.38**	**1.16**	**0.66**	**1.01**	**0.92**
Westmorland and Furness	1.08	1.64	0.87	0.46	0.43	0.67	1.07	0.99
Northumberland	1.08	1.23	0.93	0.51	0.71	0.77	1.41	1.06
Dumfries and Galloway	0.85	1.4	0.68	0.31	0.37	1.3	1	1.02
Scottish Borders	0.83	1.68	0.92	1.19	0.86	0.6	1.14	1.18

Source: The Data City Real Time SIC Codes, https://thedatacity.com/real-time-sic-codes/. Key to sectors: Advanced Manufacturing (AM); Clean Energy (CE) Industries; Creative Industries (CI); Defence (D); Digital and Technology (DT); Financial Services (FS); Life Sciences (LS); Professional and Business Services (PBS).

[31] Within intangibles are research and development; mineral exploration and evaluation; computer software and databases and entertainment, literary or artistic originals.

Table 5: Cumberland Employment Sectors by Highest Location Quotients

Sector	2015	2023	Share in 2023	Growth Rate 2015-2023 (%)	Location Quotient 2015-23 (average)
24: Manufacture of basic metals	10,000	10,000	7.48	0	34.3
15: Manufacture of leather and related products	200	200	0.15	0	6.4
22: Manufacture of rubber and plastic products	2,500	2,500	1.87	0	3.93
01: Crop & animal production, hunting & related service activities	6,000	7,000	5.23	16.7	3.27
17: Manufacture of paper and paper products	900	400	0.3	-55.6	2.36
10: Manufacture of food products	3,000	3,500	2.62	16.7	1.96
55: Accommodation	3,500	4,000	2.99	14.3	1.85
08: Other mining and quarrying	125	175	0.13	40	1.80
02: Forestry and logging	225	225	0.17	0	1.76
16: Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	450	450	0.34	0	1.72
49: Land transport and transport via pipelines	4,000	3,000	2.24	-25	1.69
25: Manufacture of fabricated metal products, except machinery and equipment	2,250	1,750	1.31	-22.2	1.60
80: Security and investigation activities	1,250	1,000	0.75	-20	1.48
41: Construction of buildings	2,250	3,000	2.24	33.3	1.43
75: Veterinary activities	350	700	0.52	100	1.42
45: Wholesale and retail trade and repair of motor vehicles and motorcycles	3,000	3,000	2.24	0	1.38
13: Manufacture of textiles	350	225	0.17	-35.7	1.37
42: Civil engineering	100	150	0.15	50	1.366
71: Architectural and engineering activities; technical testing and analysis	3,000	2,500	1.87	-16.7	1.34
11: Manufacture of beverages	400	150	0.11	-62.5	1.30
Total	133150	133770	100	0.47	

Source: Business Register Employment Survey from Nomis https://www.nomisweb.co.uk/ at the 2 digit level Standard Industrial Classification code.

Table 5 shows the highest 20 location quotients for Cumberland employment sectors at the 2-digit SIC code level (average between 2015-23) along with the employment numbers in 2015, 2023, the 2023 employment sector share and the growth rate between 2015 and 2023. The location quotients here give the relative specialisation for the employment sectors in Cumberland, compared to Great Britain (GB). A LQ greater than one indicates higher specialisation than the GB level of employment in that sector.

In Cumberland the total number in employment has increased by 0.5% between 2015 and 2023. The largest LQ for employment is in manufacture of basic metals, most likely related to the nuclear industry and its supply chain. The second LQ for manufacture of leather and related products includes the New Balance shoe manufacturing facility at Flimby, near Workington, reported as producing nearly 12,000 shoes a week in 2019[32]. Evidence of the employment in the manufacture of rubber and plastic products include Innovia Films at Wigton that has produced the plastic bank notes for the Bank of England since 2015[33].

The large agriculture sector in Cumbria is included as the fourth LQ of crop and animal production. The fifth LQ for the manufacture of paper will include workers at the Iggesund Paperboard mill in Flimby. The sixth LQ for the manufacture of food products will include the workers at the McVitie's factory in Carlisle[34]. The large accommodation sector reflects the strength of the tourist trade, particularly in Keswick and Carlisle.

The OECD (2016) found that regions with larger tradeable sectors[35] were able to catch up to the frontier regions quicker than those regions with lower shares that were diverging. Tradeable sectors bring money into the community, together with the wages of residents who commute to other parts of the region. We calculate the share of tradeable sectors for Cumberland and North West. Table 6 presents the Gross Value Added share of the sectors in Cumberland, along with employees (from Nomis[36]) compared to the North West. Cumberland has 27% share of GVA in tradeable sectors, compared to the North West share of 28.4%. Figure 6 presents a pie chart for Cumberland's sector shares of GVA, with the largest share of value in tradeable sectors from manufacturing at 13.4%. In Table 6 we see that manufacturing across all sub-sectors accounts for 15.7% share of employment in Cumberland. The second largest sector of GVA and employment is wholesale and retail trade.

[32] See https://ukft.org/hrh-new-balance-uk-manufacturing/
[33] See https://www.bbc.co.uk/news/uk-england-cumbria-34745830
[34] See https://www.bbc.co.uk/news/articles/cpv43pp4nkjo
[35] The OECD (2018) classifies tradeable sectors as the following: agriculture (A), industry (BCDE), information and communications (J), financial and insurance activities (K) and other services (RSTU). The remaining sectors are then classed as non-tradeable. The OECD defines tradeable sectors as "those that produce goods and services that can traded across regions and international borders". Firms can operate in sectors that are tradeable, although they may not actually engage in trade, but they are exposed to competition from abroad. See Chapter 2, page 59 in OECD (2018).
[36] BRES employment by sections, plus changes noted from Ginny Murphy, Cumberland Council.

