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LINCOLN

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The Social, Cultural & Economic
Contribution of the University of
Lincoln

A Final Report by
Regeneris Consulting

University of Lincoln

The Social, Cultural & Economic Contribution of the
University of Lincoln

October 2017

Regeneris Consulting Ltd
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Summary

- i. Regeneris Consulting has been commissioned by the University of Lincoln to measure the University's cultural and socio-economic contribution. As well as quantifying the University's economic contribution, the study examines in detail its growth and development and the ways in which the institution has embedded itself culturally and socially into the city of Lincoln and the wider region.

Summary economic contribution

- ii. The University has grown rapidly since its inception and has a considerable physical, economic, cultural and social footprint. We estimate that the total quantifiable economic contribution of the University in 2015/16 was **£430 million in the UK**.
- iii. The presence and importance of the University locally is demonstrated by our finding that it supports more than 5% of all jobs in Lincoln, and **more than 1 in every 6 working age residents in the city is either a student, a direct employee or their job is indirectly linked to the University**.
- iv. The University's contribution goes a long way beyond its narrow economic role as a large employer and purchaser. This summary explores the many different aspects of the University's wider economic, social and cultural contribution and highlights the value of the proactive, collaborative role it plays in local ecosystems.

"One of the great things about the University is that it is so well connected into the fabric of society."

Ursula Lidbetter, CEO Lincolnshire Cooperative

Driving regeneration and the local economy

- v. The University's presence was driven to Lincoln to support the economic growth of the city and the wider area, recognising that the presence of a university would bring a range of benefits to the area as a large employer and attractor of activity.
- vi. The first building opened in 1996 on the Brayford Pool site, a rail goods yard that had been derelict since the 1970s. The Brayford Pool Campus was the **first new city centre campus in the UK for over 25 years**. Since then, the University has been on a consistent growth trajectory.
- vii. In total, there has been **£275 million in capital investment over the past 20 years**, with on average one building constructed each year. In the last year, this has risen to three per year. The University of Lincoln has two further campuses in Lincolnshire. The Riseholme Park campus is home to the Lincoln Institute for Agri-food Technology, and the campus in Holbeach houses the National Centre for Food Manufacturing.

The University has invested **£275m** in its campus at Brayford Pool in the City of Lincoln.

Timeline of the University of Lincoln's Development



Source: Regeneris Consulting & the University of Lincoln

viii. The presence of a growing University has generated very significant knock-on economic benefits for the city of Lincoln and beyond, leveraging in large amounts of expenditure and activity that have, in turn, driven further regeneration:

- The University's **income has gone up almost threefold since 2000**, to £138m in 2015/16. In fact, it is the fastest growing HEI in the region and now the 5th largest revenue generator in the City of Lincoln. More significantly, the University of Lincoln is the 5th fastest growing HEI in the UK based on increases in income since 2010. This income supported a direct Gross Value Added (GVA) contribution of **£93m**.
- This has been accompanied by growth in staff numbers. There are now **1,446 Full Time Equivalents (FTES)** working at the University, an increase of almost a third (28%) since 2010. These are, typically, highly skilled positions: average full-time earnings are **£40,000 per annum**, which compares to an average of £25,000 for all jobs in the City of Lincoln and Greater Lincolnshire LEP. These employees with higher than average disposable incomes help to support the local economy, with around two-fifths living in Lincoln and 82% living in the Greater Lincolnshire LEP area.
- In 2015/16 the University spent £64m with UK-based suppliers, on both capital and operating activities. £16m was spent in the East Midlands and £6m in Greater Lincolnshire LEP area.

“The level of impact the University has had far outstrips anything we could have imagined at the outset.”

Justin Brown, Lincolnshire County Council

ix. The student population has transformed in the last twenty years and has become established in Lincoln. In 2015/16 there were 13,200 students studying at the University, with an additional 1,570 enrolled on work-based distance learning¹. This represents 24% growth on 2010. To illustrate the importance of the student population locally:

- **1 in every 7 working age residents** living in Lincoln now studies at the University.
- Students living in Lincoln during term time account for **more than half of all residents aged between 18 and 24.**

“I can remember coming for a night out before the University really got going and it was two men and a dog in the pubs, and then the University transformed it. 13,000 students have made a real difference to shopping provision nearby, nightlife and restaurants.”

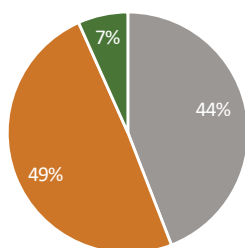
Dan Clayton, Local resident

x. The University plays a key role in educating students from the region, but also has a wider catchment. Since 2010/11, the number of students from outside the UK has doubled, and now these students account for more than a tenth of its student base.

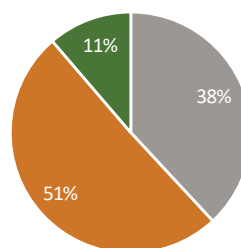
University of Lincoln Student Population, 2010/11 - 2015/16

The University of Lincoln has been widening its reach across the UK and beyond.

Student population 2010/11



Student population 2015/16



■ East Midlands ■ Rest of UK ■ Rest of the World

■ East Midlands ■ Rest of UK ■ Rest of the World

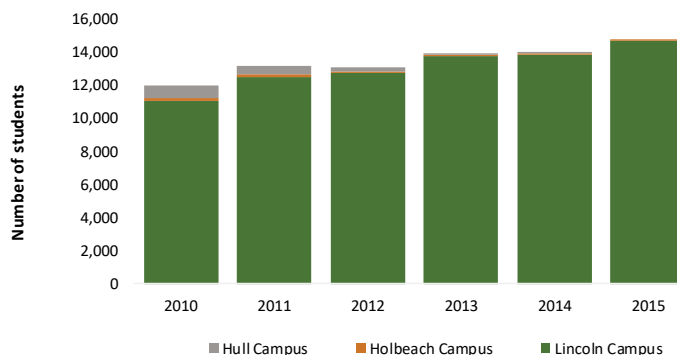
The number of students from **outside the region** grew by **20%** since 2010, while the number of students from **outside the UK** doubled.

Source: Regeneris Consulting

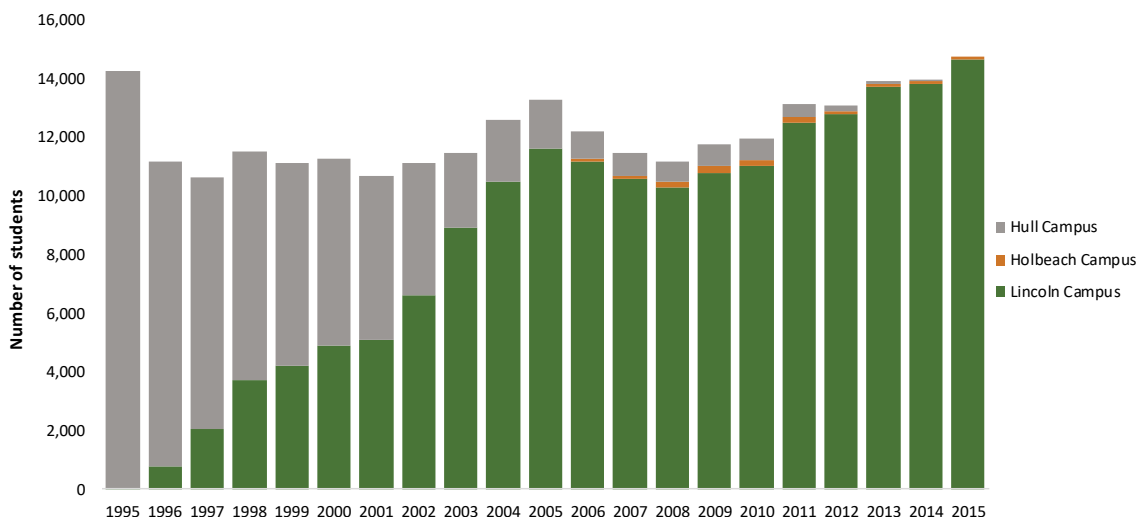
¹ For the purposes of the economic impact calculations, work place distance learning students are excluded from the assessment.

University of Lincoln Student Numbers, 1995 – 2015

The number of students grew by **24%** since 2010



Lincoln Campus now includes **13,200** students studying and **1,570** on work-based distance learning in 2015/16.



Source: University of Lincoln. Note: Includes work-based distance learners.

- xi. The attraction and retention of such a large set of residents to the city and wider area has provided an enormous boost to the local retail and leisure sector as well as driving demand for student housing.
- xii. Students' expenditure on goods and services outside the University campus supports an estimated **£195 million in GVA nationally, supporting an estimated 750 jobs in the city.** The majority of this comes from additional expenditure

"Any taxi driver will tell you that you used not to be able to find a meal [in Lincoln] on a Monday night because everywhere was dead. Now there are new hotels, restaurants, bars, and cinemas."

David Willetts, former Minister for Universities and Science

for Lincoln by students that did not previously live there.

- xiii. The University's investment and expansion has, in turn, had major catalytic effects on development and regeneration in the city, particularly around the Brayford Waterfront, where a cluster of food, drink and leisure facilities has developed.

Regeneration at Brayford Waterfront

The University of Lincoln was catalytic in regenerating the area around Brayford Pool. A cluster of food and drink and other leisure services has emerged on the waterfront at Brayford Wharf North. Student residences are also found on the North side of Brayford Pool.

The first leisure development was completed in early 2001 on the site of a former garage on Brayford Waterfront; it included a 9-screen, 1931-seat cinema, with 3 food and drink units. These are now home to an Odeon, a Zizzi, an ASK Italian, and the Square Sail, which all have outdoor seating and views over the Marina. A landmark floating Wagamama restaurant was constructed in the Marina and opened in 2012.

In 2010, partners in Lincoln including the University took part in an enabling framework exercise to define and enhance the character of the Brayford Waterfront. It was designed to generate maximum floorspace and increase footfall. It included a new pedestrian bridge to the north of the Pool, generating more footfall from the University.

Recently, plans for more restaurants, apartments, and hotels have been unveiled, adding to what has become the leisure circuit in Lincoln city centre. Indeed, capacity of pre-existing facilities are being expanded, with the Holiday Inn on the waterfront undertaking a five-storey extension to add an additional 49 rooms.

A large number of apartment buildings have also accompanied development from 2001 onwards, including the One Brayford development, building on the success of the area. It features 89 apartments and has space for a further 3 restaurants. It is due for completion in 2017.

New student residences, including Cygnet Wharf are also under construction, adding a further 442 student bedrooms to the area and the University is constructing more student accommodation on the South bank of the Pool, named Marina Courts.

Working with business to drive innovation and growth

- xiv. Boosting innovation is an important priority within the Midlands Engine Science and Innovation Audit², which identified skills and innovation gaps, and highlighted innovation as one of the solutions for addressing the productivity gap between the Midlands and the UK overall. Business density and start up rates in Lincoln and Lincolnshire are well below the UK average.
- xv. Engaging with industry and supporting business is central to the University of Lincoln's approach. Indeed, the University was one of the original founding partners of the Greater Lincolnshire Local Enterprise Partnership (LEP). It played a significant role in the bid to government and in shaping the ethos of the organisation. The Vice-Chancellor, Professor Mary Stuart, is a member of the LEP Board. After spurring its establishment, she also Chairs the **Innovation Council**, which advises the LEP on strategy to drive innovation in Greater Lincolnshire. She also chairs the

The University was one of the founding partners of the Greater Lincolnshire LEP.

² The Department for Business, Energy & Industrial Strategy (2016). *A Science and Innovation Audit Report for the Midlands Engine*

Growth Hub Board and the University is present on other sub-groups including that for Employment and Skills.

- xvi. A wide range of staff from across the University provide additional support to the LEP, for example, for funding applications. Some staff are jointly employed by the University and LEP, ensuring a strong transfer of knowledge and expertise.
- xvii. The University offers a very wide range of support for businesses, from incubation facilities through to Knowledge Transfer Partnerships:
- The **Sparkhouse** Incubation centre opened in 2003 and aims to give start-ups support and advice to help businesses survive their first two years and subsequently grow.
 - The University manages **Think Tank**, the council-owned innovation centre, aimed at supporting high-growth, innovative businesses that are more developed than those in Sparkhouse.
 - **The Lincoln Science and Innovation Park** is a joint venture with the Lincolnshire Co-operative and the only dedicated space in the Greater Lincolnshire LEP area for science, innovation, and R&D – see below for more detail.
 - A range of support is provided for **student and graduate enterprise**, including the Student Enterprise service, and the Graduate Entrepreneurship Accelerator Programme.
 - The University recently launched an ERDF-funded innovation programme, worth £3.5 million and aiming to support 650 businesses.

“The University is very outward facing.”

Gary Stimson, E2V Technologies Ltd.

Lincoln Science and Innovation Park

The Lincoln Science and Innovation Park is a joint venture with the Lincolnshire Co-operative. LSIP is the first science park in the city, and it is located next to the University of Lincoln’s Brayford Pool Campus. It is the only site in Greater Lincolnshire dedicated to science, innovation, and research and development across commercial and public sectors.

The University is the anchor tenant, which is a co-locational space bringing together scientific and innovative businesses with academia. LSIP’s first state of the art laboratories refurbished the old Ruston Bucyrus Headquarters, and now accommodate the University’s School of Pharmacy, Chemistry, and Life Sciences in the Joseph Banks Laboratories building. This provides over 60,000 sq m of new teaching, learning, and research space. Since 2012, 7,500 sq m of technical space, 3,500 sq m of commercial space, and 3,500 sq m of innovation centre space have been developed, using an investment of over £20 million.

The newly opened Boole Technology Centre accompanies the Joseph Banks Laboratories, providing offices, laboratories, and technical workshops targeted at high-growth technology firms. The Centre can rapidly reconfigure each of the units in order to accommodate business growth.

The design of the park has focused on integrating research, teaching, and social space into a single site to promote formal and informal sharing between undergraduates, postgraduates, staff and private businesses. LSIP is currently developing phase two of its plans. LSIP is offering a number of plots and new-builds built to the specification of innovation-led firms, who are seeking their own occupancy. Each plot is a minimum of half an acre in size.

xviii. Impressive outcomes have been achieved from these business engagement activities:

- The University's 2015/16 Higher Education Innovation Fund allocation per academic was **higher than the Universities of Oxford, Cambridge, Manchester, King's College London and Imperial College London.**
- Lincoln was shortlisted three times over the last four years for the Times Higher Education Entrepreneurial University of the Year.
- The University won the Lord Stafford Award for Open Collaboration in 2011.
- To date, Sparkhouse and Think Tank have supported more than 400 businesses, creating more than 433 jobs.
- There were 52 active graduate start-ups in 2014/15, employing 66 FTEs. 63% of Lincoln's active graduate start-ups had survived more than 3 years in 2014/15 compared to just 41% on average at UK universities. **These start-ups received 58% of all external investment received by start-ups from East Midlands HEIs.**
- Income from contract and collaborative research has been growing strongly. For example, contract research income of £4 million in 2015/16 was up from £2.6 million the previous academic year.
- The University accounts for 7% of consultancy income from all HEIs in the East Midlands, and 5.8% of the region's staff.

Knowledge Transfer Partnership Project with GSA Environmental (GSAe)

The School of Chemistry at the University of Lincoln worked in partnership with GSAe - an engineering consultancy and metal extraction company - on a KTP project extracting metals from ash. The project was aimed at developing processes to extract metals, particularly vanadium, molybdenum, and nickel, from wastes generated in oil refining and heavy fuel oil combustion. The project entailed a mix of scientific and engineering tasks such as laboratory testing and analysis through to computational process modelling, equipment sizing and selection, and cost estimation.

Andrew Simons was placed in the company as the KTP Associate. His role was to develop an understanding of the chemistry of the metals in wastes and then exploit that understanding to develop cost effective industrial processes. The project was an extension of Andrew's previous capabilities from metals extraction in the minerals sector.

"I enjoyed the role as I had significant control over the project direction and liked acting as the "bridge" between the science and engineering activities." – Andrew Simons

The outcome of the project was a newly developed processing route for metals extraction from oil refining wastes. Ultimately application of this new technology will reduce the environmental impact of refinery wastes by removing toxic metals before the wastes are landfilled. Further, the generation of metals from these wastes reduces the need for mining of metals around the world.

The success of the project was due to the strong multidisciplinary team that was created by the KTP partnership, particularly the University's chemistry knowledge and the company's engineering knowledge. Further, it allowed GSA Environmental to access analytical expertise and equipment and feed that into the company's engineering team improving the company's technology.

The University and GSAe have since developed a partnership. GSAe now operates a state of the art laboratory based at the University of Lincoln, staffed with PhD scientists. The University and GSAe continue to work together, and collaborate with Chemistry and Engineering departments.

Boosting higher level skills

xix. The proportion of highly skilled residents in Lincoln and the East Midlands has historically lagged other parts of the UK. Around a quarter of working age residents in Lincoln are qualified to degree level or above, compared to 37% in the UK. UKCES estimates that the East Midlands region will require an additional 214,000 employed graduates between 2014 and 2024. Boosting skills is a key objective of the Greater Lincolnshire LEP as well as the Midlands Engine.

xx. The University of Lincoln makes a critical contribution to this objective in two key ways. Firstly, as a direct employer itself it draws in highly skilled staff to the area, increasing the pool of highly skilled people living and working there. Secondly, it supplies the local and wider economy with highly skilled graduates:

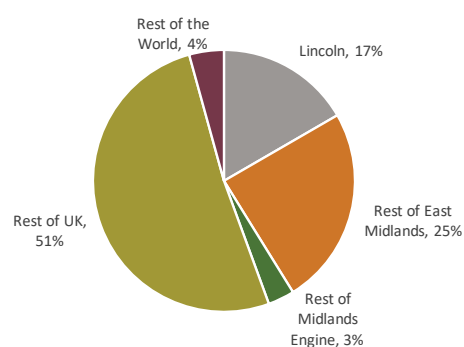
“Having a large institution in the area means there is a larger pool of skilled people here.”

Ursula Lidbetter, CEO, Lincolnshire Co-operative

- In 2014/15, 77% of graduates had entered employment 6 months after graduation, which was one of the highest rates amongst HEIs in the region.

- 31% of graduates found employment in the Greater Lincolnshire LEP area while 7% remained in Lincoln. To put this in context, the number of graduates entering employment in Lincoln six months after graduation is estimated to represent around **20% of all 16-24-year-old employees with a Level 4+ qualification in Lincoln.**³

Proportion of employed graduates 6 months after graduation by employment location, 2014/15 cohort



Source: University of Lincoln 14/15 DLHE Data

- Of those graduates who entered employment, 75% went on to work in higher managerial or professional occupations within the region.

xxi. The University is recognised nationally for the quality of its teaching. It is the highest ranked post-1992 University in the country, ranked 8th best University in the United Kingdom by overall satisfaction.⁴ **It was recently awarded Gold status in the Teaching Excellence Framework (TEF), the highest possible award.**

xxii. The University takes a very proactive approach to meeting the needs of employers and priority sectors and to retaining graduates locally. It makes a particularly strong contribution to supplying

³ Office for National Statistics, *Census 2011*. Note: It is not possible to disaggregate any further by age. 2011 is the latest data for which this breakdown is available.

⁴ University League Tables (2017) *The Complete University Guide*; using the mean score measure

highly skilled graduates to sectors prioritised for growth by Greater Lincolnshire LEP⁵ and the Midlands Engine⁶, including manufacturing and engineering, low carbon and healthcare.

- xxiii. The University has strong industry links across the STEM subjects. The partnership with Siemens (see below) is a prime example of this, but the University engages with industry on skills development on several fronts. For example, the Chemistry degree programmes include a professional practice module that gives students an experience of real world applications in commercial and industrial contexts including an understanding of employability and the job application process, supplemented with guest lectures from industry.

Siemens

In 2008, Siemens Industrial Turbomachinery Limited, located in the City of Lincoln, was considering its options for the company's future manufacturing of gas turbines. Lincoln had been a locus for engineering for all the 20th century but Siemens was struggling to recruit and retain engineers locally. Siemens was (and is) the largest private sector employer in Greater Lincolnshire and its loss would have been devastating to the area.

Discussions with the University led to the idea of establishing a new School of Engineering at the University, the first in the UK for over 20 years. This began a partnership between Siemens and its supply chain, which grew to a new level in 2010 when the new School's building was completed. Siemens invested in the development of the School, alongside funding from HEFCE, the City and County Councils, and the European Union.

This £37.5m collaborative venture included Siemens co-locating with the University's new School of Engineering to provide training for customers on their turbines. The establishment of the School not only ensured that Siemens would continue to locate its gas turbine business in Lincoln (and therefore in the UK), saving over 1,000 jobs, but also created the right environment for Siemens to expand its business on a new site in 2012, creating a further 50 jobs. **Today Siemens' biggest plant in the UK is located in Greater Lincolnshire.**

The School of Engineering has achieved a reputation for its research excellence and innovative and proactive approach to business engagement. Graduates of the University of Lincoln take a shorter time to complete the Siemens graduate scheme - around four times faster than other students.

Whilst the direct impact of the relationship with Siemens is critical, it has rapidly established the School at the heart of the engineering cluster, both locally and regionally. The School has already engaged with over 400 engineering businesses and organisations – undertaking commissioned research (including with Marks & Spencer and Mitsubishi), Knowledge Transfer Partnerships, and access to part-time degrees. The School is actively driving local and regional cluster event activities (e.g. IMECHE, IET and the Institutes of Physics and Combustion).

The University received the Times Higher Education Award for Outstanding Employer Engagement Initiative in 2012 for its partnership with Siemens.

Siemens conferred the prestigious Global Principal Partner status to the University in 2015.

⁵ Greater Lincolnshire Local Enterprise Partnership, *Strategic Economic Plan 2014 – 2030*, 2016

⁶ Department for Business, Innovation and Skills and Department for Communities and Local Government, *The Midlands Engine for Growth: Prospectus*, 2015

The Lincoln Award with Lincolnshire Police

The University of Lincoln and Lincolnshire Police came together to establish a partnership initiative, launched in 2014. The initiative offers volunteering opportunities in a police environment. The initiative provides the Police with wider engagement opportunities and increased accessibility of services, whilst for the University, the partnership offers more career opportunities for students, including placements, skills development courses and future employment prospects.

The Lincoln Award offers two different volunteering pathways which the students can access: a role as a Volunteer Police Community Support Officer (VPCSO), and a role as a volunteer in the drop-in centre.

The Lincoln Award with Lincolnshire Police has been highly successful, with 20 students having completed their roles. In 2016, the **University of Lincoln's Careers and Employability Centre received an AGCAS Award for Employer Engagement** for the project. The judges' comments said "*The scheme demonstrates true collaboration between a university and an employer, whilst addressing a local community agenda and demonstrating the positive impact that student peer-led activities can have on an area.*"

More recently in February 2017, the initiative was highly commended by the **National Undergraduate Employability Awards in the Best Collaboration** between an employer and a university category.

- xxiv. By improving the skills of the workforce, a University education increases both earnings and a student's chances of finding employment over the course of their working life, and also improves the business performance and profitability of the companies they work for. All of these effects contribute to increased levels of economic output and productivity. We estimate that for the 2015 cohort of graduates the skills and productivity contribution during their working lives will amount to over **£200 million for the UK.**

Delivering research aligned to local and regional priorities

- xxv. *Research with impact* is one of the University's five core principles in its 2016-2021 strategic plan. The University's research agenda is **aligned to local and regional economic priorities**, with innovation a key strategic theme in the Midlands Engine for Growth agenda. The University's approach follows the concept of the "living lab", whereby research is created in partnership with businesses, industry, policy makers, practitioners and service users.
- **"The University bends its provision to meet local objectives"**
Justin Brown, Lincolnshire County Council

- xxvi. The University has more than 40 research centres and research groups, supported by over 60 substantive professors. 53% of the research that the University submitted to REF 2014 was classed as internationally excellent or world leading. In the year following this result, the University was awarded one of the largest increases in national research funding, increasing by 90%.
- xxvii. The University's research in these areas, in the Agriculture, Veterinary, and Food Science category, was second out of 29 institutions nationally for output quality in REF 2014. This covers the **Lincoln Institute for Agri-Food Technology**. 'Allied Health Professions, Dentistry, Nursing, and Pharmacy', Lincoln came 10th in the UK out of 94 for quality of outputs, which covers **the Lincoln Institute for Health**.

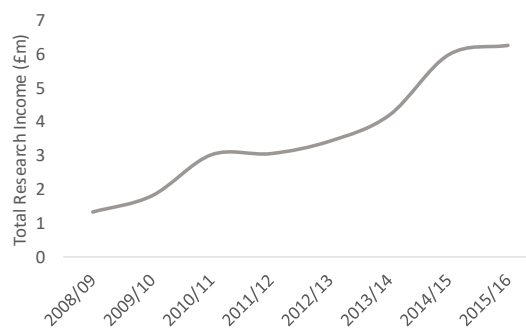
xxviii. The University of Lincoln has had significant successes in health research. This includes a number of **breakthroughs in diabetes** research, driven by the Diabetes, Metabolism & Inflammation (DMI) group at the University.

xxix. Another example is the work led by Professor Nigel Allinson on PRAVDA a project which can **revolutionise cancer treatment** by applying proton therapy. It is seen as the most promising alternative to radiotherapy treatment, opening up new options for treating cancers which are close to vital organs.

xxx. The University is home to the National Centre for Food Manufacturing at Holbeach, which leads research and innovation in the food industry. This is an especially pertinent area for Greater Lincolnshire, which contains nearly 25% of England's Grade 1 agricultural land and produces 1/8th of the nation's food⁷.

xxxi. Research income has been growing strongly. In 2015/16, the University received research income of **£6.3 million**, up from £3 million in 2010/11.

Research income



Source: University of Lincoln Financial Accounts

The University of Lincoln saw one of the largest increases in national research funding awarded to it, increasing by 90% following REF 2014.

Agri-food: Aligning academic research with regional priorities

The centre for Agri-Food technology's mission is to develop new technological solutions for the business of producing food through agriculture. It is outward-facing and committed to long-term impact. This flows from the strongly applied nature of its research, stemming from its local, national, and even global agri-food industry connections.

This sector is a strategic priority for the Greater Lincolnshire LEP. The area is the market leader in many agriculture aspects, producing 25% of the UK's vegetables and 10% of overall English agriculture. The wider food production economy, including the logistics, packaging, and other sectors dependent on the food chain for their business, is worth an estimated £2.5 billion in terms of GVA and 56,000 jobs in Greater Lincolnshire.

