

# Economic and Social Impact Assessment of Northumbria University

A report to



**Northumbria  
University**  
NEWCASTLE

December 2023



**Northumbria  
University**  
NEWCASTLE



# Contents

<b>Executive Summary</b>	<b>1</b>
<b>1 Introduction</b>	<b>4</b>
<b>2 Framework and Definitions</b>	<b>6</b>
<b>3 A Research-Intensive University</b>	<b>13</b>
<b>4 Innovation and Business Engagement</b>	<b>18</b>
<b>5 Student Access, Participation and Impact</b>	<b>27</b>
<b>6 Graduate Impacts</b>	<b>35</b>
<b>7 Core Impacts</b>	<b>48</b>
<b>8 Anchors through Partnership</b>	<b>53</b>
<b>9 Impact in Context</b>	<b>57</b>
<b>10 Summary and Conclusions</b>	<b>61</b>



# Executive Summary

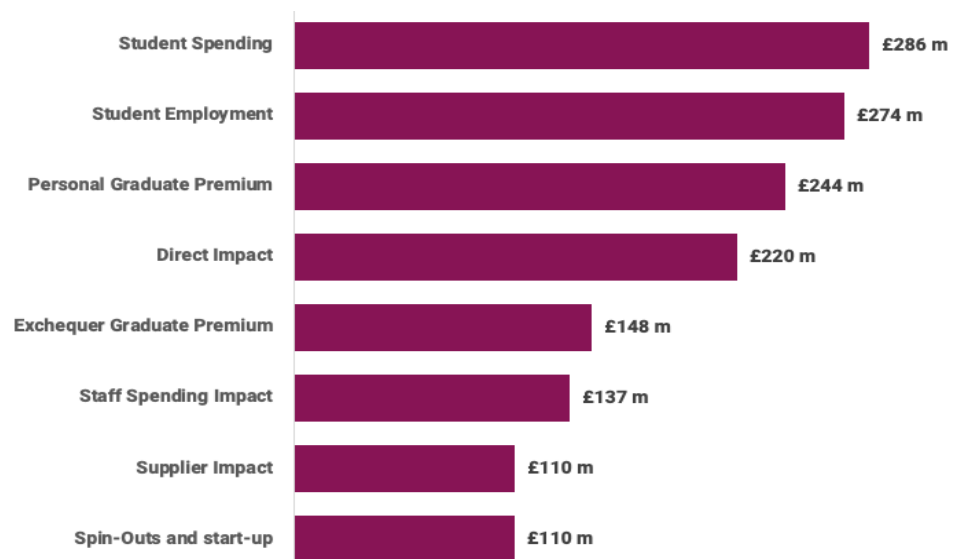
In 2021/22, Northumbria University generated an economic impact in the UK of **£1.6 billion Gross Value Added** and **31,650 jobs**. It creates a strong social impact across important dimensions for local, regional, national and international communities.

Northumbria University is a research-intensive university, now ranked 23<sup>rd</sup> in the UK for research power with 80% of its research being internationally excellent or world leading. It is also a driver of social mobility, enrolling almost 40% of undergraduates from underrepresented areas and groups, and providing them a route into a research rich education. It was also recognised as University of the Year 2022 by Times Higher Education. The University has commissioned an economic and social impact assessment to explore its contributions to local, regional, and national economies.

In 2021/22, the University generated an economic impact worth **£1.6 billion Gross Value Added (GVA)**<sup>1</sup> and **31,650 jobs** in the UK. Of this:

- £636 million GVA and 13,180 jobs were retained in Newcastle;
- £829 million GVA and 16,280 jobs were retained in Tyneside; and
- £1.0 billion GVA and 20,120 jobs were retained in the North East Mayoral Combined Authority region.

**Figure 0-1: Largest economic impacts of Northumbria University in the UK, GVA**



<sup>1</sup> GVA is the monetary contribution that an organisation adds to the economy through its operations



Northumbria University had an income of £329 million and directly employed 3,330 people:

- for each £1 of income received, the University generated £4.99 in economic impact across the UK; and
- for each person it directly employed, the University supported 9.5 jobs across the UK.

These are important economic impacts, but only tell part of the story of how Northumbria University benefits its city and region. It creates wider benefits which are fundamental to economic and social progress across all spheres of its activity: research; innovation; student life; graduates; core operations (e.g. staff and supply chain); and collaborations and partnerships. These have been explored and described through the lens of the OECD's Better Life Index, which highlights areas that matter to people's current and future quality of life.

**A Research-Intensive University:** The University's comprehensive strengths span several domains, including health sciences, social sciences, life and physical sciences, as well as professional disciplines. Notably, Northumbria University's commitment to research with social impact is underscored by its participation in the Times Higher Education Impact Ranking. In the 2023 ranking, Northumbria University ranked 79<sup>th</sup> overall in the world and 21<sup>st</sup> in the UK. The University had particularly strong research contributions related to SDG1: No Poverty, SDG5: Gender Equality, SDG10: Reduced Inequality, and SDG16: Peace, Justice, and Strong Institutions.

**Innovation and Business Engagement:** Northumbria University's aim is to be a research-intensive university with a business focus and a heightened support for commercialisation. There are strong business start-up successes, an increasing focus on spin-outs, and notable levels of services to businesses, student placements, and business clinics.

**Student Access, Participation and Impact:** Northumbria University's student body is more diverse and inclusive than many universities in the UK and it significantly contributes to the local economy and creates social benefits within the community. The University consistently surpasses the sector average in access and participation rates, showcasing its commitment to social impact, unlocking opportunities for potential students from all backgrounds and creating an inclusive research rich environment. In this respect, it stands out as a distinctive exemplar among the Top 25 universities for research power.

**Graduate Impacts:** Northumbria University prioritises student employability and enterprise. Those who received an undergraduate degree from Northumbria University in 2021/22 are collectively expected to earn an additional £369 million over their lifetimes, compared to those with no degree. Many occupations have social value that goes beyond what is received in people's pay. The total social value of the earnings premium (which includes economic value) was estimated to total £388.6 million, with most of this arising through teaching in education, health, and



engineering/technology, all creating graduates with strong social impacts. It is likely that much of this social impact would be felt locally.

**Core Impacts:** The core impacts of Northumbria University underpin its profound role as an anchor in its community. Core impacts arise from the fundamental activities and interactions of the University within its environment. As a large organisation and a significant employer in city, these impacts provide a strong economic platform for Newcastle. There are also important social impacts from core operations, including environmental quality, work and job quality, work-life balance, social connections, along with positive effects on natural and social capital.

**Anchors through Partnership:** Northumbria University is a central player in national and international partnerships focussed on health, culture, science and technology, business, shared services, and sustainability. Its strong collaborative approach contributes to societal impact and enriches its regional and global influence. These partnerships resonate across health, culture, education, and sustainability, binding the institution to its community, region, and the wider world.

**Impact in Context:** Northumbria University has a strategic location within the socio-economic context of Newcastle and the North East, which faces unique challenges. Along with its focus on inclusive education and wider participation, research, community engagement, and collaboration, it is well-positioned to play an important role in economic growth and unlocking opportunities across the region.

**Conclusions:** The results reveal a comprehensive impact landscape, highlighting the wide-ranging value that Northumbria University creates. In 2021/22, the University generated an economic impact worth £1.6 billion GVA and 31,650 jobs in the UK. It creates a strong social impact, not only through making important contributions to education, health, and community, but on the environment, engaging meaningfully with the local, national, and global community, and promoting equality. The impacts that Northumbria University creates are sustainable and will extend long into the future.



# 1 Introduction

Northumbria University is a research-intensive university with a focus on social mobility and a significant economic and social impact.

Northumbria University has undergone a strategic transformation over the last decade with recent results showing the University now ranked 23<sup>rd</sup> in the UK on research power in the Research Excellence Framework 2021, in which 80% of its research was rated in the top two categories of internationally excellent or world leading.

Alongside transforming its research base, the University is a driver of social mobility. Around 40% of its undergraduate students are from areas of low HE participation and it is the largest UK provider of Foundation Year programmes of universities in the Top 25 for Research power, providing a route into a research-rich education for students who otherwise would be unlikely to access university. This strategic role is particularly important in the North East of England, which has high levels of socio-economic deprivation compared to elsewhere in the UK.

Given this and having been awarded University of the Year 2022 at the renowned Times Higher Education (THE) Awards, the University commissioned this economic and social impact assessment to gain a deeper understanding of its contributions during the 2021/22 academic year. The study aimed to measure the University's impact on the local, regional, and national economy, as well as evaluate the significance of its social contribution.

## 1.1 Approach and Report Structure

A number of academics and others have developed a methodology for assessing the economic impact of universities over the past few decades, and BiGGAR Economics has an established approach which has been applied to over 200 universities across the UK and Europe. It involves identifying the activities of a university, considering how they create impacts and where possible quantifying these impacts.

This includes operational impacts of the University, such as employing staff and paying suppliers, and the role of students' spending and part-time work in the economy. It also includes purposeful impacts such as the returns to education as graduates earn more over their lifetimes as well as returns to research and knowledge transfer, for example through the creation of spin-outs and working directly with companies through consultancies and contract research.

These economic impacts are represented by employment supported and Gross Value Added (GVA). GVA is the standard measure of economic output used in



impact assessments to capture the economic contribution of an organisation or sector. It is calculated by taking the output (i.e. income) generated by a good or service and subtracting the costs of inputs (except employment costs).

This report describes the results of the study, and is structured as follows:

- **Section 2** outlines in more detail the framework, approach, and definitions used in the study;
- **Section 3** describes the growing research focus of the University, highlighting research strengths and describing the social impacts these create;
- **Section 4** introduces the quantitative economic impacts created by valorisation of the University's research strengths;
- **Section 5** describes the University's impact in widening access and participation and presents the impact created by its student community from living, working, and volunteering in the local area. It describes the social impacts created through these activities;
- **Section 6** presents the economic impact created by graduates through their lifetime earnings, as well as the social benefits created through their work;
- **Section 7** outlines the core economic and social impacts generated by the University through its role as a large employer, its supply chain spending, capital investment, and its visitor impact;
- **Section 8** discusses how the University helps to build regional capacity through its curriculum, outreach work, graduates, and research;
- **Section 9** describes key features of the area's socio-economic profile to put the University's impact in context; and
- **Section 10** presents the conclusions of the study.



## 2 Framework and Definitions

Outlining the approach and framework used to assess Northumbria University's economic and social impact.

### 2.1 Theoretical Framework

The role played by universities in human development has long been recognised. They contribute to better knowledge, health, living conditions, social equity, and productivity. They play a key role in supporting industry and make significant contributions to economic and social progress.

#### 2.1.1 Universities as a Key Driver of Economic Progress

Several influential economists have published work which sets out a theoretical and empirical case for the role that high level skills and innovation play in boosting economic competitiveness and addressing inequalities in society.

In the late 1950s, Robert Solow's work demonstrated that it was not the savings rate or increases in factors of production (labour and capital) which determined the long-run growth rate, but that it depended on increases in productivity. In the early 1960s, Kenneth Arrow's research on 'learning by doing' showed that almost all economic growth could be accounted for by innovation. This referred to innovation from new ideas emerging from research, as well as improving productivity through 'learning by doing' during the production process. Building on this, Joseph Stiglitz argued that productivity is the result of learning and, consequently, a focal point of policy should be to increase learning within the economy. The observation is made that even within countries and within industries there can be large gaps between the most productive and the others, which indicates the scope for potential innovation to improve productivity.

It is widely acknowledged that the dissemination of knowledge and innovation is essential for achieving productivity gains and, consequently, economic growth. In this context, universities play a pivotal role in promoting economic development at the local, national, and international levels.

#### 2.1.2 The Role of Universities in Social Progress

While universities contribute to society by providing intellectual and practical skills that enhance productivity and improve living conditions, their impact extends far beyond this. Universities play a fundamental role in social progress by shaping individual and collective values, enhancing public life and democratic participation, fostering social equity and justice, and having a day-to-day impact on the lives of local people.





While economic contribution can be a reliable predictor of wider contributions at lower levels of human development, this relationship weakens as economies grow<sup>2</sup>. In fact, many human activities that offer strong economic contributions can conflict with other important social objectives such as community cohesion, environmental protection, and good governance. It is therefore important to measure other contributions and to contextualise them.

If these wider social contributions are not assessed there is not only a risk of undermining broader social progress but also of misunderstanding and undervaluing the true benefit of universities to society. In recent years, finding ways to assess wider contributions has become an important frontier for organisations wishing to make a meaningful contribution to society.

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**“If we don’t measure something, it becomes neglected.”**

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Source: Joseph Stiglitz, ex Chief Economist at the World Bank

## 2.2 Approach to Assessing Impact

This study has estimated Northumbria University’s economic and social impact in 2021/22 using an established multidimensional framework developed by the Organisation for Economic Development and Cooperation (OECD) called the Better Life Index. Northumbria University’s economic and social impact will be gauged with respect to performance on the dimensions within the OECD framework.

This framework offers a way of understanding both traditional economic impacts and wider social impacts, offering some scope to compare impact with past performance or that of similar others, as well as highlighting areas where overall impacts might be stronger.

This has been augmented with BiGGAR Economics’ established approach to assessing the economic impact of universities, which has been applied to over 200 universities across the UK and Europe. This involves identifying the activities of a university, considering how they create impacts and where possible quantifying these impacts. This approach is intended to assess the overall contribution that the University and capture a broad range of impacts that wouldn’t have occurred without it, from the graduate premium to knowledge exchange and commercialisation to student spending and working.

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<sup>2</sup> Whilst Gross Domestic Product per capita (average income per person) has increased throughout most countries, other indices of societal progress, such as the Genuine Progress Indicator, the Sustainable Development Index, or self-reported wellbeing, have either stagnated or declined.



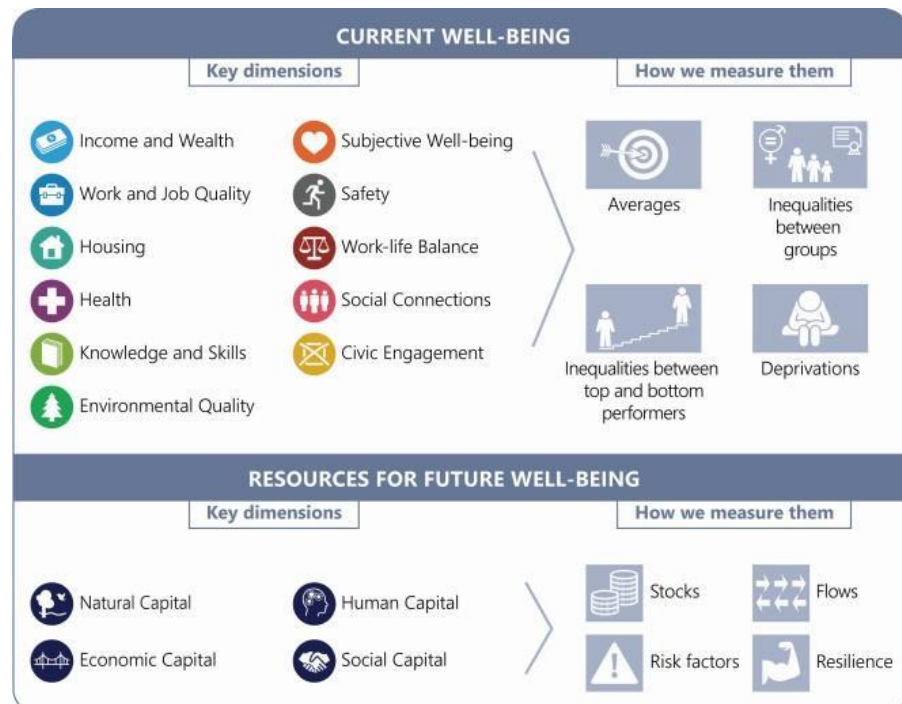
### 2.2.1 The OECD Better Life Index

The OECD Better Life Index arose out of recommendations from the *Commission on the Measurement of Economic Performance and Social Progress*, published in 2008 by Stiglitz, Sen and Fitoussi, to address concerns that standard macroeconomic statistics, like GDP, failed to give a true account of people's quality of life. The broader 'Beyond GDP' agenda kick-started many individual countries to develop their own approach to measuring what matters.

The OECD's Better Life Index framework highlights areas that matter to people's current and future quality of life. There are 11 dimensions that reflect current wellbeing, which are reflected in Figure 2.1. These highlight that a country, organisation or individual creates impacts across a range of dimensions, though some are likely to perform more highly against certain dimensions.

In addition to these 11 dimensions, the OECD framework also includes a sustainability component that incorporates capital stocks and flows to depict **future wellbeing**. The framework is therefore reinforced by four capital factors – natural, economic, human, and social – which capture the importance of using resources in a way that sustains current wellbeing into the future. A sustainable economic and social contribution would either add to capital stocks through research and innovation or use them at sustainable levels rather than drawing them down.