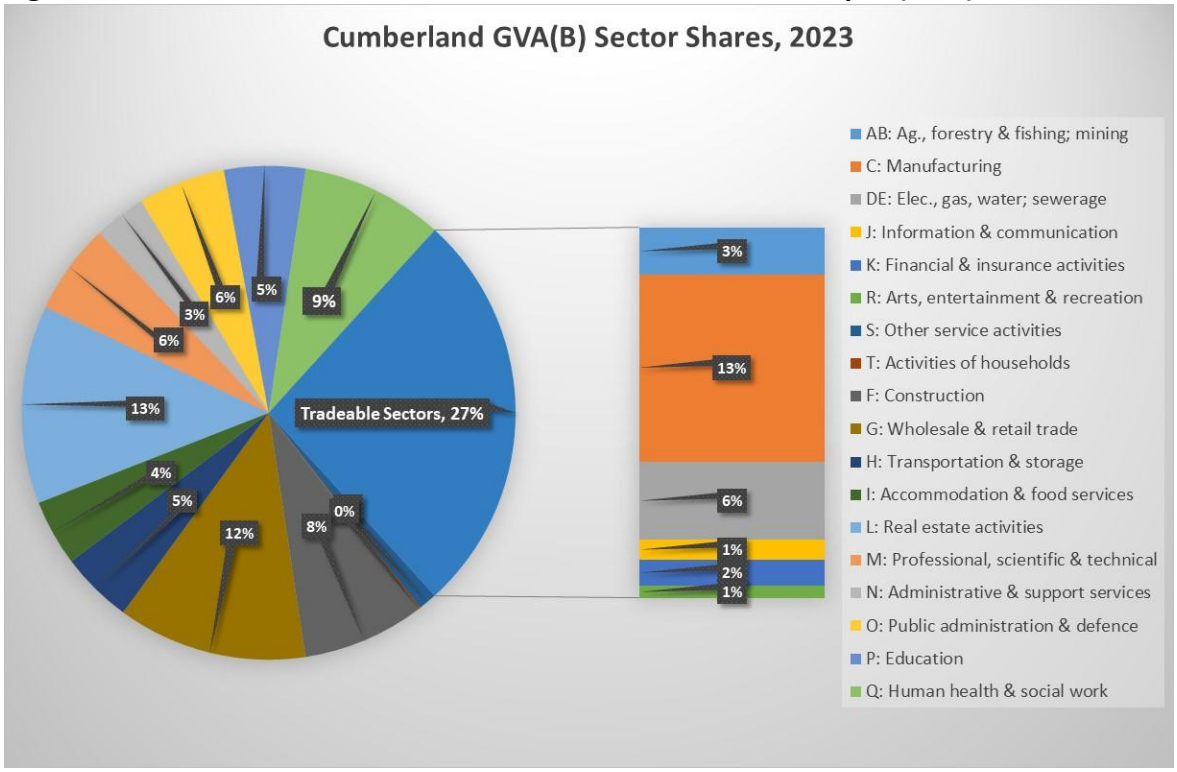
Table 6: Cumberland GVA and Employee Shares of Sectors in 2023

Sector	Cumberland GVA	Cumberland Employed	North West GVA	North West Emp.
A: Agriculture, forestry and fishing	3.4	5.2	0.4	1.1
B: Mining & quarrying	-	0.1	0.1	0.1
C: Manufacturing	13.4	15.7	13.1	8.8
DE: Electricity, gas, water; sewerage & waste management	5.6	1.6	2.2	0.9
J: Information & communication	1.4	1.1	4	3.1
K: Financial & insurance activities	1.9	0.9	5.7	2.4
R: Arts, entertainment & recreation	0.9	1.9	1.3	2.4
S: Other service activities	1.2	1.7	1.5	1.9
T: Activities of households	0.1	-	0.1	-
Share of Tradeable Sectors	**27**	**28.2**	**28.4**	**20.7**
F: Construction	8	6	6.5	5
G: Wholesale & retail trade	12.4	14.2	11.8	14.4
H: Transportation & storage	4.7	4.5	3.8	4.5
I: Accommodation & food services	4.3	9	2.8	7.4
L: Real estate activities	13	1.4	11.8	1.9
(Owner-occupiers' imputed rental)[37]	(8.5)		(8.5)	
(Excluding imputed rental)	(4.5)		(3.3)	
M: Professional, scientific & technical	5.9	6	8.1	9.8
N: Administrative & support services	3.4	5.2	5.4	8.7
O: Public administration & defence	5.7	5.2	4.9	4.8
P: Education	5.3	6.7	6.5	8
Q: Human health & social work	9.3	13.4	10.1	14.9
Total GVA in 2023 (£mn, 2022 prices)	**6,715**	**133,900**	**223,858**	**3632 000**

Source: Employee sectors from Nomis, excludes farm-based agriculture, self-employed, government supported trainees and HM Forces. Regional GVA (balanced) by industry, North West from ONS (2025c) & ONS (2025d).

[37] ONS use imputed rental data to estimate the housing services that households consume when they do not rent their residence. Imputed rent is the rental price that an individual would pay for an asset they own. The methodology ONS use to calculate imputed rent uses the share of the different types of housing stock multiplied by median house prices of an area. In Table 6 a large share of sector L (real estate activities) is divided into the estimates for imputed rent and excluding it leaving the real estate sector a smaller share.

Figure 6: Cumberland Share of Tradeable vs. Non-tradeable output (GVA), 2023



4. Capital Variables

We compare Cumberland with the 4 other local authorities in the Borderlands area[38]. The data tools is calculated with the method outlined in Silva Ruiz et al (2026) for the capitals of physical, social, financial, human, intangible and natural in the following tables. Indicator data for 361 UK local authority districts from the ONS (2025b) are grouped into physical, social, financial and human capitals. The strength of the capitals is assessed by ranking all UK local authorities. We present a colour coded figure for the strength of the capitals at the beginning of this report.

Experimental Data Tool for Borderlands Local Authorities

In Table 7 we present the physical capital indicators in the experimental data tool (Silva Ruiz et al, 2026, for the list of variables and sources). We compare several indicators to represent physical capital including: 2024 median house prices, 2023 electricity consumption, 2024 gigabit capable broadband coverage, 2023 resident population density and 2023 access to amenities indicator with the number of supermarkets per 10,000 of population. The rankings of the authorities are in right hand column. Cumberland ranks 348/361 and is in the bottom 10% of local authority's ranking for physical capital assets. In Table 7 Westmorland and

[38] There are five local authorities within the Borderlands Inclusive Growth Deal, these include: Cumberland, Westmorland, Northumberland, Dumfries and Galloway and the Scottish Borders. See: https://www.borderlandsgrowth.com/

Furness ranks the highest in the index of the Borderland's local authorities at 299/361 of the physical capital index, this is in the bottom 20%. This is evidence of the need to increase infrastructure investment across the Borderlands.