The Centre works with the National Centre for Food Manufacturing, which hosts a wide range of industry bodies and is built upon strong industry links.

78% of the University's research in agriculture, veterinary and food science was found to be world leading or internationally significant by the REF 2014 exercise.

⁷ Lincolnshire Forum for Agriculture and Horticulture, *Why Food & Farming Matter*.

Enhancing the cultural and visitor economy

xxxii. The University aims to use culture as a placemaking tool, acting as a strong advocate and providing local capacity. This is especially important in the context of wider reductions in public spending on arts and culture and next to the LEP's aim to attract more people to the region, which the University hopes to aid by enhancing its cultural offering.

The University of Lincoln has a strong partnership with Arts Council England, facilitating cultural investments.

xxxiii. The University has established a strong partnership with Arts Council England, facilitating projects and investments into the cultural and creative sector locally and beyond. The University has become a key part of the cultural infrastructure in Lincoln:

- The **Lincoln Cultural and Arts Partnership** emerged as a significant, strategic partnership from the collaborative efforts in organising the Magna Carta events in 2015. The University is instrumental in the co-ordination and oversight of the Partnership, which brings together different local arts and cultural organisations. The University adds value by increasing capacity, co-ordinating activities and fostering ambition.
- The University recently set up the **Culture & Creativity Centre**, the first in the UK. It will drive creative innovation, support interdisciplinary collaboration, and work with external partners to enhance creativity and artistic ambition in Lincoln and more widely.

Magna Carta 800

2015 was the 800th anniversary of the sealing of the Magna Carta by King John. The Magna Carta remains of global significance and remains a cornerstone of democracy around the world, including influencing the formation of the American Constitution in 18th century.

A series of events were organised in partnership with the City and County Councils, the Cathedral, the Castle, and other local stakeholders. The University played a key role in establishing the Magna Carta vision and facilitating the collaboration between stakeholders. Coordinating this partnership, funds in excess of £1m were secured into the City through Cultural Destinations funding from the Arts Council England alone.

The success of the Magna Carta 800 events led to the city earning a place on the top twenty visitor destinations in the UK by *the Telegraph*.

- The University continues its strong commitment to the creative sector, by enabling and supporting students and staff to engage with the industry. Among the University's lecturers are multiple award-winning filmmakers, including Dr Mike Murray who lectures in Film Production and Screenwriting. Films produced by students and staff regularly receive awards from the prestigious Royal Television Society and awards from the British Universities Film and Video Council (BUFVC). The Empty Throne, a featurette produced by staff, students and graduates of the Lincoln School of Film & Media was named **winner of the Educational Multimedia Award at the Learning on Screen Awards 2016**.
- The University has partnered with Threshold Studios to create **RADAR**. The initiative is an accelerator for creative graduates looking for a head start after university by creating paid internships and bespoke mentorship pathways that nurture the emerging talent. The

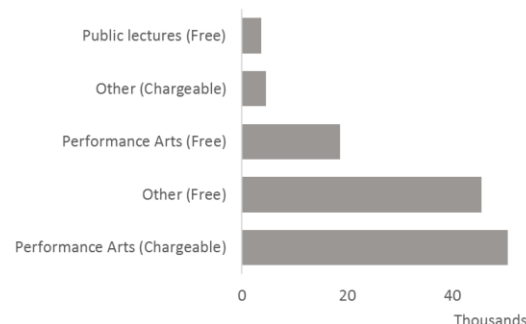
success of the project is illustrated by the high return of graduates achieving employability and progression within a year.

xxxiv. The University also owns and runs important cultural venues in the city:

- **Lincoln Performing Arts Centre (LPAC)** is a University-owned but publicly-accessible performance arts venue. LPAC aims to expand the offering in the city without displacing activity from other venues, with a combination of family-orientated and more contemporary programming. 30,343 tickets were sold for events at the LPAC in 2015/16. Ticket numbers have increased very significantly over time, with an **average annual growth rate of 46% since 2007/08**.
- LPAC is a member of the **Lincolnshire One Venues (LOV)**, a network of eleven venues across Lincolnshire to leverage extra funding into Lincolnshire collaboratively and to work together on outreach programmes, including its flagship Arts Council England supported Young People’s Programme. LOV has engaged 7,300 young audience members, 4,570 young participants and performers between 2012 and 2016.
- The University also owns the **Engine Shed** live music venue, which is managed by the Students’ Union and hosts concerts and shows for the public alongside staff and student. It is the **largest such venue in Lincolnshire**. Almost 100,000 people attended events at the Engine Shed in 2015/16.

xxxv. Lincoln University provides a very notable boost to the local visitor economy, both through its cultural work and via the student-related visits it generates.

Attendance at Events, 2015/16



xxxvi. In total, **122,830 people** attended events at the University of Lincoln in 2015/16. The University accounts for around a fifth of all attendances at events held by HEIs in the East Midlands. A **quarter of chargeable performance art attendees at events held by all HEIs in the East Midlands were at events at the University of Lincoln**.⁸

Source: HE-BCIS

xxxvii. Students receive visits from friends and family throughout term time, and the University generates further visits to the city for graduations, open days and UCAS visits. Graduation week alone is a significant event in the context of the City of Lincoln. 12,000 guests arrive in Lincoln during the week.

More than 12,000 people visit Lincoln during graduation week, spending at least £0.6m in Lincoln.

xxxviii. Anecdotally, all hotels and restaurants get filled up to accommodate the guests, bringing a

⁸ Note: based on 2014/15 data, the latest available comparative data by institution.

boost for the hospitality and retail sector in the city. In graduation week alone visitors are estimated to spend at least £0.6m in Lincoln.

- xxxix. Throughout the year, more than 43,600 student-related visitors are attracted to Lincoln as a result of the University. We estimate that in total these visits generate over £4 million in GVA and support around 120 jobs in Lincoln.

Working with the community

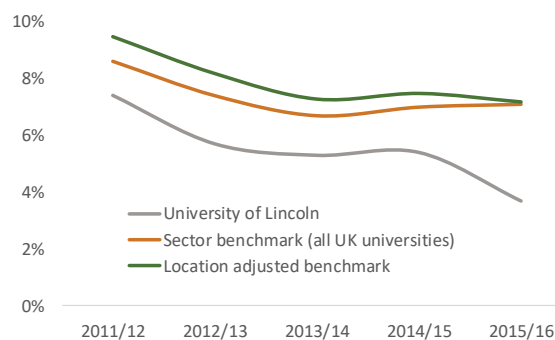
- xl. Widening participation is one of the University's founding tenets. It is committed to providing access to higher education for all students who have the desire and the potential to succeed.⁹ Lincoln does this by offering:

- Financial support (2015/16).** Bursaries are offered to students from households with an income of up to £40,000. For 2015/16, the University also provided a **hardship fund** worth £293,000 in each year for students who face financial difficulties whilst studying through no fault of their own and would be unable to continue their studies without additional support. £90,000 is invested per annum in study skills for students who may enrol without having developed these skills.
- Outreach.** The University engages with around 600 schools in annual events and direct personal contact, and with around 3,000 schools in England every year by post. 22,600 pupils attended such events in the 2015/16 academic year. The University leads the **Lincolnshire Outreach Network**, a group of eight Lincolnshire HE and FE providers under HEFCE's National Networks for Collaborative Outreach scheme. It also runs a **multi-academy trust**, including a primary school, secondary school, and specialist primary school.
- Alternative entry routes.** For example, the University provides an entry route as part of the Certificate of Higher Education (Cert HE) offering, aimed at students with strong potential who may not have met the conditions of their offer.

"School children are excited by the University and believe they can achieve. They know that 'I can do this' because it's on their doorstep."

Caroline Low, Director of Planning, the University of Lincoln

Non-continuation rates of full-time, first degree students



Source: University of Lincoln Annual Financial Reports 2015/16

- xli. More than 97% of the University's current students originate from state schools and a third come from family backgrounds without a tradition of higher education participation. It is **ahead of six of its access agreement targets a year early.**

⁹ Office for Fair Access (2016) *The University of Lincoln 2016/17 Access Agreement*

- xlii. The University of Lincoln has the **lowest non-continuation rate of all post-1992 universities** and second lowest out of all universities in the East Midlands. More significantly, the University of Lincoln takes in a significant amount of students from low participation neighbourhoods and students from lower socio-economic backgrounds and manages to retain a high proportion of them, bucking the national trend. The University ranks third nationally on the ratio of widening participation measures versus non-continuation rates.¹⁰
- xliii. The University engages with the local community through a range of staff and student voluntary contributions. The University supports trusts, charities, and third-sector organisations with shared expertise, alongside the charitable work undertaken directly by students. This includes:
- **Give Back Days:** a scheme whereby any staff member can apply for up to 2 days in any 12-month rolling period during work day, capped at 150 days total for all staff.
 - The University launched the **Lincolnshire Children's University** in 2015, which offers 5 to 14 year olds the chance to obtain their own Children's University degree by obtaining credits through extra-curricular activities.
 - The Students' Union saw students log over **28,000 hours of volunteering**, with each student involved volunteering an average of nearly 49 hours. Students' inputs include running the Brayford Pool Clean-Up for the 4th year in a row. The Students' Union values this input at £189,615¹¹ for 2015/16.
 - The University runs a number of **pro bono programmes**, for example, free legal advice service for staff, students and the public.

Future plans

- xliv. The analysis has highlighted the significant growth and success achieved since the University of Lincoln's inception. The Strategic Plan to which the University has committed itself promises to continue these successes. It will further its reputation for innovation in higher education, be a popular institution with a distinctive approach to education, and continue its strong commitment to partnerships and engagement with students and external partners. The University is continuing its strong growth programme:
- It invested upwards of **£130 million** in its current phase of growth to 2022. This will deliver up to **100,000 square metres** of additional, flexible floorspace on campus.
 - Developments include the Isaac Newton Building, which houses the College of Science, an expansion of the library, a new student support centre, and a further expansion of the National Centre for Food Manufacturing in Holbeach.
 - The University's plans for its campuses emphasise linking the campus to the rest of the city, improving connectivity to the city centre and building on the permeability of the campus.
 - The University aims to continue to grow and is investing £25 million in student accommodation as well as in academic departments.

¹⁰ Out of 70 institutions with above average intake of students from low participation neighbourhoods and students from lower socio-economic backgrounds

¹¹ The University of Lincoln Students' Union (2016) *Impact Report*

- xlv. The University's trajectory is that of growth in many forms: growth in terms of student numbers, growth in terms of research output, and growth in terms of economic impact. As the University continues to expand, its social, cultural and economic contribution will continue to grow.

1. Purpose of the Report

1.1 Regeneris Consulting has been commissioned by the University of Lincoln to measure the University's socio-economic contribution.

Scope of the study

1.2 The University of Lincoln opened its Lincoln campus in 1996 and since then has grown rapidly, generating a range of economic and social benefits for the City of Lincoln and beyond.

1.3 The purpose of the report is to provide a detailed examination of the University's socio-economic contributions locally, regionally and nationally.

1.4 The report focuses on the following sources of economic contribution:

- **Strand 1: Economic footprint, student and visitor related impacts** – the economic footprint of the University arising from its role as an employer, purchaser of local goods and services, and an attractor of students and visitors to the area.
- **Strand 2: Skills and productivity impacts** – the University's contribution to enhancing the skills and productivity of the local workforce.
- **Strand 3: Wider socio-economic impacts** – the range of other contributions arising from the University's activities, with examples including research, innovation, support for businesses, community engagement, and the role in setting and delivering on economic development priorities.

Our approach

1.5 The report makes use of a range of existing datasets supplied by the University, economic modelling, and consultations with both senior University staff and external stakeholders. A full summary of the methodology is provided in Appendix A, and consultees are listed in Appendix B. The most important elements are outlined briefly here.

Impact areas

1.6 The study focuses on the impacts for five spatial impact areas:

- The City of Lincoln
- Lincolnshire and Greater Lincolnshire LEP area
- The East Midlands
- The UK

1.7 The study draws upon data from the latest complete academic year, 2015/16, but highlights the growth and development of the University over time, where possible.

Measures of impact

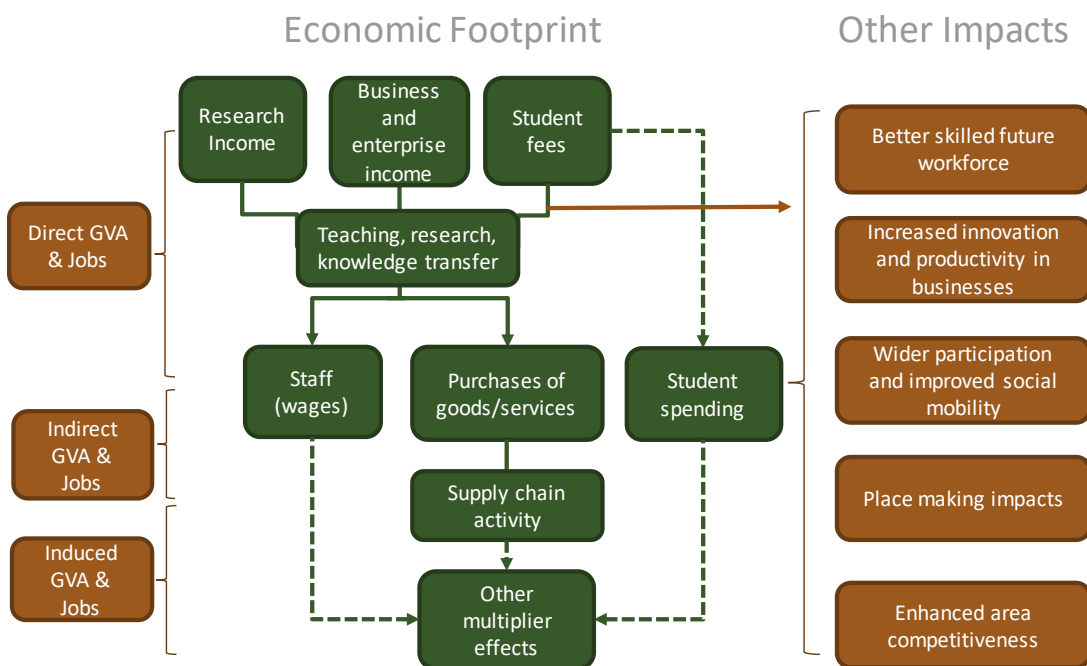
1.8 Where possible, the report quantifies impacts in economic terms. The two key measures of impact are:

- **Gross Value Added (GVA).** This is the commonly accepted measure of wealth creation for an organisation, sector or regional economy. GVA is the difference between gross output and bought in goods and services, or to put another way, the money distributed as surpluses, wages and salaries and to fund capital investment.
- **Employment.** The other key indicator of economic contribution is the number of jobs that are supported by each of the various effects described above. We express these both as Full Time Equivalents, a measure that converts full- and part-time jobs into a common currency.

1.9 Not all of the wide range of socio-economic contributions can be robustly expressed in these terms. Where this is the case, we draw on other statistics to illustrate the scale of the impact (e.g. number of businesses supported, number of graduate start-ups), along with case studies.

1.10 The key elements of the impact framework are summarised in Figure 1.1.

Figure 1.1 Measuring the economic and social impact of University of Lincoln



Source: Regeneris Consulting

This report

1.11 The remainder of this report covers:

- A brief overview of the University, including key facts and figures (Section 2)

The Social, Cultural & Economic Contribution of the University of Lincoln

- The economic contribution of the University arising from its role as an employer, a purchaser of local goods and services and from the spending of its staff (Section 3)
- The economic impacts generated by the University's students (Section 4)
- The contribution to skills development and productivity (Section 5)
- The University's approach to partnership working (Section 6)
- Research activities (Section 7)
- Business engagement (Section 8)
- The University's cultural contribution (Section 9)
- The impacts of social engagement activities, including widening participation and community work (Section 10)
- The University's future plans (Section 11).

1.12 Appendix A contains a full discussion of the methodology used.

2. The Development of the University of Lincoln

Growth and Development

- 2.1 The University opened its Lincoln campus in 1996, but has only existed with its current name since 2001. Prior to this, it was known as the University of Lincolnshire and Humberside, which emerged from the University of Humberside. The University of Humberside itself was formed in 1992, after Humberside Polytechnic was awarded its Royal Charter.
- 2.2 In total, the University has invested around £275 million in its main campus at Brayford Pool in the City of Lincoln. Formerly an abandoned railway siding, the Brayford Pool Campus was the first new city centre campus in the UK for over 25 years.
- 2.3 The University of Lincoln has an ambitious growth plan. Since its beginnings in Lincoln, it has constructed on average one building each year, but in recent phases this has risen to three per year.

The University has invested around £275 million in its main campus at Brayford Pool in the City of Lincoln.

The Social, Cultural & Economic Contribution of the University of Lincoln

Figure 2.1 Timeline of the University of Lincoln's Development



Source: Regeneris Consulting & the University of Lincoln

Becoming the University of Lincoln

Figure 2.2 Brayford sidings



Source: The University of Lincoln

Figure 2.3 Brayford pool (1995)



Source: The University of Lincoln

- **The need for a University in Lincoln.** The University of Lincoln is rooted in co-operation, as its existence is due to a partnership between what was the University of Humberside, private individuals and organisations, and public bodies including Lincolnshire County Council and Lincolnshire's regeneration agencies. The University's presence was driven to Lincoln to support the economic growth of the city post-deindustrialisation, recognising that a presence of a university benefits the area as a large employer and attractor of activity.
- **Attracting a University to Lincoln.** The desire to attract a University into Lincoln was therefore strong. Thus, prior to 1996, the Brayford Pool site was identified as a potential site for a University campus, then a rail goods yard that had been derelict since the 1970s. The contaminated site underwent remediation in the early 1990s funded by a series of partners and, the construction of the Brayford Way flyover opened access from the site to the North of Brayford Pool, opening access to the city centre, which had previously been very limited.
- **Selecting a partner institution.** In 1994, the universities of Hull, Humberside, Nottingham Trent, Nottingham, De Montfort, and the Open University were invited to tender for the position of development partner, with Nottingham Trent University winning the initial round but later withdrawing. In 1995, the University of Humberside was chosen.
- **Opening a University in Lincoln.** By 1996, these necessary improvements and the £30 million raised in the campaign resulted in the University of Humberside constructing its first building on the site for its campus in Lincoln. The Brayford Campus was opened by Her Majesty the Queen on the 11th October 1996, the first city centre university campus to open in the UK for over two decades.
- Over £60 million¹² was invested in the early phase of the development of the campus in the City of Lincoln. The first stage saw the main building and student accommodation

¹² In 2001 prices; Glyn Owen Associates Ltd (2001) *The impact of Lincoln's university campus on the economy of Lincolnshire*

constructed. Three phases of the student village and the main building were completed before the decision was taken by the University to focus on Lincoln, due to the strong success that it had seen since starting at Brayford Pool in 1996.

- **Moving to Lincoln.** The decision to fully relocate to Lincoln largely stems from the fact that during the early 2000s, as University places expanded nationwide, the University of Lincolnshire and Humberside at Hull was directly competing to attract students with the University of Hull, and student numbers were falling. The decision was taken to expand in Lincoln but to retain some key activities in Hull. By 2001, the campus was home to 4,000 students and the decision was taken to rename the institution the University of Lincoln.

Growing at Brayford Pool

Figure 2.4 Brayford Pool Campus in 2005



Source: The University of Lincoln

The 2001 Masterplan

- 2.4 The second phase of the campus's development began with the 2001 campus masterplan and its proposal of squares and east-west linkages to increase the size and function of the campus and strengthen its connections with the city centre.
- 2.5 In October 2001, the decision was made to move the administrative headquarters from Hull to Lincoln - further increasing the importance of the Brayford Campus - and the Cottingham Road campus in Hull was transferred to the University of Hull.

- 2.6 As part of the 2001 masterplan, the RIBA award-winning Architecture Building was completed in 2003 as a flagship building for the campus. In 2005, the Great Central Warehouse Library was opened on the site of a derelict Victorian warehouse, winning further awards from RIBA and RICS. During this period, the campus won several regeneration awards for new construction alongside conversions of existing buildings.

Opening up the south side of the campus

- 2.7 Buildings such as the Architecture Building, the Library, and the Engine Shed Arts Venue were amongst the first to be completed on the south side of the campus, opening up further space for the large campus to grow into. A new bridge over the River Witham opened, improving connectivity to the southern part of the campus and access from the city centre.
- 2.8 This key phase of growth at Brayford Pool took the University of Lincoln above the 10,000 students mark in 2004/05 and developed the heart of the campus:
- Increased student numbers allowed the construction of the Engine Shed and Student Centre, housing the Students' Union and the region's largest live music venue.
 - The campus further expanded east of the River Witham into the former Lincolnshire Echo Building, now the David Chiddick Building housing the Business and Law schools, which has opened up the area east of the Witham to current University development.

Consolidation of higher education in Lincolnshire

- 2.9 This period was also characterised by the consolidation of higher education in Lincolnshire in the University of Lincoln when the University purchased the Lincoln College of Art's higher education courses in 2001, the National Centre for Food Manufacturing in 2004, and the rural Riseholme Park Campus in 2001 from De Montfort University in Leicester.

The University of Lincoln in 2017 and the future

Figure 2.5 The Brayford Pool Campus in 2014



Source: The University of Lincoln

- 2.10 Today, the University has grown to over 13,200 students across its campuses supported by over 1,446 FTE staff.

The University's standing

- 2.11 The 2017 Complete University Guide rankings¹³ placed the University at 8th best University in the United Kingdom by overall satisfaction.
- 2.12 The University of Lincoln also consistently ranks high in terms of student satisfaction. The National Student Survey placed the University in the top 10 nationally in 2016.¹⁴ Its Zoology, Transport and Travel, Design, Biochemistry, and Animal Science particularly stood out as the University was ranked the best in the country for satisfaction in these subject areas.
- 2.13 Most recently, the University of Lincoln was awarded Gold in the national assessment of teaching quality – the highest standard possible. The Gold Award means that the University of Lincoln “delivers consistently outstanding teaching, learning and outcomes for its students”.¹⁵

¹³ University League Tables (2017) *The Complete University Guide*; using the mean score measure

¹⁴ National Student Survey Results (2016) *Higher Education Funding Council for England (HEFCE)*

¹⁵ Teaching Excellence Framework (TEF) 2017, published by the Higher Education Funding Council for England (HEFCE)

Continuing to grow

- 2.14 The University is further strengthening its research base, with new multimillion pound food manufacturing labs in the Food Enterprise Zone at Holbeach alongside developments in its refreshed masterplan and as part of the Science and Innovation Park.
- 2.15 A new home for the Schools of Health and Social Care and Psychology, alongside a Professional Development Centre for Lincolnshire’s medical professionals, is currently being constructed. The £20 million Sarah Swift Building will be located east of the River Witham, next to the David Chiddick Building. The University secured European Investment Bank funding to construct the £30 million Isaac Newton Building, a new science hub completed in early 2017. Additional student residences are also to be constructed at Marina Court to address the increased demand every year for campus living. A student support centre, which will consolidate student support functions into one place is also slated to open in 2019/20.
- 2.16 In partnership with the Lincolnshire Co-op, the University is continuing to develop Lincoln Science and Innovation Park, a £14 million world-class space to drive forward Lincolnshire’s scientific and industrial legacy and combining innovative industries with academia in one site. Its first buildings opened in 2014.
- 2.17 In 2011, the University enhanced its role as a supporter of education in Lincolnshire by becoming the sponsors of a new secondary academy in Holbeach. The success of this venture led to the establishment of the Lincolnshire Educational Trust (LET).
- 2.18 In 2012, the University unveiled its ten-year vision for Brayford Campus in Lincoln City Centre with a new masterplan, refreshing its 2001 document and particularly focusing on the south east of the campus where there is 2 hectares of undeveloped land. It plans to invest £130m up to 2022 as part of the masterplan, which could lead to an additional 100,000 square metres of new floorspace at the Brayford Pool Campus.

“The level of impact the University has had far outstrips anything we could have imagined at the outset”

Justin Brown, Lincolnshire County Council

Campuses and Research Centres

- 2.19 The University of Lincoln’s main Brayford Pool campus occupies a large site in the city centre of Lincoln, but the University also has 2 more campuses in Lincolnshire. The Riseholme Park campus is home to the University’s Lincoln Institute for Agri-food Technology and the Holbeach campus is home to the National Centre for Food Manufacturing and is the focus of the University’s food manufacturing research.
- 2.20 The University is also home to several research centres, which are responsible for key research outputs and achievements at the University of Lincoln. Research Centres at the University of Lincoln dynamically form a large part of the University’s strategic plans. The University is home to over 40 research centres and research groups, which are discussed in more detail in Section 8.