**Figure 2-1: OECD Better Life Index Framework**



Source: OECD (2015), *How's Life? Measuring Wellbeing*, OECD Publishing, Paris



### 2.2.2 Application of the OECD framework to Northumbria University

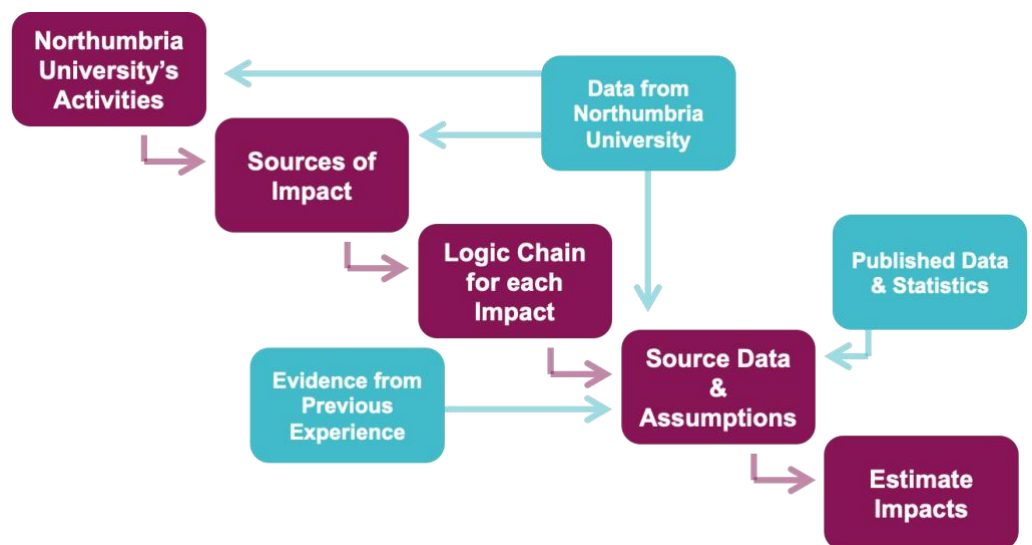
The OECD Better Life represents what matters for people to live well and for societies to flourish, which has been determined through consultation and is broadly consistent with other multidimensional frameworks, such as the ONS Measures of National Wellbeing. The framework applies to all levels of society and all organisations.

The OECD Better Life Index uses 24 indicators to gauge and compare progress across the 11 dimensions at the country level. Some of these indicators are population averages, while many consider inequalities and deprivation, which provide greater insight into social progress. The starting point for analysis is to consider Northumbria University's activities and identify the dimensions that will be impacted.

The economic impact assessment, which BiGGAR Economics has applied to around 200 university economic impact studies in recent years, will cover the two OECD Better Life Index dimensions of income and wealth, work and job quality, as well as economic capital. The remaining dimensions and capital resources will make up the wider social contribution. The overall approach is illustrated in Figure 2-2.

Logic chains are then developed to describe how each type of activity contributes value. The next step is to determine how the value of each activity could be measured and the data required. The approach taken is to record all impacts generated by the University, representing the additional impact that Northumbria University alone creates on the economy. The key assumption is that these impacts could not be created without Northumbria University. The methodology adds social impact using the OECD framework to the tried-and-tested approach to assessing economic impacts.

Figure 2-2: Study Approach



Source: BiGGAR Economics



For most activities, two types of information were required:

- **source information** about the scale of activity, which was supplied by Northumbria University; and
- **other data and published statistics** which could be used as the basis for assumptions to measure contribution. Where University data was not available, an appropriate assumption was made based on BiGGAR Economics' previous experience of comparable institutions.

The key statistical sources used were the UK's Input-Output Tables published by the Office for National Statistics and the Annual Business Survey. Further assumptions were informed by referring to published reports and official statistical sources which are referenced throughout the report where appropriate. For the economic impact assessment, the data was used to populate an economic model which estimates the value of each source of contribution from the University and this was aggregated to produce an estimate of the total economic contribution made.

Beyond the quantifiable impacts, Northumbria University makes a strong contribution to wider society through its mission of "empowering innovators, visionaries and change makers to transform lives and make a remarkable impact on the world"<sup>3</sup>. To understand its important economic and social role, a series of consultations were held with the University staff to highlight the University's distinctive strengths and the social impacts these create.

### 2.2.3 Metrics of Assessment

The quantifiable economic impacts have been assessed using two widely accepted economic measures:

- **Gross Value Added (GVA)**: which measures the monetary contribution that an organisation adds to the economy through its operations; and
- **Employment**: which is measured in terms of headcount jobs supported.

These measures provide a convenient way of capturing the entire economic contribution in a single number. However, monetary figures highlight only part of the value of an impact. This report recognises that it is not possible to quantify all of the impacts of a higher education institution because:

- the data for monetisation of many of the benefits is at an early stage of research;
- not all economic and social impacts can be converted into monetary value;
- monetary value does not capture aspects such as quality and equality; and
- monetary value is static and does not capture the dynamic activities that drive economic and social impact.

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<sup>3</sup> Northumbria University: <https://www.northumbria.ac.uk/>



Where possible this report quantifies social impacts in monetary terms, but mostly relies on the raw data to illustrate the wider impacts.

#### **2.2.4 Study Areas**

The economic impacts are reported at four geographic levels:

- the City of Newcastle (defined as the local authority area of Newcastle upon Tyne);
- Tyneside (defined as the local authority areas of Newcastle upon Tyne, Gateshead, North Tyneside and South Tyneside);
- the North East Mayoral Combined Authority (referred to in this report as the NEMCA and defined as the geographic areas of County Durham, Gateshead, Newcastle, Northumberland, North Tyneside, South Tyneside and Sunderland); and
- the UK.

The social impacts are reported at the level that is most appropriate to the specific social impact being articulated.

#### **2.2.5 Types of Impact**

The economic impact assessment captures the full impact of the original activities, including effects down the supply chain and through increased consumer spending. For each area of activity, an assumption was made about the proportion that would occur in each study area and they were then assigned a sector. Based on these sectors, economic ratios and multipliers were derived, which were then used to estimate economic impacts.

There are three significant types of economic impact:

- direct impact: the employment and GVA generated directly by the University;
- indirect impact: this is the impact associated with supplies of goods and services to the University; and
- induced impact: this is the impact associated with staff spending their wages in the wider economy.

## **2.3 Impact Time Frame**

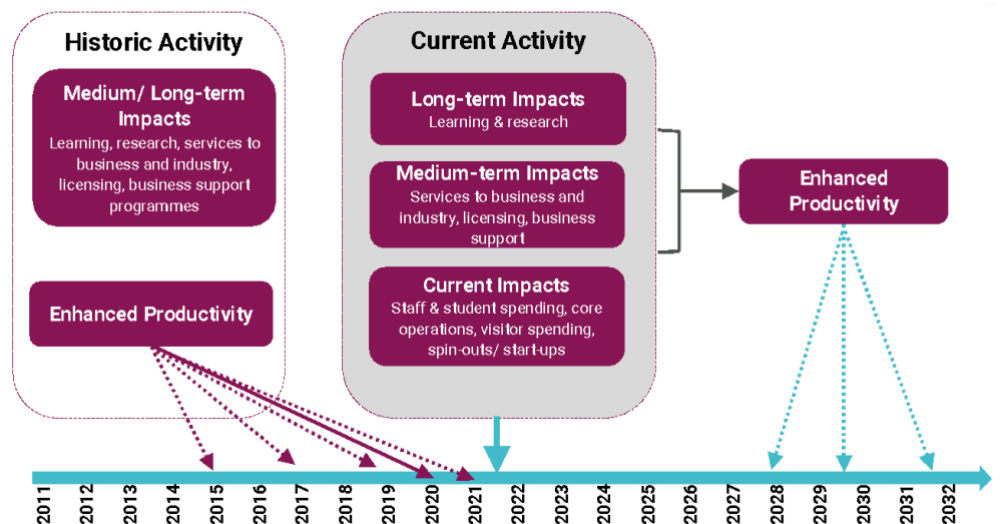
This study provides a snapshot of the University's impact for the year 2021/22. In designing this approach, it is recognised that some of the University's activities generate immediate economic impact, such as staff and student spending, while the economic impacts of most activities occur over a longer time frame, such as research. As a result, the impact generated in 2021/22 is the cumulative impact of historic activity plus some immediate impacts of spending in that year.



Due to limitations in data, it is generally not possible to accurately estimate the true impact of historic activity realised in any particular year. To address this issue, the study includes the simplifying assumption that activity in 2021/22 generates impact in 2021/22. The rationale for this is that although the impact of some activity that occurs in 2021/22 may not occur until a later date, some of the impact realised in 2021/22 will have been generated by historic activity, and no attempt is made to quantify this impact.

Figure 3.2 summarizes the different types of activity considered and the timescale over which they generate impact. The blue arrows represent impact generated by current activity, while the purple arrows represent impact generated by historic activity. The dashed arrows represent future impacts, while the solid arrows represent impact in the current year.

**Figure 2-3: Impact Time Frame**



Source: BIGGAR Economics



## 3 A Research-Intensive University

Northumbria University has given long term strategic focus on developing strengths in research across its subject mix.

### 3.1 Growing Research Focus

The University places research at the heart of everything it does: enhancing global reputation; driving high quality teaching; pursuing a close relationship with business, public services and the third sector; and a strong social mobility mission. To secure this, over the last ten years the University has focused its strategy and sustained investment on its research portfolio across the whole of the institution.

Success was reflected in the outcomes of the 2021 Research Excellence Framework in which the University had the biggest rise in research power of any UK university, moving up 27 places in the rankings to 23<sup>rd</sup>. This was the second REF in which the University was the biggest mover, having moved up to 50<sup>th</sup> in 2014 from 80<sup>th</sup> in 2008 in the same measure.

In parallel, research income has grown significantly from £7.7m in 2015-16 to £26m in 2021-22, including a tripling of income from the UK Research Councils to over £6m per annum. This is complemented under the dual support system with quality-related and related funding from Research England (quality-related funding was £18.3m in 2022-23). Taking all these sources together, since 2015/16 research-related income has increased by 244%, while total income has increased by 34%. As a result, the share of total income that comes from research-related funding has increased from 5% in 2015/16 to 9% in 2021/22 (Figure 3-1). This means that the University's research funding as a share of all North East universities research income has increased from 5% to 11%.

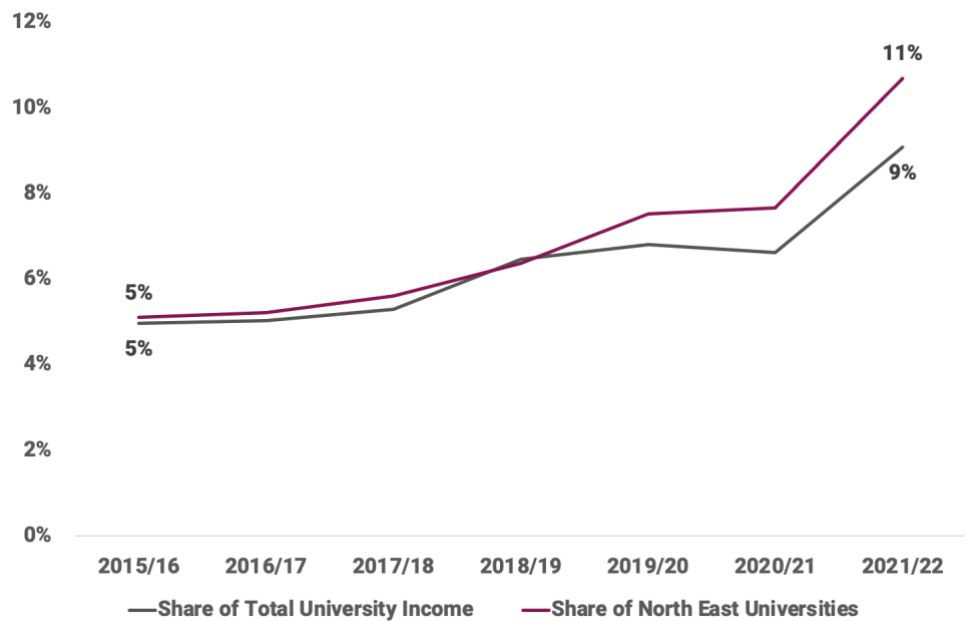
The University's success has been both driven by and provided for the growth of its community of researchers. From 2008 to 2021, the University saw a significant increase in the number of researchers assessed as producing world-leading and internationally excellent research, as measured by the REF and its predecessor assessments, rising from 54 in 2008 to 207 in 2014 and 840 in 2021.

These researchers are part of a larger community of researchers that includes over 1,400 REF-eligible staff and over 600 postgraduate research students at the time of



the last REF. As well as creating new insights and knowledge, these researchers also generate local economic impacts, as they are employed by the University and spend in the wider economy, and as they generate wider impacts through the supplies purchased suppliers to support them. These core economic impacts are considered in Section 7.

**Figure 3-1: Northumbria University Research Income (%)**



Source: BiGGAR Economics Analysis of IFS Data.

## 3.2 Research Strengths

Broad based strength is reflected in the University being ranked in the top 10 for research power in seven of the thirteen areas in which it entered the 2021 REF, and in the top 26 in all areas. The University's enhanced global reputation is reflected in a fivefold increase in non-EU income from research contracts over the period 2015-16 to 2021-22.

The University combines breadth and depth, with significant strengths in the health disciplines. It placed joint first in the UK for research environment for Allied Health and income from government and health research contracts increased fivefold between 2015-16 and 2021-22. The impacts of this area of expertise are explored throughout this report: in graduate start-ups (Section 4.2), student placements (Section 4.3), graduate outcomes (Section 6.1), graduate social impacts (Section 6.3), and partnerships (Section 8.1).

These strengths contribute to the Interdisciplinary Research Themes (IDRTs) which bring together expertise from different disciplines in the University. These are aligned to regional, national and international challenges, particularly the UN SDGs. They





include everything from extreme environments and space to gendered violence and global development.

Northumbria University also has a number of areas where its research is truly outstanding and is shaping knowledge and practice around the world. These are called Peaks of Research Excellence and they are a vital part of the University's vibrant research landscape alongside the high quality research undertaken in academic departments. The Peaks are summarised in the table below:

**Table 3-1: Interdisciplinary Research Themes**

Research Peak	Description	Example
<b>Computerised Society and Digital Systems</b>	Harnessing digital technologies for societal wellbeing across domains like health, security, justice, and citizenship.	The £9m Centre for Digital Citizens, led by Northumbria and Newcastle Universities, to explore how digital technologies can support public health and wellbeing,
<b>Cultural and Creative Industries</b>	Focusing on the regional devolution of the innovative creative sector from the capital.	A major shift in strategic thinking in publishers, leading to a £1.3 million UKRI programme and three new literary development businesses.
<b>Energy Materials and Systems</b>	Research within this theme spans photovoltaics, thin film materials, batteries, sustainable design, and the built environment.	This research has advanced technology by developing a novel system for a smaller, cost-effective, and more efficient micro solar Combined Heat and Power plant.
<b>Microbial Technology</b>	Focusing on biocatalysis, bioprocesses, health technology innovation, and molecular bio-based technologies.	Working closely with industry on biocatalysis enzymes to identify new, environmentally friendly methods of producing pharmaceuticals and chemicals
<b>Microbiome Exploration</b>	Harnessing new technologies to understand our DNA and that of microbes.	Analysing over 100,000 Covid-19 samples to understand how the virus is developing.
<b>Solar &amp; Space Physics</b>	Understanding solar effects on our world and on space infrastructure such as satellites.	The new Northumbria Space Technology Laboratory, which will allow academics to build and experiment on space instruments.
<b>The Future of Ice on Earth</b>	Studying the future of ice sheets and glaciers as the world warms.	Considering the causes and consequences of melting ice in Antarctica, Greenland and elsewhere.



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<b>Volunteering, Humanitarian Crises and Development</b>	Research in this theme partner organisations like the UN and Red Cross to address inequality, poverty, conflict, and the climate crisis.	Contributed to health policies of the UN Sendai Framework for Disaster Risk Reduction and the WHO Framework for Health Emergency and Disaster Risk Management.
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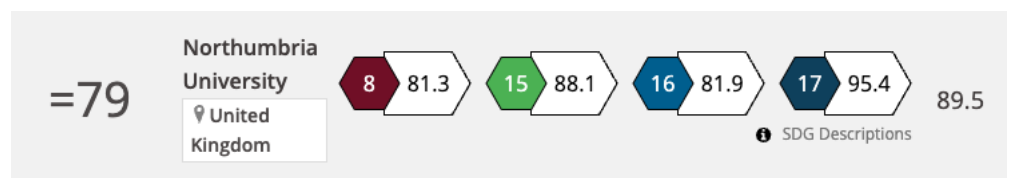
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### 3.3 Research With Social Impact

In 2019, Times Higher Education began assessing universities' contributions to the United Nations' Sustainable Development Goals (SDGs). Each year, universities worldwide are invited to submit data on as many of the 17 SDGs as possible. Their performance is then evaluated against a series of metrics that support the achievement of each SDG in relation to their research, stewardship, outreach, and teaching.