Table 7: Physical Capital Indicators in the Borderlands

Local Authority	Median House Prices (£), 2024	Electricity Consumption (kwh/meter), 2023	Broadband availability (Gb), 2024	Population Density (resident/ km sqrd), 2023	Supermarkets (per 10,000 population), 2023	UK Rank
Cumberland	**176,364**	**3250.3**	**53.8**	**92.3**	**3.66**	**348**
Westmorland and Furness	228,055	3589.3	56.6	60.9	3.75	299
Northumberland	211,778	3147.8	68.6	65.3	3.34	328
Dumfries and Galloway	164,667	3476.4	33.3	22.7	3.7	359
Scottish Borders	205,524	3416.6	63	24.6	3.59	313
NW Median	210,851	3141.3	87.3	1182.5	2.69	
UK Median	277,547	3315.9	83.7	568	2.71	
Productivity Correlation:						
NW (N=35)	0.48	0.38	-0.13	-0.09	0.3	
UK (N=361)	0.51	0.19	0.13	0.25	0.22	

Source: see Silva-Ruiz et al (2026) for method and variable sources.

We compare Cumberland to the North West and UK median. Cumberland has lower house prices, broadband availability and population density than the North West median. Cumberland has higher electricity consumption and access to supermarkets per 10,000 (due to the lower density of the population) than the North West median. The last 2 rows of Table 7 show the cross-correlation coefficients of productivity (GVA per hour) with each of the indicators for the 35 authorities in the North West and for all local authorities in the UK. Here we see that median house prices have the highest correlation with productivity (GVA per hour) of 0.51 for all local authorities in the UK, this is 0.48 for the North West suggesting there is an association with high levels of productivity and higher median house prices.

The social capital experimental data tool indicators are presented in Table 8. These include the 2023 share of children living in relative poverty[39], the population change between the 2011 and 2021 Censuses, an indicator of culture with museums per 100,000 population in 2021 and then results from the ONS local authority well-being survey for anxiety (inverse of 10-anxiety is used), happiness and life satisfaction. For these indicators Cumberland scores in the second half of the social capital index. Northumberland is in the top 20% for social capital.

[39] This is the percentage of children under 16 who are living in a relative low income household. In these statistics, a family must have claimed Child Benefit and at least one other household benefit (Universal Credit, tax credits or Housing Benefit) to be considered as low income. The inverse of this measure is used.

Table 8: Social Capital Indicators in the Borderlands

Local Authority	Children in relative poverty (%), 2023	Population Change (%), 2011-2021	Museums (per 100,000 population), 2021	ONS well-being survey 2022/23			UK Rank
				Anxiety	Happiness	Life satisfaction	
Cumberland	**21**	**-0.5**	**8.78**	**3.29**	**7.50**	**7.75**	**195**
Westmorland and Furness	17.9	0.6	14.12	3.40	7.54	7.73	147
Northumberland	17	1.4	13.73	2.69	7.56	7.68	71
Dumfries and Galloway	24.6	-3.7	23.3	3.68	7.63	7.66	223
Scottish Borders	19.7	2.5	28.23	2.86	7.34	7.58	86
NW Median	23	4.5	2.19	3.29	7.42	7.46	
UK Median	18	5.2	4.02	3.25	7.42	7.48	
Productivity Correlation:							
NW (N=35)	-0.4	0.19	0.18	0.01	0.02	0.2	
UK (N=361)	-0.36	0.21	0.08	0.17	-0.09	-0.02	

The indicator of concern for Cumberland is the high share of children in relative poverty (21%), just below the North West median (this is negatively correlated with productivity in the North West and the UK). The population change between 2011 and 2021 is -0.5% so has contracted in Cumberland. All other measures are higher than the North West, with many more museums due to the strong tourism industry. In the well-being survey, anxiety in Cumberland is at the North West median, happiness and life satisfaction are higher. For more on social capital see Haldane and Halpern (2025).

The data tool for financial capital in Table 9 includes: prosperity in 2022 (GDP per capita), 2022 Gross Disposable Household Income per head (GDHIph) and the 2023 gross median weekly pay of workers. The share of new businesses created in 2023[40] and the 2023 rate of high growth businesses[41] per 10,000 population. In Table 9, we see that Cumberland is in the bottom 30% of the financial capital index with ranking 256/361. Cumberland has lower measures for most the indicators than the North West median, the exception is pay which is above the North West median and income per head which is at the median. Prosperity, income, pay and high growth businesses have positive correlation with productivity in the North West.

[40] This is the share of newly registered businesses out of the total active business population.

[41] High growth businesses have an average growth in employment of greater than 20% per year over a three-year period. This variable shows the share of high growth businesses as a percentage of active businesses with 10 or more employees.

Table 9: Financial Capital Indicators in Borderlands

Local Authority	Prosperity (GDP per capita, £), 2022	Income per head (GDHIph, £), 2022	Gross Median Weekly Pay (£), 2023	Businesses births (%), 2023	High growth Business (%), 2023	UK Rank
Cumberland	**27,305**	**19,333**	**619.1**	**10.4**	**3.3**	**256**
Westmorland and Furness	33,242	23,103	627.7	8.0	2.9	314
Northumberland	22,656	21,359	575.6	9.7	4.4	253
Dumfries and Galloway	29,413	20,326	557.9	7.9	3.3	341
Scottish Borders	25,315	21,187	566.5	8.8	2.3	342
NW Median	27,341	19,333	586.4	11.3	4.4	
UK Median	29,380	21,359	603.8	10.4	4.2	
Productivity Correlation:						
NW (N=35)	0.71	0.49	0.33	-0.28	0.37	
UK (N=361)	0.27	0.48	0.57	0.00	0.33	

Table 10: Human Capital Indicators in the Borderlands

Local Authority	Employment Rate (%) in 2023	Skills (RQF level 3+) in 2023	Dependency Ratio in 2021	Healthy Life Expectancy, 2018-20	Cigarette Smokers (%) in 2023	UK Rank
Cumberland	**82.4**	**63.5**	**0.68**	**63.5**	**11.8**	**184**
Westmorland and Furness	82.0	59.5	0.7	63.5	7.9	175
Northumberland	70.8	64.9	0.73	61.9	8.2	258
Dumfries and Galloway	67.8	73.6	0.74	62.2	13.1	281
Scottish Borders	74.8	72.2	0.73	64.7	13	223
NW Median	74.1	63.5	0.62	62.7	11.8	
UK Median	76.5	66.7	0.62	63.4	11.4	
Productivity Correlation:						
NW (N=35)	0.31	0.47	0.00	0.4	-0.33	
UK (N=361)	0.18	0.28	-0.34	0.31	-0.25	

Human capital indicators for the data tool are shown in Table 10. The variables included are the 2023 employment rate, 2023 share of the population with level 3 skills and above, the dependency ratio[42] in 2021, 2018-20 healthy life expectancy (male and female age in years combined) and the 2023 proportion on adults who smoke (the inverse of this measure is used in the tool so 100-CigSmokers). Cumberland is just into the second half of the ranking in the human capital index with all indicators better than or at the North West median. The

[42] The dependency ratio is the non-working age population to working age population (16-64 years).

employment rate for Cumberland is the highest in the Borderlands region at 82.4%. There is a positive correlation between productivity and skills of 0.47 for North West local authorities.