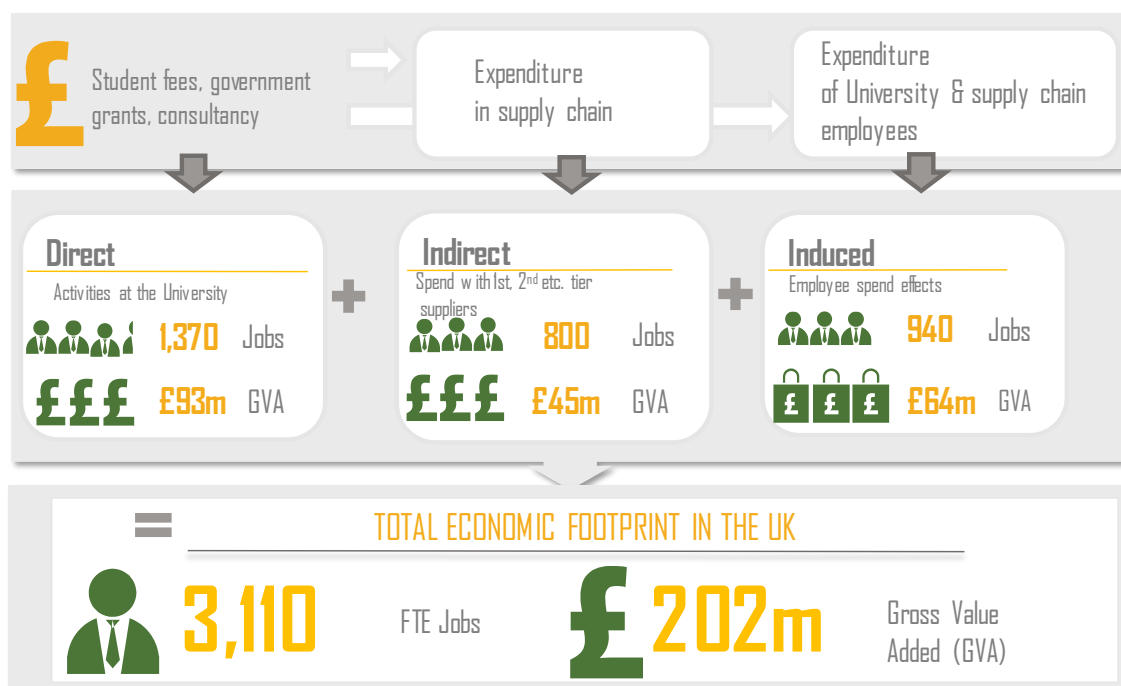
Governance, Structure, and Priorities

- 2.21 The University is led and managed by the Vice-Chancellor Professor Mary Stuart and the Board of Governors. The University of Lincoln is made up of four colleges, each of which is led and managed by a pro-vice-chancellor; these colleges are:
- The College of Arts
 - The College of Science
 - The College of Social Science
 - Lincoln International Business School
- 2.22 The University is pursuing its 2016-2021 Strategic Plan, which targets it at being “*a global ‘thought leader’ for 21st century higher education.*” The University also aims to build on its strong record of student engagement and to enhance the impact from its research.
- 2.23 The strategy is guided by five core principles:
- Teaching Excellence and a Great Student Experience
 - Graduate Success
 - Research with Impact
 - Strong Partnerships and Employer Engagement
 - Dynamic, Engaged People
- 2.24 Within each of these principles are five key themes which the University sees as fundamental in achieving these goals:
- Resilience and sustainability
 - Ambition, global recognition and growing the University’s reputation for innovation
 - Creating an inclusive community
 - Enabling technologies, excellent research, and teaching spaces
 - A new vision for education

3. Economic Footprint

3.1 This section focuses on the economic contribution of the University of Lincoln, driven by its role as an employer and purchaser of goods and services locally. Subsequent sections then explore other sources of impact generated, for example by students and visitors. A summary is provided below.

Figure 3.1 University of Lincoln’s Economic Footprint in the UK, 2015/16



Source: Regeneris Consulting

Direct

Employment

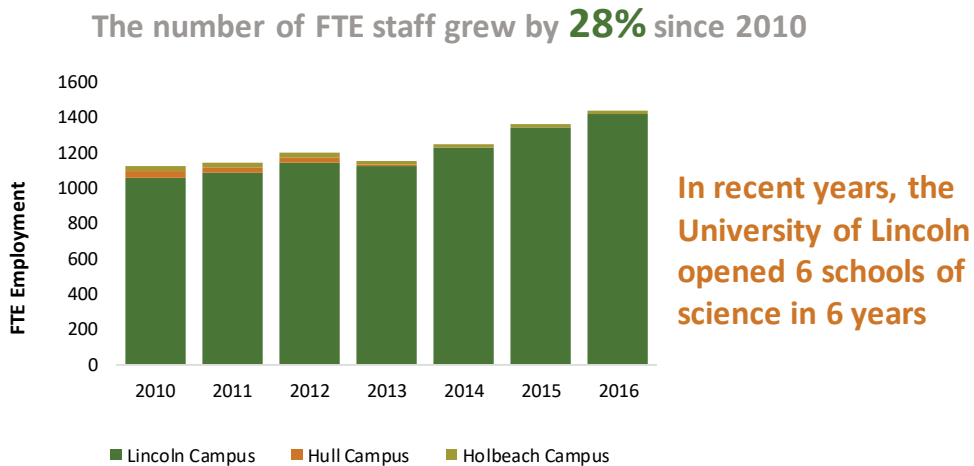
3.2 The University of Lincoln has grown significantly over the past two decades, accompanied by growing staff numbers to facilitate the expansion. The University currently employs around 1,446¹⁶ people on a Full Time Equivalent (FTE) basis, and the diagram below shows how this FTE employment has increased since 1995 in the University overall.

3.3 As outlined in the earlier section, the University has gradually built up its presence in Lincoln, relocating departments from Hull and expanding its presence in Lincoln. Consequently, the number of posts in Lincoln has increased from zero up to its present level. Staff employment numbers by campus are available from 2006 onwards, and show that by that time the University had a

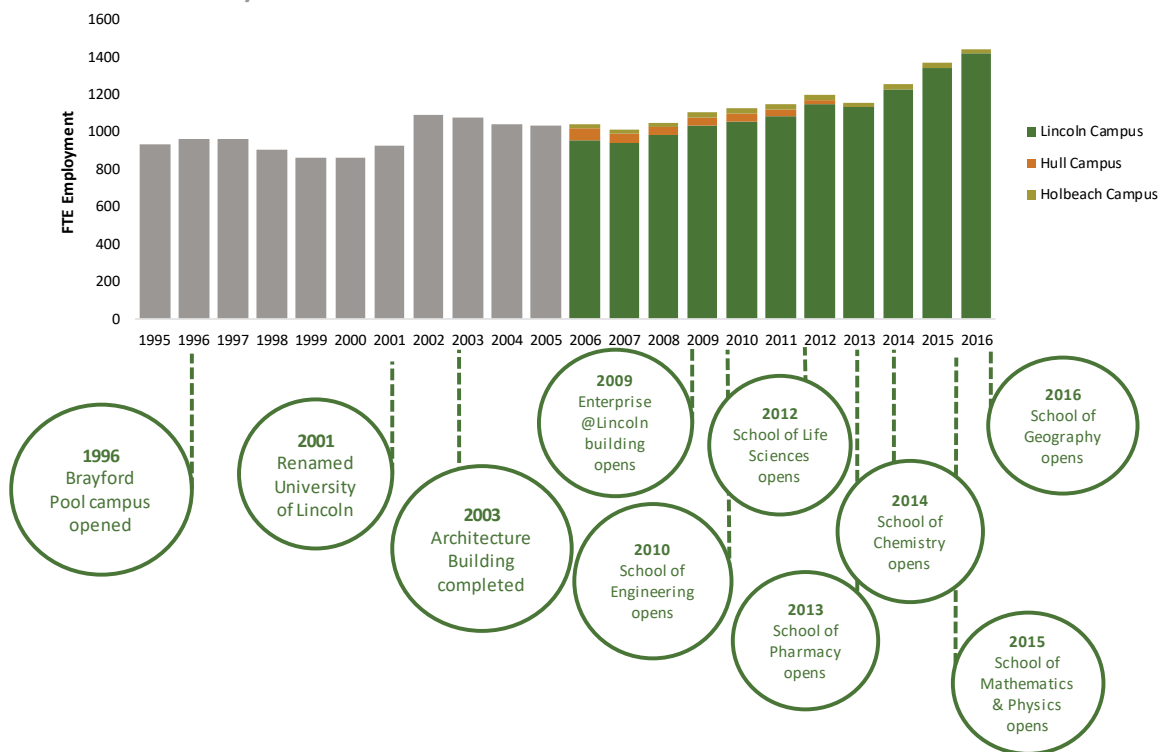
¹⁶ Please note: for the purposes of economic impact modelling, the direct employment amounted to 1,370 FTE jobs, which was based on 2014/15 data - the latest data which was available at the time.

considerable presence in Lincoln. The diagram below marks the events from the University's timeline to contextualise the relocation and growth in staff numbers.

Figure 3.2 University of Lincoln Historic FTE Employment



55% increase in FTE employment between 1995 and 2016 at the University of Lincoln

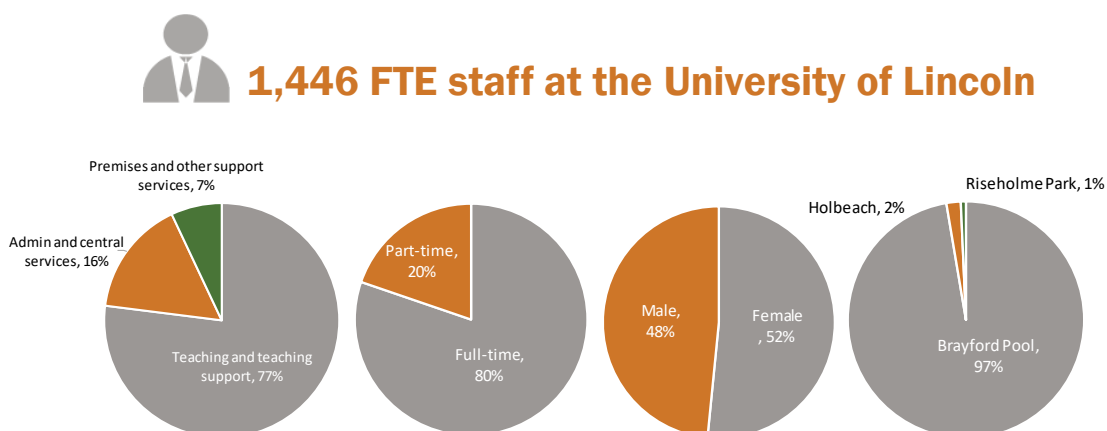


Source: University of Lincoln

3.4 The majority of staff are employed on a full-time basis, with around a fifth working part time. The gender composition is balanced, with 48% male and 52% female split. As shown earlier, the vast majority of the University's activities as well as its staff are based at Lincoln's Brayford campus.

Among other HE providers in the East Midlands, the University of Lincoln staff represent 1 in every 16 staff in the region.

Figure 3.3 Summary of employment at University of Lincoln, 2015/16



Source: University of Lincoln

- 3.5 The University supports many high value jobs: more than three quarters (77%) of staff are teaching or in teaching support functions. The remaining staff members are involved in running the University (16%) and supporting its facilities (7%).
- 3.6 The average wage for a full-time employee at the University of Lincoln is around **£40,000**. This is much higher than the local average in the City of Lincoln and Greater Lincolnshire LEP, with annual full-time wages equivalent to £25,000.¹⁷ Total staff costs in 2015/16 amounted to more than £68m.
- 3.7 Lincoln and the region benefits from these high value jobs: a significant proportion of the University's employees live in Lincoln (40%), with around 82% and 90% residing in Greater Lincolnshire and the East Midlands region respectively.

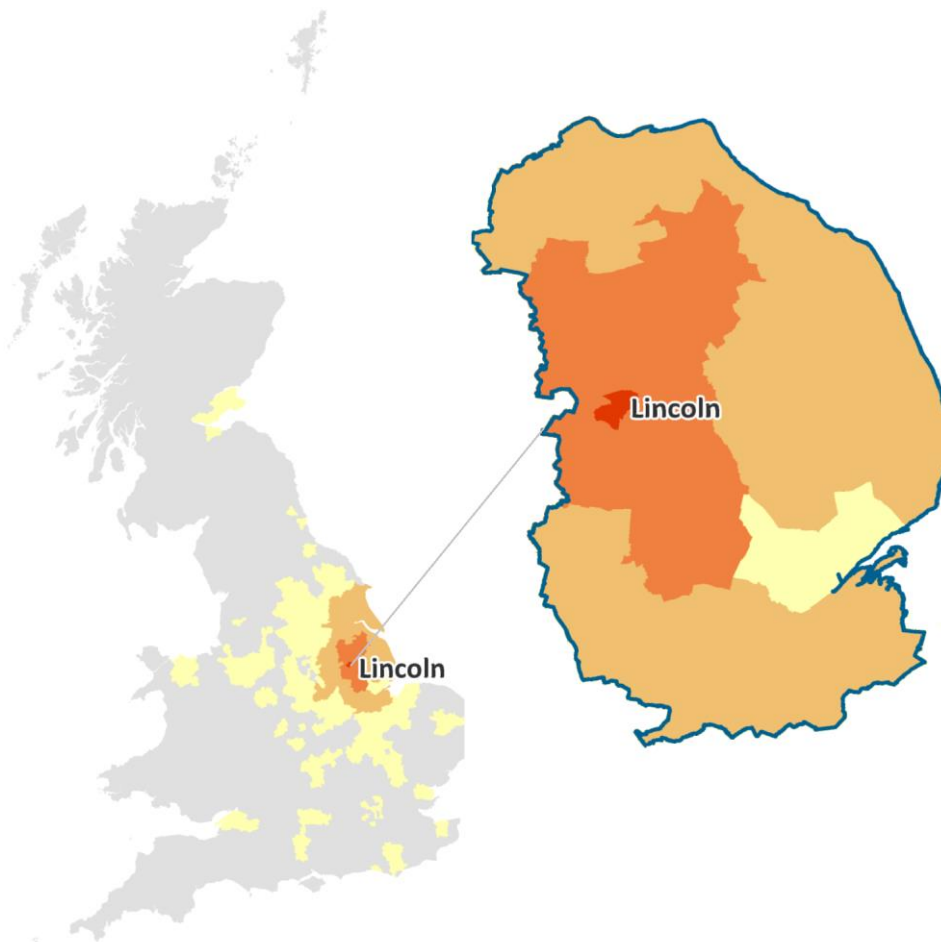
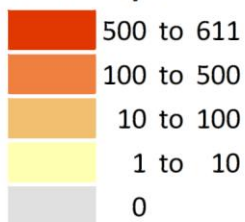
"Having a large institution in the area means there is a larger pool of skilled people here."

Ursula Lidbetter, CEO, Lincolnshire Co-operative

¹⁷ Source: ONS, Annual Survey of Hours and Earnings (ASHE) 2016

Figure 3.4 Map of University of Lincoln staff locations of residence

University of Lincoln Staff by Residence Location

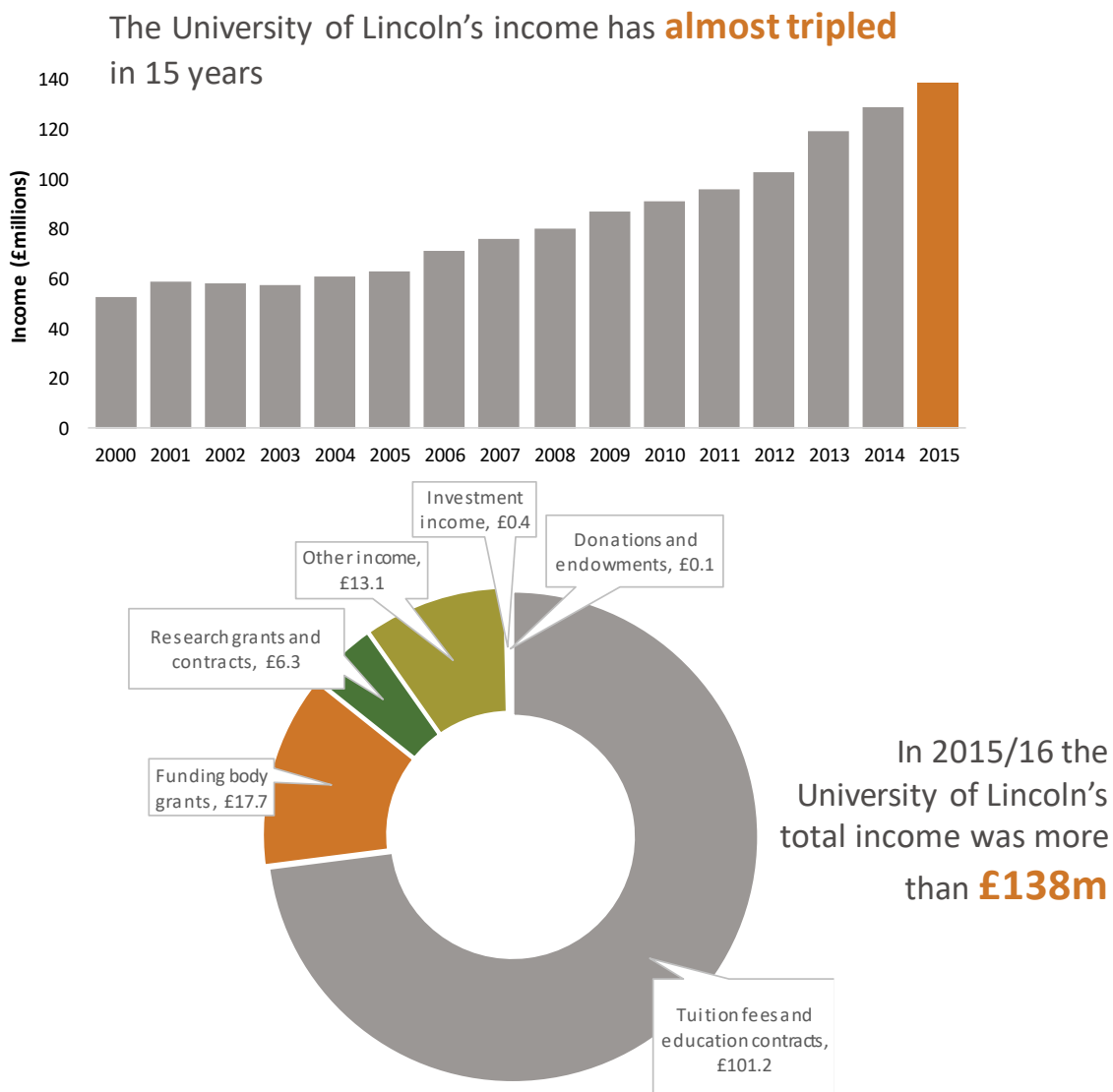


Source: University of Lincoln HR data

Income and Gross Value Added

- 3.8 The University of Lincoln's strong growth trajectory is reflected in its rises in revenue over the years. The University's income has gone up almost threefold since 2000. As the University's revenue grew, its direct economic footprint would have followed a similar trajectory, significantly increasing the University's impact.

Figure 3.5 University of Lincoln income, 2000-2015, and main revenue streams (2015/16)



Source: HESA Finances by HEI; University of Lincoln Financial Accounts 2015/16

3.9 The University of Lincoln’s income has reached £138m in the latest financial year. This increase reflects the University’s substantial investments in its campus, the opening of new departments and the resulting rises in student numbers and research activities.

3.10 This makes the University of Lincoln one of the largest organisations in the local authority area and wider. For comparison, the University is the 5th largest revenue generator in the City of Lincoln.

3.11 In common with other universities across England and Wales, the majority of revenue the University achieved is driven through income from tuition fees, accounting for almost three quarters of the total. This is followed by funding body grants (13%) and income through residences, catering, consultancy etc. (9%).

3.12 Compared to other HEIs, the University of Lincoln is 7th out of 9 universities in the East Midlands based on income. However, its expansion makes the University the fastest growing institution in the region.¹⁸

3.13 More significantly, the University of Lincoln is the 5th fastest growing university in the UK based on income growth since 2010.

3.14 The University of Lincoln’s activities in 2015/16 generated a direct Gross Value Added (GVA) contribution of £93m.

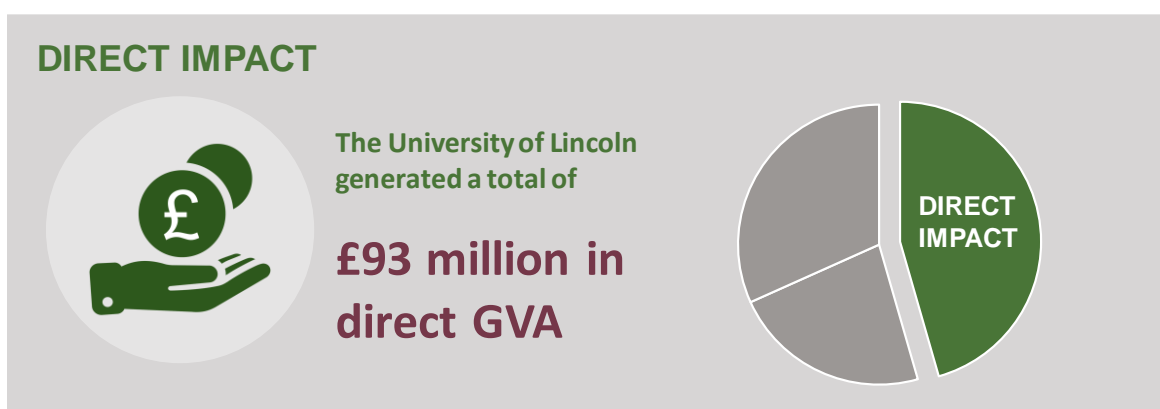
Figure 3.6 University of Lincoln income comparison

	Income in 2015/16 (£m)
1. Lincolnshire Co-operative	£194m
2. LCS Retail	£174m
=3. Simons Group	£142m
=3. Lincoln and London Holdings	£142m
5. University of Lincoln	£138m

Source: DueDil Financial Accounts

The University of Lincoln is the 5th fastest growing HEI in the UK based on growth in income since 2010.

Figure 3.7 University of Lincoln Direct Economic Impact in the UK, 2015/16



Source: Regeneris Consulting

¹⁸ HESA, *HEI Income Tables, 2000-2014*

Indirect/ Supply chain impacts

- 3.15 Over the years, as the University of Lincoln has grown it has made substantial investments to support its expansion. The University's capital expenditure has averaged £13m per year over the past two decades. In recent years following the launch of its new masterplan, this expenditure increased further and the University invested more than £100m in the last five years.
- 3.16 The investments will continue as the planned developments are taking place: £130m is being invested in new facilities. This includes a redevelopment of the Lincoln Science and Innovation Park, which houses the Joseph Banks Laboratories, which in turn provide facilities for the Schools of Chemistry, Maths and Physics, Life Sciences and Pharmacy. The £30m Isaac Newton Building recently opened in 2017, and is the new home to the School of Engineering, established in 2010 – it was the first Engineering school to open in the UK for more than 20 years. The £20m Sarah Swift Building will be a new home for Schools of Health and Social Care and Psychology. These are only a few examples of the significant investments which are being delivered.
- 3.17 The University's investment and expansion has, in turn, had major catalytic effects on development and regeneration in the city, particularly around the Brayford Pool area.

Regeneration at Brayford Waterfront

The University of Lincoln was catalytic in regenerating the area around the Brayford Pool.

A cluster of food and drink and other leisure services has emerged on the waterfront at Brayford Wharf North. Student residences are also found on the North side of Brayford Pool.

The first leisure development was completed in early 2001 on the site of a former garage on Brayford Waterfront; it included a 9-screen, 1931-seat cinema, with 3 food and drink units. These are now home to an Odeon, a Zizzi, an ASK Italian, and the Square Sail, which all have outdoor seating and views over the Marina. A landmark floating Wagamama restaurant was constructed in the Marina and opened in 2012.

In 2010, partners in Lincoln including the University took part in an enabling framework exercise to define and enhance the character of the Brayford Waterfront. It was designed to generate maximum floorspace and increase footfall. It included a new pedestrian bridge to the north of the Pool, generating more footfall from the University.

Recently, plans for more restaurants, apartments, and hotels have been unveiled, adding to what has become the leisure circuit in Lincoln city centre. Indeed, capacity of pre-existing facilities are being expanded, with the Holiday Inn on the waterfront undertaking a five-storey extension to add an additional 49 rooms.

A large number of apartment buildings have also accompanied development from 2001 onwards, including the One Brayford development, building on the success of the area. It features 89 apartments and has space for a further 3 restaurants. It is due for completion in 2017.

New student residences, including Cygnet Wharf are also under construction, adding a further 442 student bedrooms to the area and the University is constructing more student accommodation on the South bank of the Pool, named Marina Courts.

Figure 3.8 Brayford Waterfront (2010)



Source: University of Lincoln

Figure 3.9 Brayford Waterfront (2010)

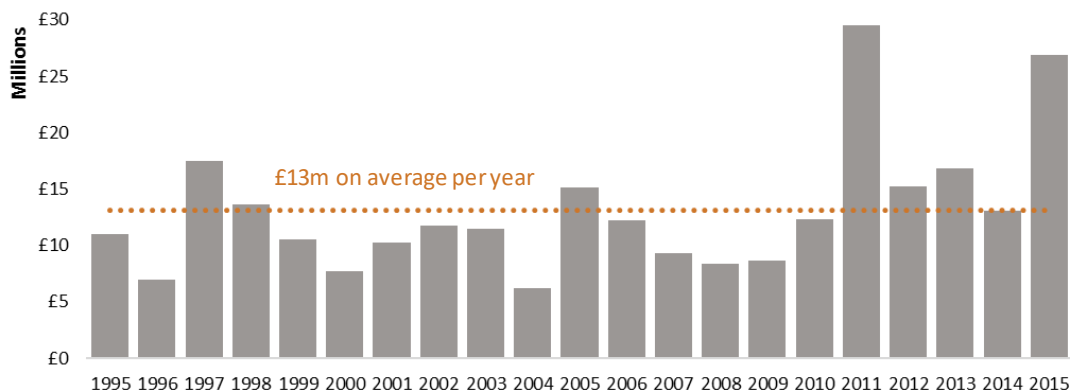


Source: University of Lincoln

3.18 This steady rate of capital investment over the years has driven demand in the local construction sector and related industries.

Figure 3.10 University of Lincoln capital investment, 1995-2015

Investments include the **£20m Sarah Swift Building**, the **£30m Isaac Newton Building**, the redevelopment of the Science and Innovation Park and other investments

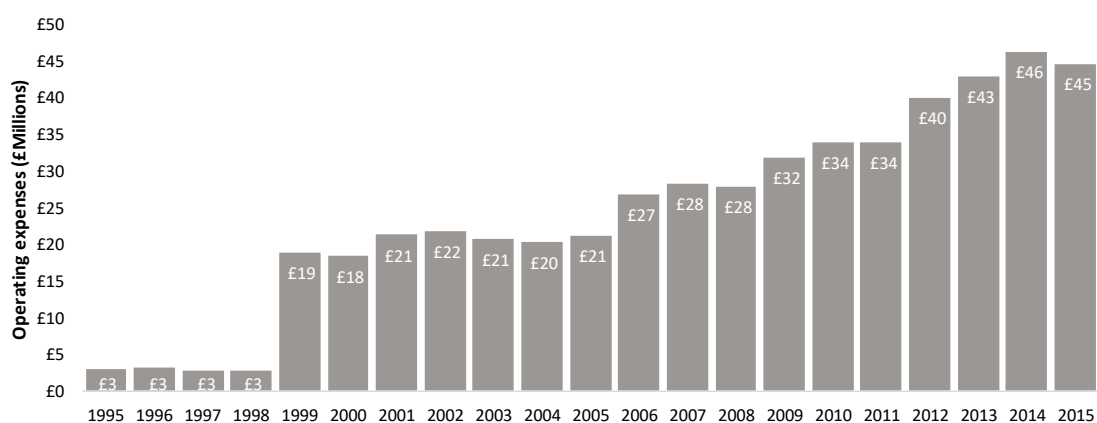


Over the last 20 years the University of Lincoln invested **£275m** in capital, with **over £103m** invested in the last five years

Source: University of Lincoln

3.19 The growth in the University has generated an increased requirement for goods and services to support the day-to-day activities of the University, in turn increasing supply chain expenditure and the associated impacts on the economy. Over time, total operational expenditure on non-staff items has increased substantially as shown in Figure 3.11.