Northumbria University has been included in the ranking since 2020. Not all universities choose to submit data for the ranking, which highlights Northumbria University's commitment to sustainability and conducting research that can make a difference. In the latest ranking, Northumbria University ranked 79<sup>th</sup> overall in the world and 21<sup>st</sup> in the UK.

**Figure 3-2: Northumbria University's SDG Impact Ranking**



Source: Times Higher Education Impact Rankings 2023

Focusing specifically on Northumbria University's research related to each of the SDGs, the University has made strong research contributions to most of the goals. In its most recent submission, based on research from 2016 to 2020, the University contributed more than its expected share (given its research output relative to global output) in 11 of the SDGs. Across all the SDGs, more than 10% of the University's research was among the top 10% of most highly cited publications in that area, and most publications were open access.

The University had particularly strong research contributions related to SDG1: No Poverty, SDG5: Gender Equality, SDG10: Reduced Inequality, and SDG16: Peace, Justice, and Strong Institutions, where its relative research share was about 2 (indicating areas of high specialisation).



For example:

- on SDG16 it had 305 publications and was 3.33 times more specialised in this area relative to other universities;
- On SDG1 it had 88 publications and was 2.69 times more specialised;
- On SDG5 it produced 141 publications and was 2.35 times more specialised;
- on SDG10 it had 201 publications and was 2.20 times more specialised.

It is possible to draw from both the SDG assessment and the REF to illustrate Northumbria University's wider social contribution.

**Current Social Impact:** The University carries out research relevant to all 11 dimensions relating to **current wellbeing**. It conducts considerable research on education and skills, the environment, and social connection. Examples include:

- working locally / nationally with the third sector on reducing reoffending rates by young offenders through employment; and
- working internationally with NGOs and charities to reduce inequalities experienced by displaced youths in Uganda and to build their skills and employability.

**Sustainability of Social Impacts:** the University's research will add to capital stocks and will have longer term social impacts. In particular, the University's research output with regard to social capital is strong (SDG16), as is its research related to natural capital. For example:

- working with the local Council and libraries to raise digital literacy amongst under-represented groups; and
- working internationally with The World Bank to increase digital literacy within impoverished communities in Nigeria.

**Equality of Social Impacts:** Of particular note is the University's contribution to research on inequality, with a strong research performance on income and gender inequality, as well as research related to peace, justice, and strong institutions. For example:

- working with a social enterprise locally to develop a creative programme that utilises mediamaking to advance agency among young women (aged 11-16); and
- working internationally with The UN to develop better tracking of Female Genital Mutilation, transforming efforts to end FGM by 2030.

Overall, the research that Northumbria University undertakes is expected to have far reaching social impacts being relevant to both the SDGs and the OECD's Better Life Index.



## 4 Innovation and Business Engagement

Northumbria University seeks to create, apply and commercialise its knowledge and intellectual property.

As Northumbria University's research power has grown, so have the opportunities to commercialise its knowledge and technology, and its intellectual property. To maximise these opportunities, the University has developed new structures and processes to support academics and companies alike, expanded its commercialisation team and invested in facilities to ensure it can respond to new opportunities.

The University works with academic staff to better explain the opportunities associated with commercialisation and internal support available. It also provides initial funding to support academic colleagues in demonstrating the potential success of their technology.

A key factor in the University's success has been its participation in the Northern Accelerator, a collaboration between universities in Durham, Newcastle, Sunderland, Teesside, and York. The program aims to drive a step-change in the commercialisation of research, strengthening the economy of the North East. Northumbria University has benefitted significantly from the programme, securing £750,000 in funding by February 2023. This funding has helped the University develop its internal structures as well as providing Proof-of-Concept and follow-on funding for specific technologies. Partly as a result, the University has developed its first technology spin outs (and is developing many others), increased the number of invention disclosures almost ten-fold and increased the number of patents five-fold.

Other schemes that have been developed in partnership with its sister universities in the North East include Arrow, which provides innovation support for North East SMEs, and Creative Fuse, which is designed to support small businesses in the creative, cultural and digital sectors to be more innovative.



Northumbria University's innovation services play a crucial role in supporting business innovation and job creation through its knowledge transfer activities. These activities create economic impacts, described in the sections that follow:

1. supporting and enabling **company creation** directly from innovative ideas and intellectual property generated at Northumbria University, such as spin-out or start-up companies;
2. providing **services to businesses**, supporting innovation through consultancy, contract/collaborative research, or continuing professional development; and
3. placing students within companies to enable them to directly benefit from Northumbria University's knowledge, including course related **placements**, as well as student led **business clinics, and Knowledge Transfer Partnerships**.

## 4.1 Company Creation - Spin-outs and Start-Ups

Northumbria University's Graduate Futures team supports students and graduates to achieve their potential, including to start up their own companies.

**Graduate start-ups** are provided with a full support package from idea development, concept testing and validation through to initial trading. Support is then continued, typically until year three of trading, with the aim being to create sustainable businesses for the longer-term, rather than purely focusing on initial start-up support. Support is delivered through tailored mentoring sessions, to build on initial traction and address any 'growing pains', enabling founders to make the transition from 'working in' to 'working on' their business. This has been augmented since 2019 by the Innovation Northumbria: Incubator Hub, which provides physical space and support to student and graduate entrepreneurs.

Importantly, the focus of this work is to help recent graduates to achieve what they perceive to be a successful outcome, whether that be setting up a small, service-oriented business (e.g. photography) or a larger business using innovative technology. Almost all of these start-ups (99%) are based in the North East and they operate across many sectors, strengthening and diversifying the local economy.

As well as supporting many small businesses, the University's graduates have also created large and successful ones. This includes iamsold, which is the largest company in the UK providing outsourced auction services to estate agents, and is still based in the North East (<https://www.iamsold.co.uk/about-us/>). In 2022/23 it had income of around £50 million and employed almost 180 people.

Other start-up companies include:

- Mediaworks, a digital marketing company that employs around 160 people;
- ART Health Solutions, an employee wellbeing company that recently received £1 million in investment from the North East Venture Fund; and



- Recite Me, a website accessibility software business that recently secured £4.2 million in investment from BGF.

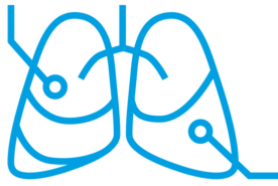
Data returned by the University to the Higher Education Business and Community Interaction survey (HEBCI) for 2021-22<sup>4</sup>, indicated that the estimated current turnover of the active firms was £102.5 million for the start-ups. In terms of employment supported by the firms, the 190 start-ups collectively employed 1,191 full-time equivalent (FTE) members of staff. This places the University 6<sup>th</sup> in the UK by turnover in graduate start-ups and 9<sup>th</sup> by employment.

To measure the economic impact of graduate start-ups sectors were assigned to each start-up for which information was available. Economic ratios and multipliers were then applied, taking into account the activity in each study area. Additionally, a 15% adjustment was made to account for the graduate premium associated with studying at Northumbria University.

The University's spin-outs employ 13 people and have a turnover of £0.5 million (see case study of PulmoBioMed). Economic ratios and multipliers were applied to assess their economic impact (shown in the summary at Section 4.4).

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<sup>4</sup> HESA (2022), HEBCI 2021-22



## PulmoBioMed

### A revolutionary non-invasive lung sample device

PulmoBioMed is an early-stage spin-out company founded in 2020 by Dr. Sterghios Moschos, with support from colleagues. The company has developed a hand-held medical device called PBM-Hale that collects exhaled breath condensate samples and tests them for a range of biomarkers, which can indicate the presence of conditions such as asthma, cancer, and respiratory illnesses. The technology was initially developed in response to the Covid-19 pandemic.

The PBM-Hale device represents a significant advance over current invasive methods, which require lung samples to be collected and processed in a lab. This process is uncomfortable, time-consuming, and expensive. In contrast, the new device is expected to be faster, cheaper, and provide an improved patient experience. It has applications in several areas, including delivering rapid Covid-19 diagnoses.

In a short time, PulmoBioMed has received several accolades, including winning the annual BioNOW BioCap Conferences pitching competition and being named one of Tech Nation's Rising Stars most innovative tech scaleups in the North East. The company has been awarded a £1 million UK Government grant and has engaged with international pharmaceutical companies and undertaken clinical trials. It is now seeking private investment to scale up.

Northumbria University and the Northern Accelerator project were instrumental in providing the support needed to develop PulmoBioMed. This included providing proof-of-concept funding, access to University labs, and onboarding an executive team.

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**“We couldn't have reached this stage without the support of Northumbria University and funding from Northern Accelerator, NxNW ICURe and Innovate UK”. PulmoBioMed CEO, Pete Hotten**

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## 4.2 Services to Businesses

Through collaboration with the University, businesses benefit from leading research and best practice which can enhance their own productivity. Economic value is created by a range of services that Northumbria University provides, which include:

- consultancy;
- contract research; and



- continuing professional development (CPD).

During the year 2021/22, Northumbria University received a total combined income of £8.1 million from these sources, as reported in the University's HEBCI return<sup>5</sup>.

The value to an individual business of collaboration with the University will vary considerably between projects. It will be based on the type of work done, the stage in the development process that the project relates to and the capacity of the company to absorb the knowledge and developments that result from the collaboration. To quantify this impact, it was necessary to assume what the value would be to a company based on typical returns from these collaborations.

The economic impact associated with spending on engagement with a university partner was assumed to be 340%. This was based on the evidence from a study by Department of Business, Enterprise & Regulatory Reform<sup>6</sup>, which found that interventions in Science, R&D and innovation infrastructure had achieved cumulative GVA equivalent to 340% of the cost of the projects in the short to medium term and up to 870% in the long term. This study is representative of the evaluation literature which finds similar rates of return from business collaboration with universities. The economic impact of these services is summarised at Section 4.4, below.

#### **4.2.1 North East Space Skills and Technology Centre**

In November 2023, it was announced that the North East Space Skills and Technology Centre would be built on Northumbria University's Newcastle campus, as part of a partnership with Lockheed Martin and the UK Space Agency.

Opening in 2025, the £50 million Centre represents a partnership of government, industry and academia, with the UK Space Agency providing £10 million in funding and Lockheed Martin contributing a further £15 million. The University will match-fund the remaining share.

Building on the University's space expertise, this investment is expected to create a world-leading skills, research and technology centre. Its research will focus on optical satellite communications, space weather and space-based energy, while its specialist education and training will provide the skilled workers needed for the future of the space sector.

Initial projections suggest that the Centre is expected direct support the creation of over 350 jobs and inject £260 million GVA into the North East over 30 years.

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<sup>5</sup> HESA (2022), HEBCI 2021-22

<sup>6</sup> PriceWaterhouseCoopers, Impact of RDA spending – National report – Volume 1 – Main Report, March 2009, DBERR.





## 4.3 Student Placements, Clinics and KTPs

Placements provide students with the opportunity to develop skills in the workplace while allowing employers to benefit from the knowledge that students have acquired during their studies.

In 2020/21, 617 Northumbria University students undertook placements of over 12 weeks, usually as part of the University's commitment to incorporating professional experience into their learning. Over half (53%) of these placements took place in Newcastle, while 82% took place in the North East Mayoral Combined Authority, highlighting Northumbria University's deep engagement with regional businesses and organisations. Several students go on to work for the organisations where they completed their placements.

The contribution that students on placement make to the organisations they are placed in is lower than the average output expected from a worker in the sector and requires more time spent on training. To reflect this, it was assumed that the GVA of students undertaking a placement is 33% of an average worker in the sector. Economic ratios and multipliers were then applied to estimate the economic impact of student placements, which are summarised in Section 4.4, below.

Additionally, large numbers of students undertake short placements related to health and education each year – more than 10,000 of these practice placements took place in 2020/21, the vast majority which were with organisations in the North East. These placements are more akin to on-the-job training rather than knowledge exchange and have therefore been excluded from the analysis. However, they contribute to public sector capacity and create regional career pathways for local graduates, reflected in the wider social impacts created by the University.

The University's students are also involved in 'clinics' where they are able to apply their skills and new-found knowledge to help clients. This includes the Business Clinic and the Student Law Office, which are discussed below. It also includes the Building Advice Centre, which was established in 2005 and where final year Building Surveying students provide free building advice on housing problems and larger projects (e.g., community buildings).

### 4.3.1 Northumbria University Business Clinic

In 2013, Northumbria University established its Business Clinic, where students form small consultancy firms of four people to provide free advice to businesses and social enterprises. These consultancies are typically undertaken in place of a dissertation, with a strategic report and formal client presentation representing the



main outputs. Between 2013 and 2020, around 1,600 undergraduate and Masters students worked with 400 individual businesses.

The scheme was developed to meet the Business School's twin goals of ensuring that every student graduates with 'real experience' of the working world and supporting the growth and scale-up of SMEs in the North East. Research by Northumbria University found that SMEs often lack the knowledge or capacity to develop long-term collaborations and rarely understand the benefits of short-term consultancies.

To create a sense of trust with businesses, the University has developed strategic partnerships with several organisations. These include the North East LEP, North East England Chamber of Commerce, Santander, Asian Business Connexions, and UnLtd – Foundation for Social Entrepreneurs. Each of these organisations promotes and supports the work, increasing the visibility of the clinic to businesses as well as providing confidence in its process and outputs.

As a result of the Business Clinic, many businesses have experienced significant benefits, with 100% of clients confirming that the consultancy services provided have guided their decision-making. Many have returned to the University for additional projects.

Examples of projects include:

- working with a training provider to develop a new product estimated to bring in £50-70,000 within a year;
- developing a new marketing plan for an insurer's charity division resulting in 300% growth in enquiries, significant reductions in marketing spend and two new jobs;
- helping a small company more than double its income through advertising on Facebook; and
- doubling the sales of a national distillery through improved design, labelling, and branding.

In addition to benefiting businesses, students also gain valuable experience. This has enabled them to apply for jobs with relevant skills and in some cases go on to work for the company they worked with. Other students have gone on to form consultancy companies based on their initial groups.

The Northumbria University Business Clinic is now the largest of its kind in the UK, reflecting its success. The University has invested over £800,000 in large, dedicated premises in the centre of Newcastle that includes meeting rooms, events space, and collaboration space. It also intends to roll out the scheme to other departments within the University and has created a tool funded by the Department for Business,



Energy and Industrial Strategy (the Digitally Enabled Business Clinic) for other universities that want to emulate its success.

#### **4.3.2 Student Law Office**

The Student Law Office was established by the University in 2008, with around 200 students and 25 staff providing free advice to the public, businesses and community groups across the North East and the UK.

Since it was founded, the Law Office has worked with over 1,000 clients across 3,000 cases, providing thousands of hours of pro bono legal work to people who may not otherwise be able to afford. It has dealt with numerous legal issues and secured over £1 million on behalf of clients. In 2022/23, the most recent year, there were almost 1,000 applications, with around 130 cases being opened. The most common categories were family law, housing and civil law.

Students are able to apply what they are learning in class in real settings, helping clients to solve practical problems. This provides them with vital experience of how to operate in a commercial environment, including the important skills of how to understand and work with clients.

The community work done by the Student Law Office has received the Queen's Anniversary Prize for Higher and Further Education, which is the highest form of national recognition for universities and awarded for outstanding excellence and positive impact. The teaching environment has also won a Collaborative Award for Teaching Excellence.

The latest addition to the Student Law Office is the Policy Clinic, where students carry out research that can influence policy and law reform on behalf of an organisation. They often consider aspects of the law that are not working and how other systems around the world deal with similar issues.

#### **4.3.3 Knowledge Transfer Partnerships (KTPs)**

Northumbria University participates actively in the KTP (Knowledge Transfer Partnership) programme, where recent graduates collaborate with companies on industry-academic projects. These partnerships, typically spanning three years, allow companies to tap into university research to address challenges. Analysing the KTP Online database<sup>7</sup> reveals Northumbria University's involvement: 17 completed KTPs in the past six years (from 2015-16 to 2021-22), with 11 ongoing projects.

KTPs address specific issues faced by businesses, which leads to improved productivity. Data from the wider UK programme was applied to assess the economic impact of the University's KTPs. An evaluation<sup>8</sup> found that each KTP contributes £826,000 GVA to the UK economy over six years post-completion,

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<sup>7</sup> See [info.ktponline.org.uk](http://info.ktponline.org.uk)

<sup>8</sup> Regeneris Consulting (2010), Knowledge Transfer Partnerships Strategic Review



supporting three jobs. While a KTP is ongoing its economic impact is assumed to be smaller as the benefits of research will not be realised in the early stages of development. The economic impact is summarised in Section 4.4, below.