Intangible capital indicators for the data tool are shown in Table 11. The variables include two variables from the Data City[43] to represent the concentrations of innovative and digital firms in the local authority areas. The Data City train its machine learning technology using the website text of companies which spend heavily on research and development, producing a language model that identifies the shared language patterns across all companies the Data City has collected information on[44]. For example with the innovation score, this language model includes keywords like "research," "cutting-edge," and "design thinking" but also other less common keywords, such as "apprenticeship" or "training." The model is then used to score all the Data City companies' website text, identifying those that use the same language. A location quotient is calculated comparing the share of companies with innovation attributes to the full sample of companies and compares this to the share of these companies at the UK level.

Table 11: Intangible Capital Indicators in the Borderlands

Local Authority	Innovation LQ	Digital LQ	Patents/Firms (1000)	InnovateUK Grants/Firms (1000)	UK Rank
Cumberland	**3.12**	**1.60**	**2.08**	**2.5**	**219**
Westmorland and Furness	2.33	0.82	3.90	3.58	263
Northumberland	3.08	0.80	5.07	4.63	152
Dumfries and Galloway	5.50	0.98	3.13	1.57	136
Scottish Borders	2.80	0.90	4.21	3.58	205
NW Median	2.9	1.58	2.86	2.5	
UK Median	3.21	1.33	3.27	2.86	
Productivity Correlation:					
NW (N=35)	0.56	0.3	0.43	0.49	
UK (N=361)	0.51	0.36	0.14	0.11	

The digitalisation LQ also follows a location quotient approach, where the Data City calculate the concentration of firms working on digital activities in each local authority compared to the UK's average. They obtain the total number of companies working in digital activities using the Real-Time Industrial Classification (RTIC), which is The Data City's machine learning-based company classification methodology. RTICs are output datasets that group all companies that describe their activity similarly. The model is trained with a set of company websites

[43] These variables are discussed in more detail in the TPI Productivity Lab blog: https://www.productivity.ac.uk/the-productivity-lab/the-digitalisation-and-prevalence-of-innovative-practices-in-firms-in-mayoral-combined-authorities/

[44] https://thedatacity.com/blog/introducing-our-company-innovation-measure/

representative of the digital sectors. Similar to the Innovation Score calculation process, the algorithm creates a language model that defines the shared linguistics by the company websites and uses it to score the rest of the company websites against it. So, for example, all companies developing Artificial Intelligence technologies can be grouped in a dataset. The Data City has several RTICs representing digital sectors[45].

The remaining two indicators in the intangible capital index are from Beauhurst's (2024) Local Growth Index. These include the number of registered patents to firms in an area and the number of firms receiving InnovateUK grants. Both of these indicators are then divided by the number of registered companies in the local authority.

Cumberland is in the bottom 40% of the intangible capital index, ranking 219/361. The innovation and digitisation location quotients are above the North West median so there is promise for future developments in these areas. The InnovateUK grants are at the NW median and the number of patents as a share of companies are lower than the median. Dumfries and Galloway is in the top 40% of the intangible capital index.

Table 12: Natural Capital Indicators in the Borderlands

Local Authority	Industry	Commercial	Public Sector	Domestic	Transport	LULUCF Net Emissions	Agriculture	Waste	UK Rank
Cumberland	**270.0**	**163.6**	**40.0**	**409.4**	**471.4**	**-171.6**	**967.6**	**132.5**	**97**
Westmorland and Furness	520.8	160.2	30.7	367.8	736.0	-261.8	903.6	193.8	49
Northumberland	281.2	111.0	44.0	504.0	585.5	-471.6	683.3	59.5	9
Dumfries and Galloway	121.1	84.0	19.6	229.9	530.8	-150.2	1452.3	15.3	47
Scottish Borders	76.6	42.6	15.6	183.5	245.8	-102.7	707.6	13.8	19
NW Median	138.4	86.5	33.7	244.2	312.2	6.6	21.2	46.2	
UK Median	75.8	66.6	23.2	188.3	263.0	0.2	44.8	38.1	
Prod. Corr.:									
NW (N=35)	-0.11	0.05	0.001	-0.07	0.18	0.13	-0.14	-0.06	
UK (N=361)	-0.05	0.29	0.07	-0.05	-0.004	-0.02	-0.17	-0.01	

Source: DESNZ (2024). Greenhouse gas emission estimates in kt CO2e in 2022.

The indicators we present in Table 12 presents the experimental data tool of natural capital. The indicators are from the Department from Energy Security and Net Zero (DESNZ, 2024). Table 12 shows the territorial greenhouse gas emission estimates for the total of each sector. The greenhouse gas emissions are measured in kilo tonnes of carbon dioxide equivalent (kt CO2e). The category for Land Use, Land-Use Change and Forestry (LULUCF) covers the net emissions from land classes including: forest land; cropland; grassland; wetlands; settlements,

[45] The RTICs selected are: Artificial Intelligence, Cyber, Cryptocurrencies Economy, Data Intermediaries, Design and Modelling Technologies, Digital Creative Industries, E-commerce, Fintech, Gaming, Immersive Technologies, Internet of Things, SaaS, Software Development, Streaming Economy.

other land and the pool of harvested wood products (when the emissions are negative they are being taken out of the atmosphere). The DESNZ (2024) report presents the emissions per capita and per square kilometre. To create the index each of the above categories are divided by land area in square kilometres before standardising.