Figure 3.11 University of Lincoln Non-staff related Operating Expenditure, 1995-2015



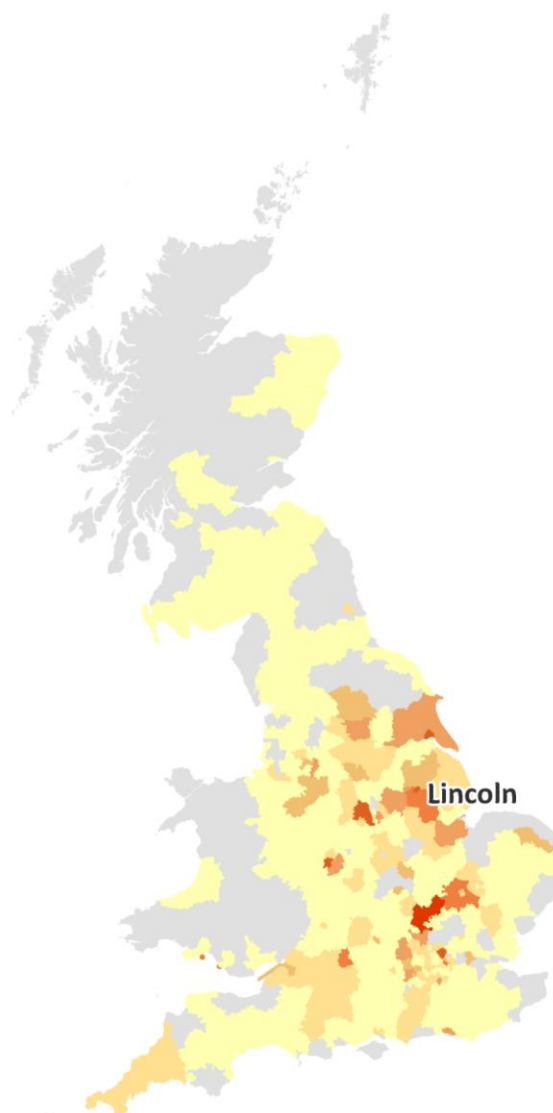
Source: University of Lincoln

3.20 In 2015/16 the University of Lincoln spent almost £67m on its suppliers overall, including capital and operational expenses. £64m was spend on goods and services from UK-based businesses (96%). More locally, the University's expenditure pattern provided the following contributions:

- £16m in East Midlands (or 24%)
- £6m in Greater Lincolnshire LEP area (9%).

Figure 3.12 Map of University of Lincoln Supply Chain Expenditure, 2015/16

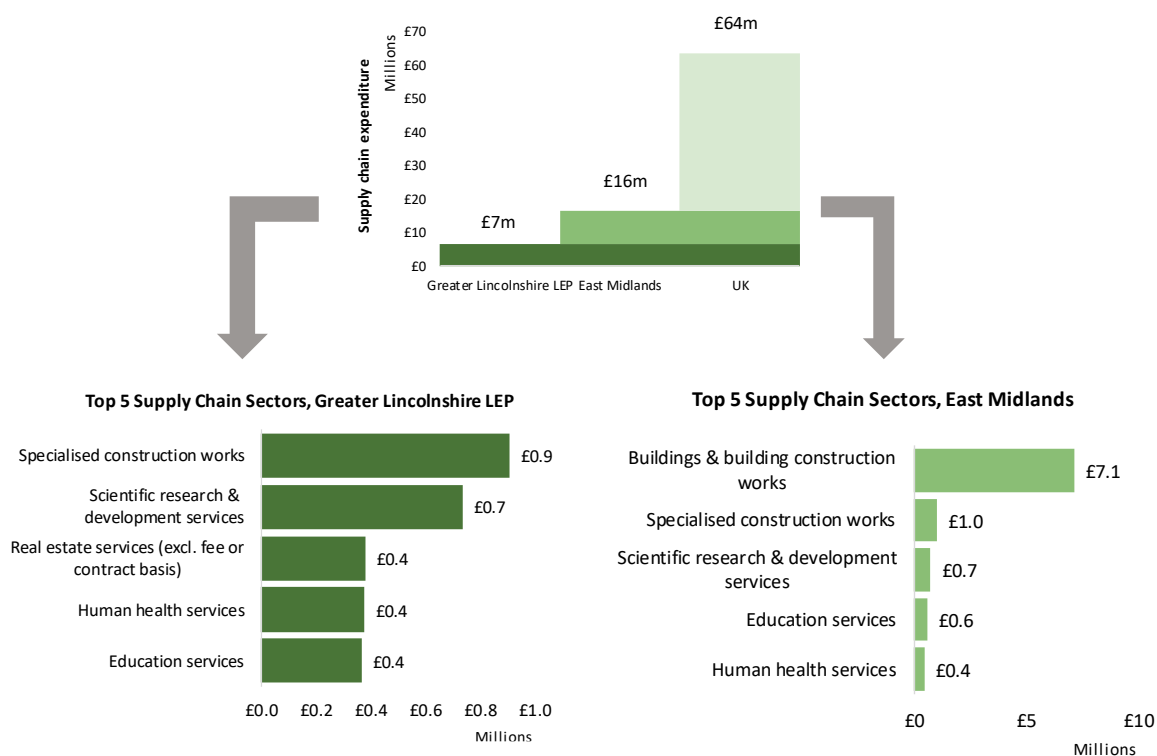
University of Lincoln Expenditure by Local Authority



Source: University of Lincoln

3.21 The main purchasing items reflect the University's substantial investments in its campus. Overall, around half of University's expenditure was in some way associated with construction activities. In the East Midlands, this amounted to over £8m. In Greater Lincolnshire, the top sectors include construction activities and building works. In addition, the University also paid almost £1 million in business rates to the City Council.

Figure 3.13 Overview of University of Lincoln’s supply chain expenditure, 2015/16



Source: University of Lincoln

3.22 This supply chain expenditure provides a significant injection of demand into the economy. We estimate that in 2015/16 the University of Lincoln supported £45m in GVA and 800 FTE jobs through its supply chain expenditure in the UK.

Table 3.2 Indirect Economic Impacts, 2015/16

Area	GVA impact in area	Jobs supported (FTE) in area
Greater Lincolnshire LEP	£4m	80
East Midlands	£12m	210
UK	£45m	800

Calculations by Regeneris Consulting based on data provided by University of Lincoln. Total figures are rounded so do not exactly sum.

Figure 3.14 Indirect Economic Impact in the UK, 2015/16



Source: Regeneris Consulting

Induced Effects

- 3.23 Staff employed at the University of Lincoln generate further economic impacts, as they spend their wages and salaries locally. These impacts coupled with the personal expenditure of staff in the supply chain, constitute what is known as induced effects.
- 3.24 As shown earlier in the section, the University of Lincoln has drawn employees to Lincoln when the University opened its campus, bringing new jobs – and therefore expenditure – into the area. The University directly contributes to Greater Lincolnshire LEP’s objectives by attracting qualified workers into the area.
- 3.25 This employment has grown over time, increasing the demand for consumer goods and services. As highlighted earlier, the University supports many high skilled jobs and therefore well-paid roles, so University employees on average have higher than average disposable income.
- 3.26 Almost 40% of University staff live in Lincoln, and more than 90% live in the East Midlands region, which means that much of the expenditure of these employees is retained locally. We estimate that the University’s employees inject over £37m of expenditure into the UK economy annually, of which £27m and £9m is spent in the East Midlands and Lincoln respectively. In addition, staff who do not live but do work on the Lincoln campus are likely to spend money in the area, some of which will be off-campus.
- 3.27 The economic impacts generated through this expenditure along with the spend of employees in the supply chain are summarised in Table 3.3.

The University of Lincoln attracts and retains qualified workers in to Greater Lincolnshire, directly contributing to strategic objectives of the LEP area.

Table 3.3 Summary of Induced Economic Impacts, 2015/16

Area	GVA impact in area	Jobs supported (FTE) in area
Greater Lincolnshire LEP	£13m	210
East Midlands	£30m	470
UK	£65m	940

Calculations by Regeneris Consulting based on data provided by University of Lincoln. Total figures are rounded so may not sum exactly.

Figure 3.15 University of Lincoln Induced Impact in the UK, 2015/16



Source: Regeneris Consulting

Summary

- 3.28 Table 3.4 brings these figures together to show the University's total economic footprint in 2015/16.

Table 3.4 Economic Footprint of University of Lincoln, 2015/16

Area	GVA impact in area	Jobs supported (FTE) in area
Lincoln	£100m	1,480
Greater Lincolnshire LEP	£110m	1,640
East Midlands	£135m	2,060
UK	£202m	3,110

Calculations by Regeneris Consulting based on data provided by University of Lincoln. Total figures are rounded so may not sum exactly.

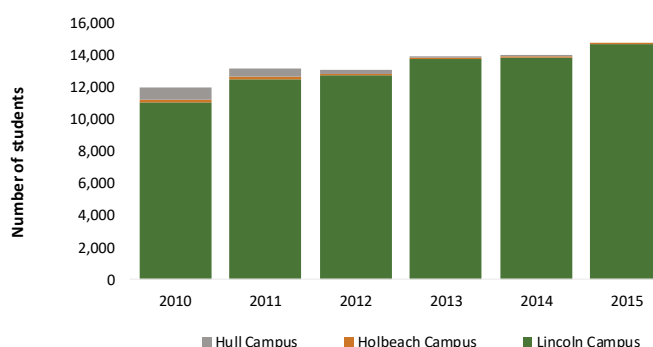
4. Student-related Contributions

The Student Population

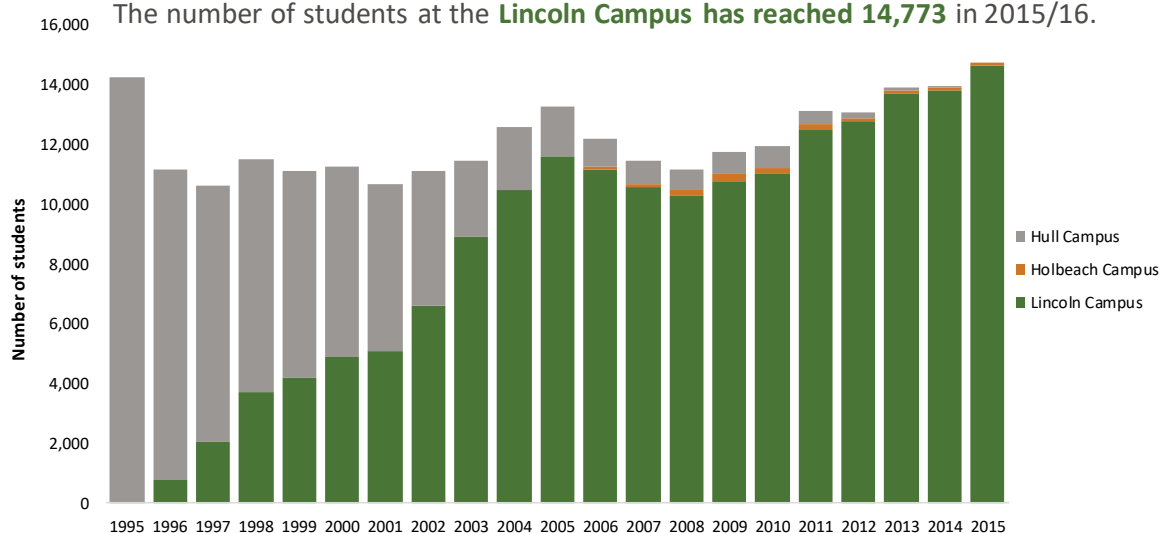
4.1 The student population at the University of Lincoln has transformed in the last twenty years, gradually moving from the Hull campus to Lincoln. Figure 4.1 shows how the student numbers have changed over time, as well as their distribution between campuses. In the 2015/16 academic year, the student population has been concentrated at the Lincoln campus, with around 100 students at Holbeach.

Figure 4.1 University of Lincoln Student Numbers, 1995 – 2015

The number of students grew by **24%** since 2010



The number of students at the **Lincoln Campus has reached 14,773** in 2015/16.



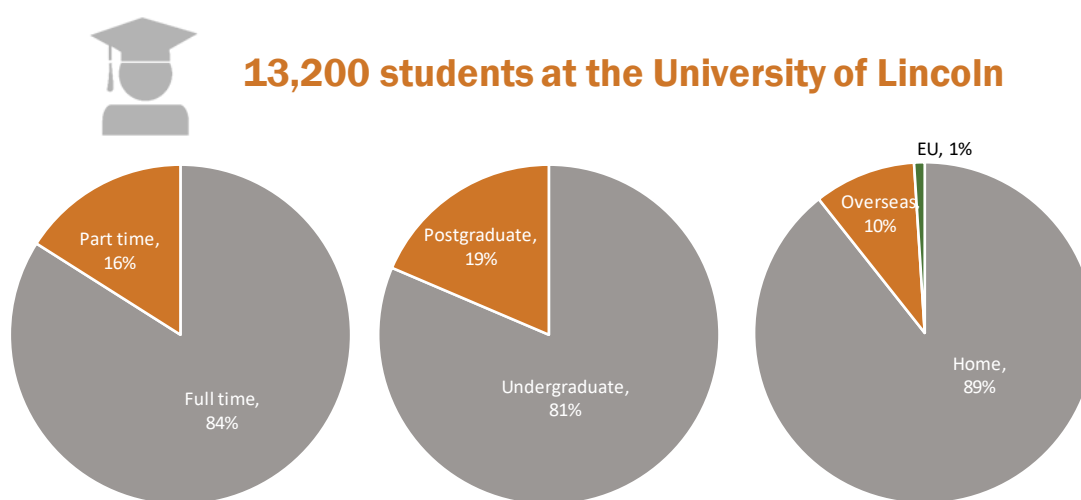
Source: University of Lincoln. Note: Includes work-based distance learners.

4.2 In 2015/16 there were 13,200 students studying at the University, with an additional 1,570 enrolled on work-based distance learning¹⁹.

4.3 Figure 4.2 summarises the main characteristics of the student population:

- the vast majority are undergraduates (81%), with postgraduates accounting for a fifth of students
- most students study on a full-time basis (84%), with 16% studying part-time
- Finally, the University is concentrated on the domestic market. 89% of students are from the UK, with around 1% from the rest of the EU and a tenth from outside the EU.

Figure 4.2 University of Lincoln Student Population Characteristics, 2015/16



Source: University of Lincoln

4.4 The University educates a significant number of residents from the region: in 2015/16, 2,900 were originally from the East Midlands and 840 were from Lincoln. The critical role the University plays in retaining students who would otherwise have moved out of the area to study is illustrated by the fact that **1 in every 20 residents in the city aged 18-24 years old are studying at the University and originally from the city.**

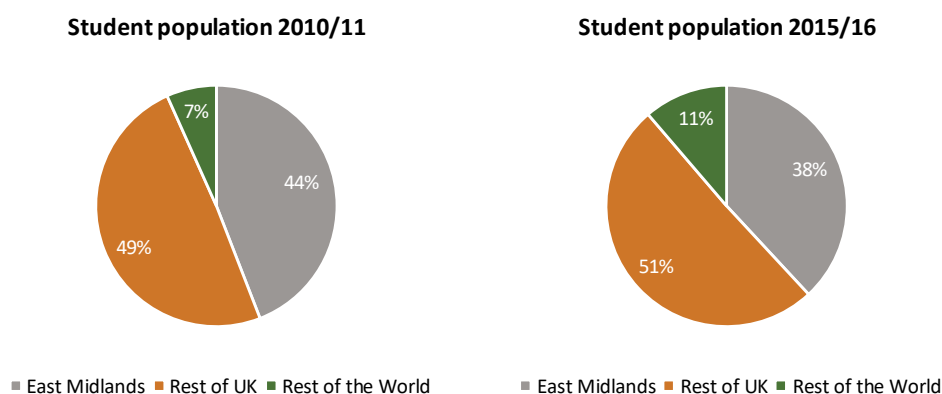
4.5 The University's reach extends beyond this with students coming from across the UK, thus bringing additional expenditure to the area whilst studying there. Around 11% of students originate from outside the UK – these international students are typically associated with higher expenditure in the local economy, and their expenditure represents an export earning for the UK.

4.6 Since 2010/11, the University of Lincoln has been widening its global reach: the number of students from outside the UK has doubled, and now these students account for more than a tenth of the University of Lincoln's student base.

¹⁹ For the purposes of the economic impact calculations, work place distance learning students are excluded from the assessment.

Figure 4.3 University of Lincoln Changing Student Population, 2010/11 – 2015/16

The University of Lincoln has been widening its reach across the UK and beyond.



The number of students from **outside the region** grew by **20%** since 2010, while the number of students **from outside the UK** doubled.

Source: University of Lincoln

4.7 The domestic reach of the University has also widened. The University increasingly captures more students from wider UK regions, while maintaining its high recruitment levels in the East Midlands. It suggests that the growth in the student population has indeed been as a result of wider catchment. In fact, the number of students from outside the East Midlands increased by a fifth between 2010 and 2015.

4.8 University of Lincoln students are a very significant part of Lincoln’s population. The City’s population in 2015 was around 97,000 people²⁰, which means **1 in every 7 working age residents in Lincoln studies at the University**. The student population is even more pronounced among the young population: **students living in Lincoln during term time account for more than 1 in every 2 residents aged between 18 and 24 years old.**²¹

The University of Lincoln has been widening its global reach, with the number students from outside the UK doubling since 2010.

Expenditure

4.9 By attracting and retaining such a large set of additional residents to the city and wider area, the University brings in significant student expenditure injections. The Student Income and

²⁰ ONS, Mid-year Population Estimates 2015

²¹ Note: This includes students who were moved into Lincoln to study

Expenditure Survey²² provides estimates of expenditure for domestic students at UK universities during their studies. The survey estimates that on average, full-time students spend over £12,060 while part-time students spend £20,160 per year of their studies.²³ The biggest chunk of this expenditure is captured by retail services (ie food, personal and entertainment services), while students also drive the development of the night-time economy, and the student housing sector.

4.10 Using this data and the detailed student data from the University of Lincoln we can estimate annual student expenditure. In total, University of Lincoln students spend more than £170m in the UK economy annually.²⁴ Some of this is additional expenditure regionally and locally:

- Around 7,240 full-time students moved to East Midlands to study at the University of Lincoln. These students spend around £74m annually in the regional economy. Coupled with students local to the region and those studying part-time, the University of Lincoln students are estimated to spend over £130m in the East Midlands in total.
- The majority of students who come to study at Lincoln are from outside the area and so they bring in substantial additional spend. The 9,150 full-time students coming to live in Lincoln spend over £77m in the local economy, out of a total £86m by all students.

“I can remember coming for a night out before the University really got going and it was two men and a dog in the pubs, and then the University transformed it. 13,000 students have made a real difference to shopping provision nearby, nightlife and restaurants.”

Dan Clayton, Local resident

Economic Impacts

4.11 The economic impacts generated through student expenditure are outlined in Table 4.1. The estimates demonstrate that the majority of the impact is driven by students attracted to Lincoln and the region from outside the area:

- The 7,240 full-time students from outside the region generated around £72m GVA and supported 1,200 FTE jobs in the East Midlands in 2015/16. This is the lion’s share of the total student impact in the region which is £126m GVA and 2,140 FTE jobs.

“Any taxi driver will tell you that you used not to be able to find a meal [in Lincoln] on a Monday night because everywhere was dead. Now there are new hotels, restaurants, bars, and cinemas”

David Willetts, former Minister for Universities and Science

²² BIS (2013) Student Income and Expenditure Survey 2011/12

²³ Expenditure is adjusted to 2015/16 prices.

²⁴ This excludes expenditure at the University itself (e.g. on accommodation), which has already been accounted for in the direct contribution in Section 3.

The Social, Cultural & Economic Contribution of the University of Lincoln

- The 9,150 full-time students coming into Lincoln are estimated to have generated £39m GVA and 670 FTE jobs. The total impact locally is £44m GVA and 750 FTE jobs from all student expenditure.

The Social, Cultural & Economic Contribution of the University of Lincoln

Table 4.1 Summary of economic impact of the University of Lincoln students' expenditure, 2015/16

Area	Impact of Full Time students' expenditure				Impact of Part Time students' expenditure		Total Impact of students' expenditure	
	From students from inside impact area		From students from outside impact area		GVA	Jobs supported (FTE)	GVA	Jobs supported (FTE)
	GVA	Jobs supported (FTE)	GVA	Jobs supported (FTE)				
Lincoln	£3m	40	£40m	670	£2m	40	£45m	750
Greater Lincolnshire LEP	£10m	170	£44m	785	£10m	190	£65m	1,145
East Midlands	£34m	570	£72m	1,200	£20m	360	£125m	2,140
UK	£130m	2,020	£18m	270	£45m	750	£195m	3,050

Calculations by Regeneris Consulting based on data provided by the University of Lincoln. Total figures are rounded.

Student-related Visits

- 4.12 The University of Lincoln plays an important role in attracting visitors to the area. One aspect of this visitor economy contribution are visits from friends and family of students who are originally from outside Lincoln and the East Midlands. These visits include attendance at graduation and other University events, as well as general visits throughout the year.

Graduation week and other visits

- 4.13 In 2015/16 the University of Lincoln was visited by over 43,600 people at graduation events, open days and UCAS visits.²⁵ Of these, 12,000 visitors attend graduation events held during graduation week in September.

More than 12,000 people visit Lincoln during graduation week, spending £0.6m in Lincoln.

- 4.14 Graduation week is a significant event in the context of the City of Lincoln and its usual population. 12,000 visitors in a short space of time boost the number of people in the city by more than 10%.
- 4.15 Anecdotally, all hotels and restaurants get filled up to accommodate the guests, bringing a boost for the hospitality and retail sector in the city. In graduation week alone visitors are estimated to spend £0.6m in Lincoln.

Visits from friends and family

- 4.16 Over the 2015/16 academic year 10,700 full-time students lived in the East Midlands. Of this cohort, 68% were originally from outside the region and moved to study at the University of Lincoln. An important cohort of these are international students. In 2015/16 there were more than 1,300 full-time international students at the University. The table below summarises the main countries international students come from.

Table 4.2 Summary of International Students: Top 10 Countries of Origin 2015/16

Country	Number of students	% of all international students
China (People's Republic of)	680	49%
Nigeria	60	4%
Norway	50	4%
Hong Kong	40	3%
Malaysia	30	2%
Qatar	30	2%
Finland	30	2%
Vietnam	30	2%
Greece	20	2%
Saudi Arabia	20	1%

Source: University of Lincoln. Please note: student numbers are rounded to nearest 10.

²⁵ University of Lincoln HEBCIS return 2015/16

- 4.17 Although there is no direct data on this, assuming that each student receives on average, one visit per term from friends and family, we estimate that the consequent visit expenditure impacts support £2.6 million in GVA and 80 jobs for Lincoln.

Economic contribution of visitors

- 4.18 Of the 43,600 visitors who came to Lincoln in 2015/16, we estimate that 36,000 came from outside Lincoln and around 16,400 from outside the region.²⁶
- 4.19 Using this visitor data, supplemented by datasets on the visitor economy, we are able to estimate the number of visits from outside Lincoln and the region as well as the associated expenditure. An estimated £3.5m of additional expenditure is brought to Lincoln and the East Midlands as a result of these visits. In turn, this expenditure is estimated to support **£3m GVA and 70 FTE jobs.**

²⁶ In the absence of actual data, visitor origin is estimated using the profile of current students at the University of Lincoln.

5. Contribution to Skills and Productivity

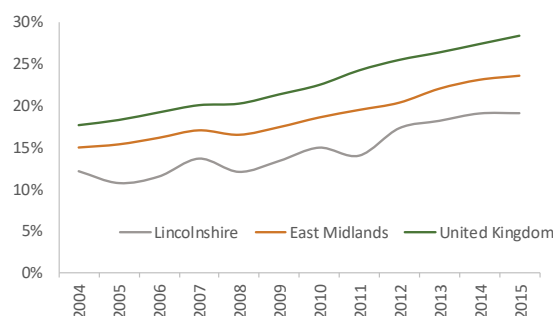
- 5.1 This section identifies the economic benefits from the University of Lincoln's role as a provider of higher level skills, which increases the productivity of the economy locally, regionally and beyond. The University of Lincoln has recently been awarded Gold in the Teaching Excellence Framework, highlighting the quality of teaching and education opportunities it offers to students. With demand for high level skills increasing across a wide range of sectors, having access to a highly skilled workforce is increasingly important to the growth and resilience of local and regional economies.
- 5.2 This section draws particularly on data from the Destinations of Leavers from Higher Education (DLHE) survey for 2014/15,²⁷ which is collected on behalf of the Higher Education Statistics Agency (HESA), as well as the DLHE longitudinal survey for those graduating in 2011/12. The survey results are used to explore the following:
- the University's contribution to improving the higher-level skills of residents
 - the number of University of Lincoln's graduates who find employment in the area and the types of work that they do
 - the contribution of the University's graduates to the labour supply of growing sectors
 - the total economic benefits to the economy as a result of the University's graduates entering the workforce, including graduate start-ups.
- 5.3 We also explore the University's approach to working with employers to design and develop courses.

The University of Lincoln has been awarded Gold in the 2017 Teaching Excellence Framework.