## 4.4 Innovation and Business Engagement Summary

Northumbria University is a research-intensive and business-driven institution, which is increasingly leveraging its expanding research power to commercialise intellectual property. This is yielding results, with both academic researchers and the student body being a rich source of innovation and commercialisation opportunities.

Collaborative efforts with academic staff include enhanced communication about commercial potential and funding support for technological innovations. Graduate Futures empowers graduates to establish businesses and students undertake placements, while consultancy, contract research, and professional development services further extend the University's outreach.

Overall, Northumbria University's strategic advancements in innovation and business engagement are steering economic growth and nurturing innovative ventures, shaping the regional economic landscape as summarised in Table 4-1, below. This shows that in 2021/22 the economic impact of the University's knowledge exchange and commercialisation activities was £60 million GVA and 1,300 jobs in Newcastle, £85 million GVA and 1,830 jobs in Tyneside; £114 million GVA and 2,190 jobs in the NEMCA region; and £181 million GVA and 3,190 jobs in the UK.

**Table 4-1: Summary Innovation and Business Engagement Impact**

Source of Impact	City of Newcastle	Tyneside	NEMCA	UK
<b>GVA (£ million)</b>				
Spin-Outs & Start-Ups	£46.4	£66.0	£76.4	£109.6
Services to Businesses	£12.1	£16.1	£32.5	£64.8
Student Placements	£1.4	£1.7	£2.2	£3.6
KTPs	£0.4	£1.0	£2.5	£3.1
<b>Total</b>	<b>£60.3</b>	<b>£84.8</b>	<b>£113.7</b>	<b>£181.2</b>
<b>Employment (Jobs)</b>				
Spin-Outs & Start-Ups	1,240	1,740	2,010	2,860
Services to Businesses	20	30	80	190
Student Placements	30	40	50	80
KTPs	10	20	50	60
<b>Total</b>	<b>1,300</b>	<b>1,830</b>	<b>2,190</b>	<b>3,190</b>



# 5 Student Access, Participation and Impact

Northumbria University's diverse and inclusive student body contributes significantly to the local economy and creates social benefits within the community.

In 2021/22, there were 32,172 students enrolled on courses at Northumbria University across its Newcastle and London campuses. An additional 216 students studied at the University's satellite campus in Amsterdam and 4,475 students studied on overseas programmes that were co-delivered by the University.

Approximately 83% (26,708 students) studied on a full-time basis, while the remainder studied part-time. Around 66% were undergraduates and 34% were postgraduates. UK-domiciled students accounted for 80% of enrolments, and the remaining 20% were EU/International students.

## 5.1 Economic Impact of the Student Community

Students play a vital role in the local economy by spending money, working part-time, and volunteering. The focus of analysis in this section is on full-time students as the spending patterns and labour market contributions made by part-time students is predominately driven by their work rather than their studies. Students that volunteer within the local community support the work of local charities and services in the third sector.

### 5.1.1 Student Spending

Students' term-time spending habits support turnover and employment in local businesses. Many students may not otherwise have come to Newcastle were it not for the University, therefore their spending is additional to the area.

To estimate the impact associated with student spending, it is necessary to determine:

- **where students live:** the type of accommodation students occupy during their studies is a key influence on their expenditure. For example, students living in rented accommodation spend significantly more on housing, food and household goods than those who live with their parents or guardians. Data from



the University suggest that around 78% of students live in rented accommodation, either at the University or in the private sector, and the remaining 22% live with parents or guardians; and

- **their spending patterns:** this can be estimated based on data from the Student Income and Expenditure Survey for 2014 to 2015 which was published by the Department for Education in 2018. It suggested that, on average, students spent £11,750 on housing and living costs in 2014/15. Adjusting for inflation, the annual spend per student in 2021 was estimated to be £13,127.

Collectively, the annual expenditure on living costs and rent for all full-time students at the University amounted to £276.3 million (approximately £12,421 per student), and this figure was apportioned to each study area based on where students lived. Total expenditure was converted into GVA and employment impacts by applying appropriate ratios and calculating the multiplier effects, and the economic impact is presented in the summary at Section 5.3.

### 5.1.2 Student Employment

Students who work part-time while they study also contribute to the local economy. This is usually in businesses close to where students live, and it provides an important source of additional labour for the area, often supporting the local hospitality and retail sectors.

Based on data provided by the University, 41% of full-time students (9,545 students) were assumed to work part-time, averaging 20 hours weekly. This is typically in a range of economic sectors, though most commonly hospitality and retail. Not all these jobs will be additional as some may displace non-students, so an adjustment was made to account for the youth unemployment rate in each of the study areas. On this basis, 78% of all student part-time jobs were assumed to be additional to the local and regional labour market.

GVA and employment impacts were assessed by applying appropriate sectoral ratios and multipliers. Induced effects have been considered elsewhere and therefore not included here. The economic impact is presented in the summary at Section 5.3.

### 5.1.3 Student Volunteering

Student volunteering has both economic and social impacts, benefiting organisations, building community and social capital (see 5.2.3 below) and developing students' skills. Students at the University also create an economic impact through their activity as volunteers.

Based on information provided by the University, it was estimated that 24% (5,587 students) volunteered for an average of 3 hours per week during 2021/22. As with part-time work, it was assumed that students volunteered in the areas where they lived. The economic contribution was determined by multiplying total volunteered



hours by the UK's estimated value of unpaid volunteering (£11.21), based on the UK's Community Life and Time Use surveys<sup>9</sup>. GVA and employment impacts were assessed by applying appropriate sectoral ratios and multipliers and are summarised at Section 5.3.

## 5.2 Student Social Impacts

Northumbria University's student presence has broader and far-reaching social effects. Students create a constant flow of young people to an area, bringing vibrancy and life to the region.

The key dimensions in the OECD framework that the University's students affect include housing, environmental quality, and community. There will also be longer term effects through creating social capital.

### 5.2.1 Housing

There are tens of thousands of students at Northumbria University, many of whom live in Newcastle and increase demand for housing. This can have positive effects on local housing markets, as this demand creates an incentive to renovate existing flats and homes and provides income to local landlords.

However, this may also lead to reduced supply for others, particularly in the city centre. Northumbria University mitigates these effects by investing in its own halls of residence, and it guarantees comfortable student accommodation in Newcastle to all first-year undergraduate students once an offer has been accepted. Similarly, the large number of students incentivises the private sector to invest in purpose-built student accommodation, which increases the overall supply in the city.

### 5.2.2 Environmental Quality

Students can have a positive impact on local infrastructure, particularly in terms of transportation. Since students are more likely to rely on public transportation, cycling, or walking, the increased demand leads to an increase in the availability and quality of these options in areas with a high student population.

This not only benefits the students themselves but also the local community as a whole. Improved public transportation, cycling infrastructure, and walkability can lead to reduced traffic congestion and improved air quality. Additionally, the increased use of sustainable transportation options can help to reduce carbon emissions and promote a healthier environment for everyone.

### 5.2.3 Community and Social Capital

Students add to community and social capital through their presence and participation in various initiatives. For example, students are significant contributors to volunteering, quantified above, adding capacity to a wide range of organisations.

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<sup>9</sup> ONS, 2017, Changes in the value and division of unpaid volunteering in the UK: 2000 to 2015.



Investment driven wholly or largely to meet student needs is an important contribution to the constant physical renewal that is a feature of success, such as new shops and cafes including in areas that would otherwise lose such facilities.

The development of the Trinity Square Accommodation in Gateshead is an example of how student presence can drive infrastructure investment and physical renewal in a city. Such developments provide high-quality housing and cultural amenities for students, while also benefiting the local community by attracting investment and supporting the local economy.

## 5.3 Access and Participation

### 5.3.1 Approach

The University sees increasing access to higher education among disadvantaged groups as one of its key objectives. This includes those from less affluent backgrounds, from minority groups and people with other difficulties such as caring responsibilities.

To achieve this long-term objective, young people must understand the role that university can play in helping them to achieve their goals and meet their potential, especially for those who had never thought about university. The University has invested in outreach activities across schools and colleges in the North East, worked with other North East universities, and has supported entry schemes for those who are able but unlikely to engage with universities.

Young people often lack confidence or have concerns about university, including in areas such as finance, so the University has a bespoke approach to each student to ensure that they feel able to tackle the challenges of university.

The staff at Northumbria University are motivated by the understanding of the transformational effects that higher education can have on students' lives, expanding their horizons, raising their horizons and leading to a higher paid and more fulfilling career.

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**[I]mpact is really seen in stories, feelings, and emotions. We build an emotional connection and affinity with future students. It's about helping students to see the best in themselves and to see their own potential. *Helen Bower, Director of Student Recruitment***

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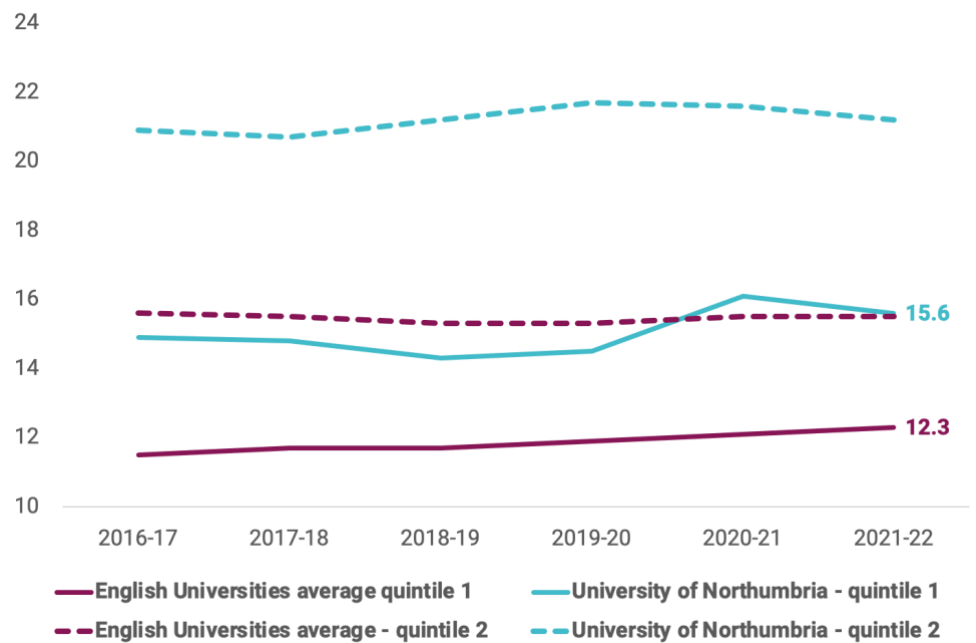




### 5.3.2 Widening Participation - Performance

In the academic year 2021-22, Northumbria University's new undergraduate entrants from low participation areas constituted 15.6% of the total, surpassing the sector average of 12.3% according to the TUNDRA quintile one indicator<sup>10</sup>. The University also has higher levels of new entrants from quintile 2 compared with the sector average and has maintained this high performance over the last five years.

**Figure 5-1: Proportion of new undergraduate entrants from low participation areas (TUNDRA)**



Source: Office for Students (2023), Access and participation data 2021/22

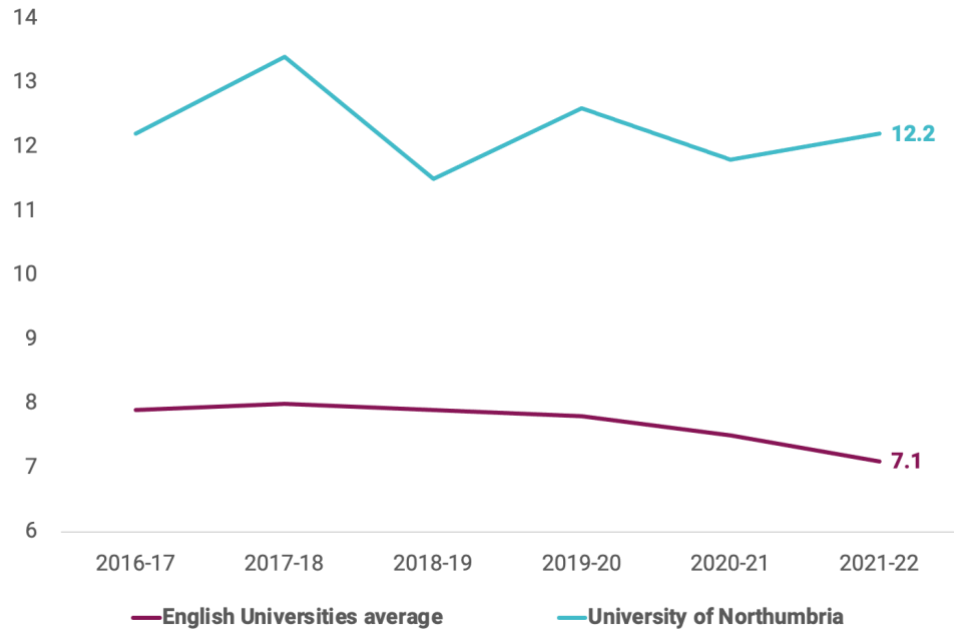
The Association between Characteristics (ABCS) is a measure that examines the relationship between specific combinations of characteristics and the likelihood of positive outcomes for UK-domiciled students. Quintile 1 represents the combinations of characteristics that are least likely to result in positive outcomes.

Historically, Northumbria University has maintained a higher proportion of students with additional characteristics that may have a negative impact on their outcomes. In the academic year 2021-22, Northumbria's rates were nearly double the sector average in England (Figure 5-2).

<sup>10</sup> TUNDRA is an area-based indicator that categorizes regions based on the percentage of state-funded mainstream students aged 18 or 19 in England who engage in higher education. Quintile 1 corresponds to the areas with the lowest 20% of participation rates among the young population.



**Figure 5-2: Proportion of students with characteristics that are least likely to result in positive outcomes**



Source: Office for Students (2023), Access and participation data 2021/22

Similar trends are observed across various indicators throughout the rest of the academic lifecycle<sup>11</sup> (continuation, completion, attainment, and progression) at Northumbria University, with its rates consistently surpassing the sector average in most cases.

### 5.3.3 Widening Participation and a Research-Rich Environment

Northumbria University is unusual because of its focus on creating inclusive educational experiences and successful outcomes for all students regardless of background, within the context of a research-intensive University. Figure 5-3, below, highlights that the share of undergraduate students from low participation neighbourhoods is significantly higher at Northumbria University than at any of England's other top 25 universities for research power.

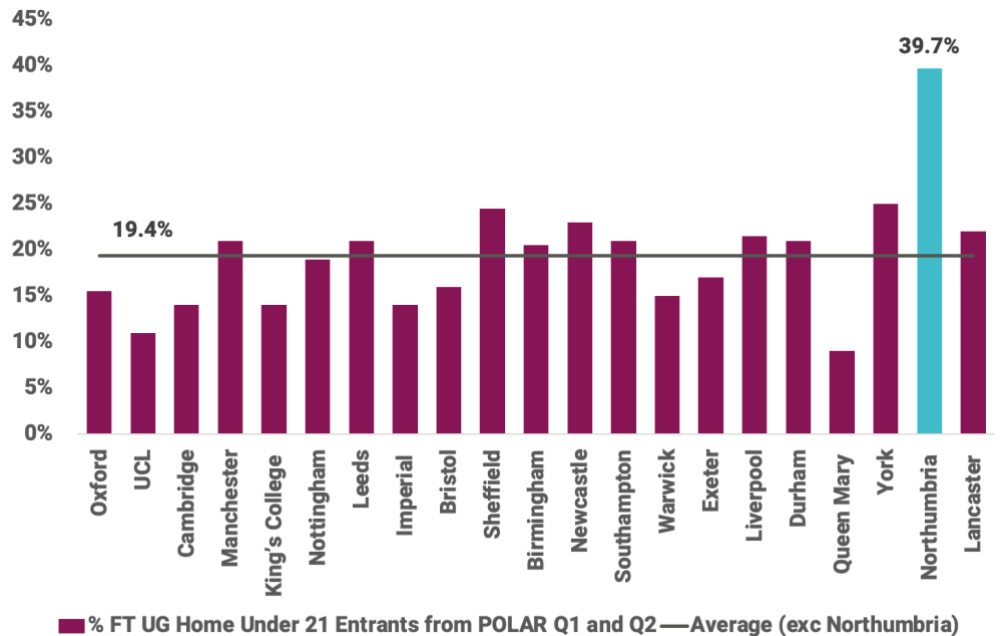
The University's strategy focuses on integrating research and education. Students are offered a research-rich, inquiry-based, and experiential learning experience, contributing to the development of skills, knowledge, and adaptability. The curriculum incorporates experiential learning through clinic-based experiences, live projects, placements, study abroad, and student-led research. Notably, external

<sup>11</sup> Continuation: proportion of students continuing their higher education studies or obtaining a higher education qualification. Completion: proportion of students who have obtained a higher education qualification or are still pursuing one four years after starting their course. Degree outcomes (attainment) indicators: proportion of undergraduate qualifiers who have been awarded first or upper second-class degrees. Progression indicators: proportion of graduates who have achieved positive outcomes 15 months after obtaining a higher education qualification.



assessors have commended the University for its stimulating and distinctive research-led teaching environment.