Cumberland is in the top 30% of the natural capital index. Cumberland has sector emissions higher than the North West Median for most categories and then the negative Land Use, Land-Use Change and Forestry (LULUCF) category removes emissions. This is due to the Lake District National Park and woodland coverage of 12% (according to ONS, 2021). Northumberland is in the top 5% of the natural capital index, helped by the large removal of emissions with the National Park and Kielder Forest (18% of woodland coverage according ONS, 2021).

5. Qualitative Analysis

On 14th March 2025, the Investment in Productive Places Campaign (IPPC) project team held a workshop with various public and private stakeholders in Cumberland to discuss each of the seven capitals in a group setting. Stakeholders were invited by Cumberland Council. These members were selected to be representative of each of the capital asset areas as laid out in the introduction of this report. Following a brief introduction and baseline survey of all members present, the discussion on each individual capital area was limited to 10 minutes. The summary of each of those 10-minute discussions is displayed in the word clouds in the Figure 7 and 8 below.

In the word cloud in Figure 7 in terms of physical capital, the stakeholders discussed the extensive land assets within the county. This was with a view to highlighting planning constraints with regard to attracting businesses and inward investment. Sustainability was also a key factor of the discussion and the need to centre local people at the heart of making the best use of planning policy and decisions surrounding land use without detriment to the local environment and natural assets. Similarly, the human capital section also centred on how to improve the prospects of the local population through a combination of adult training and business support. This extended to working proactively with the business base to establish the types of skills businesses are demanding locally, to join up policy, education and training responses to supply this.

In terms of intangible assets in Figure 7, the participants explored the notion of strong and clear messaging about the purpose and narrative of the local area, particularly in Carlisle. They raised the positive ‘pull’ effect that knowledge assets, such as the new university campus, would have on attracting additional investment. Next, the strengths of the tight-knit community came through in the social capital discussion. In particular, the members explained how they wanted to work more to celebrate the diversity in the local area to promote social cohesion. Further to this, they highlighted the efforts already being made extensively across social and cultural services by volunteers and how it contributes to building public trust, and that it should be cherished as a real community asset.

Figure 7: Word Cloud for the Cumberland Workshop, March 2025

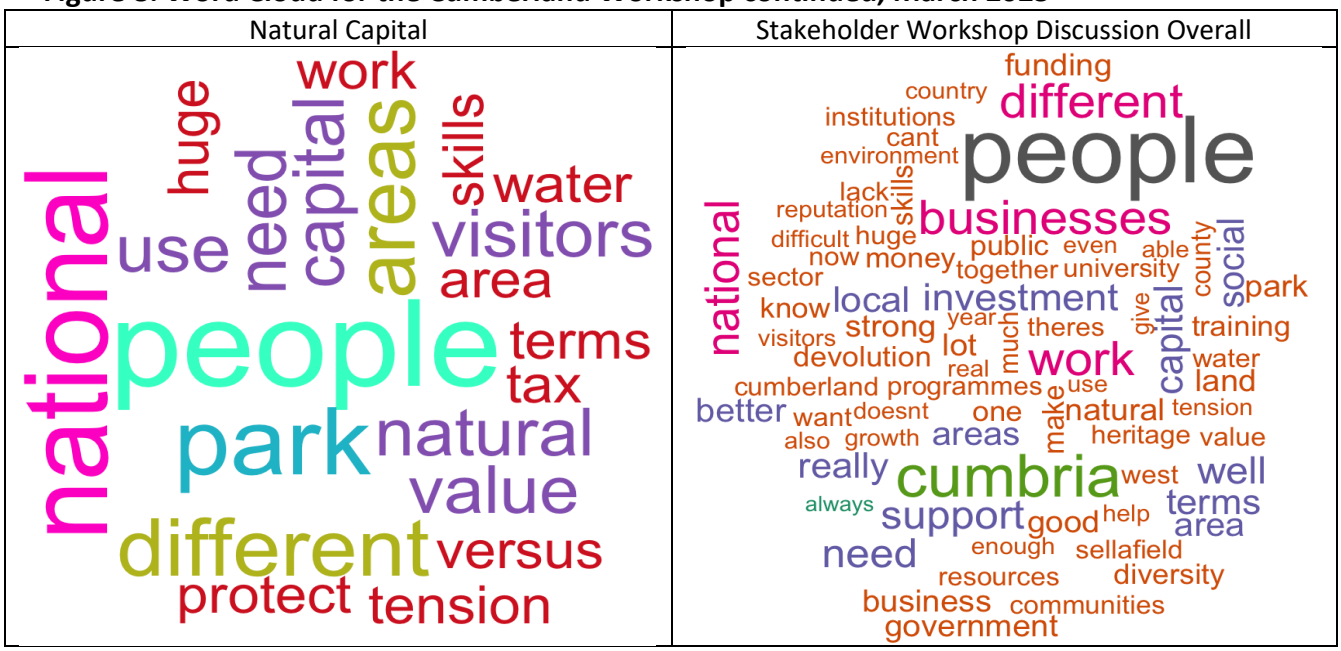
The discussion of financial capital in Figure 7 detailed some of the poverty within the county and the precarity of household finances with respect to managing debt and loans. The conversation moved on to how to link local firms up with investors to get the capital they require to invest. The discussion on institutional capital then followed a similar thread, and focused on how to best manage the devolution deal and negotiations with central Government and other regional authorities. All of this was to support the aims of improving prosperity and the offer for local residents, despite reservations and difficulties.

In Figure 8, we have singled out the discussion of natural capital as it is a particular priority for Cumberland given the extensive natural and environmental assets and resources in the county. The issues surrounding the national park, and how to understand the value of these natural assets and how they translate to the local population. Policy proposals such as the idea of a visitor tax was raised on how to mobilise and levy these resources to alleviate tensions and mediate the pressures of tourism, protect seasonal workers, and improve access of the local population to these natural wonders.

Overall, the combined word cloud in Figure 8 highlights the needs of the local population, and the people-centred focus of local development policy. Another dominant thread throughout the workshop was how to leverage and attract more inward investment to support local

businesses. Finally, this funding and access to finance discussion also extended to how to navigate and manage the ongoing and accelerating process of devolution.

Figure 8: Word Cloud for the Cumberland Workshop continued, March 2025



We followed up the workshops with interviews on each of the capitals. The qualitative analysis highlights the multi-faceted nature of driving productivity and prosperity in Cumberland, requiring collaboration across sectors, flexibility to adapt, and a long-term, holistic approach that addresses both economic and social factors.