Contribution to Skills Development

- 5.4 The University's role in skills development is important in the context of the East Midlands economy, whose proportion of highly skilled residents has lagged behind the UK average, as illustrated in Figure 5.1. Although it has risen over time, the average proportion of residents with degree or equivalent and above between 2004 and 2015 was 15% in Lincolnshire and 19% in the East Midlands, compared with 23% nationally.
- 5.5 Between 2004 and 2015, the average unemployment rate in Lincoln, Lincolnshire, the East Midlands and England was 7.5%, 5.5%, 6.1% and 4.8% respectively.
- 5.6 On a wider scale, as the Midlands Engine initiative gathers pace, the contribution of universities across the East Midlands to prosperity and

Figure 5.1 Proportion of working age population qualified to degree or equivalent and above, 2004-15



Source: Annual Population Survey

²⁷ The survey was completed by 2,560 respondents, all of whom graduated from the University of Lincoln in 2014/15.

productivity is likely to gain greater significance. The ability of HEIs to equip graduates with the required skills to meet employers’ needs, engage with the business community to promote innovation and product development, and encourage a culture of entrepreneurialism will become increasingly important to support growth across the East Midlands economy.

Retaining higher level skills

- 5.7 The retention of graduates from the University who progress to employment destinations increases the proportion of highly skilled workers in the East Midlands region and locally, thereby increasing productivity and facilitating the attraction of business investment based on the presence of a highly skilled labour supply, which can meet current and future business needs.
- 5.8 In 2015, 25% of the working age population in the City of Lincoln held a Level 4 qualification or above. This compares relatively poorly with other University cities in the East Midlands such as Leicester (29%), Northampton (30%), Loughborough (38%) or Derby (32%).
- 5.9 The Destination of Leavers from Higher Education (DLHE) survey asks graduates of higher education institutions what they are doing six months after graduation. Data from HESA is summarised in the table below and compares graduate activity from the 6-month DLHE survey for the 2014/15 cohort for different universities in the region. With 82% of graduates entering some form of employment or further study 6 months after graduation, the University of Lincoln ranks joint first place with De Montfort University, and performed better than England as a whole.

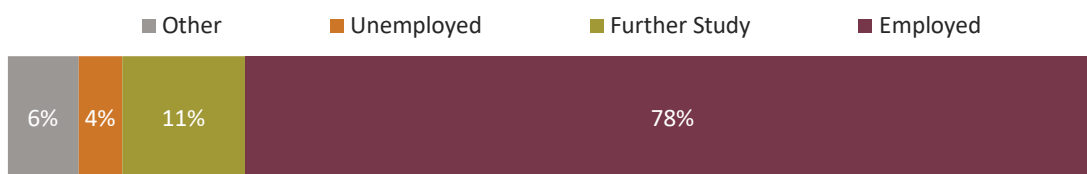
Table 5.1 Proportion of graduates 6 month after graduation, 2014/15 cohort (all graduates)

University	Work	Work and further study	Further study	Unemployed	Other
De Montfort University	78%	4%	10%	4%	3%
The University of Lincoln	77%	5%	10%	5%	3%
University of Derby	77%	6%	11%	3%	3%
The Nottingham Trent University	72%	3%	15%	5%	4%
University of Nottingham	72%	3%	15%	5%	4%
Loughborough University	71%	8%	11%	5%	5%
The University of Northampton	70%	10%	13%	4%	3%
Bishop Grosseteste University	67%	10%	18%	1%	3%
The University of Leicester	67%	8%	16%	5%	4%
Total England	72%	6%	13%	5%	5%

Source: HESA, *Destination of Leavers from Higher Education, 2014/15*

- 5.10 The 6-month DLHE survey provides a short-term snapshot and the results should be interpreted with this in mind. For this reason, wherever possible, comparative analysis has also been undertaken on a separate longitudinal DLHE survey which asks graduates what they are doing three and a half years after graduation. The longitudinal survey was sent to the 2010/2011 graduating cohort and received just over 400 responses.
- 5.11 As discussed in more detail below, University of Lincoln takes a proactive approach to employer engagement which is centred around ensuring strong graduate destination outcomes. Focussing on a different cohort year of graduates, the longitudinal survey indicates that the proportion of graduates in employment increases to 78%, three and a half years after graduating (see Figure 5.2).

Figure 5.2 Proportion of graduates 3.5 years after graduation, 2010/11 cohort



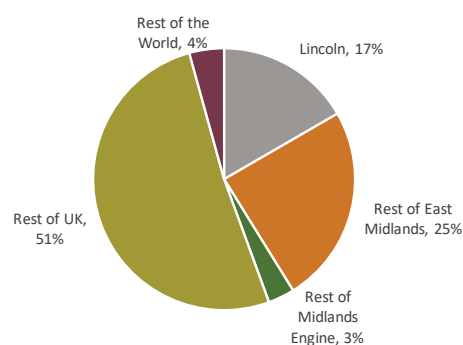
Source: University of Lincoln 10/11 DLHE Longitudinal Data

5.12 The University’s presence contributes to a relatively large proportion of highly skilled workers in Lincoln. The data shows that, of the graduates who entered employment six months after graduation, 17% took up jobs within Lincoln itself. To put this in context, the number of graduates entering employment in Lincoln six months after graduation is estimated to represent around **20% of all 16-24-year-old employees with a Level 4+ qualification in Lincoln.**²⁸

5.13 As shown in Figure 5.3 an additional 25% found employment elsewhere in the rest of the East Midlands, or 42% in total in the region, while a further 3% found work in the Midlands Engine area following the completion of their studies. Moreover, 31% of graduates were employed in the Greater Lincolnshire LEP area six months after graduating.

5.14 Internal migration data from the ONS shows that Lincoln as well as the East Midlands has a consistent net outflow of young people in their twenties to forties, with the majority moving to urban areas. The East Midlands is more successful at attracting people from the age of 35 onwards. In this context, the retention rate of around 42% is positive.

Figure 5.3 Proportion of employed graduates 6 months after graduation by employment location, 2014/15 cohort

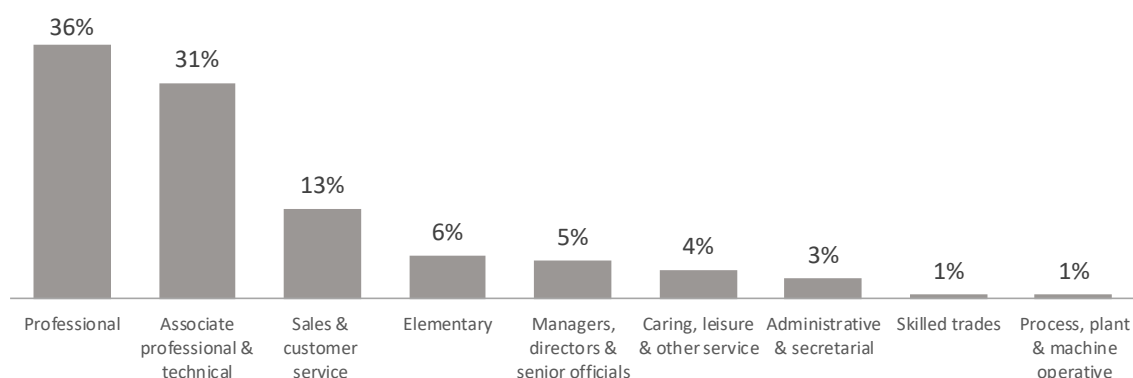


Source: University of Lincoln 14/15 DLHE Data

²⁸ Office for National Statistics, *Census 2011*. Note: It is not possible to disaggregate age any further by age. 2011 is the latest data for which this breakdown is available.

Entering higher skilled occupations

Figure 5.4 Proportion of graduates employed in Lincoln 6 months after graduation, by occupation, 2014/15



Source: University of Lincoln 14/15 DLHE Data

- 5.15 Table 5.1 shows the types of jobs that University of Lincoln graduates go on to do after graduation, broken down by broad occupational groups. Around 72% of graduates who worked in Lincoln six months after graduating went on to gain employment in higher managerial and professional occupations. This figure is slightly higher at 75% for all University of Lincoln graduates, which compares to the average across occupations of all graduates of any age in England of 74%.

Table 5.1 Occupations of University of Lincoln graduates 6 months after graduation by Location of employment, 2014/15

	Lincoln	East Midlands	Greater Lincolnshire	Midlands Engine	All Uni of Lincoln graduates	England Average (Level 4+, Census 2011)
Higher managerial and professional occupations	72%	75%	76%	73%	75%	74%
Administrative, skilled trades, caring and leisure occupations	8%	10%	9%	11%	10%	18%
Sales, customer service, machine operative and elementary occupations	20%	15%	16%	16%	15%	9%

Source: University of Lincoln DLHE Data 2014/15 and Census 2011. Note: numbers may not sum due to rounding

- 5.16 The data suggests that a significant proportion of graduates are employed in highly skilled or intermediate skilled positions. This is particularly important given that the UK Commission for Employment and Skills has estimated that the East Midlands region will require around 447,000 additional employees within higher managerial and professional occupations between 2014 and 2024.
- 5.17 Graduates have gone on to employment in a diverse range of occupations. The ten most common occupations for University of Lincoln graduates, six months after graduating, are listed in the table

below and together account for 38% of all graduates. That 9% were employed as nurses highlights the strong links with the health sector.

Table 5.2 Proportion of employed graduates, 6 months after graduation, by occupation, 2014/15

Occupations	% of graduates
Nurses	9%
Sales and retail assistants	7%
Marketing associate professionals	5%
Architectural and town planning technicians	3%
Business and related associate professionals	3%
Graphic designers	3%
Welfare and housing associate professionals	2%
Programmers and software development professionals	2%
Human resources and industrial relations officers	2%
Social workers	2%
Total	38%

Source: University of Lincoln DLHE Data 2014/15

Meeting the needs of employers and priority sectors

Employer engagement

- 5.18 The University of Lincoln’s approach to employer engagement is centred around ensuring strong graduate destination outcomes, particularly graduate retention within the local economy. The University’s Careers and Employability Team take a proactive diagnostic approach, leveraging pre-established links wherever possible, to gain a greater understanding of the needs of both students and employers, and the wider labour market. This is achieved by building sustained relationships through acting as consultants and offering existing services, developing new services or when necessary, referring employers to other areas of the University, such as subject departments.
- 5.19 The University’s Employer Engagement Policy²⁹ sets out the process and approach to employer engagement. The Policy acknowledges the crucial role played by employers in delivering employment and careers services to students as well as having an impact on graduate outcomes. The University engages with employers in four key areas:
- **Labour market knowledge** – to inform the University and students of the breadth of labour market opportunities available
 - **Opportunity generation** – to support the generation of opportunities that help students reach their ambitions
 - **Careers education** – to support the development of effective careers education programmes.

“A few years ago, Siemens were considering pulling out of the region because they couldn’t find enough of the right graduates. So the University partnered with them on setting up an engineering school.”

David Willets, former Minister for Universities and Science

²⁹ University of Lincoln (Careers and Employability Service), *Employer Engagement Policy*, April 2016

- **Information resources** – to inform the development of general or sector-specific employer branded information resources for use on the University’s website and teaching resources.
- 5.20 These areas of engagement are delivered via activities such as career advisor visits, student visits, internships and placements, real world dissertation research projects, employer delivered lectures, workshops, mentoring, competitions, mock interviews or assessment centres and so on. For example, agreements with Procurement mean that all contracts with the University of Lincoln now include saleable clauses in relation to employability activity.
- 5.21 The University has run several employer-branded careers education and employer engagement initiatives, such as:
- **Hire Me** – a programme targeted at engaging students with specific interests, with shared delivery between the University and the employer.
 - **Lincoln Award** - a certification to bring together student’s work experience and extracurricular activities. The award also includes work experience roles, bespoke employer specific training, a final assessment centre and mock interviews. So far, the scheme has been delivered alongside Lincolnshire Police and the Lincolnshire Teaching Schools Alliance. In 2015, the scheme won a national award for *excellence in employer engagement* from the Association of Graduate Careers Advisory Services.
 - **Business Challenge** – a challenge where interdisciplinary teams of students work together over one week, on real life scenarios where they take a new product to market, working through the design, marketing, business planning and costing phases. Students are afforded the opportunity to showcase their talents to the employer and have been on occasion, fast tracked through their graduate application process. Thus far, the business challenge has been run in partnership with Cummings, the Longhurst Group and TGW Group.
- 5.22 For those employers, especially national recruiters and many SMEs, not able physically to come on to the campus, the University promotes employer visibility through a remote presence. This may involve the employer’s profile on the University website with case studies, type of opportunities and advice on how to apply for a role in the company. It may also include branding on promotional material, sponsored work spaces in the library or employer named lecture rooms. The University is intending to introduce an online web-forum/chat facility where students and employers can directly engage with each other in a virtual environment. Another aspect of the remote presence involves companies supplying the University with real life problems that students can use as a final year project or dissertation topic.
- 5.23 In addition to standard degrees, the University provides workforce development and support to employers through vocational qualifications, foundation degrees, certificates of higher education and other bespoke training. In 2015/16, 128 employees and staff from 66 employers were trained in this way and 35% of employers were based locally in Lincoln itself.
- 5.24 The University also runs a Graduate Internship Funding Scheme where the University supports businesses and organisation, across all size and sectors, to recruit recent University of Lincoln graduates for internships lasting a minimum of 3 months. Other schemes in partnership with University of Lincoln include the Santander SME Funding Scheme to support small and medium sized businesses in recruiting University of Lincoln students to graduate positions, and the Innovation Funding Programme to support recruitment of graduates into specific business and sectors working on innovation projects.
- 5.25 The University has strong industry links across the STEM subjects. In 2014, the College of Science introduced an Industry Liaison and External Relationships Manager to develop partnerships

between industry and the various Schools within the College such as School of Chemistry, School of Mathematics and Physics, School of Computer Science, School of Life Sciences, and School of Pharmacy. Today the College engages with industry on several fronts, for example:

- There are three private sector and one public sector members of the external advisory board for the School of Mathematics and Physics.
- Undergraduate Chemistry degree programme, a professional practice module that gives students an experience of real world applications in commercial and industrial contexts including an understanding of employability and the job application process, supplemented with guest lectures from industry.
- The School of Pharmacy has developed links with hospitals and community pharmacies as well as the pharmaceutical industry to the regional to facilitate work placements that are integrated to support students learning. Placement students also receive a practicing pharmacist mentor and guest lectures from the industry.
- Industry is encouraged to partner with academic expertise and use high-end scientific equipment at the College of Science on a flexible basis. To this end, the College has recruited a Project Scientist that works exclusively with initiatives between the University and industry.

Case Study: Siemens

In 2008, Siemens Industrial Turbomachinery Limited, located in the City of Lincoln, was considering its options for the company's future manufacturing of gas turbines. Lincoln had been a locus for engineering for all the 20th century but Siemens was struggling to recruit and retain engineers locally. Siemens was (and is) the largest private sector employer in Greater Lincolnshire and its loss would have been devastating to the area.

Discussions with the University led to the idea of establishing a new School of Engineering at the University, the first in the UK for over 20 years. This began a partnership between Siemens and its supply chain, which grew to a new level in 2010 when the new School's building was completed. Siemens invested in the development of the School, alongside funding from HEFCE, the City and County Councils, and the European Union.

This £37.5m collaborative venture included Siemens co-locating with the University's new School of Engineering to provide training for their customers on their turbines. The establishment of the School not only ensured that Siemens would continue to locate its gas turbine business in Lincoln (and therefore in the UK), saving over 1,000 jobs, but also created the right environment for Siemens to expand its business on a new site in 2012, creating a further 50 jobs. Today **Siemens' biggest plant in the UK is located in Greater Lincolnshire.**

The relationship between the University and Siemens has grown where the University now engages with Siemens on three fronts:

- Working with Siemens Local and building on the success of previous programmes, the University of Lincoln is planning a Siemens branded Lincoln Award programme.
- The University is also in talks with the national talent acquisition team at Siemens Corporate to promote national opportunities, and deliver training sessions. A sponsored challenge titled *Urban 7.0* has been devised whereby students compete in interdisciplinary teams and within a budget to develop and deliver innovative solutions to urban and environmental challenges.
- Siemens also sits on the subject Industrial Advisory Panel and provides input into curriculum design to help ensure the level and quality of education delivered is fit for industry. Siemens provides an annual bursary to engineering students. As a result of the University's strong collaboration with Siemens on multiple fronts, **graduates of University of Lincoln take a shorter time to complete the Siemens graduate scheme - around four times faster than other students.**

In 2014, Lincoln UTC, a University Technical College, opened with Siemens, the University of Lincoln and Lincoln college as partners.

In recognition of the University of Lincoln's wide-ranging research and development collaborations and the University's efforts in engaging graduate talent with Siemens, Siemens conferred the prestigious Global Principal Partner status to the University in 2015.

The School of Engineering has achieved a reputation for its research excellence and innovative and proactive approach to business engagement. Whilst the direct impact of the relationship with Siemens is critical, it has rapidly established the School at the heart of the engineering cluster, both locally and regionally.

The School has already engaged with over 400 engineering businesses and organisations – undertaking commissioned research (including with Marks & Spencer and Mitsubishi), Knowledge Transfer Partnerships, and access to part-time degrees. The School is actively driving local and regional cluster event activities, including IMECHE, IET and the Institutes of Physics and Combustion, as well as the revitalisation of the Engineering Business Breakfast networking events for the region, which has become extremely active since the establishment of the School.

Case Study: Lincoln Award with Lincolnshire Police

The University of Lincoln and Lincolnshire Police came together to establish a partnership initiative, launched in 2014. The initiative offers volunteering opportunities in a police environment. The initiative works to benefit both organisations:

- For Lincolnshire Police, it provides wider engagement opportunities and increased accessibility of services
- For the University of Lincoln, the partnership offers more career opportunities for students, including placements, skills development courses and future employment prospects.

The Lincoln Award offers two different volunteering pathways which the students can access: a role as a Volunteer Police Community Support Officer (VPCSO), and a role as a volunteer in the drop-in centre.

The Volunteer Police Community Support Officer role

The VPSCO role provides work experience for two years, amounting to 250 volunteering hours. This enables students to undertake training with the police and the University's internal student services. The training programme is designed to equip the students for community policing with a local policing team - it includes introduction to legislation, procedures, health and safety, use of the Airwaves radio and personal safety training.

Throughout their time as VPCSOs, students work with PCSOs to experience community policing and reassure members of the community. Volunteers' skills are assessed at the start and at the end of the process, including mock interviews with the police at the end of the two years.

Drop-in centre

The initiative takes on around 12 volunteers annually for this year-long scheme, requiring 100 volunteering hours. The on-campus drop-in centre is run by students, and serves as a first point of contact to report a crime, lost property, as well as inquire about recruitment information with the police.

Throughout the year, the student volunteers with the help of police undertake various awareness raising campaigns. A few of the examples include an alcohol awareness campaign around Christmas; the Shush campaign to encourage a sense of community so that people enjoy a night out but return home quietly without causing noise or disruption; work during freshers' week to help with property and bike registration.

The students who have "graduated" from the initiative remain an important part of the service even after completing the volunteering. These students form part of the recruitment process for new cohorts of volunteers, and have continued access to internal police vacancies.

The Lincoln Award with Lincolnshire Police has been highly successful, with 20 students having completed their roles. In 2016, the **University of Lincoln's Careers and Employability Centre received an AGCAS Award for Employer Engagement** for the project. The judges' comments said *"The scheme demonstrates true collaboration between a university and an employer, whilst addressing a local community agenda and demonstrating the positive impact that student peer-led activities can have on an area."*

More recently in February 2017, the initiative was highly commended by the **National Undergraduate Employability Award in the Best Collaboration** between an employer and a university category.

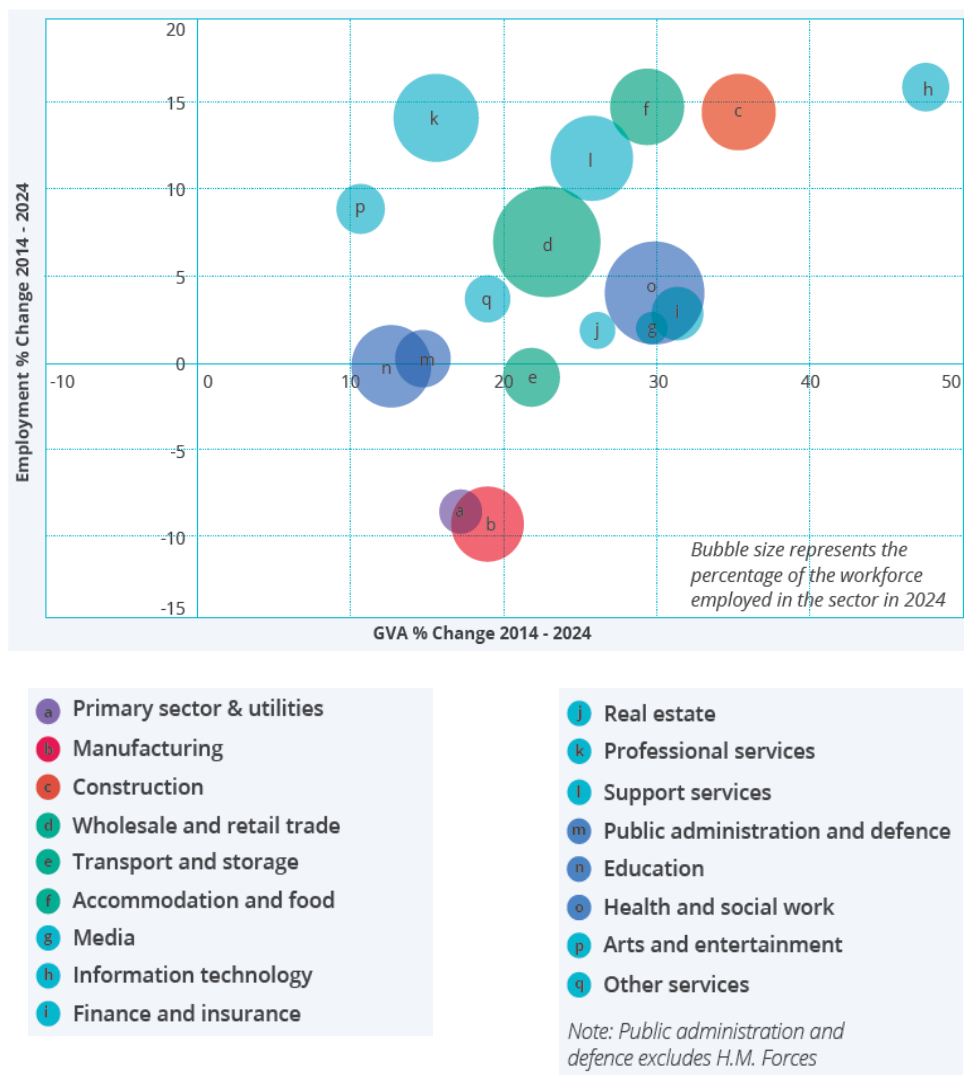
Contribution to priority sectors

- 5.26 The University plays a vital role in meeting the skills need of sectors prioritised by policymakers for growth.
- 5.27 The Midlands Engine³⁰ has identified five priority sectors driving innovation opportunities and competitive advantage in the region: **Manufacturing, engineering and transport technologies, Agri-food and drink manufacturing and production, Healthcare, Energy and low carbon technologies**, and the **Creative, digital and design** sector.
- 5.28 The Greater Lincolnshire LEP Strategic Economic Plan³¹ was published in 2014 and updated in 2016. The SEP identifies sectors with competitive advantage held in the Greater Lincolnshire area such as **Agri-food, Manufacturing and engineering, Low carbon**, and the **Visitor economy**. The SEP also identifies opportunity sectors with potential to be defining features of the area: **Health and care**, and **Ports and logistics**. In these priority sectors, the SEP aims to drive productivity and growth, develop export potential, create a mix of employment opportunities and importantly, capitalise on the local and regional knowledge and innovation base.
- 5.29 The announcement to establish a Food Enterprise Zone (FEZ) in Holbeach, made in 2015, aims to promote the development of the argi-food sector by attracting and supporting innovative businesses. The University of Lincoln will be an integral part of this vision, with the National Centre for Food Manufacturing being based within the FEZ.
- 5.30 The University offers a number of undergraduate and postgraduate courses and has various research institutes in subjects that align with the above sectors including agriculture and food technology and manufacturing; engineering; tourism and events; health and social care; and life sciences. For example, the Lincoln Institute for Agri-Food Technology supports the local agri-food sector through research, education and development of technologies.
- 5.31 Nationally, the latest research from the UKCES shows that the UK is projected to see significant employment and output growth in a number of key sectors including professional services, finance and insurance, construction and information and technology sectors.

³⁰ Department for Business, Innovation and Skills and Department for Communities and Local Government, *The Midlands Engine for Growth: Prospectus*, 2015

³¹ Greater Lincolnshire Local Enterprise Partnership, *Strategic Economic Plan 2014 – 2030*, 2016

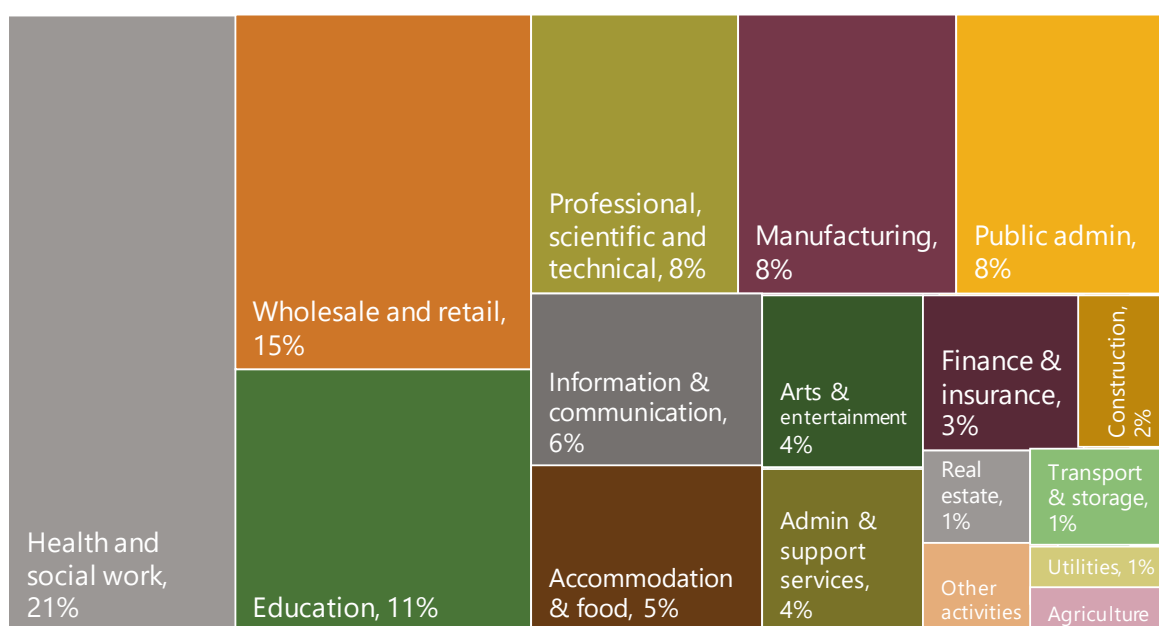
Figure 5.5 Performance of broad sectors of the national economy by forecast output and employment change, 2014-2024



Source: UK Commission for Futures and Skills, *Working futures 2014 to 2024: main report*, April 2016

5.32 Graduates from the University of Lincoln have gone on to work in a range of broad sectors (see Figure 5.6). Prominent sectors for University of Lincoln graduates include health and social work, wholesale and retail trade and education. Together, these sectors account for 48% of all employed graduates in the East Midlands. The University also makes a significant contribution to the higher value priority sectors through 25% of employed graduates entering the professional, scientific and technical; manufacturing; information and communication; and finance and insurance sectors, in the East Midlands.