**Figure 5-3: REF2021 research Power Top 25 (English Universities): POLAR Q1 & Q2**



Source: Office for Students (2023), Access and participation data 2021/22

## 5.4 Student Impacts Summary

Northumbria University's student community is a catalyst for economic growth and social vitality.

Through their spending habits, part-time work, and volunteering efforts, students generate substantial economic impacts jobs across each geographical area included in this study. Beyond economic effects, the presence of students brings about profound social benefits. Their presence infuses the local area with vibrancy, contributing to a younger demographic cohort. They actively participate in community initiatives, volunteering their time and skills to support local charities and services. Their continued involvement in the area after graduation bolsters the labour force and drives factors critical to thriving cities, such as new business creation and innovation.

The University also consistently surpasses the sector average in access and participation rates, showcasing its commitment to social impact and creating an inclusive research rich environment.

It is estimated that the combined economic activities associated with the student community at the University generates £223.4 million GVA and supports 7,200 jobs in the City of Newcastle; £288 million GVA and supports 9,260 jobs in Tyneside;



£363.7million GVA and 11,680 jobs across the NEMCA; and £566.5 million GVA and 18,230 jobs across the UK.

**Table 5-1: Northumbria University - Summary Student Impact**

Source of Impact	City of Newcastle	Tyneside	NEMCA	UK
<b>GVA (£ million)</b>				
Student spending	£104.7	£136.8	£183.0	£286.3
Student employment	£115.0	£146.5	£175.3	£273.7
Volunteering	£3.7	£4.7	£5.4	£6.5
<b>Total</b>	<b>£223.4</b>	<b>£288.0</b>	<b>£363.7</b>	<b>£566.5</b>
<b>Employment (Jobs)</b>				
Student spending	3,160	4,110	5,540	8,860
Student employment	4,040	5,150	6,140	9,370
<b>Total</b>	<b>7,200</b>	<b>9,260</b>	<b>11,680</b>	<b>18,230</b>

Source: BIGGAR Economics Analysis



## 6 Graduate Impacts

Graduates have better labour market outcomes than non-degree holders, leading to increased employment rates and lifetime earnings. Some fields of study yield notable social benefits.

Information on the outcomes of university graduates is produced annually by the Higher Education Statistics Agency (HESA). The dataset is gathered from a population survey of university graduates across the UK approximately 15 months after graduation to determine what they went on to do after their studies. Graduate impacts have been assessed for leavers from the academic year 2020/21 as this is the most recent year for which a complete HESA dataset is available. This includes all UK undergraduates and postgraduates, including part-time and full-time students.

### 6.1 Graduate Outcomes for Northumbria University

Northumbria University prioritises student employability and enterprise through various initiatives. The Graduate Futures (GF) service coordinates comprehensive employability enhancement and support, emphasising skills development through experiential learning. Programs like work placements, study abroad opportunities, and live projects have expanded, benefiting 7,000 students yearly, fostering real-world engagement and skills acquisition.

An exemplar of the University's activity is the Business Clinic, where final-year students offer consultancy advice to local businesses, gaining experience and connections while contributing to their Graduate Characteristics and knowledge exchange (described Section 4.3.1 above). The Student Law Office (SLO) provides legal advice to the public, developing teamwork, independence, and communication skills, with accolades like the Queen's Anniversary Prize and the Green Gown Awards.

During the pandemic, employability support shifted online, leveraging initiatives like the Careers on the Couch video series and the NU Opportunities scheme, where Northumbria University provides students and graduates with paid placements and internship opportunities across its services and departments.

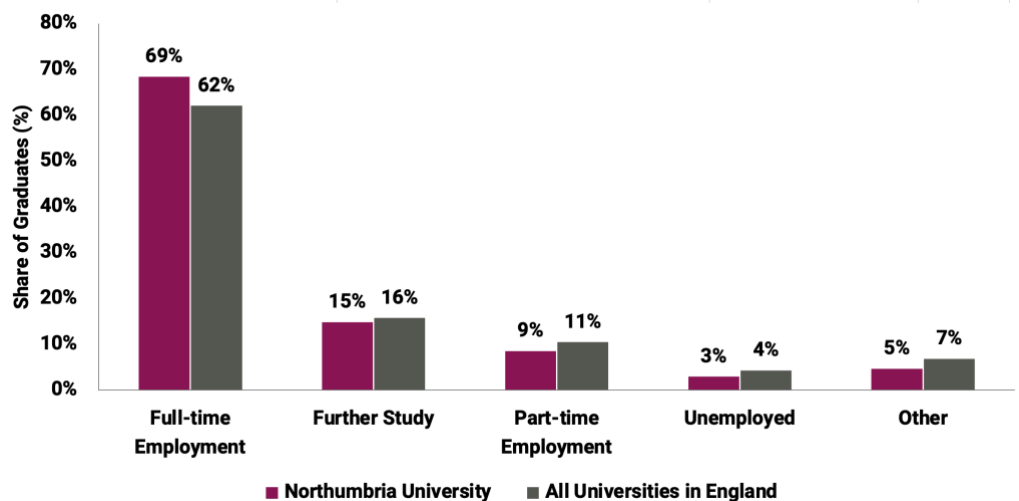
Overall, Northumbria University's robust efforts equip graduates with practical skills, entrepreneurial mindsets, and real-world experience, ensuring their readiness for successful careers.



### 6.1.1 Employment Profile

In general, university graduates have better labour market outcomes than those who do not have a degree, which translates to higher levels of employment and higher earnings. In 2020/21, graduates from Northumbria University were more likely to directly enter the labour market with over two thirds (69%) of graduates in full-time employment fifteen months after graduation compared to 62% for all English universities. A comparable proportion of Northumbria University graduates were in further study (15%) to the national average (16%), which is likely to increase future earning potential. A smaller proportion of graduates than the national average was working part-time or unemployed.

**Figure 6-1: Northumbria University UK Graduates by Employment Status, 2020/21**



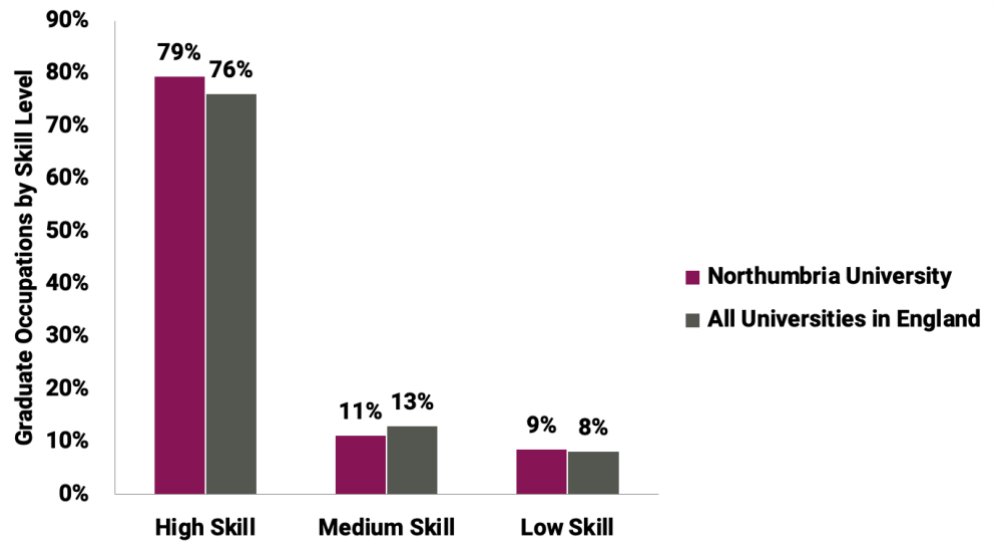
Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

### 6.1.2 Occupational Level

Over three quarters of UK Northumbria University graduates are likely to be in employment classified by HESA as highly skilled (79%), which is higher than the average for all English Universities (76%).



**Figure 6-2: Northumbria University UK Graduates by Skill Level, 2020/21**

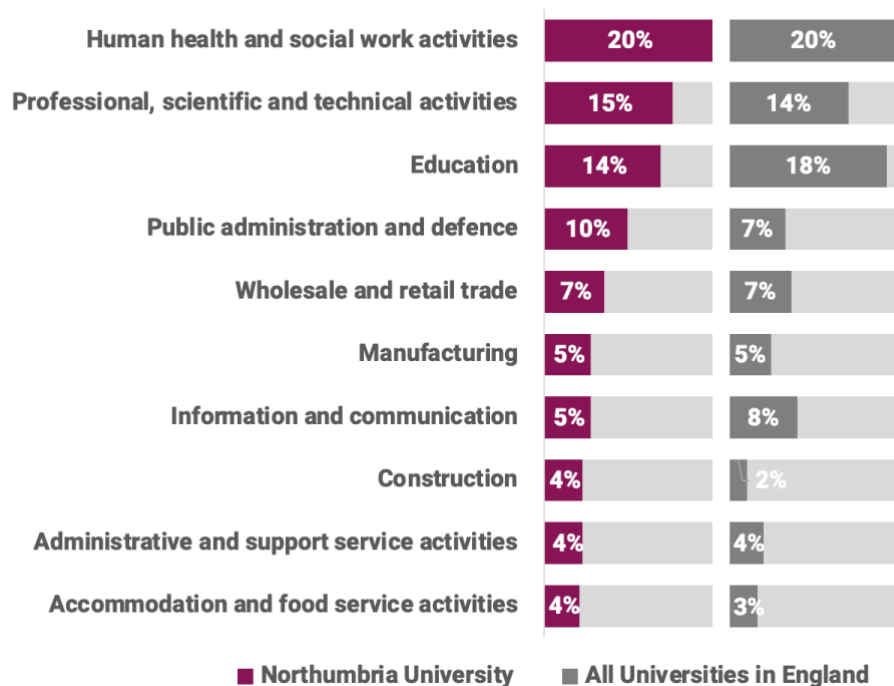


Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

### 6.1.3 Sectors of Employment

The top industries of employment for Northumbria University graduates in 2020/21, were human health and social work activities (20%), professional scientific and educational services (15%) and education (14%). These areas of the economy have important social impacts, discussed in Section 6.3, below.

**Figure 6-3: Northumbria University UK Graduates by Sector, 2020/21**



Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

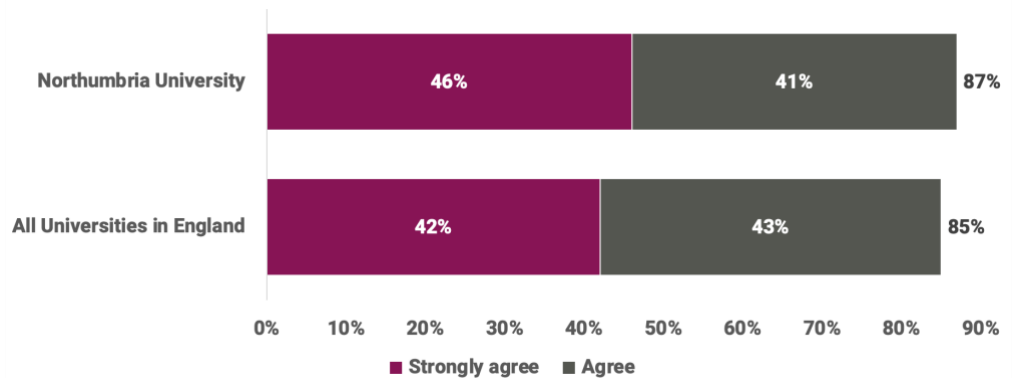


### 6.1.4 Wellbeing Indicators

The ability to find meaning and purpose in employment is an important contributor to individual wellbeing. Studies have found that in addition to improved professional outcomes, such as lower absenteeism, lower employee turnover and higher job satisfaction, a higher sense of meaning and purpose at work also leads to improved outcomes outside the workplace such as self-reported levels of happiness<sup>12</sup>.

UK graduates from Northumbria University are highly likely to find their work meaningful, with 46% strongly agreeing that their current activity is meaningful (compared to 42% nationally).

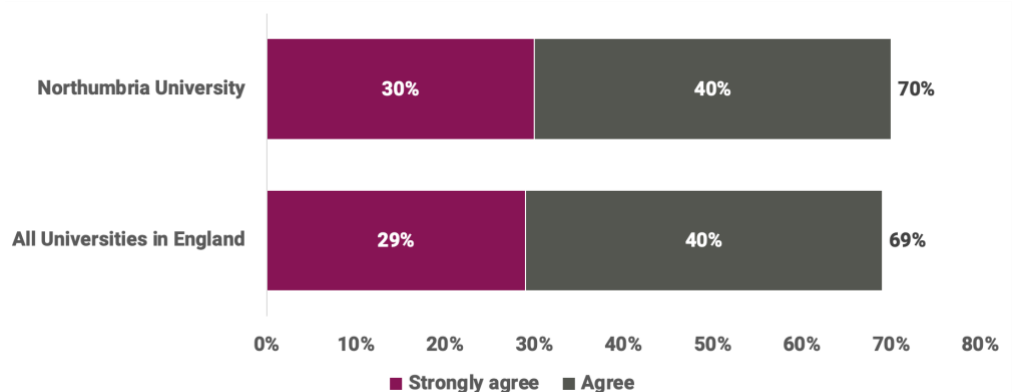
**Figure 6-4: “My current activity is meaningful”, 2020/21**



Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

Similarly, using what they learned during their studies is an indicator of how well the subject fits graduates’ career choice. UK graduates of Northumbria University are likely to strongly agree (30%) or agree that (40%) with the statement.

**Figure 6-5: “I am utilising what I learnt during my studies”, 2020/21**



Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

Northumbria University graduates from the UK are highly likely to be doing something that aligns with their future plans with 42% strongly agreeing with this

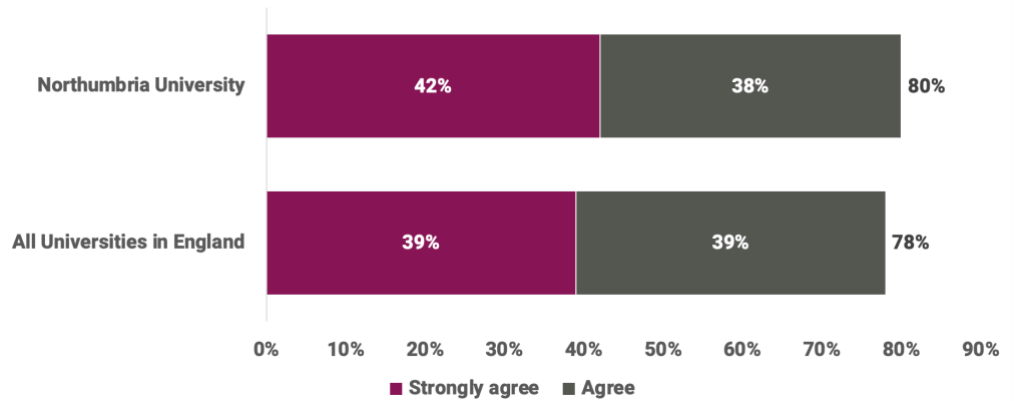
<sup>12</sup> Steger, Michael. (2016). Creating Meaning and Purpose at Work. 10.1002/9781118977620.ch5.





statement and 38% agreeing, a higher proportion than for other English university graduates.

**Figure 6-6: “My current activity fits with my future plans”, 2020/21**



Source: HESA (2023), HE Graduate Outcomes Data 2020/21 Cohort. All UK graduates.

## 6.2 Lifetime Productivity Impacts of Graduates

By completing their studies, graduates gain skills which make them more productive than they may otherwise have been. The personal graduate premium includes the additional earnings they can achieve from having a degree, plus the fiscal contribution they make to the Exchequer, less the costs they incurred in studying, which is largely accounted for by student loans.

Furthermore, graduates are also more likely to be employed than those without a university education. In 2017, the employment rate of graduates in the UK labour market was 82%, compared to 78% for individuals with A Level or equivalent qualifications<sup>13</sup>. Therefore, the decision to go to university not only means that the graduates are more productive when employed, but they are also more likely to be in employment than individuals who chose not to go to university. Although not quantified, the increase in labour market participation is also an economic benefit.

Beyond this, businesses that employ graduates become more profitable and can generate a greater economic impact than they would otherwise have done. The GVA and productivity gains they realise include the additional profits employers can generate by employing graduates and the additional employment costs they are willing to pay to generate these profits.