The remainder of this section outlines key insights drawn from qualitative research, highlighting the structural, social, and economic factors that influence Cumberland's development trajectory. These themes reflect the broad perspectives of local stakeholders and provide insights into the enablers driving progress and the persistent challenges that require targeted policy intervention. These are not presented in order of importance, nor should they be read in isolation.

Cumberland and the Capitals

Cumberland has an impressive range of knowledge and leadership across a range of capitals. Social capital is shown through a strong community voluntary sector, and businesses employing innovative methods to support regions in need of redevelopment, often overlooked by traditional funding sources. In addition, several innovative and impactful approaches are in place across the region, especially in land-based sectors. This includes a model that transforms raw data into actionable insights for farm management.

Institutionally, Cumberland Council is regarded as being keen, willing, open and committed to addressing the challenges that it knows the region faces and is receptive to a range of

regional actors' perspectives that are required to both understand and address these diverse challenges. This suggests that Cumberland has great potential in social, intangible and institutional capital and these are very positive attributes. Conversely, there are some tensions amongst these assets. For example, whilst the abundant natural beauty of the region is a key asset, the tourism that it attracts presents both advantages and challenges, and it appears that a common understanding of how best to manage these tensions is not consistent across the key institutions. Positively, a strength of the region is the commitment to address these challenges.

Whilst there is recognition of the high levels of natural capital that Cumberland has, it is not always recognised as an economic contributor, leading to underinvestment and limiting the extent to which this could be leveraged across many key drivers of productivity, including human capital, financial capital and intangible capital.

Cumberland Key Challenges and Enablers

Recognising Natural Capital as a Key Strategic Asset

While Cumberland's natural beauty and biodiversity are rightly valued for their intrinsic worth, and the benefits they provide to both people and wildlife, there remain significant opportunities that are not being fully realised. These natural assets could play a more active role in supporting sustainable economic development, enhancing wellbeing, and strengthening regional resilience, yet current approaches do not appear to be leveraging their full potential. Properly managed natural environments, such as upland habitats, can deliver measurable benefits like flood prevention[46], infrastructure protection, and improved public health. Farming is an economically significant sector for Cumberland, but it appears that it may not be sufficiently integrated into wider economic policy and land-use planning. By aligning Cumberland's natural capital as a driver of productivity, sustainability, and regional development, it would become a more integrated factor in economic and policy planning. Reframing discourse to highlight how environmental protection can align with development and productivity goals may foster a more collaborative approach to achieving both objectives. Improving awareness of the multifaceted value of natural capital would lead to better decisions that fully consider its economic, social, and environmental contributions.

There are competing targets and ideas regarding the best use of land, such as for housing, energy, and conservation. Competition for land use, coupled with fragmented thinking among government sectors and policy, results in land being repurposed without considering the broader economic and social consequences, such as implications for farms, farmers and food production and other land-based occupations. An integrated land use framework that balances food production, environmental goals, and rural development could better integrate natural capital into broader regional objectives. Furthermore, there are opportunities to both

[46] https://thefloodhub.co.uk/wp-content/uploads/2024/09/2024-25-Cumbria-FCERM-Partnership-Handbook.pdf

support the existing workforce and recruit new workers through training on rural skills programmes, regenerative agriculture, agri-tech and land-based careers.

There is a growing interest in biodiversity, and this could be a key enabler for Cumberland. Collaboration with universities and other experts across the region could drive this opportunity. The Digital Dairy Chain's role in transforming raw data into actionable management tools demonstrates the value of collaboration and actionable research. The region's potential for developing sustainable energy sources presents a significant opportunity for relationships with "green investors", see also Griffith and Nicholls (2024). Furthermore, the willingness of the Cumberland Council, to explore alternative land valuations and recognise land's potential for income generation and community benefit reflects a progressive mindset. These strengths position Cumberland to lead in green investment and sustainable energy development, offering a compelling case for deeper engagement with "green investors" and broader strategic planning.

Repositioning Cumberland Through Place Narrative and Sector Diversification

Cumberland's broader potential is often overshadowed by its scenic identity, limiting its ability to attract a varied and diverse employment offer and investment. By emphasising its natural capital, quality of life, and regeneration capacity, the region can reshape its place narrative. Strategic marketing, sector diversification, particularly into the green economy and the knowledge capital that the region has in this sector offer clear opportunities to build a more vibrant and diverse economy and population.

In order to do this, Cumberland will need to address challenges from fragmented investment and siloed policy thinking, which can lead to some uncoordinated land-use decisions and planning uncertainty. Strengthening university-industry collaboration, expanding angel investment networks, and fostering innovation hubs can unlock business growth. At the same time, improving employment and business opportunities, through professional networks, startup support, and inclusive co-working spaces, can help retain skilled workers and attract new ones. By aligning financial planning with innovation and workforce development, Cumberland can build a more resilient economy.

Infrastructure for a Digitally Enabled and Inclusive Economy

Plans are progressing to strengthen the public transport connectivity across Cumberland[47]. This is critical to give access to varied employment opportunities that extend beyond local choices. In addition, it will reduce travel times, which currently are not often accurately reflected in the standardised data; for example, a journey to work time might be 15 miles away, but with very limited public transport, it is likely to be unfeasible.

In addition to physical connectivity, concerns were raised around limited high-speed broadband coverage, particularly across rural and semi-rural communities. Making these

[47] https://www.in-cumbria.com/news/25550441.governments-bus-franchising-pilot-extended-cumbria/

improvements would enable remote working, support digital innovation, and increase participation in the digital economy. This is critical for enhancing productivity and attracting new business activity. Increasing employment opportunities across various sectors, including shared co-working and innovation spaces, would support a diverse job market. This could stimulate start-ups and entrepreneurship, helping to attract and retain new businesses, residents, and investments in the area. Co-working hubs and shared spaces that promote professional networks, particularly for young people and remote workers, could offer flexible membership models to ensure accessibility. Successful models like Eagle Labs (Whitehaven) and The Guild (Carlisle) offer a solid foundation for learning.

6. Conclusions

Cumberland faces significant challenges in productivity, infrastructure, and demographic trends, but also possesses strategic strengths that can be leveraged for inclusive and sustainable growth. Labour productivity in Cumberland is below both the North West of England and UK averages, with low growth since 2008. The region ranks in the bottom tiers for physical and financial capital, reflecting issues such as poor digital connectivity and low business dynamism. Health indicators show rising inactivity due to illness, and the population is ageing, which will increase demand for health and social care services. However, Cumberland performs well in employment rates and has promising innovation and digital sector potential. It also ranks in the top 30% for natural capital, thanks to its extensive natural assets.