Figure 5.6 Proportion of Graduates employed in the East Midlands, by sector 2014/15



Source: University of Lincoln 14/15 DLHE Data

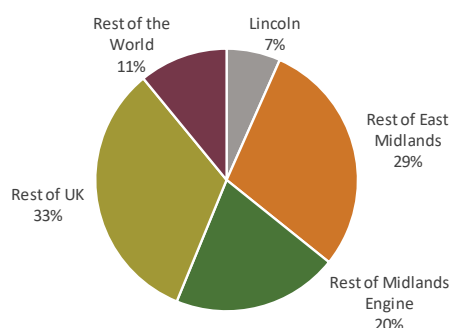
Improving the Skills of Residents

5.33 Alongside its role in attracting and retaining students and higher level skills to the region, the University also provides Lincoln’s residents with opportunities to study higher education locally. 870 students enrolled at the University resided in Lincoln prior to study. As shown in Figure 5.7, around 36% of the University’s students are originally from the East Midlands and 56% are from the Midlands as a whole.

5.34 This emphasises the importance of the University of Lincoln to the Midlands Engine. The Midlands Engine Prospectus³² identifies a gap in skilled young people in the area, with concerns regarding an ageing workforce and insufficient skilled workers in the manufacturing sector. Furthermore, as a result of changing occupational structures, data from the UKCES estimates that the East Midlands region will require an additional 214,000 employed graduates between 2014 and 2024.

5.35 More locally, the Greater Lincolnshire LEP Employer Survey (2014) surveyed 1,500 local businesses and found 28% of professional and 23% of senior vacancies were hard to fill. The main reasons given for struggling to fill posts were lack of applicants with work experience/life skills (39%) or with required qualifications/skills (37%).

Figure 5.7 Proportion of Students by Location of Pre-Study Domicile, 2015/16 cohort



Source: University of Lincoln Student Data, 2016

³² Department for Business, Innovation and Skills and Department for Communities and Local Government, *The Midlands Engine for Growth: Prospectus*, 2015

- 5.36 The University therefore has a valuable role to play in improving the skill levels of residents in the Midlands Engine, and attracting and retaining skilled individuals to the region and Greater Lincolnshire LEP area.

Economic Value

- 5.37 This section quantifies the total economic benefits of University of Lincoln graduates to the local and national economy. By improving the skills of the workforce, a University education increases both earnings and a student's chances of finding employment over the course of their working life, and also improves the business performance and profitability of the companies they work for. All of these effects contribute to increased levels of economic output and productivity (as measured by GVA and GVA per employee).
- 5.38 To estimate these economic benefits, we have drawn on national research. This indicates that the GVA generated over the course of the cohort of 2014-15 graduates' working lives³³ will be:
- **£38m in Lincoln**
 - **£70m in the Greater Lincolnshire LEP area**
 - **£92m in the East Midlands**
 - **and £200m in the UK**

³³ Note: expressed in 2013 prices and in Net Present Value terms.

6. Partnership Working

6.1 Collaboration is fundamental to the University of Lincoln and partnerships have played an important role in its development. Indeed, the University's arrival in Lincoln in 1996 was predicated upon this collaborative approach. Figure 6.1 provides a summary of some of the key partnerships in which the University is involved.

Figure 6.1 Examples of the types of partnerships of which the University of Lincoln is a member



Source: The University of Lincoln and Regeneris Consulting

6.1 Across the UK, there is a renewed emphasis on the universities as *Anchor Institutions*, that is, relatively large and stable employers that play a strong role in their local areas. Indeed, the Witty Review³⁴ called for universities to pay more attention to go beyond knowledge transfer and assume a responsibility for facilitating local economy growth. In this respect, the University has been ahead of the curve and has been strategically orientated towards this since its inception.

³⁴ Witty, A. (2013). *Encouraging a British Invention Revolution: Sir Andrew Witty's Review of Universities and Growth*. Department for Business, Innovation & Skills.

- 6.2 The University is strongly tied to Lincoln and Lincolnshire through its investment and its mission, and is committed to developing and deepening its partnerships³⁵. Its objectives are to increase the number of high quality partnerships with business, utilise its partnerships to increase global opportunities for staff and students, and to contribute to its placemaking objectives.
- 6.3 The University has been recognised for its contribution to **industry engagement**, including:
- The Lord Stafford Award for Open Collaboration in 2011
 - The Times Higher Education Award for Outstanding Employer Engagement Initiative in 2012 for its partnership with Siemens
 - Recognition in the government-commissioned, independent reports by Sir Andrew Witty and Sir Tim Wilson, in which it was cited as an example of successful University-industry partnerships.
- 6.4 See Section 8 for more on business engagement and support.
- 6.5 The University is deeply embedded in local partnerships. Its work in **cultural partnerships** is summarised in Section 9, **and social engagement** is summarised in Section 10. The key role in the Local Enterprise Partnership is summarised below.

“One of the great things about the University is that it is so well connected into the fabric of society”

Ursula Lidbetter, CEO Lincolnshire Cooperative

Case Study: Greater Lincolnshire LEP

The University’s partnership role is illustrated well by its role in the LEP. The University was one of the original founding partners of the LEP. It played a significant role in the bid to government and in shaping the ethos of the organisation.

The Vice-Chancellor, Professor Mary Stuart, is a member of the LEP Board. After spurring its establishment, she also chairs the **Innovation Council**, which advises the LEP on strategy to drive innovation in Greater Lincolnshire. She also chairs the Growth Hub Board and the University is present on other sub-groups including that for Employment and Skills.

A wide range of staff from across the University provide additional support to the LEP, including in funding applications and some staff are jointly employed by the University and LEP, ensuring a strong transfer of knowledge and expertise.

As set out in Section 5, the University’s provision makes a strong, direct contribution to the strategic objectives of the LEP, particularly the development of the agri-food, health, visitor economy, and power engineering sectors.

³⁵ University of Lincoln (2016) Strategic Plan

The Lincolnshire Investment Network is also related to the University's work with the LEP and Growth Hub. Funded by the University and Lincolnshire County Council, it enables investment in Lincolnshire based businesses, providing a free service to support businesses, investors, and professional service firms. It delivers events that bring together organisations to encourage growth and business development.

"The University is one of the biggest players in the economic development community in Lincoln."

Justin Brown, Lincolnshire County Council

Using partnership to implement change: Partnering with IMS and a major UK food retailer

The partnership between the University of Lincoln, a major UK food retailer, and Intelligent Management Systems (IMS) Ltd hopes to alleviate pressure on the National Grid. Running for 24 months at full scale, the partnership's project, The Development of Dynamic Energy Control Mechanisms for Food Retailing Refrigeration Systems started in September 2016.

The National Grid operates with a very narrow generating margin of 5%, which is challenged by the increasing input of renewable generation systems which do not provide consistent loads. Stabilising the Grid is a strategic, national priority, which is addressed not just from the supply side of energy but from stabilising demand too—so-called Demand Side Responses.

Led by IMS Ltd, who control the major UK food retailer's 112,000 refrigeration systems across 3,000 stores in the UK, the project will integrate firm frequency (FFR) Demand Side Response (DSR) with the refrigeration systems. Currently, control systems use very static control temperatures, whilst this project is developing algorithms to control refrigeration temperatures.

The University have constructed a fully functional Refrigeration Research test facility on the Riseholme Campus, representative of the food retail estate. The University is carrying out controlled testing on the system to explore operational boundaries in order to utilise the refrigeration network to respond to a DSR event.

The project will show that this can be done, whilst controlling food quality and temperature control limits. It is significant because the cold chain (the refrigeration of food) accounts for up to 14% of the UK's electrical load at any given point, consuming 12TWh of energy every year and compromising around one third of a typical retailer's energy cost.

This project will be the largest industrial demonstration of DSR to food retailing refrigeration networks. It is hoped that the results of the project will encourage others to take on DSR, in retail and in other industry sectors with energy consuming assets.

7. Research

The University's Objectives

- 7.1 *Research with impact* is one of the University's five core principles in its 2016-2021 strategic plan. Lincoln's goal is to have a real-world impact, building on its successes in the Research Excellence Framework (REF) and to become a leader of transformational, societal change.
- 7.2 The University's research agenda **is aligned to local and regional economic priorities**, with innovation a key strategic theme in the Midlands Engine for Growth agenda. The Greater Lincolnshire LEP identifies tailored innovation as a necessary condition for growth. Research is a driver of innovation and the University's innovative 'Lincolnshire as a living lab' principle is driving this in Lincolnshire.

"The University bends its provision to meet local objectives"

Justin Brown, Lincolnshire County Council

Research Centres and Funding

- 7.3 The University has more than 40 research centres and research groups, supported by over 60 substantive professors. The main research centres are outlined in Table 7.1 below. By its successes in the 2014 Research Excellence Framework (REF), the strongest areas of research at the University are its Animal Behaviour, Welfare & Cognition; and Evolution and Ecology. The University's research in these areas, in the Agriculture, Veterinary, and Food Science category, was second out of 29 institutions nationally for output quality in REF 2014. This covers the Lincoln Institute for Agri-Food Technology, which is discussed in more detail shortly.
- 7.4 The largest unit of assessment in Lincoln's submission to REF 2014, 'Allied Health Professions, Dentistry, Nursing, and Pharmacy', came 10th in the UK out of 94 for quality of outputs. This covers the Lincoln Institute for Health. Overall, the University of Lincoln's average score improved by more than 30% between the Research Assessment Exercise in 2008 and the Research Excellence Framework in 2014.

The University of Lincoln's average score improved by more than 30% between the Research Assessment Exercise in 2008 and the Research Excellence Framework in 2014.

Table 7.1 Research Centres at the University of Lincoln

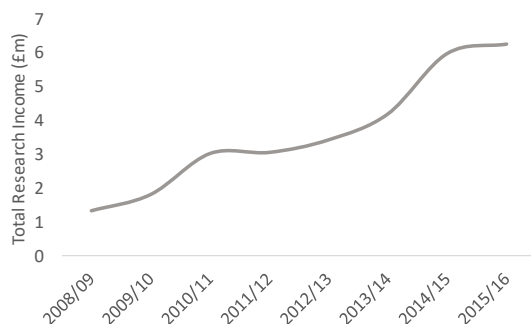
Research Centres	Summary
Lincoln Institute for Health	Providing a platform for internationally excellent, multi-disciplinary research focused on health issues at a national and international level in collaboration with all NHS Trusts within Lincolnshire
Lincoln Institute for Agri-Food Technology	Developing new, ground-breaking technological solutions for the food and agricultural industries with academics and researchers from across the University and from its National Centre of Food Manufacturing
Laboratory of Vision Engineering	Specialising in the capture, transmission, processing, and understanding of image, video, and other high-dimensional data and its applications in a wide range of fields
Lincoln Centre for Autonomous Systems	Focusing on perception, learning, decision-making, and control for autonomous systems including robots and their applications in a number of industries
Lincoln Centre for Water and Planetary Health	Solving the most severe environmental and societal problems emerging from the world's largest rivers, including climate change, flooding, droughts, water-borne diseases and other effects of riverine environments
Community and Health Research Unit	Creating world-leading, interdisciplinary, applied and translational research regarding primary, prehospital, and older people's care to increase people's health and well-being by improving systems of care
Lincoln Centre for Environmental Law and Justice	Focusing on environmental law and justice, recognising the multi-jurisdictional, interdisciplinary, and societal complexities inherent in many environmental issues
Culture & Creativity Centre	Looking outwards to the key strategic partners in the community as well as towards the University, committed to a cross-sectoral approach to culture and creativity
Centre for Art & Design Research	Spanning the creative and theoretical disciplines of Art and Design
Centre for Conservation and Cultural Heritage Research	Focusing on conservation, cultural history, and the application of this research in the heritage sector using a multidisciplinary approach and home to a national centre of excellence
Centre for European Cultural Studies	Fostering research into European cultural studies by supporting an international, interdisciplinary approach amongst scholars in the postgraduate and postdoctoral community
Centre for Research in Journalism	Examining the history of journalism in all its forms to understand the changing nature of the media, assess its impact socially, politically, and economically
Centre for Performance Innovation and Evaluation	Exploring performance in practical and applied contexts, interacting with different communities, and engaging in variety of performance modes through different media

7.5 The University has seen strong growth in its research income, more than doubling in the 5 years up to 2014/15. The University receives funding from numerous sources, such as research councils, charitable organisations, the European Union, the UK government, the Arts Council, the Heritage Lottery Fund and the private sector both nationally and internationally. In

The University of Lincoln more than doubled its research income in the five years up to 2014/15.

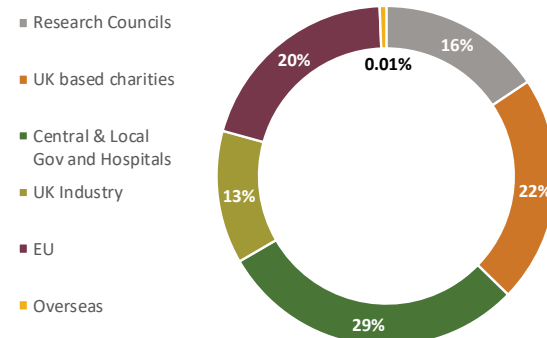
2015/16, the University reported a research income of **£6.3 million**, up from £3 million in 2010/11. Total income from research contracts and grants for 2014/15, the last year for which comparative data is available, was £5.5 million, which is an increase of £1.1 million (25%) on the year before, compared to a 4% rise across the East Midlands overall.

Figure 7.1 Total research income



Source: The University of Lincoln Financial Accounts 2009-2016
Note: nominal prices.

Figure 7.2 Research Income by source 2015/16



Source: The University of Lincoln Financial Accounts 2016

Agri-food: Aligning academic research with regional priorities

One of the University's key strengths in research is its research in Agri-food Technology. Indeed, 78% of its research in agriculture, veterinary and food science was found to be world leading or internationally significant by the REF2014 exercise.

The mission of the Institute for Agri-Food technology at the University of Lincoln is to develop new technological solutions for the business of producing food through agriculture. The centre is outward-facing and committed to the long-term impact. This flows from the strongly applied nature of its research, stemming from its local, national, and even global agri-food industry connections.

This sector is a strategic priority for the Greater Lincolnshire LEP³⁶. The area is the market leader in many agriculture aspects, with 25% of England's Grade 1 agricultural land, producing 25% of the UK's vegetables and 10% of overall English agriculture. The wider food production economy, including the logistics, packaging, and other sectors dependent on the food chain for their business, is worth an estimated £2.5 billion in terms of GVA and 56,000 jobs in Greater Lincolnshire. The sector plan prepared by the LEP commits to working to adopt new technologies to increase productivity and sustainability in the sector.

The University is helping to deliver this, with its research output from the Lincoln Institute for Agri-food Technology. Alongside this is the National Centre for Food Manufacturing, which hosts a wide range of industry bodies and is built upon strong industry links.

The University of Lincoln's cross-disciplinary approach means that it can complement its research in agriculture with research in engineering, chemistry, sensors, informatics and science. For example, the institute is researching the implementation of the use of 3D imaging and automation in harvesting and weeding technologies. Another example comes from the Lincoln Centre for Autonomous Systems, who worked with the UK Potato Council to produce a low-cost system to assist quality control and improve consistency, speed, and accuracy of defect identification and quantification in potatoes

³⁶ Greater Lincolnshire LEP (2014). *Greater Lincolnshire Agri-food Sector Plan 2014-2020*

International Bomber Command Centre (IBBC) Digital Archive

The International Bomber Command Centre was established by Lincolnshire Bomber Command Memorial Trust in partnership with the University of Lincoln, funded by the Heritage Lottery Fund. The project's aim is to record, preserve and relate the stories of all those involved with, or impacted by, Bomber Command during the Second World War.

As part of the project, the Digital Archive is being created to preserve the story of the Command and the bombing campaign. Led by Professor Heather Hughes and a team of five researchers, the Archive is a comprehensive library of documents, including books, photographs, letters and service citations, as well as recollections from participants (from all sides) capturing and preserving first hand experiences. Much of this content has not been accessible to the public before.

In compiling its content, the researchers are contributing to an exhibition at the IBCC and conducting research on the heritage of Bomber Command. The Archive will be accessible from September 2017.

Key Activities and Successes

- 7.6 The critical foundation of the University's research is that it is purposeful research with real world impacts, responding to the needs of society. Indeed, 53% of the research that the University submitted to REF 2014 was classed as internationally excellent or world leading. In the year following this result, 2014/15, the University saw one of the largest increases in national research funding awarded to it, increasing by 90%.
- The University of Lincoln saw one of the largest increases in national research funding awarded to it, increasing by 90% following REF 2014.
- 7.7 The University's research has an impact in a wide number of areas and the University stresses the importance of multi-disciplinary approaches in its research output.
- 7.8 Over the last year, the University's research groups published a wide range of research, including:
- The use of technology in helping the elderly live fuller lives
 - The success rates in organ transplants
 - The treatment of different cancers
 - Addressing global agricultural challenges
 - Providing weight management via the workplace.

Excellent research with real world impact: Improving Pre-hospital Care for Emergencies

A programme led by academics from the Community and Health Research Unit, part of the Lincoln Institute for Health, put their research into practice to improve frontline care and patient outcomes for people suffering from strokes and heart attacks. The project was led by Professor Niroshan Siriwardena, who directs the research unit.

The project aimed to improve the quality of emergency care, focusing on pre-hospital care provided by the ambulance services. The research found evidence of gaps in service quality, including widespread geographical disparities in care and outcomes, and sought to devise initiatives to address them.

One such initiative was the development of care bundles, a standardised package of assessment and treatment for the emergency conditions of heart attacks and strokes. The bundles are a series of steps that research has shown improve a patient’s prognosis. The fundamental tenet of this initiative is that whenever one of these conditions is suspected, the full care bundle should be followed. Working with the East Midlands Ambulance Services and all English ambulance services through them, this research drove the Ambulance Services Cardiovascular Quality Initiative standardising national ambulance care in these situations.

The research led to a change in national policy and practice guidance and the groups’ indicator for appropriate care has become the first national clinical indicator set for ambulance services, leading to better regulations and performance.

By doing so, the team have improved care for patients suffering from heart attacks, strokes, asthma attacks, and diabetes across England. Indeed, the introduction of checklists and clear feedback for ambulance crews in a drive to improve quality across English ambulance services has significantly improved the standard of care according to a major study in all 11 ambulance trusts who finished the project. Across England, the percentage of such emergencies where the bundles were deployed in full increased from 43% to 79% for heart attacks and up to 96% for strokes.

The team is continuing to develop this initiative and future research will focus on the impact of these improvements on survival rates and whether similar changes could benefit emergency patients with other common life threatening conditions.

- 7.9 The University performed strongly in REF 2014, with 90% of its submissions judged to be of an internationally recognised standard or better and with a grade point average across its submissions in 17 subject areas improving more than 30% between 2008 and 2014. Table 7.2 shows its performance in its top ten subject areas (units of assessment) by the percentage of its research that is internationally significant or world-leading.

Table 7.2 University of Lincoln REF 2014: Top Ten Subject Areas by share of 3* and 4* Research

Subject Area	Percentage 4* & 3* ³⁷
Allied Health Professions, Dentistry, Nursing and Pharmacy	86%
Agriculture, Veterinary and Food Science	78%
Art and Design: History, Practice and Theory	70%
Communication, Cultural and Media Studies, Library and Information Management	65%
History	60%
Business and Management Studies	54%

³⁷ 3* refers to internationally significant research and 4* refers to world-leading research

- 7.10 The growth in Lincoln's research capability is strong, and the number of postgraduate research students is growing fast. Since 2010, the number of PhD and Masters' of Research students has increased by 43%.

PRaVDA - Seeing and Treating Cancer with Protons

Professor Nigel Allinson – an internationally renowned expert in image engineering at the University of Lincoln – is building on its success of creating medical imaging technologies, and developing a unique imaging technology that will provide accurate proton therapy and 3D images of where radiation is absorbed by a tumour.

The project combines imaging techniques developed at Lincoln with detectors produced at the University of Liverpool, having been awarded a £1.6m transformation grant by the Wellcome Trust.

Proton therapy is seen as the most promising alternative to radiotherapy treatment. It minimises the damage to healthy tissue by a more accurate targeting of cancer cells with little loss of radiation. This combination of improved accuracy and potency opens up new options for treating cancers which are close to vital organs. Moreover, it is an effective treatment for young children due to a reduced risk of developing secondary cancer later in life.

The revolutionary treatment has the potential to benefit thousands of cancer sufferers.

Intelligent Robots: useful assistants and autonomous trucks

Lincoln Centre for Autonomous Systems (L-CAS) specialises in perception, learning, decision-making, control and interaction for autonomous systems, such as robots, and the integration of these capabilities in application domains including agri-food, healthcare, intra-logistics, intelligent transportation, personal robotics and security.

Dr Marc Hanheide, a University Reader in the School of Computer Science at the University of Lincoln and a member of the L-CAS, is working on projects investigating human-robot interaction, artificial intelligence, pattern recognition and machine learning.

Based on understanding 3D space and how it changes over time using novel approaches to extract spatio-temporal information from the environment, STRANDS is a 7 million euro research project that will produce intelligent mobile robots that are able to operate for months in dynamic human environments, making them useful assistants in a wide range of domains.

Another notable project is the ILIAD which is funded by the EU Horizon 2020 programme. The ILIAD project aims to create robotic solutions that can integrate with current warehouse facilities and enable automatic deployment of a fleet of autonomous forklift trucks, which will continuously optimise its performance over time by learning from collected data.

Delivering breakthrough in health: The Diabetes, Metabolism & Inflammation Initiative

The new research group, the Diabetes, Metabolism & Inflammation (DMI) initiative based at the Joseph Banks Laboratories is researching the cellular and molecular aspects of diabetes, immunology of type 1 diabetes, pathogenesis of diabetic complications, and pancreatic islet cell development and function. The group's work has clear translational benefits that could help improve the lives of those with diabetes. All of the group's members were recruited to the University since the Laboratories opened in September 2014, and there are currently 6 independent principal investigators researching their areas of expertise.

Research outputs from members of the group have received considerable press attention and a number of breakthroughs have been made. This includes enhancing understanding of the mechanisms by which glucose and its signalling mediators alter kidney function in patients with diabetic nephropathy, which is essential in establishing strategies for preventing and stopping the advance of the disease. This is significant because around 50% of patients presenting with end-stage renal failure have diabetic nephropathy.

Another example of the group's output is using a peptide produced by one of their collaborators in New Zealand to reduce communication between cells of the proximal kidney in diabetic kidney disease. This will reduce the extent of renal fibrosis seen in patients suffering it, helping to maintain kidney function. This will be utilising new, exciting treatments to discover if secondary kidney complications associated with the disease can be prevented.

Research into understanding the nature of the targets of the immune response in Type 1 diabetes by the DMI Group is helping to develop strategies to block immune responses that cause disease. Type 1 diabetes is the result of destruction of cells that produce insulin and it is now known that the immune system targets a limited number of protein components in the cells with T-cells and antibodies. The research has shown that the immune system in Type 1 diabetes responds to certain proteins, knowledge of which can be exploited for the development of tests for antibodies to identify those at risk, and to design treatments that specifically block the immune response to prevent disease before clinical symptoms appear. The DMI Group has recently identified one of the major targets of the immune response, a protein called tetraspanin-7. This discovery is essential in understanding disease risk and for the design of therapies for disease prevention. Individuals show different patterns of immune reactivity to the proteins, and treatments will need to be tailored to the specific immune response. The DMI Group are currently involved in the development of high-throughput assays for antibodies to tetraspanin-7 for use in screening for diabetes risk, alongside tests for antibodies to other proteins already on the market.

The DMI Group hopes to continue its successes in research impact, gaining funding from a broad base as well as progressing commercial initiatives. Increased funding will allow the Group to expand its research capacity by recruiting more excellent post-doctoral researchers and postgraduate PhD students. Commercialisation is crucial for the DMI Group's research to achieve impact and the DMI Group is in discussions with partners to ensure this.

8. Business Engagement

The University's Objectives

- 8.1 Engaging with industry is central to the University of Lincoln's approach. Alongside its role in working with business to develop higher level skills, as set out in Section 5, the University works proactively with businesses – especially SMEs - to drive innovation.
- 8.2 Engaging with SMEs and small businesses also helps to support employment creation, as evidence points to small high growth businesses being responsible for a large proportion of jobs growth. The literature is clear that universities can play an important role in helping these businesses grow. Universities can enable SMEs to develop a skilled and creative workforce, and encourage the flow of knowledge and information through collaborative work between researchers and firms.³⁸
- 8.3 The Midlands Engine Science and Innovation Audit³⁹ identified innovation gaps, and highlighted innovation as one of the solutions for addressing the productivity gap between the Midlands and the UK overall. Further, business density and start up rates in Lincoln and Lincolnshire are much lower than the UK average. Capitalising on existing strengths and leveraging the critical mass of science and innovation assets in the Midlands is identified as a key route to driving productivity.
- 8.4 In this context, the University focuses its innovation on local and regional priorities. The University is recognised for its innovative and business-focused Student as Producer approach, which encourages entrepreneurial activity throughout the University's courses.
- 8.5 The University's sectoral focus to its engagement activities is driven by its specialisms in research and teaching, the interests of students and graduates and the social and economic challenges faced by local businesses and the community. The University believes its activities are most effective when these three areas are aligned. Notably, this approach allows the University to drive cross-disciplinary activity.