Therefore, the total economic contribution includes the graduate premium plus the additional corporate profits and taxes they generate. In this way, the total graduate premium gives the combined personal economic benefit the year's graduates will obtain rather than the increase in national productivity associated with the degree,

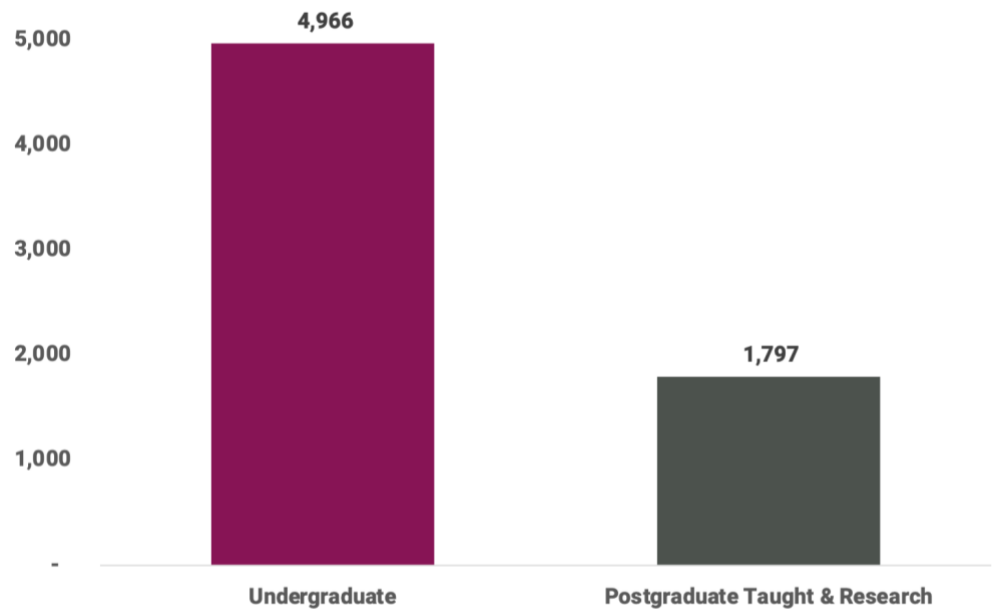
<sup>13</sup> ONS (2018) Graduates in the UK Labour Market 2017. \*These are the latest available data at UK level comparing graduates' outcomes and outcomes for individuals with A Level qualifications.



which will be higher. It is an under-estimate of the total economic impact associated with increased graduate productivity as it does not include the corporate profit associated with each graduate.

The starting point in estimating the graduate premium associated with Northumbria University was to consider the number of awards delivered. In 2019/20, the University awarded 4,966 undergraduate degrees, 1,637 postgraduate taught and 160 postgraduate research degrees (Figure 6-6).

**Figure 6-7: Northumbria University Graduates by Degree Level, 2019/20**

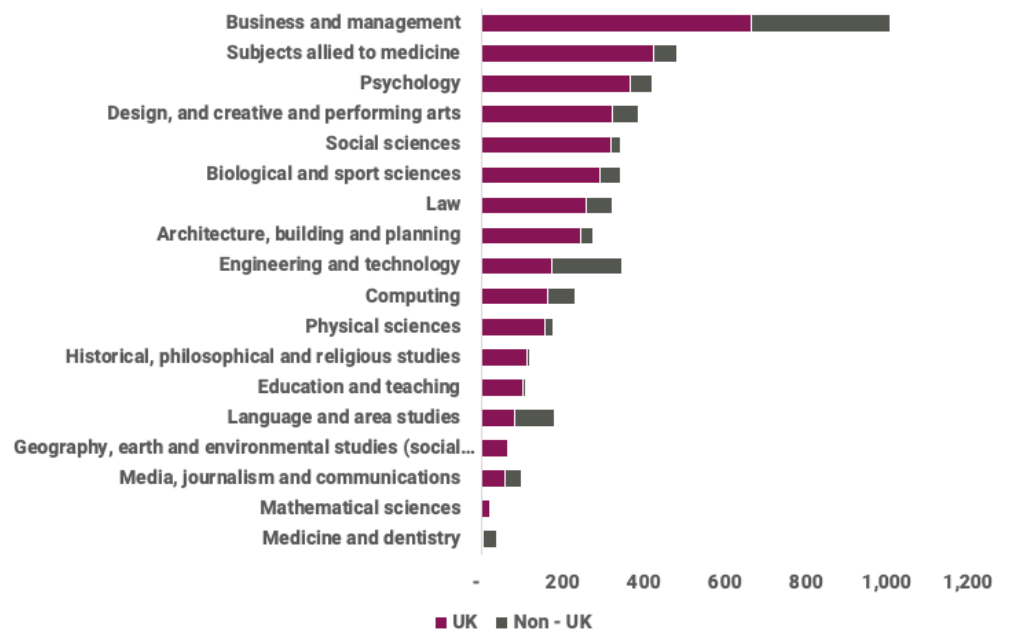


Source: Northumbria University

To estimate both the personal and fiscal graduate premium from undergraduate degrees, it was necessary to consider the awards by their subject areas. As shown in Figure 6-7, the largest number of degrees awarded to undergraduate students at the University related to Business and Management studies.



**Figure 6-8: Northumbria University, Undergraduates by Degree Subject, 2019/20**



Source: Northumbria University

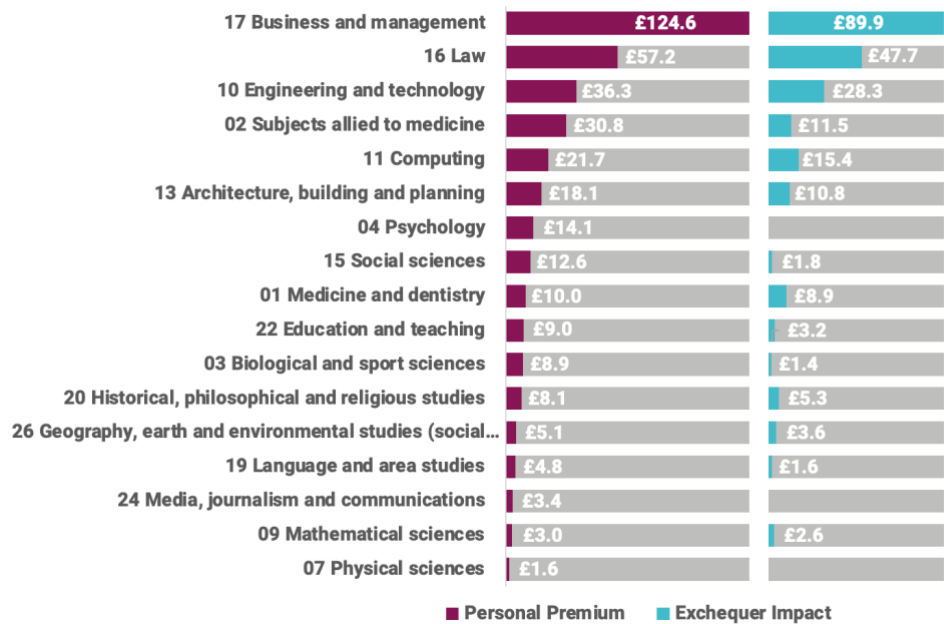
The estimate of personal graduate premium relies on data from a 2021 study by the Institute for Fiscal Studies (IFS)<sup>14</sup> on the impact of undergraduate degrees on lifetime earnings. The study accounted for the background of students, including their sex, ethnicity, and participation of local areas (POLAR) status, and also considered the earnings premium associated with different types of universities, for example Russell Group, old universities, other (more selective) and other (less selective) universities.

The personal returns and exchequer returns as a result of obtaining an undergraduate degree are shown in Figure 6-9 for the relevant degree subjects.

<sup>14</sup> IFS (2021), The Impact of undergraduate degrees on lifetime earnings.



**Figure 6-9: Graduate Premium and Exchequer Impact by Subject (Undergraduates)**



Source: BiGGAR Economics Analysis of IFS Data.

The total productivity impacts, combining both personal and exchequer impacts, were estimated by multiplying the number of graduates by their respective premiums.

In this way, it was estimated that graduates receiving an undergraduate degree from Northumbria University in 2019/20 would collectively earn an additional £369 million over their lifetimes, compared to those with no degree, equivalent to £74,341 per student. The additional benefit to the Exchequer would be £232 million, an average of £46,739 per student over their lifetimes as a result of their university education. These estimates take into account the net return, after accounting for the cost of tuition fees and reduced earnings while at university.

The estimate of economic impact from postgraduate awards was based on evidence from the ONS. This found that the lifetime earnings premium associated with holding postgraduate qualifications is 10% larger than for those with an undergraduate degree. To estimate the extra premium for a postgraduate degree, the undergraduate premium was applied to the distribution of postgraduates by subject and weighted by 10%. This figure was multiplied by the number of postgraduate awards in each category. A similar approach was taken for fiscal impacts.

It was also necessary to determine where graduates work and live after graduation. Data was provided by the University where available and supplemented with assumptions made by BiGGAR Economics for smaller geographic areas. This suggested that:

- 84% of graduates live/work in the UK;



- 46% of graduates live/work across the NEMCA;
- 35% of graduates live/work in Tyneside; and
- 18% of graduates live/work in the City of Newcastle<sup>15</sup>.

In this way, it was estimated that the total graduate premium impact was £82.2 million from graduates living in the City of Newcastle; £164.2 million from graduates living in Tyneside; £216.2 million from graduates living within the NEMCA and £393.7 million from graduates living in the UK.

**Table 6-1: Northumbria University Graduate Impact**

	City of Newcastle	Tyneside	NEMCA	UK
Graduate Premium	£51.1	£102.2	£134.6	£245.0
Exchequer Impact	£31.0	£62.0	£81.6	£148.6
<b>Total</b>	<b>£82.2</b>	<b>£164.2</b>	<b>£216.2</b>	<b>£393.7</b>

Source: BIGGAR Economics Analysis. Note, totals may not sum due to rounding.

## 6.3 Social Impact of Graduates

There are several ways to consider the social impact of graduates. The first is to consider whether pay is a reliable indicator of social value, the second is to look at contribution through the OECD Better Life framework, and finally consider which impacts are sustainable, local, and equal.

### 6.3.1 Estimating Social Value – Looking Beyond Pay

Lifetime earnings is not the only way to think about how graduates contribute to society. Conventional economic theory suggests that what an individual receives in income will reflect the value they add to the economy, but for many kinds of occupations, pay is a poor indicator of social value.

Some occupations which have wider benefits, particularly those related to education, health, and engineering, have a social value that exceeds an individual's pay. Whereas occupations that relate to law, advertising, management, and the financial services tend to be better paid but can have negative consequences outside of the economic sphere. These may have a lower social value than is reflected in an individual's pay. Therefore, it is important to take this into consideration when thinking about wider contributions of Northumbria University's graduates, with a large proportion contributing to health and education sectors.

<sup>15</sup> Note, data was not available for Newcastle upon Tyne and so it was assumed to be half the level of Tyneside.



A paper produced for the American Economic Association<sup>16</sup> examined a range of occupations and suggested social-value multipliers ranging from -0.5 to +4.0 to illustrate benefit to society in addition to what the individual receives in wages. Table 6-2, below, illustrates what happens when these multipliers are applied to the personal premiums listed above. The increased overall impact (£19.3 million, 5.3%), is illustrative that many graduates of Northumbria University generally have a large social contribution not picked up through focusing on lifetime earnings. If the occupations that contribute less than their pay were excluded (i.e., those that are negative), this would be £72.8 million.

The social value multipliers used in Table 6-2 are for occupations rather than academic disciplines and the estimates assume that graduates enter into occupations related to their disciplines (although not all will). There are several occupations that have high social value, for example academics and researchers (2.0), public service (0.4), and entrepreneurs (2.0), that graduates of any discipline may find themselves within.

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<sup>16</sup> Lockwood, Nathanson, & Weyl (2012). Tax and the Allocation of Talent, American Economic Association conference paper.



**Table 6-2: Estimating Social Value (Undergraduates)**

	Personal Premium	Social Value Multiplier	Social Value	Total Value
Medicine and dentistry	£10.0	0.1	£1.0	£11.0
Subjects allied to medicine	£30.8	0.1	£3.1	£33.9
Biological and sports sciences	£8.9	0.1	£0.9	£9.8
Psychology	£14.1	0.1	£1.4	£15.5
Physical sciences	£1.6	0	£0	£1.6
Mathematical Sciences	£3.0	0	£0	£3.0
Engineering and technology	£36.3	0.4	£14.5	£50.8
Computing	£21.7	0.4	£8.7	£30.4
Architecture, building and planning	£18.1	0.4	£7.2	£25.3
Social sciences	£12.6	0	£0	£12.6
Law	£57.2	-0.5	-£28.6	£28.6
Business and management	£124.6	-0.2	-£24.9	£99.7
Language and area studies	£4.8	0	£0	£4.8
Historical, philosophical and religious studies	£8.1	0	£0	£8.1
Education and teaching	£9.0	4.0	£36.0	£45.0
Media, journalism and communications	£3.4	0	£0	£3.4
Geography, earth and environmental studies	£5.1	0	£0	£5.1
<b>Total</b>	<b>£369.2</b>		<b>£19.3</b>	<b>£388.6</b>

Source: BiGGAR Economics Analysis of IFS Data. Social value multipliers are taken from Lockwood et al. (2012) and reflect the suggested social value of various occupations in addition to the individual's pay – where there is no multiplier in the paper, this is assumed to be 0.

### 6.3.2 Contribution to the OECD Better Life Framework

Northumbria University's graduates will have an impact on several of the dimensions in the OECD Better Life framework.

The two distinctly economic outcomes in the OECD framework – income and wealth; work and job quality – will be influenced by all graduates to varying degrees.

However, these are only two of the 11 dimensions in the framework. There will also be impacts on several of the other nine dimensions.



**Health (and demographic shifts):** The health dimension is influenced by graduates in several ways. For example, many of Northumbria University's graduates will go on to work in the health services, providing support to the population of the North East which has relatively poor health outcomes. In addition, graduates tend to live longer and healthier lives than non-graduates.

There are also important demographic effects that arise from students being attracted to the local area and staying once their studies are complete. The North East is projected to see the lowest increase in population of any English region over the period 2018 – 2028 (2.3%, compared to the English average of 5%)<sup>17</sup>, as discussed in Chapter 9. Over the same period, all local authority areas see an increasing proportion of the population over 65 years of age and this trend is expected to continue over the following decades up to 2043.

The University plays a role in attracting and retaining graduates in the area, including by supporting them to join the workforce and set up new businesses. In 2021/22 around half (46%) of graduates stayed in the North East.

**Education and skills:** Education equips people with skills, increasing their capacity to contribute both economically and socially, and for Northumbria University this includes attracting people who may not otherwise have gone to university. These graduates are able to deliver higher quality products and services, benefitting society. Education can also indirectly raise the wages of others who have not been in education but benefit from the increased productivity from graduates.

**Housing, Environmental Quality, and Safety:** Other graduates, such as those in engineering and technology, could generate social impacts through their work, depending on how they choose to specialise. For example, they may develop new technologies that improve the environment or social connections, using what they learned at Northumbria University.

**Income and wealth; work and job quality:** Occupations that typically receive a high remuneration, for example law and business and management, whilst offering strong contributions to income and wealth, and work and job quality, may have limited positive links with other dimensions in the OECD framework. This illustrates why the social value multiplier in Table 6-3 is sometimes negative, implying that although an occupation may be personally rewarding its social value may be lower than is measured through pay alone.

### 6.3.3 Sustainable, Local, and Equal Social Impact

As highlighted above, people going into careers in teaching and health have a direct influence on the dimensions of knowledge and skills and health. This impact is also

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<sup>17</sup> See Figure 3

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based>





likely to bring sustained benefits, adding to human capital and the stock of human knowledge.

Further, Northumbria University is an institution that attracts and supports students from backgrounds that are less likely to attend university (see Section 5.3). This ensures more equal outcomes, with graduates in the area being more likely to be from diverse backgrounds. Northumbria University has a high proportion of graduates who stay in the local area, and therefore its graduates are likely to generate positive economic and social impacts in the North East.



# 7 Core Impacts

Recognising the core impacts of Northumbria University is essential, as these underpin its profound role as an anchor in its community.

Core impacts arise from the fundamental activities and interactions of the University within its environment. These impacts encompass a range of essential elements that include:

- direct impact: the income received and the people directly employed;
- supply chain impact: from expenditure on goods and services;
- staff spending impact: from employees spending their salaries in the economy;
- capital expenditure impact: from investment in infrastructure;
- tourism impact: generated by visitors to the University; and
- social impact

## 7.1 Direct Impact

Direct economic impact is the value an organisation adds to the economy through its operations and is measured in terms of Gross Value Added (GVA) and the employment it directly supports. In the context of a university, the GVA it creates can be estimated as the difference between total income and total supply spending.