Cumberland presents a compelling case for inclusive and sustainable regional development. The region's strategic assets, including stable investment from the nuclear sector, strong natural capital, and emerging innovation hubs, offer a solid foundation for growth. Community-led regeneration models, agricultural innovation, and commitment from local government demonstrate a readiness to embrace new approaches. However, challenges such as fragmented investment and limited transport infrastructure must be addressed to unlock Cumberland's full potential. By reframing its place narrative, diversifying its economic base, and investing in connectivity and collaboration, Cumberland can position itself as a forward-looking region capable of attracting talent, investment, and green innovation.

Cumberland needs to address infrastructure deficits as it ranks in the bottom 10% nationally for physical capital, with poor broadband coverage and transport connectivity. These deficits limit access to employment, education, and investment opportunities. Improving digital and transport infrastructure is essential to unlock productivity, especially in rural and coastal areas.

Cumberland should leverage its natural capital as its rich natural assets place it in the top 30% for natural capital, yet these are underutilised in economic planning. Reframing natural capital as a productive asset—supporting flood prevention, public health, and green investment—can enhance resilience and attract sustainable development.

While Cumberland has strengths in clean energy, manufacturing, and agriculture, it ranks in the bottom 40% for intangible capital. Cumberland can boost innovation and sector

diversification by supporting innovation hubs, digital firms, and green industries can diversify the economy and raise productivity. Collaboration with universities and investors is key.

Cumberland has a high employment rate and improving skills levels, but still lags behind the North West in higher level qualifications. Expanding training in digital, green, and rural skills will support workforce development and help address demographic challenges from an ageing population.

Cumberland needs to enhance social and financial inclusion to tackle high child poverty and low business dynamism that contribute to Cumberland's low rankings in social and financial capital. Inclusive regeneration models, co-working hubs, and targeted support for disadvantaged groups can improve wellbeing, entrepreneurship, and economic participation.

Fragmented investment and siloed policy approaches hinder progress. A joined-up strategy that aligns land use, infrastructure, skills, and innovation with community needs will help Cumberland move from "falling behind" to "catching up" in productivity performance.

Despite these challenges, Cumberland has opportunities for regeneration and economic diversification. Investments from the Borderlands Inclusive Growth Deal, Carlisle's city centre redevelopment, and green energy initiatives provide momentum. The region's industrial strengths include clean energy, manufacturing, and agriculture, with notable specialisations in basic metals and food production. Qualitative insights reveal strong community engagement, committed local leadership, and a desire to better integrate natural capital into economic planning. Key barriers include fragmented investment, poor transport and digital infrastructure, and underutilisation of natural assets. Addressing these through coordinated policy, improved connectivity, and strategic sector development could reposition Cumberland as a resilient and forward-looking region.

References

Beauhurst (2024). The Local Growth Index: a Beauhurst encyclopaedia of local business data. https://www.beauhurst.com/research/the-local-growth-index/

Coyle, D., van Ark, B. and Pendrill, J. (2023). The Productivity Agenda. Report No. 001. The Productivity Institute. Download: https://www.productivity.ac.uk/research/the-productivity-agenda-report/

DESNZ (2024). UK local authority greenhouse gas emissions estimates 2022. https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics

DLUHC (2022). Levelling Up the United Kingdom, Department for Levelling Up, Housing and Communities White Paper, from: https://www.gov.uk/government/publications/levelling-up-the-united-kingdom

Donaldson, R., D. Jordan, J.D. Turner (2025) NI Productivity 2040: Addressing Northern Ireland's productivity gap for greater prosperity, Productivity Insights Paper No. 049, The Productivity Institute. https://www.productivity.ac.uk/research/northern-ireland-2025/

Emery, M., & Flora, C. (2006). Spiraling-up: Mapping community transformation with community capitals framework. Community Development, 37(1), 19–35. https://doi.org/10.1080/15575330609490152

Garcia, F., Gouma, R., Menukhin, O., Ortega-Argiles, R., Sarsfield, W. and Watson, R. (2024) TPI ITL3 Regional Productivity Scorecards – 2024 Edition, The University of Manchester. https://doi.org/10.48420/23791680. Blog: https://www.productivity.ac.uk/the-productivity-lab/the-2024-tpi-uk-itl3-productivity-scorecard-series/.

Gouma, F.R., McCann. P. and Ortega-Argilés, R. (2025). "Are UK Regional Productivity Disparities Really Narrowing? An Investigation into Recent Productivity Data Revisions". International Productivity Monitor. See: https://www.csls.ca/ipm.asp

Griffith, R. and Nicholls, M. (2024). Financing UK place-based climate action: from Westminster to Cumberland. London: Grantham Research Institute on Climate Change and the Environment. London School of Economics and Political Science.

Haldane, A. and Halpern, D. (2025). Social Capital 2025: The hidden wealth of nations, Demos, https://demos.co.uk/research/social-capital-2025-the-hidden-wealth-of-nations/

HM Government (2024). Plan for Change: Milestones for mission-led government. https://www.gov.uk/government/publications/plan-for-change

Losada-Rojas, Lisa L., Indraneel Kumar, Annie Cruz-Porter, Yue Ke, Andrey Zhalnin, Benjamin St. Germain, Konstantina Gkritza & Lionel J. Beaulieu (2024). "Community capitals and economic resilience: insights from the Great Lakes Region post-Great Recession", Regional Studies, DOI: 10.1080/00343404.2024.2355987

McCann, P. (2020) 'Perceptions of regional inequality and the geography of discontent: insights from the UK', *Regional Studies*, 54(2), pp. 256–267. doi: 10.1080/00343404.2019.1619928.

McKeogh, N; Menukhin, O; Ortega-Argilés, R; Sarsfield, W; Silva Ruiz, A; Watson, R (2025). TPI UK ITL3 Scorecards, 2025 Edition. University of Manchester. Blog at: https://www.productivity.ac.uk/the-productivity-lab/the-2025-tpi-uk-itl3-productivity-scorecard-series/

Ministry of Housing, Communities and Local Government (2025). The English Indices of Deprivation 2025: statistical release. Published on 17/11/25. https://www.gov.uk/government/statistics/english-indices-of-deprivation-2025/english-indices-of-deprivation-2025-statistical-release#local-authority-district-analysis

OECD (2016), OECD Regional Outlook 2016: Productive Regions for Inclusive Societies, OECD Publishing, Paris, https://doi.org/10.1787/9789264260245-en.