Key Activities

- 8.6 The University offers a very wide range of support for business, from incubation facilities through to Knowledge Transfer Partnerships.

Sparkhouse

- 8.7 The University's Incubation Centre, Sparkhouse, opened in 2003. It aims to give start-ups support and advice to help businesses survive their first two years and subsequently grow. The purpose-built centre includes office space alongside specialist support training, seminars, workshops, networking access, and stepped rental packages. It also offers 'virtual tenancies' where these services are accessible and secretarial services are also available.

Think Tank

- 8.8 The University manages the council-owned innovation centre, a 33,000 sq ft facility with 20 offices and 12 workshops, adjacent to the Science Park. It is managed by the Business Incubation Team,

³⁸ NESTA (2009) *The vital 6 per cent*.

³⁹ The Department for Business, Energy & Industrial Strategy (2016). *A Science and Innovation Audit Report for the Midlands Engine*

who also manage Sparkhouse. Think Tank was founded in 2008 by the City Council, and the University took over in 2011.

- 8.9 The space is aimed at supporting high-growth, innovative businesses that are more developed than those in Sparkhouse. Indeed, some businesses using the Think Tank are well established but wish to do something different and innovate.

Lincoln Science and Innovation Park

- 8.10 The Lincoln Science and Innovation Park (LSIP) is a partnership with the Lincolnshire Co-operative. The Lincolnshire Co-op has a long history of cooperation with the University and was a founding patron. The University and the Co-op established a joint venture company in 2012, through which they own and operate the Lincoln Science and Innovation Park, a multi-million-pound science and innovation park, the first in the city. The success of the LSIP to date has attracted other partners and the City of Lincoln Council and Lincolnshire County Council invested in 2014 to develop the site-wide masterplan.

- 8.11 The design of the park has focused on integrating research, teaching, and social space into a single site to promote formal and informal sharing between undergraduates, postgraduates, staff and private business.

- 8.12 The University is the anchor tenant on the park. The aim is to attract high-tech companies in pharmaceutical science, biotechnology, and other areas of scientific and industrial development onto the site. Since 2012, 7,500 sq m of technical space, 3,500 sq m of commercial space, and 3,500 sq m of innovation centre space have been developed, using an investment of over £20 million. Key developments include:

- The Park hosts the new School of Pharmacy, a part of the University's goal to co-locate businesses with academia. The Park's co-location provision provides a hub for innovation in Greater Lincolnshire. The partnership allows the Lincolnshire Co-op, which runs numerous community pharmacies, and the University to play a fundamental role in filling demand for pharmacists in Greater Lincolnshire, alongside providing a collaborative approach to addressing healthcare challenges.
- Becor House was refurbished into the Joseph Banks Laboratories in 2013, becoming a highly-specialised research facility for the Schools of Pharmacy and Chemistry and Life Sciences.
- In 2015, the University secured a £3.5 million investment from the LEP to build the Boole Technology Centre, which provided the first dedicated commercial space on LSIP. The newly opened centre accompanies the Joseph Banks Laboratories, providing offices, laboratories, and technical workshops targeted at high-growth technology firms. The Centre can rapidly reconfigure each of the units in order to accommodate business growth.
- LSIP is currently developing phase two of its plans. LSIP is offering a number of plots and new-builds built to the specification of innovation-led firms, who are seeking their own occupancy, and each plot is a minimum of half an acre in size.

Student and graduate enterprise

- 8.13 The University provides a range of support for student enterprise, including:

- The **Student Enterprise Service**, which provides students and Lincoln graduates with guidance and resources to help realise their business ideas and support self-employment.

The service is designed to be accessible and help students find ways to tackle issues they may face.

- The student-led **Lincoln Entrepreneurial Society**, supported by the Business Incubation Team. The society hosts monthly meetings with guest speakers and networking events to encourage peer-learning, cross-collaboration, and to foster Lincoln's entrepreneurial spirit.
- The **Graduate Entrepreneurship Accelerator Programme** for students, which provides training and development. The completion of 30 hours of training allows students to access a grant of £2,500 to develop their ideas. This scheme aims to educate students in business life, from financial planning through to contracting and market research. This support also continues post-graduation.
- **Graduate Internship Scheme**, offering businesses a £1,000 bursary to recruit a graduate for a minimum of 3 months.

Knowledge Exchange

- 8.14 In 2015/16, the University was allocated over £700,000 in HEIF funding, equating to around £750 per academic. This is a higher allocation on a per academic basis than the Universities of Oxford, Cambridge, Manchester, King's College London and Imperial College London.

Knowledge Transfer Partnerships

- 8.15 Knowledge Transfer Partnerships (KTP) is a relationship between businesses and universities. Its aim is to improve business competitiveness and productivity through better use of knowledge, technology and skills within the UK knowledge base.
- 8.16 A KTP runs between 26 weeks and 3 years, where an Associate (this can be a graduate or a postgraduate researcher) is employed to work within the business on an innovation project. An experienced academic from the University of Lincoln supervises the Associate and provides specialist advice.
- 8.17 The University of Lincoln has a wealth of experience in KTPs, having conducted more than 60 knowledge transfer projects to date, with 4 active currently. It operates research and knowledge exchanges in a range of disciplines, including applied agricultural science and technology, manufacturing and engineering, low carbon economy, health and social care, computer science, chemistry, media, and psychology.

Knowledge Transfer Partnership Project with GSA Environmental (GSAe)

The School of Chemistry at the University of Lincoln worked in partnership with GSAe - an engineering consultancy and metal extraction company - on a KTP project extracting metals from ash. The project was aimed at developing processes to extract metals, particularly vanadium, molybdenum, and nickel, from wastes generated in oil refining and heavy fuel oil combustion. The project entailed a mix of scientific and engineering tasks such as laboratory testing and analysis through to computational process modelling, equipment sizing and selection, and cost estimation.

Andrew Simons was placed in the company as the KTP Associate. His role was to develop an understanding of the chemistry of the metals in wastes and then exploit that understanding to develop cost effective industrial processes. The project was an extension of Andrew's previous capabilities from metals extraction in the minerals sector.

"I enjoyed the role as I had significant control over the project direction and liked acting as the "bridge" between the science and engineering activities." – Andrew Simons

The outcome of the project was a newly developed processing route for metals extraction from oil refining wastes. Ultimately application of this new technology will reduce the environmental impact of refinery wastes by removing toxic metals before the wastes are landfilled. Further, the generation of metals from these wastes reduces the need for mining of metals around the world.

The success of the project was due to the strong multidisciplinary team that was created by the KTP partnership, particularly the University's chemistry knowledge and the company's engineering knowledge. Further, it allowed GSA Environmental to access analytical expertise and equipment and feed that into the company's engineering team improving the company's technology.

The University and GSAe have since developed a partnership. GSAe now operates a state of the art laboratory based at the University of Lincoln, staffed with PhD scientists. The University and GSAe continue working together, and collaborate with the Chemistry and Engineering departments.

Innovation support

- 8.18 The University continues to support regional economic growth by applying its research to support and engage SMEs, including securing £2.1 million of European Structural Investment

Funds grant to deliver an innovation programme in Greater Lincolnshire. The University's Grow on Growth Fund, which uses a £2 million award from the Regional Growth Fund, provides financial grants to SMEs to enhance their grow-on from business incubation centres.

- 8.19 The University has recently launched a new ERDF funded innovation programme, worth £3.5 million over 3 years, to champion innovation. It aims to support 650 businesses over the period. Designed as an educational programme to inspire and educate business around innovation, the programme provides:

- Education for businesses to demystify innovation
- An innovation vouchers scheme
- An internship programme

"The University is very outward facing"

Gary Stimson, E2V Technologies Ltd.

- A leadership and management training programme
 - A diagnostic service, which will identify areas for business to improve their innovation and signpost them to further support
- 8.20 The University's National Centre for Food Manufacturing (NCFM) has 25 commercial partners, largely technological firms involved in food packaging and hygiene. The NCFM offers employers research and technical consultancy, product development support, research, product testing, and courses.

Outcomes

- 8.21 The University has been recognised for its strong entrepreneurial output and was shortlisted three times over the last four years for the Times Higher Education Entrepreneurial University of the Year. Its successes in business support and engagement have helped establish and grow local businesses and support Lincoln graduates in starting their own businesses, contributing to the local and regional economies.

Sparkhouse & Think Tank

- 8.22 In 2015/16, the Business Incubation and Growth Team engaged over 200 students, of whom 113 attended training and development workshops and 18 started their own businesses.
- 8.23 Sparkhouse and Think Tank centres supported 45 tenants in 2015/16, with an additional 63 supported as virtual tenants. 42 new businesses were started, creating over 67 new jobs. The Think Tank centre held its second "Doing It Differently" Innovation Conference, which was attended by 151 SMEs and focused on innovation.

Business support at Sparkhouse: Funky3DFaces

Chris Lightfoot set up an office within Sparkhouse, for his company ELAT3D, to use a state-of-the-art 3D printer to manufacture lifelike bones for surgeons to practise. 3D printing has innovated across industries and businesses. Lightfoot wanted to use the technology to make something fun and affordable.

Lightfoot had the idea to make minifigure heads as gifts. He then set up Funky3DFaces, which uses full true-colour printers to make small, unique, and personal gifts.

The collaborative nature of Sparkhouse meant that Lightfoot could test ideas and ask for opinions from other businesses, allowing him to come to his final idea and to work in partnership with another Sparkhouse based business to design and launch his website.

Funky3DFaces became an overnight success, receiving thousands of orders in a short space of time. This led Lightfoot to expand his business and take on more staff. Sparkhouse supported him to find a second office in Lincoln, where he took on ten temporary staff to clear the backlog of orders that going viral had brought him.

Lightfoot was also supported in recruiting an intern, who went on to take on a full-time position at Funky3DFaces.

Sparkhouse has provided Funky3DFaces with an even larger space to work from, allowing continued support from the programme and continued collaboration with other businesses based there.

- 8.24 Sparkhouse has operated routinely at nearly 100% occupancy and is heavily utilised. It has helped more than 350 businesses since its inception in 2002.
- 8.25 To date, Sparkhouse and Think Tank have supported more than 400 businesses, leading to a job creation of more than 433 jobs.

From Sparkhouse to Think Tank: Visual Print & Design

Visual Print and Design was started by Graham Hunstone, having been made redundant after 20 years of working in the printing industry.

Hunstone created Visual Design in 2009 and moved into a small start-up office space at Sparkhouse in April 2010. Sparkhouse provided him with continued support and allowed him to gather new business, despite having no sales experience in his prior career.

In 2011, he was able to employ two new members of staff, including a recent graduate from the University of Lincoln as his first graphic designer.

The business support allowed Visual Print to win its first big contract, designing and printing the *Your Lincoln* magazine on behalf of the City of Lincoln Council, worth £150,000. This contract led Hunstone to seek out larger office space, moving into a larger space in the Enterprise Building. The company was able to appoint more staff after the move.

Having grown the company, Hunstone moved from being a sole trader, which was Visual Print, to launching Visual Print and Design as a limited company. The company moved into the grow-on innovation centre Think Tank shortly after. This move allowed the company to introduce in-house digital printing and finishing.

The company invested £80,000 in a digital printing press and finishing equipment, which was partly funded by a Regional Growth Fund grant delivered by the University of Lincoln. The company was the first company to be awarded a Regional Growth Fund grant. Further investments in IT and customer management led to further success.

Indeed, in 2014 Visual Print and Design was awarded the Customer Service Award at the Lincolnshire Media Business Awards and employed its first apprentice in 2015.

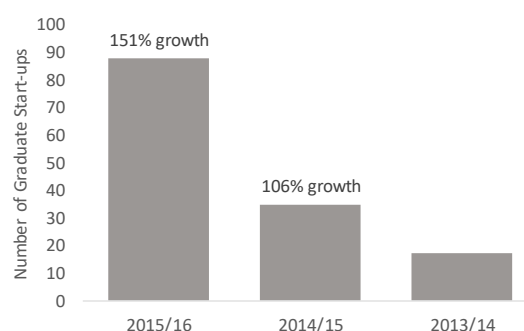
After such strong growth, the company left Think Tank and moved into its own premise at Checkpoint Court. Visual Print and Design is now seven years old, it has a turnover above £1 million and employs ten members of staff.

Graduate start ups

8.26 In 2015/16 the University recorded 88 graduate start-ups, an increase of 151% on the previous year. There were 52 active graduate start-ups in 2014/15, employing 66 FTEs and with an estimated combined turnover of £780,000. **63% of the University of Lincoln’s active graduate start-ups had survived more than 3 years** in 2014/15 compared to an average of 41% across the UK.

8.27 These graduate start-ups perform very well in receiving external investment, receiving £135,000 in 2014/15, equivalent to **58% of all external investment received by start-ups from East Midlands HEIs**. The University of Lincoln has seen strong growth in the number of graduate start-ups, as shown by Figure 8.1.

Figure 8.1 Graduate Start-ups at the University of Lincoln



Source: The University of Lincoln HEBCIS submission

Graduate start-ups: 24carrott

24carrott was started by Devon Sait, a graduate of the University of Lincoln. The free-from, street-food market stall trades at regular weekly food-specific markets and larger one-off events.

24carrott sells freshly prepared food from an entirely plant-based, vegan menu. It includes gluten-free, allergen-free, and dairy-free foods.

Sait was able to access the Student Enterprise bursary, which not only allowed access to funds but also provided support that he sees as invaluable, including feedback on his business plan and one-to-one training sessions about business.

Sait said about the Student Enterprise programme:

“Obviously the bursary itself was a great help and without it my business partner and I would have struggled to raise the funds. The process itself was also invaluable as we had access to immediate feedback on our business plan and literally any questions we were struggling with.”

This support and the bursary enabled 24carrott to apply for market applications, leading to the company’s first breakthrough when it gained a weekly spot at a Gourmet Food Market in Bedford.

Graduate Social Enterprise: New Media Lincs

New Media Lincs is a company run by Hazel Donnelly, a Lincoln School of Media MA graduate. It is an initiative which works with private and public sector organisations and provides them with media solutions.

The business is associated with the School of Film and Media at the University of Lincoln. It has a wide-ranging service offer capturing all aspects of media production: scripting, video production, digitisation, editing, animation and sound using new and novel media platforms. It also offers assistance with the time management and professional practice.

Since its establishment, New Media Lincs developed a varied portfolio of clients, including the NHS, Lincolnshire Mental Health, The Bomber Command Memorial Fund, Lincolnshire Young Farmers, Thera, Charity for the Disabled, Dance 4, Good Vibrations, Growing Opportunities, LOV Conference, DESIS Conference, University of Lincoln to name but a few.

Knowledge Exchange

8.28 The University has been growing its knowledge exchange activities quickly:

- Figure 8.2 illustrates the significant growth in **contract research income** that has taken place. In 2015/16, the University generated income of £4 million, up from £2.6 million the previous academic year. The number of contracts undertaken grew by 12% between 2013/14 and 2014/15 (the last year for which comparative data is available), against a contraction of 6% among universities in the East Midlands overall.
- **Collaborative research income** has also been growing steadily, at £2.8 million in 2015/16.
- In 2015/16, the University had an income from **consultancy** of over £700,000, for 90 contracts, a 25% increase on the previous year. On a per academic basis, this puts the University in the top 50% performing UK Universities. It generates 7% of consultancy income from all HEIs in the East Midlands, which compared to 5.8% of the region's staff

Figure 8.2 Contract research income

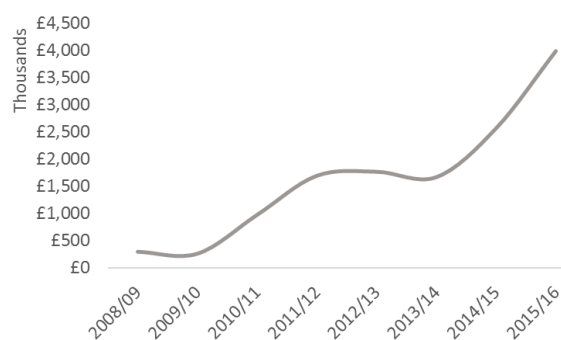
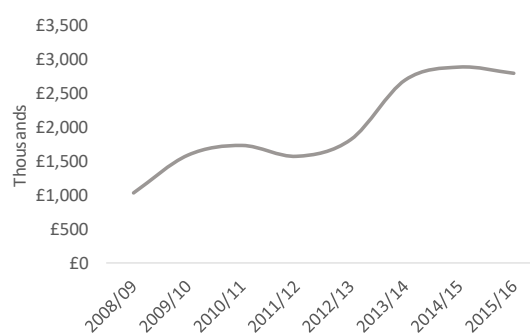


Figure 8.3 Collaborative research income



Source: HE-BCIS

Table 8.1 Research & consultancy knowledge exchange at the University of Lincoln

	2015-16	2014-15	% growth
Contract research (excluding research councils)			
Number of research contracts with SMEs	29	17	71%
Total number of research contracts	267	198	35%
Total value of contracts (£000s)	3,990	2,572	55%
Consultancy			
Number of consultancy contracts with SMEs	15	16	-6%
Total number of consultancy contracts	90	75	25%
Total value of contracts (£000s)	719	574	22%
Collaborative Research			
Total income from collaborative research (£000s)	2,789	2,881	-3%

The University of Lincoln HEBCIS Return

9. Cultural contribution

The University's Objectives

- 9.1 The University of Lincoln aims not just to create employable graduates - it also wants to retain them in Lincoln. This placemaking agenda is the fundamental driver in the University's contribution to Lincoln's culture and arts. In turn, a strong cultural offering makes Lincoln an attractive place to live, work and visit, contributing to one of the main objectives of the LEP.
- 9.2 Lincoln City Council has less control over the cultural sector in placemaking terms compared to Lincolnshire County Council. Indeed, at a time of budgetary cuts, the County Council has had to make cuts to culture and placemaking budgets. Between 2010 and 2020, Lincolnshire County Council will have seen a budget (excluding schools) that has almost halved, and will have saved £210 million per annum.
- 9.3 In this context, the University aims to use culture as a placemaking tool, acting as a strong advocate and providing local competency. The University wants its offering to be integrated into the local cultural and visitor economy ecologies, rather than seen as a stand-alone offering.

Facilities and Partnerships

- 9.4 The University is a lead organisation in the development of the cultural and creative sector in Lincoln and across Greater Lincolnshire. In its role as an anchor institution, it acts as a key channel for facilitating cultural investments and supporting the growth in the sector.
- 9.5 The University of Lincoln has established a strong partnership with Arts Council England, facilitating projects and investments into the cultural and creative sector. It is the only university out of 10 organisations the Arts Council invests with nationally, highlighting the reputation and important role which the University of Lincoln holds in the cultural and creative sector.
- 9.6 The University plans to continue growing this relationship through ongoing discussions about future work, including regional and national bids. This will bring further benefits to Lincoln as well as the sector nationally.

Lincoln Cultural and Arts Partnership

- 9.7 The University founded the Lincoln Cultural and Arts Partnership and remains a key stakeholder. Its Vice Chancellor is a Director of the partnership and the DVC for Projects is its vice chair. The partnership emerged from the collaborative work put into the Magna Carta events (see the case study below). With funding from Arts Council England, it brings together the different arms of Lincoln's cultural and visitor economy and runs a series of events intended to support local businesses and organisations in these sectors. Indeed, the concerted effort for the Magna Carta events in 2015 was the first single marketing strategy across stakeholders in Lincoln. The Partnership provides sector leadership and acts as a proactive conduit in support of the strategic development of the city, including regeneration, place making, community engagement as well as guiding the development of large scale funding bids.
- 9.8 The University is instrumental in the coordination and strategic oversight of the Partnership. Given that the city's creative sector is relatively small, the University adds value by increasing capacity and fostering ambition. On a practical level, it helps to put bids together and has previously been the accountable body for funding across the Partnership. For example, the University recently took the lead role on a bid for LEP funding for a cultural and production hub in the City of Lincoln. The

hub aspires to be a £3-£6m development anchoring creative organisations together for the first time across Lincolnshire.

- 9.9 The University has also recently set up the **Culture & Creativity Centre**, which will drive creative innovation, support interdisciplinary collaboration, and work with external partners to enhance creativity and artistic ambition in Lincoln and more widely. The centre is its first in the UK and its offering of external support continues the University's strong stakeholder role in the cultural sector.

Magna Carta 800

2015 was the 800th anniversary of the sealing of the Magna Carta by King John. The Magna Carta remains of global significance and is a cornerstone of democracy around the world, including influencing the formation of the American Constitution in 19th century. There are only four surviving original exemplifications, one of which is held in Lincoln Castle. Indeed, the rebel barons marched on Lincoln in 1215.

A series of events were organised in partnership with the City and County Councils, the Cathedral, the Castle, and other local stakeholders. The three signature projects were:

- **1215.today:** this was a digital and physical activity targeted at young people, exploring justice, power, conflict, and liberty. It involved interactions through social media, an online platform, and face-to-face interaction at innovation labs.
- **Lincoln Voices:** this project embedded world-class artists in an inter-disciplinary artists-in-residency programme in the University's Schools of Law, Politics & Social Science, Film & Media, and Fine & Performing Arts.
- **Frequency Festival of Digital Culture:** the festival followed the theme of liberation to align with the Magna Carta 800 celebrations. It is discussed in more detail below.

The Magna Carta events and the fact that Lincoln were successful in Cultural Destinations funding through the Arts Council England has helped to significantly increase the coordinative approach by the University.

The University played a key role in establishing the Magna Carta vision and facilitating the collaboration between stakeholders. Coordinating this partnership, funds in excess of £1m were secured into the City through Cultural Destinations funding from the Arts Council England alone.

The success of the Magna Carta 800 events led to the city earning a place on the top twenty visitor destinations in the UK by *the Telegraph*.

The strong partnership that emerged from the Magna Carta events became the Lincoln Cultural and Arts Partnership. The partnership has since taken on a life of its own, including making its own bids for funding. The partnership and its portfolio of successes, including these events, increases access for strategic funding in Lincoln.

Lincoln Performing Arts Centre (LPAC)

9.10 The University of Lincoln operates LPAC, a University-owned but publicly-accessible performance arts venue. Lincoln's local arts ecology has several other venues, including the Lincoln Theatre Royal and the Lincoln Drill Hall alongside LPAC. LPAC therefore operates in a niche, aiming to expand the offering in the city without displacing activity from other venues, with a combination of family-orientated and more contemporary programming.

9.11 Though the majority of LPAC's activity is live programming, outreach programmes and the infrastructure used to provide resources for them is growing. Events such as Fun Palaces, which engages local communities in arts and sciences where audiences help to dictate the programming and share in their learning, are drivers of this agenda.

9.12 LPAC is a member of the **Lincolnshire One Venues (LOV)**, a network of eleven venues across Lincolnshire to leverage extra funding into Lincolnshire collaboratively and to work together on outreach programmes, including its flagship Arts Council England supported Young People's Programme. LOV has engaged 7,300 young audience members, 4,570 young participants and performers between 2012 and 2016. It has engaged 17 internships, 8 apprenticeships and 8 work placements in the same period. This stems from 233 youth-led events, 538 artist-led workshops and masterclasses, and 1,475 decision making sessions⁴⁰.

9.13 LPAC plays a particularly important role in supporting the local cultural ecology, given the cuts in arts funding and to local authority budgets. It is able to offer performance arts that may be more risky ventures, such as contemporary performances by relatively unknown theatre companies. LPAC's programming is drawn up to provide for the local community, so alongside the riskier contemporary offering, it hosts mainstream events such as galas and an annual Christmas show.

“Without a doubt, in these changing times, I would feel the University is taking more of a leading role. Yes to students, and yes to the University, but also that it has a positive impact on the city as a whole.”

Emma Tatlow, Visitor Economy Projects Manager at the Lincoln Chamber of Commerce

Figure 9.1 LPAC



Source: University of Lincoln Image Library

⁴⁰ Lincolnshire One Venues, 2016

Engine Shed

- 9.14 The University also owns the Engine Shed live music venue, the operation of which was transferred to the Students' Union in 2014. The Engine Shed hosts concerts and shows which are open to the public alongside staff and students and is the largest such venue in Lincolnshire.

Contribution to Media and Film

- 9.15 The University of Lincoln was the first institution to offer an undergraduate degree in Media Production. Today, its School of Film & Media is ranked in the top 20 in the UK.
- 9.16 The University continues its strong commitment to the creative sector, by enabling and supporting students and staff to engage with the industry. Among the University's lecturers are multiple award-winning filmmakers, including Dr Mike Murray who lectures in Film Production and Screenwriting. Films produced by students and staff regularly receive awards from the prestigious Royal Television Society and awards from the British Universities Film and Video Council (BUFVC). The Empty Throne, a featurette produced by staff, students and graduates of the Lincoln School of Film & Media was named winner of the Educational Multimedia Award at the Learning on Screen Awards 2016.
- 9.17 The University believes in inspiring students and seeks out opportunities to work with prominent people in the world of media. In 2014, TV Gadget show presenter Jason Bradbury became a visiting lecturer at the University, followed by the appointment of Chris Packham – a TV presenter and naturalist – as a visiting professor in 2015.
- 9.18 The University works closely with industry partners to provide opportunities for their students and staff. Among them are the BBC at Media City which regularly provides students with opportunities to network, gain work experience and participate in workshops throughout UK locations.

RADAR

RADAR is run by Threshold Studios in partnership with the University of Lincoln College of Arts. Threshold Studios – a media and arts production and education company – has good links with the University and is keen on skills development in the creative sector.

The initiative is an accelerator for creative graduates looking for a head start after university by creating paid internships and bespoke mentorship pathways that nurture the emerging talent. It helps to connect graduates with industry contacts, and enables them to get first hand experience of a career in creative industries. It focuses on College of Arts graduates from within the last three years.

The success of the project is illustrated by the high return of graduates achieving employability and progression within 12 months of participation at the University's College of the Arts.

- 9.19 As well as links with national broadcasters and key industry players, the University works with local businesses to grow the sector in Lincoln by providing students with work experience and internship opportunities:
- Electric Egg - an award-winning video, photography and animation production company
 - EPIX Media - an award-winning creative company providing web, design and video solutions.
- 9.20 The University of Lincoln's cultural reach stretches far beyond the region. In fact, the University contributed to the five-year strategy for UK film, working with the British Film Institute. It has a

strong policy contact with creative industries which reaffirms the University’s reputation and influence in the sector across the UK.