This includes all areas of the University's activity, including research, knowledge exchange and commercialisation, teaching and support, administrative functions such as finance and IT, as well as a number of other University functions.

In 2021/22, Northumbria University had a total income of £329.5 million and it spent £107 million on supplies of goods and services. Therefore, the direct GVA it created in the UK was £220 million. In addition, the University directly employed 3,330 staff, equivalent to 3,008 full-time equivalent employees.

## 7.2 Supply Chain Spending Impact

As large and complex organisations, universities have an impact on the wider economy by increasing turnover and supporting employment throughout their supply chain.

In 2021/22, Northumbria University spent £107 million on goods and services, excluding capital investment. Based on data provided by the University, around 10% of supply chain expenditure went to suppliers based in the City of Newcastle, 17% went to suppliers based in Tyneside, 20% in the NEMCA and 92% was spent with suppliers based in the UK. This has been converted into GVA and employment



impacts by applying appropriate ratios and calculating multiplier effects, presented in the core impacts summary at Section 7.5.

### 7.3 Staff Spending Impact

The people who work for the University have an impact on the wider economy by spending their salaries in the areas where they live.

It is estimated that the University's 3,330 staff receive £191 million in salaries. 36% of staff who work for the University live in the City of Newcastle, 66% in Tyneside, 90% live within the NEMCA geographical area, and 100% live in the UK. This has been converted into GVA and employment impacts by applying appropriate GVA to jobs ratios, calculating multiplier effects and apportioning these to the relevant geographic areas. The economic impact is presented in the core impacts summary at Section 7.5.

### 7.4 Capital Investment Impact

Capital investments made by the University have an impact on the construction sector and on businesses which supply capital equipment.

As capital spending fluctuates from year to year, an average has been calculated based on actual spending over the last five years and projected spending over the next five years (2018–2027). On this basis, it was estimated that the University spends around £27 million per year on capital projects.

Based on data provided by the University, 12% of recent capital spending has been secured by companies based in the City of Newcastle, 30% by companies based in Tyneside, 35% by companies within the NEMCA, and 95% by companies in the UK. This was converted into GVA and employment impacts by applying appropriate GVA and employment ratios and multipliers and apportioning these to the relevant geographic areas.

### 7.5 Core Economic Impacts Summary

Summing together the economic impact generated by core activities alone, it is estimated that Northumbria University creates an annual economic contribution of £492.1 million GVA and supports 9,910 jobs in the UK.

Of the total GVA impact, 51% is contained in the City of Newcastle, 57% in Tyneside, and 65% within the NEMCA. A summary of the annual impact from core activities by source and by area is provided in Table 7-1.



**Table 7-1: Northumbria University – Summary of Core Operational Impacts**

	City of Newcastle	Tyneside	NEMCA	UK
<b>GVA (£m)</b>				
Direct impact	£220.4	£220.4	£220.4	£220.4
Supplier spending	£8.0	£13.4	£18.6	£109.7
Staff spending	£22.5	£42.1	£73.3	£137.2
Capital spending	£1.9	£4.8	£6.4	£24.7
<b>Total</b>	<b>£252.8</b>	<b>£280.7</b>	<b>£318.6</b>	<b>£492.1</b>
<b>Employment (Jobs)</b>				
Direct Impact	3,320	3,320	3,320	3,330
Supplier Spending	160	260	370	2,120
Staff Spending	630	1,190	2,090	4,070
Capital Spending	30	70	100	390
<b>Total</b>	<b>4,140</b>	<b>4,840</b>	<b>5,880</b>	<b>9,910</b>

Source: BIGGAR Economics Analysis. Note: totals may not sum due to rounding.

## 7.6 Tourism Impacts

The final element of the operational impact which has been considered is the economic activity generated by visitors to the University and to its staff and students. This includes activity from:

- prospective students visiting the campus for open days; and
- friends and relatives visiting staff and students at the campus.

It is important to consider how much of this activity is additional to each study area (i.e. how much activity would have happened anyway, in the absence of the University). Taking this into account, Northumbria University attracted an estimated 156,800 visitors in 2021/22, of which 80% were estimated to be attending conferences and events including graduations, 15% were associated with visiting staff and students, and 5% were associated with open days.

During the early part of the 2021/22 academic year, tourism activity was partially affected by the COVID-19 pandemic and restrictions on social distancing which reduced both the number of events and their capacity, therefore it is reasonable to assume that more visitors would normally be attracted to events organised by the University in a more typical year.

Total visitor spending was estimated from data provided by the Great Britain Day Visits Survey (GBDVS) and the International Passenger Survey on average visitor



spend, the average number of visits to friends and relatives and the associated spend per head in each study area.

The additionality of the tourism activity is greater at the local level than for the larger study areas because it was assumed the visitors would have made trips to other areas of the UK if they had not visited Newcastle.

The impact of tourism activity was converted into GVA and employment impacts by applying appropriate sectoral ratios and multipliers. Overall, tourism activity associated with Northumbria University in 2021/22 was estimated to support £17 million GVA and 540 jobs in Newcastle; £11 million GVA and 350 jobs in Tyneside; £12 million GVA and 370 jobs in the NEMCA region; and £10 million GVA and 320 jobs in the UK.

**Table 7-2: Northumbria University – Summary of Tourism Impacts**

	City of Newcastle	Tyneside	NEMCA	UK
<b>GVA (£m)</b>				
VFR	£11.6	£5.3	£5.9	£8.8
Open Days	£0.2	£0.2	£0.2	£0.1
Conferences and Events	£5.4	£5.4	£5.7	£1.6
<b>Total</b>	<b>£17</b>	<b>£11</b>	<b>£12</b>	<b>£10</b>
<b>Employment (Jobs)</b>				
VFR	360	170	180	270
Open Days	10	10	10	-
Conferences and Events	170	170	180	50
<b>Total</b>	<b>540</b>	<b>350</b>	<b>370</b>	<b>320</b>

Source: BIGGAR Economics Analysis. Note: totals may not sum due to rounding.

## 7.7 Social Impact

Universities play a pivotal role in shaping human development, not only by shaping individual and collective human values, enriching public life, fostering social equity and justice, but also through having a day-to-day impact on the lives of local people. To shed light on the extent of Northumbria University's social impacts and its efforts to address social imbalances, it is valuable to examine specific areas where these impacts are evident.



### **7.7.1 An Employer of Choice**

Northumbria University is a good quality local employer, ensuring excellent working conditions, including paying a living wage, recognising trade unions, and having policies relating to discrimination and modern slavery. Over 98% of employees have contracts longer than two years, and 29% of senior academics are female.

Northumbria University performed particularly well on SDG8, ranking 7<sup>th</sup> in the world and 2<sup>nd</sup> in the UK. It has also received an Advanced Award of the Good Work Pledge by the North of Tyne Combined Authority, as well as an Athena Swan Bronze Award for its commitment to promoting gender equality and a member of the Race Equality Charter.

### **7.7.2 Environmental Stewardship**

Northumbria University has a commitment to environmental sustainability. For Northumbria University's submission to Times Higher Education on SDG15: Life on Land, a key environmental SDG, it ranked 22<sup>nd</sup> in the world and 8<sup>th</sup> in the UK.

Northumbria University's Environmental Sustainability Policy ensures it considers the impact of its activities on the wider environment and it aims to minimise this impact. This includes action on waste disposal, reduction, and measurement, ethical food procurement, and energy use. Northumbria University ensures existing buildings are energy efficient and aims for high environmental standards in new constructions (e.g., 'BREEAM outstanding', 'A+ EPC rating'). Plans for further estates development have a firm focus on supporting net zero aspirations and improved sustainability.

Northumbria University has been recognised for its achievements, including being the top North East University for sustainability (People & Planet, 2021), obtaining a National Green Gown Award for 'Benefitting Society' (2019), a 65% carbon reduction over 5 years and receiving an Environmental Management System & Platinum EcoCampus certification. There are many ways that staff and students are involved in championing sustainability across the University, ranging from training opportunities, offering their time to discuss sustainability issues and solutions, and cycling from home to the campus.

These decisions have direct effects on the environment locally, nationally, and globally. There will also be indirect effects through inspiring others in the local area to act in similar ways, as well as equipping students with a sustainability mindset which will be important well into the future.

### **7.7.3 Summary of Social Impact**

The core operations of Northumbria University have substantial social impacts and, it has clear impacts on the environment, employment, and equality. The key dimensions with the OECD framework that are impacted upon directly by core operations therefore include environmental quality, work and job quality, work-life balance, social connections. By acting as an exemplar in these areas, Northumbria University will have indirect and lasting effects on the local area.



## 8 Anchors through Partnership

A network of collaborative ventures lies at the heart of the University's role as an anchor institution.

Northumbria University is a central player in national and international partnerships focussed on health, culture, business, shared services and sustainability. This strong collaborative approach contributes to its societal impact and enriches its regional and global influence.

### 8.1 Nurturing Health and NHS Partnerships

The University has a significant role in training professionals in roles in the health sector, be it the health professions or in wider roles in the private, public, and third sectors that make a significant contribution to health and wellbeing, locally nationally and internationally.

The most prominent element of this is the University's graduate output in the nursing and allied health professions. With over 4,000 students, this is the single largest group of disciplines provided by the University with graduates in adult, children's, mental health and community nursing, midwifery, physiotherapy, and nutrition and dietetics. This is complemented by significant student populations studying for qualifications in subjects such as psychology, sports and exercise sciences, and biomedical sciences.

The development of staff benefits health provision in the UK and beyond. The University has used its strong platform in teaching and research to create international partnerships that support the global mobility of professionals. In addition, it has put in place infrastructure so that qualified individuals coming to the UK can meet the required standard.

The University has close international partnerships, for example:

- a partnership with St. George's University (SGU), an independent School of Medicine in Grenada which gives students the opportunity to earn a Doctor of Medicine (MD) and study for up to two years in the United Kingdom. The International Medical Pathway partnership commenced in January 2007 and has since welcomed more than 1,700 medical students to Newcastle. Northumbria University provides teaching in the early years of students' pathways and the UK is a location for some students' clinical rotations;
- Students studying with Business Management School (BMS) Sri Lanka can, on successful completion of their Diploma at BMS, articulate into level 6 of the BSc (Hons) Biomedical Science programme at Northumbria University or study for the same degree in Sri Lanka.



In March 2022 the University opened a new Nursing and Midwifery Council (NMC) Competence Test Centre. The centre, developed in partnership with Newcastle Hospitals NHS Foundation Trust, will support thousands of nurses into the NHS and also offers valuable research opportunities. The NMC uses the Test of Competence (ToC) to assess the skills and knowledge of people applying to join the register from overseas or rejoin after a long period away from practice. With capacity for 45 examinations per day, the centre also delivers around £9m of income per year for the University.

This breadth has a mutually beneficial link to research strengths, notably the REF Unit of Assessment area of Allied Health Professions, Dentistry, Nursing and Pharmacy where interdisciplinary work is taken forward under two areas: Applied Health & Social Care and Cellular & Molecular Sciences. The REF saw further progress in the University's strength in this area with an almost tripling in the number of staff submitted for assessment and an enhanced profile: 88% of research was found to be either world-leading or internationally excellent.

Through all of its work, the University has a close partnership with local healthcare providers. This has been formalised in the Collaborative Newcastle partnership between the two Newcastle universities, Newcastle City Council and local NHS Trusts. All of the organisations are working closely together to change the health, wealth and wellbeing of everyone in the city, and the University makes a contribution through its teaching, research and wider activities.

Looking ahead, the University has announced ambitious plans to create a Centre for Health and Social Equity (CHASE) which, complementing the interdisciplinary approach to research, will bring together academics working on health, social care, education, wellbeing and equity issues across the University's City and Coach Lane Campuses into one central base in the heart of Newcastle, close to the Royal Victoria Infirmary.

Opening in 2027, the aim of the development is to develop and harness the University's research, education and knowledge exchange expertise to help meet the diverse health and social needs of individuals and communities in the city, region and beyond and to address inequalities. The development will include laboratories, teaching space and a community engagement zone. Alongside teaching and research it will also be a focus for local, national international partnership.

## 8.2 Cultivating Culture and Community

Beyond healthcare, Northumbria University's impact extends deeply into the cultural fabric of the city and region. The University is an integral part of its local community, be it through opportunity for local people; participation and engagement in research; creation of and partnership with local businesses; enhancing local public services; partnership with third sector organisations; or creating and sustaining facilities for public use.





The University's partnership with cultural organisations is significant. Building on a decade of working together, in 2022 the University and the BALTIC Centre for Contemporary Art renewed their partnership with a shared vision to support creative talent development, nurture public engagement and enhance the region's reputation for artistic excellence. A central part of this is the BALTIC x Northumbria University Institute which supports fosters research and experimentation in curatorial and art practice via a programme of public events and discussions.

The University also has an important, longstanding partnership with New Writing North (NWN), the biggest writing development agency in England. The partnership, which began in 2008, has Creative Writing and the Humanities at its heart and includes many other disciplines at the University, from forensics and policing to law, cultural management and leadership, and medical humanities. This has seen the development of an innovative new Masters programme in Publishing delivered in partnership with NWN and Hachette UK.

Together, these partnerships invigorate public discourse and foster cultural growth, anchoring the University as a vibrant centre of community enrichment.

### **8.3 London Campus - Bridging Gaps**

Establishing its London Campus in the heart of the financial district solidifies Northumbria University's national and international connections. Launched In September 2014, it is one of the largest satellite campuses in the capital and provides increased links and new opportunities in the national and international business sector.

Courses at the campus are delivered in partnership with QA Higher Education. These may be full-time or part-time and across a range of business-related disciplines including Business, Computing, Cyber, Project Management and Technology. They are delivered by QA Higher Education staff and approved by the University. Students are enrolled with, and receive their qualifications from, the University.

Recruited from the UK and internationally, students can study at a full range of levels, including: Pre-Sessional English; Undergraduate Top-Up Degrees; Pre-Masters; and Postgraduate Degrees. Enrolment at the campus has increased significantly since launch, and it now provides courses to over 4,000 students. That has gone hand in hand with significant investment in state-of-the-art IT, social, learning and teaching spaces.

This venture not only bolsters the University's reputation but also contributes significantly to its income and educational footprint.

### **8.4 Collaborations to Achieve Sustainability**

Collaboration and strong networks are essential in achieving sustainable outcomes. As mentioned throughout this report, Northumbria University submits data to the



THE Impact Rankings. As part of the submission all universities must submit data on their performance against SDG17: Partnerships for the Goals, highlighting that goals cannot be achieved in isolation but only by working with others.

In the latest overall ranking Northumbria University ranked 79<sup>th</sup> in the world overall and 21<sup>st</sup> in the UK. However, specifically on SDG17: Partnerships for Goals, the University obtained its highest score (95.4), **ranking 19<sup>th</sup> in the world and 8<sup>th</sup> in the UK**. This ranking reflects the University's international research collaborations, its relationships and collaborations on SDGs with governments, NGOs, and the international community, as well as its commitment to teaching on the SDGs. Northumbria has ranked well on this SDG globally and within the UK each year it has submitted an entry.

Furthermore, Northumbria University's performance on SDG16: Peace, Justice, and Strong Institutions is indicative of a strong contribution to social capital. Social capital is an important part of sustainability within the OECD framework. For current outcomes to be sustainable then it is necessary that capital stocks are not depleted and where possible added to.

On SDG16 Northumbria University was ranked 44<sup>th</sup> in the world and 14<sup>th</sup> in the UK. This score was on account of not only its research directly on SDG16, but also its stewardship, outreach, and teaching, which includes governance structures, providing expert advice and research to governments, how it works with governments, its principles on corruption, and the proportion of graduates in law and civil enforcement. The performance on this particular SDG suggests that Northumbria University is likely to add to social capital stocks.

## 8.5 Shared services and Innovative Delivery

The University is innovating in the delivery of services in a shared, partnership model. Norman Managed Services has been established by the University, providing high quality IT first line support to the University community and 40 other organisations, including seven of the top 10 UK Universities as ranked by the THE World University Rankings 2022. The organisation has a turnover of over £1.5m with 30 staff.

## 8.6 Summary of Partnerships Impact

Collectively, these collaborative ventures paint a compelling portrait of Northumbria University's role as an anchor institution. These partnerships resonate across health, culture, education, and sustainability, binding the institution to its community, region, and the wider world.



## 9 Impact in Context

Northumbria University is situated in the North East, which has challenges around population and deprivation.

This context is assessed through a range of statistics, offering insights into the region's demographics, economic activity, education levels, and deprivation. Northumbria University's strategic location and its alignment with the local demographic and socio-economic landscape position it well to address various challenges related to educational attainment, deprivation, and demographics.