OECD (2018), Productivity and Jobs in a Globalised World: (How) Can All Regions Benefit? OECD Regional Development Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264293137-en.

ONS (2021). Carbon dioxide emissions and woodland coverage where you live. 21/10/21. https://www.ons.gov.uk/economy/environmentalaccounts/articles/carbondioxideemissionsandwoodlandcoveragewhereyoulive/2021-10-21

ONS (2022). Experimental regional gross fixed capital formation (GFCF) estimates by asset type: 1997 to 2020. Released 10/5/22.

https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/articles/experimentalregionalgrossfixedcapitalformationgfcfestimatesbyassettype1997to2020/2022-05-10

ONS (2025a). Productivity trends in the UK: July to September 2024, released 29/1/25, https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/articles/productivitytrendsintheuk/julytoseptember2024

ONS (2025b). Clustering similar local authorities and statistical nearest neighbours in the UK, methodology, 14/2/25, https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/clusteringsimilarlocalauthoritiesandstatisticalnearestneighboursintheukmethodology

ONS (2025c). Regional gross value added (balanced) by industry: all ITL regions. https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry, released 17/4/25.

ONS (2025d). Regional gross value added (balanced) by industry: LAs by ITL1 region. https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossvalueaddedbalancedbyindustrylocalauthoritiesbyitl1region, for North West, released 27/4/25.

ONS (2025e). Labour Force Survey quality update: May 2025, released 13/5/25, https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/labourforcesurveyqualityupdate/may2025

ONS (2025f). Earnings and employment from Pay As You Earn Real Time Information, UK: June 2025, released 10/6/25. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/earningsandemploymentfrompayasyouearnrealtimeinformationuk/june2025

ONS (2025g). Regional and subregional labour productivity, UK: 2023. https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/regionalandsubregionallabourproductivityuk/2023, released 19/6/25.

ONS (2025h). International trade in UK nations, regions and cities: 2023, 6/8/25, https://www.ons.gov.uk/businessindustryandtrade/internationaltrade/bulletins/internationaltradeinuknationsregionsandcities/2023

Ortega-Argilés, R. and García Elena, F. (2025). The TPI Productivity Scorecards and Dashboards for Mayoral Combined Authorities – 2024 Edition. https://www.productivity.ac.uk/the-productivity-lab/the-tpi-productivity-scorecards-and-dashboards-for-mayoral-combined-authorities-2024-edition/

Penney, K., M. Sensier, R. Ortega-Argilés, F. Garcia Elena (2025). North West Productivity and Growth Strategies, Productivity Insights Paper No. 047, The Productivity Institute.

Prothero, R. (2025). ONS Response to "Are UK Regional Productivity Disparities Really Narrowing? An Investigation into Recent Productivity Data Revisions“. International Productivity Monitor.

Silva-Ruiz, Alfonso; Sensier, Marianne; Ortega-Argiles, Raquel; Sarsfield, William (2026). TPI Local Authority Capitals Dashboard - Methods and Sources. University of Manchester. Report. https://doi.org/10.48420/31241401.v3.

The Productivity Institute (2024). Productivity Primer: Why productivity matters for the economy, business, and places. Available at: https://www.productivity.ac.uk/research/productivity-primer/

van Ark, B., J. Pendrill, K. Penney, J. Wilson, R. Ortega-Argilés (2025) Regional Productivity Agenda, The Productivity Institute. https://www.productivity.ac.uk/research/the-regional-productivity-agenda/

Watson, R. and Ortega-Argilés, R. (2025). The 2025 TPI UK ITL3 Productivity Scorecard Series. The Productivity Institute Blog: https://www.productivity.ac.uk/the-productivity-lab/the-2025-tpi-uk-itl3-productivity-scorecard-series/

Wilson, S. and Morris, D. (2023). Connected Communities: Moorclose. University of Lancashire report. Publication link.

Appendix Table A3: Cumbria Workplace and Residents Flows, Census 2021

Workers	**Carlisle**	**Allerdale**	**Copeland**	**Barrow-in-Furness**	**South Lakeland**	**Eden**
People working in LA	53,622	40,544	32,048	31,947	52,464	27,521
Workers travelled within the LA	29,194	17,970	14,707	17,831	22,207	10,764
Lived and worked in LA	46,980	34,664	25,523	27,063	43,433	23,215
Travelled from another LA	6,642	5,880	6,525	4,884	9,031	4,360
Most popular areas commuted from	Allerdale (3,008) Eden (1,725) Northumber-land (452)	Copeland (3,049) Carlisle (1,598) Eden (590)	Allerdale (4,788) Barrow-in-Furness (472) Carlisle (313)	South Lakeland (2,788) Copeland (631) Lancaster (215)	Lancaster (2,986) Barrow-in-Furness (2,715) Eden (897)	Carlisle (2,159) Allerdale (761) South Lakeland (541)
Residents	**Carlisle**	**Allerdale**	**Copeland**	**Barrow-in-Furness**	**South Lakeland**	**Eden**
Total Population	110,250	96,368	67,170	67,384	104,606	54,951
Working people living in the LA	52,950	44,231	30,567	31,195	50,133	27,336
People who WFH or no fixed place of work	17,786	16,694	10,816	9,232	21,226	12,451
Travelled to another area	5,970	9,567	5,044	4,132	6,700	4,121
Most popular areas commuted to	Eden (2,159) Allerdale (1,598) Copeland (313)	Copeland (4,788) Carlisle (3,008) Eden (761)	Allerdale (3,049) Barrow-in-Furness (631) South Lakeland (391)	South Lakeland (2,715) Copeland (472) Lancaster (101)	Barrow-in-Furness (2,788) Lancaster (1,355) Eden (541)	Carlisle (1,725) South Lakeland (897) Allerdale (590)

Source: ONS, https://www.ons.gov.uk/visualisations/censusorigindestination/, Census Origin Destination Visualisation. WFH is worked from home. Please note that commuting into and out of the area from Scotland is not included as the Census was for residents in England & Wales (this could impact Carlisle). Scotland's Census was delayed by a year because of the pandemic so there are no comparable data for 2021.