### 9.1 Study Areas

The baseline considers data for the following study areas:

- the City of Newcastle;
- Tyneside;
- the NEMCA; and
- the UK.

### 9.2 Population Estimates

In 2021 the population of the local area (Newcastle) was 298,300. Newcastle had a relatively young population in 2021, with a higher percentage of working-age people and a lower percentage of people aged over 65 compared to Tyneside, the NEMCA, and the UK.

**Table 9-1: 2021 Population Estimates**

	Newcastle	Tyneside	NEMCA	The UK
<b>Total Population</b>	<b>298,300</b>	<b>851,600</b>	<b>1,694,500</b>	<b>67,026,300</b>
% Aged under 16	17.3%	17.6%	17.1%	18.4%
% Aged 16-64	67.6%	63.7%	62.0%	62.9%
% Aged 65+	15.1%	18.7%	20.9%	18.7%

Source: ONS, (2021). Population Estimates 2021.

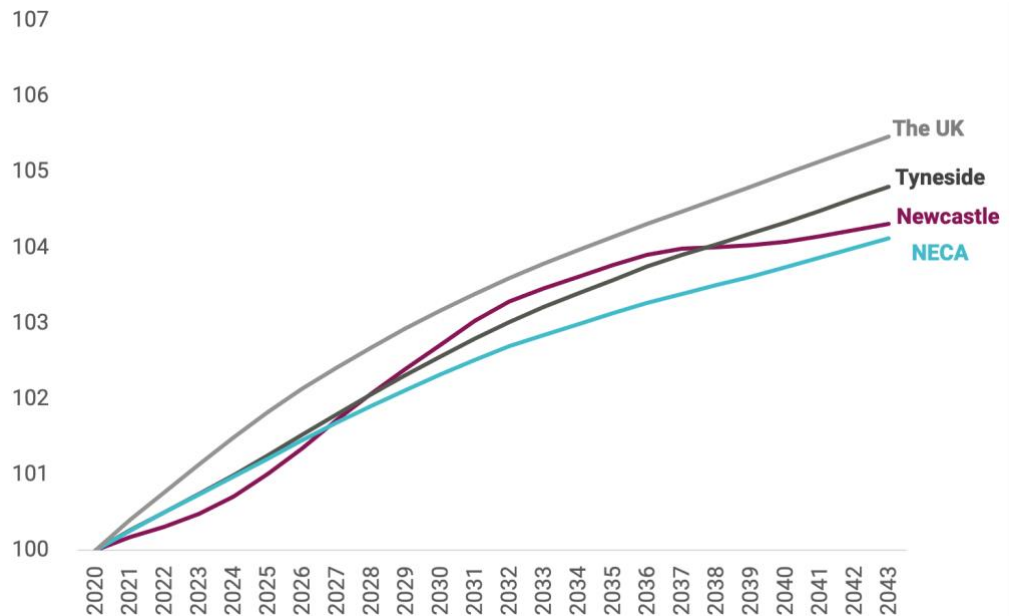
### 9.3 Population Projections

Figure 9-1 shows the expected growth rate of the working-age population in the study areas. The figure shows all regions are projected to experience an increase in their working-age population, with the North East lagging behind the UK's growth



rate. Over the period between 2020 and 2043 the working-age population of Newcastle is expected to increase by 4.3%, whereas the population of the UK is expected to increase by 5.5%.

**Figure 9-1: Projections of working age population growth (100=2020)**



Source: England is from ONS. Population projections - local authority based by single year of age; Scotland, National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based).

## 9.4 Economic Activity

In 2022, the economic activity rate in Newcastle upon Tyne was 70.7%, lower than that of the NEMCA (74%) and the UK (78.3%). The unemployment rate for Newcastle was also lower than the NEMCA, however the rate was higher compared to the UK, 4.2% compared with 4.8% and 3.6% respectively.

Despite relatively lower rates of economic activity, the median gross annual income for residents in Newcastle was larger (£27,005) than for those in the NEMCA (£26,100) and smaller for those in the UK (£27,215).

**Table 9-2: Economic Activity, 2021**

	Newcastle	NEMCA	UK
Economic Activity Rate	70.7%	74.0%	78.3%
Unemployment Rate	4.2%	4.8%	3.6%
Median Gross Annual Income (Total)	£27,005	£25,643	£27,215

Source: ONS, (2021) Annual Population Survey Jan 2021- Dec 2021. ONS, (2021), Annual Survey of Hours and Earnings.



## 9.5 Education

In Newcastle the population aged 16 to 64 years old has attained higher educational levels than across the NEMCA and the UK. For instance, 44.3% of those aged 16 to 64 had an NVQ4+ qualification (i.e., a degree level or equivalent qualification) compared to 34.9% in the NEMCA and 43.5% across the UK.

In contrast, the share of the population with an NVQ1+ qualification and an NVQ2+ qualification is lower than the UK. In addition, the share of the population not holding any qualification was larger in Newcastle (10.4%), compared to the NEMCA (8.7%) and the UK (6.8%).

**Table 9-3: Educational Levels, 2021**

	Newcastle	Tyneside	NEMCA	UK
% with NVQ4+ aged 16-64	44.3%	39.3%	34.9%	43.5%
% with NVQ3+ aged 16-64	62.9%	58.5%	54.2%	61.4%
% with NVQ2+ aged 16-64	75.4%	75.1%	74.8%	78.1%
% with NVQ1+ aged 16-64	83.0%	85.1%	84.3%	87.2%
% with other qualifications (NVQ) aged 16-64	6.6%	5.9%	7.1%	5.8%
% with no qualifications (NVQ) aged 16-64	10.4%	9.1%	8.7%	6.8%

Source: ONS, (2022). Annual Population Survey Jan 2021- Dec 2021.

## 9.6 Deprivation

The Index of Multiple Deprivation<sup>18</sup> (IMD) is a relative measure of deprivation which ranks small areas of England across seven dimensions: income, employment, education, health, access to services, crime and housing. These areas can be ranked based on which quintile (tenth of the distribution) they belong to, and areas in the first decile (bottom 10%) being the most deprived areas in England.

According to the IMD, there were 175 small areas in Newcastle upon Tyne from which 25.7% were in the most deprived areas while 9.7% were in the least deprived areas. For the Tyneside region 19.3% of the small areas were in the most deprived areas while the 7.7% were in the least deprived areas. Finally, in the NEMCA, 16.7% of the small areas were in the most deprived zones while 6.8% were in the least deprived areas.

<sup>18</sup> UK Government (2020), Index of Multiple Deprivation 2019.



**Table 9-4: Index of Multiple Deprivation by decile**

IMD-decile	Newcastle	Tyneside	NEMCA
1 (most deprived)	25.7%	19.3%	16.7%
2	13.7%	14.8%	16.0%
3	7.4%	14.4%	13.6%
4	7.4%	9.0%	10.7%
5	8.0%	7.7%	8.9%
6	7.4%	4.7%	6.3%
7	6.3%	7.3%	7.6%
8	6.9%	6.9%	6.7%
9	7.4%	8.2%	7.7%
10 (least deprived)	9.7%	7.7%	5.9%

Source: UK Government (2020), Index of Multiple Deprivation 2019

## 9.7 Summary

The socio-economic analysis highlights key insights about Northumbria University's local context. The city has a youthful demographic, with more working-age residents and fewer elderly individuals compared to the broader region and the UK as a whole. This is likely to reflect the large student population in the city. Education levels are generally higher in Newcastle, with a greater proportion holding advanced qualifications, but with a notable share without qualifications.

Despite slightly lower economic activity, Newcastle's working-age population is projected to grow by 4.3%, although this lags behind the UK's working-age growth rate. While the city's unemployment rate is higher than the UK's, residents earn a slightly higher median income than the UK and a higher income than those in the wider NEMCA region. However, Newcastle faces a higher level of deprivation than Tyneside and the NEMCA.

Northumbria University's strategic location within the socio-economic context of Newcastle, along with its focus on inclusive education and wider participation, research, community engagement, and collaboration, positions it well to address challenges related to deprivation and demographics in the region. Through its targeted efforts, the University contributes to the development and wellbeing of the local community and plays a significant role in the overall socio-economic growth of the area.



# 10 Summary and Conclusions

Northumbria University makes a substantial contribution to local, regional and national economies, and delivers important social impacts.

Northumbria University's strategic transformation over the past decade has yielded strong outcomes across research, education, and civic engagement. The University's rise to 23<sup>rd</sup> place in the UK for research power, with 80% of its research rated as internationally excellent or world-leading, underscores its commitment to advancing academic frontiers. Similar progress is seen in its contribution to social mobility, with nearly 40% of its undergraduates originating from under-represented backgrounds, reflecting its dedication to broadening access and providing widening-participation students with access to a research rich learning environment. In light of these advances, it was recognised as the University of the Year 2022 by the Times Higher Education Awards.

Northumbria University commissioned this economic and social impact assessment for the 2021/22 academic year. The assessment employed the OECD Better Life Index framework to gauge the University's influence across 11 dimensions, including a quantitative economic impact assessment, embedded as part of its wider story of societal impact. The results reveal a comprehensive impact landscape, each facet contributing substantively to the University's overarching mission.

## 10.1 Economic Impact

In 2021/22, the University generated an economic impact worth **£1.6 billion GVA** and **31,650 jobs** in the UK, shown in the table below. Of this:

- £636 million GVA and 13,180 jobs were retained in Newcastle;
- £829 million GVA and 16,280 jobs were retained in Tyneside; and
- £1.0 billion GVA and 20,120 jobs were retained in the North East Mayoral Combined Authority region.

Impact multipliers are a useful summary indicator to express within a single figure the returns from investment in an organisation. In 2021/22, Northumbria University had an income of £329 million and directly employed 3,330 people, so:

- for each £1 of income received, the University generated £4.99 in economic impact across the UK; and
- for each person it directly employed, the University supported 9.5 jobs across the UK.



**Table 10-1: Summary of Economic Impacts, GVA (£m)**

Source of Impact	Newcastle	Tyneside	NEMCA	UK
Spin-Outs & Start-Ups	£46.4	£66.0	£76.4	£109.6
Services to businesses	£12.1	£16.1	£32.5	£64.8
Student Placements	£1.4	£1.7	£2.2	£3.6
KTPs	£0.4	£1.0	£2.5	£3.1
<b>Innovation Impact</b>	<b>£60.3</b>	<b>£84.8</b>	<b>£113.7</b>	<b>£181.2</b>
Student spending	£104.7	£136.8	£183.0	£286.3
Student employment	£115.0	£146.5	£175.3	£273.7
Student volunteering	£3.7	£4.7	£5.4	£6.5
<b>Student Impacts</b>	<b>£223.4</b>	<b>£288.0</b>	<b>£363.7</b>	<b>£566.5</b>
<b>Tourism Impacts</b>	<b>£17</b>	<b>£11</b>	<b>£12</b>	<b>£10</b>
<b>Graduate Impacts</b>	<b>£82.2</b>	<b>£164.2</b>	<b>£216.2</b>	<b>£393.7</b>
Direct impact	£220.4	£220.4	£220.4	£220.4
Supply chain impact	£8.0	£13.4	£18.6	£109.7
Staff spending impact	£22.5	£42.1	£73.3	£137.2
Capital Investment	£1.9	£4.8	£6.4	£24.7
<b>Core Impacts</b>	<b>£252.8</b>	<b>£280.7</b>	<b>£318.6</b>	<b>£492.1</b>
<b>Total Impact</b>	<b>£636.0</b>	<b>£828.7</b>	<b>£1,024.1</b>	<b>£1,643.9</b>





**Table 10-2: Summary of Economic Impacts, Employment (jobs)**

Source of Impact	Newcastle	Tyneside	NEMCA	UK
Spin-Outs & Start-Ups	1,240	1,740	2,010	2,860
Services to businesses	20	30	80	190
Student Placements	30	40	50	80
KTPs	10	20	50	60
<b>Innovation Impact</b>	<b>1,300</b>	<b>1,830</b>	<b>2,190</b>	<b>3,190</b>
Student spending	3,160	4,110	5,540	8,860
Student employment	4,040	5,150	6,140	9,370
<b>Student Impacts</b>	<b>7,200</b>	<b>9,260</b>	<b>11,680</b>	<b>18,230</b>
<b>Tourism Impacts</b>	<b>540</b>	<b>350</b>	<b>370</b>	<b>320</b>
Direct impact	3,320	3,320	3,320	3,330
Supply chain impact	160	260	370	2,120
Staff spending impact	630	1,190	2,090	4,070
Capital Investment	30	70	100	390
<b>Core Impacts</b>	<b>4,140</b>	<b>4,840</b>	<b>5,880</b>	<b>9,910</b>
<b>Total Impact</b>	<b>13,180</b>	<b>16,280</b>	<b>20,120</b>	<b>31,650</b>

## 10.2 Social Impact

Economic progress is not synonymous with social progress, and unrestrained economic progress can have negative consequences in other areas of life. It has become important to articulate impact holistically and the OECD Better Life Index, like other multidimensional wellbeing frameworks, is a helpful framework for doing this.

Throughout this report, social impact has been understood through the OECD Better Life framework and discussed in relation to each area of the Northumbria University’s main areas of activities – research, innovation, students, graduates, core operations, and partnerships. Through these activities, the University makes an impact across all of the dimensions of social impact described by the OECD framework, in some areas to a large extent.

**Education (Knowledge and Skills):** The section on graduate impacts (Section 6) illustrated that many occupations have social value that goes beyond what is received in people’s pay. The total social value of the earnings premium (which includes economic value) was estimated to total £388.6 million, with most of this arising through teaching in education, health, and engineering/technology.



Finally, the University's success in widening participation allows non-traditional students to learn in a research-rich environment, a unique position among the Top 25 universities in England for research power. Much of this social impact is felt locally.

Two of the dimensions, **income and wealth** and **work and job quality**, are covered in the previous section, quantified at **£1.6 billion GVA and 31,650 jobs** in the UK, creating a high level of social impact.

**Health:** The University impacts on health via its graduates who enter health-related professions, adding social value beyond what they receive in pay. In addition, graduates tend to live longer and healthier lives than non-graduates. Its strong platform in teaching and research supports regional, national, and international partnerships in health, with Northumbria University at their heart.

**Community (Social Connections):** Northumbria University is an essential part of the community, creating networks for students and working in partnership locally, nationally, and internationally. Of particular note is the University's strong performance on SDG17: Partnerships for the Goals, which it merits based on its research, stewardship, outreach, and teaching. This illustrates its role in local, national, and international communities.

**Civic Engagement:** Performance on this dimension is depicted again by Northumbria University's performance on the SDGs, particularly SDG16: Peace, Justice, and Strong Institutions, where it exhibited a strong contribution. This includes not only its research specialisation, which was particularly high in this area, but also its commitment to democratic freedoms and offering expert advice, and teaching in law and enforcement. The depth of partnerships across the region highlights its role as an anchor institution.

**Life Satisfaction (Subjective Wellbeing):** Northumbria University carries out student and staff wellbeing surveys showing that working and studying at the University brings wellbeing benefits, and these are comparable to other universities.

**Environmental Quality:** The University is committed to ensuring good environmental quality for its staff and students, as well as being committed to sustainability.

This is exemplified via its strong overall performance on the Sustainable Development Goals (SDGs) with regard to its research, stewardship, outreach, and teaching. Northumbria University was named the top North East University for sustainability in 2021 and received a National Green Gown Award for 'Benefitting Society' in 2019. It has also reduced its carbon footprint by 65% over a five year period and achieved an Environmental Management System & Platinum EcoCampus certification.

Northumbria University encourages staff and students to get involved in championing sustainability across the University. There are also indirect benefits



through better public transport infrastructure that has benefits to emissions and improve local air quality.

**Safety:** Northumbria University ensures staff and students are safe on and off campus. Through its research portfolio, the University makes contributions to safety on a global stage, for example through UN Sendai Framework for Disaster Risk Reduction and the WHO Framework for Health Emergency and Disaster Risk Management.

**Work-Life Balance:** Northumbria University is a good quality local employer, ensuring excellent working conditions, including paying a living wage, having stable contracts, reasonable gender parity, recognising trade unions, and having policies relating to discrimination and modern slavery, which will all create a better work-life balance for those that work there than it might otherwise be the case.

**Housing:** Northumbria University's staff and students create demand for housing, which may affect the availability of accommodation for people that live and work in the area. This also attracts further investment, such as high-quality purpose-built student accommodation and Northumbria University also provides accommodation for its student, particularly in their first year.

**Summary:** Northumbria University makes a strong social impact. Not only through having strong contributions to education, health, and community, and therefore human capital, but also displaying positive impacts on the environment, engaging meaningfully with the local, national, and global community, and promoting equality. In addition to social and economic capital stocks, the impact that Northumbria University has is likely to extend long into the future.

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