- 9.21 The University’s work does not stop there. It is engaging with BAFTA to develop more partnerships, as well as with media suppliers. The University recognises that the future of creative industries is the intersection between film, television with virtual reality, digital technologies and augmented realities which will be the drivers of the sector and the University of Lincoln is at the forefront of these developments.

Outcomes

Events

- 9.22 In total, **122,830 people** attended events at the University of Lincoln in 2015/16, broken down below, This is 11% higher than in 2014/15, though a little down from a high point of 200,068 in 2013/14, as shown in 9.23 below.

Figure 9.2 Attendances at Events, 2015/16

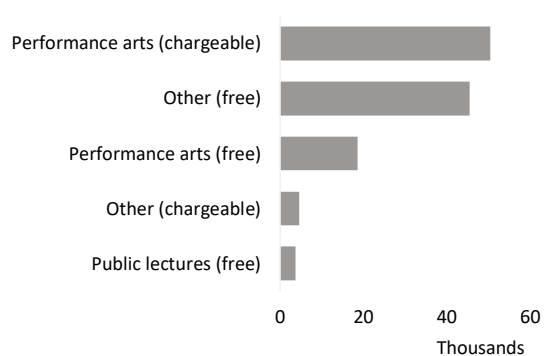
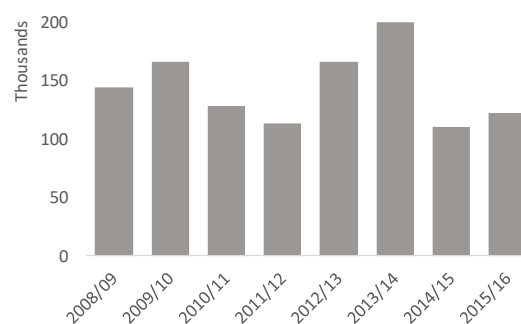


Figure 9.3 Total attendances, 2008-2015



Source: HESA, HE-BCIS Survey

- 9.23 The scale of the University’s contribution is illustrated by the fact that, of all attendances at universities in the East Midlands, around a fifth are at the University of Lincoln. Indeed, **a quarter of chargeable performance art attendees at events held by all HEIs in the East Midlands were at events at the University of Lincoln.**⁴¹
- 9.24 Alongside these, as we saw in Section 4, in 2015/16, 12,000 people attended **graduations** at the University of Lincoln (not including graduating students). Graduations are important events for most students and their friends and family, who will often go for celebratory meals, spending widely in the local visitor economy. Moreover, as students come from all over the UK and beyond, it is likely that their visitors will also use local accommodation whilst visiting Lincoln.
- 9.25 A further 421 University of Lincoln graduates returned for formal alumni events at the University of Lincoln between 2013 and 2016, which includes Meet the Grads events (where students can find out about graduates’ careers), Alumni receptions, and Alumni weekends. Of the 421, 135 attended formal events in 2016. Other informal reunions do take place, including those hosted by the Students’ Union, however for informal events attendances are not recorded.

⁴¹ Note: based on 2014/15 data, the latest available comparative data by institution.

Frequency Festival

Frequency Festival of Digital Culture is a biennial festival, which started in 2011. Frequency celebrates digital innovation and culture through exhibitions and debate. Integrated into the City of Lincoln, art installations, projections, site-specific work, talks, and live performances are showcased to a wide audience.

The festival received Grants for the Arts funding, business sponsorship and investment from the University itself, bringing the global budget to just over £462,000. Over 400 volunteers assisted with hosting and technical support, including students from the University, Lincoln College, UTC, and Bishop Grosseteste University. It was also supported by 12 RADAR interns; RADAR is an intensive graduate talent development scheme in which the University partakes.

The festival involved 18 sites with work from 121 UK and 19 international artists.

The festival involved a fusion of the new and the old, with bespoke, digital installations lining Lincoln's medieval streets. The festival finished with an interactive light, laser, and audio show by acclaimed digital artists, seeper. This installation, the One, the Few and the Many took place at Lincoln Castle as a finale, and coincided with the Magna Carta 800 events. The event received acclamation from the national press.

For the 2015 festival, which was aligned with the Magna Carta events, 17,228 people visited the festival, of which 6,288 visited from outside the City of Lincoln. 2,188 people stayed overnight in Lincoln as part of their visit. External visitors grew by 14.5% on the 2013 festival and overnight stays by 13.5%. It is estimated that the net economic impact of the additional visitor spend in the Lincoln economy of over **£500,000**⁴².

LPAC

- 9.26 30,343 tickets were sold for events at the LPAC in 2015/16, an increase of 25% on 2014/15. Ticket numbers have increased very significantly over time, with an **average annual growth rate of 46% since 2007/08** when there were just 1,435 tickets.
- 9.27 These figures do not account for users that hired the venue out or administered their own tickets and they do not include free, unticketed programme events such as bar performances, like the popular Commuter Jazz event, which sees around 80 people attending weekly jazz nights in the café bar over most of the year.

The Engine Shed

- 9.28 In 2015/16, almost 100,000 people attended events at the Engine Shed, an increase of 12% on the previous year. As the largest venue in Greater Lincolnshire, it attracts large and varied acts, including over the last two years:
- Jimmy Carr
 - Jonathon Pie
 - The Kooks
 - Sarah Millican
 - Billy Brag

⁴² S4W (2015). *Evaluation of the Frequency Festival, Lincoln 2015*

- Newton Faulkner
- Of Monsters & Men.

9.29 For its 2017 New Years' Eve event, there were nearly 2,000 attendees.

10. Social engagement

Widening Participation

Objectives

- 10.1 As one of its founding tenets, the University has pursued its widening participation agenda since its inception. Its commitment to widening participation comes from its core value that anyone with the ability to enter higher education should be able to do so. Indeed, the University was brought to Lincoln in 1996 in part due to Lincoln and Lincolnshire being a low-participation area.
- 10.2 The University's approach to fair access is rooted in its mission and values, by which it commits itself to providing access to higher education for all students who have the desire and the potential to succeed.⁴³ The University of Lincoln is also placing an increasing emphasis on improving the quality of student experience, with a view to enhance retention and student outcomes.

Key activities

- 10.3 In the academic year 2016/17, the University is projected to invest 10.1% of the additional income that it obtains by charging the higher tuition fee level of £9,000 into funding student support, which will be focused on supporting students from low income backgrounds, alongside outreach programmes, ensuring retention, and student success. An additional 3.6% of the additional income will be invested in activities relating to supporting access, student success, and progression for disadvantaged students.

Alternative entry routes

- 10.4 The University of Lincoln provides an entry route as part of the Certificate of Higher Education (Cert HE) offering, aimed at students with strong potential who may not have met the conditions of their offer. This programme allows some students to enrol on the first year of their degree programme alongside other students, but with additional tutoring and study skills support. Those students who show academic development and are committed to their studies are then permitted to progress into the second year of the degree programme alongside their cohort. This programme supports the University in its aim to provide access to those students who have the desire and ability to succeed and further supports its agenda to ensure progression and student success.
- 10.5 The University has also developed a range of work-based distance learning programmes in partnership with employers and professional bodies, which facilitate upskilling for mature students.
- 10.6 The University monitors different subjects and programmes to meet its widening participation goal and targets certain subjects specifically, such as increasing the number of young women who undertake STEM degrees. The University regularly liaises with the University of Lincoln Students' Union across its activities. It particularly collaborates with them to improve student engagement and success.

⁴³ Office for Fair Access (2016) *The University of Lincoln 2016/17 Access Agreement*

Financial support

- 10.7 The University is committed to providing direct financial support to students whilst they study in Lincoln, reducing financial pressures on students and their families. It uses its bursary scheme to support attendance and engagement in students from lower-income families. It explicitly links its bursary payments with satisfactory attendance, based on an evidence base which shows that engagement and high attendance are key to retention and student success.
- 10.8 An estimated 40% of the 2016/17 academic year's full-time undergraduate Home/EU intake came from households with an income of less than £25,000. Every student belonging to this bracket is awarded a cash bursary of £500. Additionally, an estimated 17% of Home/EU full-time undergraduate students come from families with an annual income of between £25,000 and £40,000 and receive a bursary of £500 annually⁴⁴.
- 10.9 While it is difficult to put this into the context of a national performance exactly, analysis of HESA data can serve as a useful proxy. It shows that the University consistently exceeds on widening participation measures compared to the national level:
- around 17% of students at the University of Lincoln come from low participation neighbourhoods compared to 12% across the UK.
 - and 37% from lower socio-economic backgrounds compared to 33% nationally.
- 10.10 Alongside its bursary programme, the University provides:
- a **hardship fund** worth £293,000 in each year for students who face financial difficulties whilst studying through no fault of their own and would be unable to continue their studies without additional support. The hardship fund is further used to provide students who require diagnostic assessments with the means to do so, particularly if this could result in change to their learning outcomes.
 - £1,500 per annum to students with a background of having lived in **local authority care** at any time in the five years prior to enrolment at the University of Lincoln.
- 10.11 The University invests £90,000 each year in developing study skills in some students who may enrol without having developed these skills. This includes contribution towards online support, study workshops, and one to one sessions.

Outreach

- 10.12 The University offers campus visits, student experience days, sporting events, visiting lectures, student finance workshops and guidance in schools, and summer schools as part of its outreach programme. Overall, the University interacts with approximately 600 schools in annual events and direct personal contact, and with around 3,000 schools in England every year by post. 22,600 pupils attended such events in the 2015/16 academic year.

“School children are excited by the University and believe they can achieve. They know that ‘I can do this’ because it’s on their doorstep. The University is at the heart of everything that goes on in Lincoln. It’s all about connecting with Lincoln more than just physically. It’s still very much a local University.”

Caroline Low, Director of Planning, the University of Lincoln

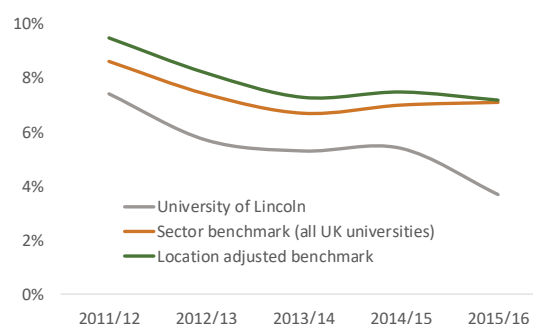
⁴⁴ Office for Fair Access (2016). The University of Lincoln Access Agreement

- 10.13 The University runs a multi-academy trust, with a primary school, secondary school, and a special school in the Holbeach area in South Lincolnshire. This area is characterised by particularly low levels of higher education participation. In its goal to raise aspirations of young people in Lincolnshire, the University has had particular success, increasing applications to higher education from the secondary school it sponsors. The University funds 5 grants worth £500 per annum for two years to students nominated by the academy, further supporting its objective to increase aspirations and engagement with higher education in Lincolnshire.
- 10.14 In January 2015, the University successfully obtained £400,000 to lead the **Lincolnshire Outreach Network**, a group of eight Lincolnshire HE and FE providers under HEFCE’s National Networks for Collaborative Outreach scheme. The University’s partners in Lincolnshire are:
- Bishop Grosseteste University
 - Lincoln College
 - Grimsby Institute
 - Boston College
 - North Lindsey College
 - Grantham College
- 10.15 This scheme will increase widening participation activities across Lincolnshire, Rutland and in some areas, beyond. It targets 14-18 year olds who live in areas identified as ‘cold spots’ in HEFCE’s 2014 research. In Lincolnshire, these low participation areas are largely rural and coastal communities and the scheme reaches 67 schools.
- 10.16 The University has committed to providing a further £50,000 of funding once the initial funding from HEFCE is spent, providing that evaluation shows the collaboration is functioning. As part of this programme, the University provides interactive and collaborative events to raise ambitions and encourage interest, whilst ensuring that activities are easy to attend. This is demonstrated by the Friday Night Takeaway, a case study discussed below.

Outcomes

- 10.17 The University’s track record for widening participation is strong, with more than 97% of its current students originating from state schools and a third coming from family backgrounds without a tradition of higher education participation.
- 10.18 The University is particularly strong in student retention and the University holds a belief that if it can get students to enrol at the University of Lincoln, then it can keep them. Indeed, the University of Lincoln has the **lowest non-continuation rate of all post-1992 universities** and second lowest out of all universities in the East Midlands, with only 3.7% of its 2013/14 full-time, first degree entrants not continuing into their second year.
- 10.19 There is a national trend of universities with high proportions of students from low participation backgrounds having high dropout rates. **The University of Lincoln bucks this trend – it ranks**

Figure 10.1 Non-continuation rates of full-time, first degree students



Source: University of Lincoln Annual Financial Reports 2015/16

third nationally in terms of the ratio of intake of students from lower socio-economic backgrounds to non-continuation rates.

- 10.20 As Table 10.1 shows, the University performs well in the participation of under-represented groups and is achieving its strategic plan target of being above HEFCE sector benchmarks. Its intake from state schools or colleges and low participation neighbourhoods is significantly better than its benchmark, whilst its intake from NS-SEC classes 4, 5, 6, and 7 is marginally better than the sector average, allowing for subject and entry qualifications.

Table 10.1 Participation of underrepresented groups (young, full-time, first degree entrants 2014/15)

	% of students	Benchmark
From state schools or colleges	97.7%	94.2%
From NS-SEC classes 4, 5, 6, and 7 (lower income)	37.1%	37%
From low participation neighbourhoods (POLAR3) ⁴⁵	17.4%	13.1%

HESA

- 10.21 In comparison to the University's targets in its Access Agreement, the University is performing very well. Indeed, as shown in Table 10.2, the **University is ahead of six out of seven of its targets a year early.**

Table 10.2 Performance of the University of Lincoln in its Access Agreement Targets

Target	2015-16 Target	2014/15 Achieved	Above/ Below Target
Proportion of full-time, first degree non-mature entrants from state schools	97.5%	97.7%	Above
Proportion of full-time, first degree non-mature entrants from NS-SEC classes 4-7 (lower income)	35.7%	37.1%	Above
Proportion of full-time, first degree non-mature entrants from low participation neighbourhoods	16.8%	17.4%	Above
Mature full-time, first degree entrants	18.8%	12.7%	Below
The proportion of young, full-time, first degree students who are not in higher education after one year of study and originate from low participation neighbourhoods	7.1%	3.9%	Below
The proportion of mature, full-time, first degree entrants who are no longer in higher education after one year of study with no previous HE qualification	7.6%	3.4%	Below
The proportion of students in receipt of DSA ⁴⁶	9%	9.9%	Above

Offa (2016) and HESA (2016)

⁴⁵ POLAR (Participation of Local Areas) 3 is a classification of small areas across the UK, which shows the participation of young people in higher education.

⁴⁶ Due to expected changes to DSA in the near-future, the University has reported to Offa that it expects this target to change, that it is seeing an increasing number of students with mental health difficulties the nature of which is not appropriate for DSA, and that this figure does not adequately reflect the work undertaken by the University to support students with disabilities.

Case Study: Friday Night Takeaway

As part of the University of Lincoln's widening participation agenda, a series of events were developed and the Lincolnshire Outreach Network was used to attract participants. These events aimed to:

- Be interactive and collaborative
- Clarify the concept of Higher Education for families with no higher education tradition
- Make higher education a less intimidating prospect for children and their families

Events covered vital topics such as finance, student life, how to pick a University, how to choose a course to study, the UCAS application process, entry-requirements and what they mean, and regional higher education opportunities.

The Friday Night Takeaway is one of these events. It is held on Friday evenings and is aimed at the parents and guardians of Year 11 students in three identified target areas: Lincoln, Boston, and Scunthorpe. The events combine the ability to take away resources and information about higher education with a takeaway meal.

It is structured around talks on Higher Education as an introduction, interspersed with interactive and collaborative games such as HE Lingo Bingo to ensure an engaging and enjoyable evening.

The event also hosts a 'marketplace' where attendees can meet representatives from local employers, organisations, and local colleges including the NHS and the armed forces to talk about opportunities.

Student ambassadors are also present in order to talk to attendees about their personal experiences and student life in a relatable and engaging way, alongside answering questions.

The inclusion of free food and child-friendly activities allows the outreach scheme to provide information whilst also meeting the need for them to be easy to attend by tackling common barriers to attendance, including a lack of childcare.

Feedback from these events suggest it is highly successful, stimulating, and allays fears about Higher Education, leaving attendees feeling more confident and informed about Higher Education. Attendees have praised the event for helping them in "*finding out what is out there to give our kids a good start,*" and "*the fun and informative session that had hands-on feel, rather than a talk/lecture.*"

Community Work

- 10.22 The University engages with the local community through a range of staff and student voluntary contributions. The University supports trusts, charities, and third-sector organisations with shared expertise, alongside the charitable work undertaken directly by students.
- 10.23 The University's work has increased significantly over time. The University invests heavily, both in staff time and financially, to support local community events and activities. It also participates in, and promotes, national community initiatives. In addition to its sponsorship of the multi-academy Lincolnshire Educational Trust which is outlined in a case study below, recent examples include the Students' Union volunteering scheme, sponsorship of achievement awards for Lincoln College, and a community partnership with Lincoln City Football Club.
- 10.24 More detailed examples include:

- Give Back Days: a scheme whereby any staff member can apply for up to 2 days in any 12-month rolling period during work day, capped at 150 days total for all staff.
- The University launched the Lincolnshire Children's University in 2015, which offers 5 to 14 year olds the chance to obtain their own Children's University degree by obtaining credits through extra-curricular activities. There is considerable support from across schools and other stakeholders to encourage children to raise aspirations towards Higher Education and Apprentice Level Education.

The University of Lincoln Students' Union

The Students' Union promotes volunteering to enhance students' positive impact on the local community and as a way in which students can gather experience for life after graduation.

In 2015/16, the Students' Union saw students log over 28,000 hours of volunteering, with each student involved volunteering an average of nearly 49 hours. The Students' Union values this at £189,615.⁴⁷

887 placements were seen over the year. In 2014/15, 628 students volunteered on community projects, an increase of 16% on the 2013/14 academic year, which the Students' Union values at £300,878.⁴⁸

The Students' Union also ran three Meet the Streets events where local residents in areas with a high density of students were invited to get to know them. In partnership with the City Council, Lincolnshire Police, and the University, the events were orientated towards improving community relations and creating strong community links.

Indeed, the Students' Union is in its fourth consecutive year of organising a clean-up of the Brayford Pool, clearing rubbish from the surroundings and the water itself. The clean-up is an example of its involvement in the community and impact.

- 10.25 In 2014/15 more than 600 staff and students registered for voluntary work in the local community. The Community Volunteers Team provides a brokering service to help fill volunteering opportunities in the local community and has supported more than 100 community partners and local branches of national charities.
- 10.26 The University runs a number of pro bono programmes, enhancing its community engagement. One example is the free legal advice service. In response to cuts to legal aid and increasing court fees, access to help and support when faced with a legal problem is increasingly hard for members of the public to find. The clinic allows students to apply their legal studies to real life situations and provides support and guidance to the public for free. There are currently 80 student volunteers working in 8 smaller firms, supported by two qualified members of staff within the law school and a former law student who is now a partner at a regional solicitors. Initially, the clinic was only available by appointment to University staff and students but in 2015 it expanded, establishing a permanent base in the Students' Union Advice centre, allowing drop in sessions. Then in 2016 it received approval from the University's Senior Management Team to open to members of the public and students' work within the clinic is formally recognised as part of their studies.
- 10.27 Another example of the University's pro bono engagement is **Cygnets PR**—a student-led public relations consultancy. Established in 2010, it undertakes pro bono work with local charities and public sector clients. Its objectives are to supplement fictional scenarios for students with real life

⁴⁷ The University of Lincoln Students' Union (2016) *Impact Report*

⁴⁸ The University of Lincoln Students' Union (2015) *Impact Report*

learning opportunities and to enhance students' CVs, whilst contributing to the community. Cygnet offers small not-for-profit firms in Lincoln free assistance that they may be unable to afford. This has allowed it to play an active, valuable role in the Third Sector across Lincoln. Cygnet has a strong relationship with the Voluntary Services Centre Lincoln, deepening its partnership with the Third Sector. Originally a voluntary programme, Cygnet project work became an assessed task in 2014 that all single and joint honours Public Relations students have to undertake, increasing its capabilities and offer—though the majority of its projects are still run by volunteers. It has included students:

- Setting up social media for clients
- Delivering training in using social media
- Making videos to explain services
- Developing fundraising programmes
- Designing community engagement programmes
- Liaising with local media
- Designing and editing websites, including blogging
- Organising events
- Developing advertising and brand development, including producing leaflets and promotional materials.

Lincolnshire Educational Trust: work with Schools in Holbeach

The University of Lincoln is the principle sponsor of the multi-academy trust (MAT) and the Lincolnshire Educational Trust (LET). The LET educates nearly 1,700 young people in its three academy schools: University Academy Holbeach, Holbeach Primary Academy, and Gosberton House Academy.

The MAT operates in South Lincolnshire, which has been characterised by significant educational underachievement. Indeed, according to the most recent POLAR data, only 7% of eligible age groups entered higher education.

By sponsoring the LET, the University is seeking to raise aspiration and attainment in South Lincolnshire, widening participation in higher education, and enhancing social mobility.

As principle sponsor, the University appoints the Chair of the Trust, manages the Trust's finances, and provides support. The Trust sets out its own strategic framework and empowers each of the Schools' Principals with a key focus to optimise pupil progress based on the needs of each school.

Steve Baragwanath, Principal of the University Academy Holbeach said: "It's a real pleasure to be part of the University Trust as there is always help if required, but freedom to lead your Academy."

There has been a discernible increase in the number of students going onto higher education since the Trust was founded. The number of sixth form students going to university from the University Academy Holbeach has risen from just 6 in 2010 to 34 in 2015. On average, 70% of these students are the first in their family to go to university.

Psychology students at the University are also working with pupils and staff at Gosberton House Academy to research autism. It is hoped that the results of this work will help to improve educational outcomes for children with autism-spectrum conditions.

LET is keen to expand the number of schools of which it is formed, though it plans only to do so in a steady and controlled manner.

11. Future Investment Plans

- 11.1 It is evident from our preceding analysis that the University has grown and achieved considerable success. The Strategic Plan to which the University has committed itself promises to continue these successes. It will further its reputation for innovation in higher education, be a popular institution with a distinctive approach to education, and continue its strong commitment to partnerships and engagement with students and external partners.
- 11.2 The University of Lincoln is continuing its strong growth programme. It is investing in its campus and has already committed £60 million. It is expected to invest upwards of £130 million in its next phase of growth, to 2022. It is using investments from the Higher Education Funding Council for England, the Greater Lincolnshire LEP, Siemens, and the European Investment Bank in its growth plans, with which it hopes to continue to support regional economic growth.
- 11.3 Key developments include the recently completed Isaac Newton Building, which houses the College of Science; an expansion of the library, a new student support centre, and a further expansion of the National Centre for Food Manufacturing in Holbeach. A maximum of 100,000 square metres of additional, flexible floorspace could be created on campus, within the terms of its approved masterplan.
- 11.4 The University's plans for its campuses emphasise linking the campus to the rest of the city, improving connectivity to the city centre and building on the permeability of the campus, originally outlined in the 2001 masterplan. Indeed, the University will continue to develop the Lincoln Science & Innovation Park, which is integrated into the campus.
- 11.5 The University hopes to continue to grow its student numbers and is investing £25 million in student accommodation as well as in academic departments in which to accommodate them.
- 11.6 The University's trajectory is that of growth in many forms: growth in terms of student numbers, growth in terms of research output, and growth in terms of economic impact. Clearly, as the University continues to expand, its economic impacts will too increase.

Appendix A - Technical Appendix

Economic Footprint

Direct

A.1 Direct impacts refer to the employment and wealth creation resulting from the University's activities, measured in terms of Full Time Equivalent (FTE) employment and Gross Value Added (GVA):

- **Employment** numbers have been sourced from a snapshot from the University's HR database covering the 2014/15 academic year. This captures the number of direct employees by type (academic/professional and support), mode (Full-Time/Part-Time), contract terms (permanent/temporary), residential location and gross salary. Employee headcount has been converted to FTEs based on their contracted hours.
- **Gross Value Added (GVA)** is the key measure of economic output at the level of a firm, sector or region. It is measured as the sum of employment costs and surplus before interest, depreciation, amortisation and taxes.

Indirect

A.2 Indirect impacts refer to the economic activity supported by the University's external expenditure (capital and revenue) on local suppliers. This expenditure creates employment and value added within the University's immediate suppliers and within all subsequent tiers of the supply chain, as the University's suppliers make purchases from their own suppliers, and so on.

A.3 The University holds a database of expenditure on external suppliers, which contains information for each supplier on their location, the total level of University spend and their account description.

A.4 We mapped the University's account descriptions onto the Standard Industrial Classification (SIC) contained in Regeneris Consulting's Input-output model for UK and the regions, and used the postcode information to determine the location of each supplier.

A.5 The full economic impacts of this expenditure were then estimated using our input-output model. The model is based on data from the UK National Accounts and allows us to estimate the supply chain and induced multiplier effects from an initial injection of expenditure in a particular sector.

Induced

A.6 Induced effects refer to the effects of spending by employees whose jobs are supported directly within the University and indirectly within its supply chain:

- Impacts from expenditure by the University's employees have been estimated using data on wages and salaries from the University's HR database, adjusting for income tax (PAYE), National Insurance contributions, pension contributions and saving rates. Different rates of leakage of expenditure are assumed for the different geographies. Our input-output model has been used to estimate the economic impacts from this spending.
- Impacts from expenditure by employees in the supply chain have been estimated using the Type 2 (indirect and induced) multipliers within our input-output model.

Student expenditure

- A.7 Expenditure by the University's students is an important source of the University's economic contribution. The National Student Income and Expenditure Survey, published by BIS, provides detailed data on the spending behaviour of students in UK universities, split by full-time/part-time students and the goods and services purchased (other breakdowns are also available). We have used this data, along with the University's data on the student population, to estimate the economic impacts of this expenditure.
- A.8 The approach is as follows:
- 1) Determine how many full-time and part-time students live in each impact area, split by those who live in university-owned accommodation and those who live in other accommodation
 - 2) Analyse how many of these originally came from outside the impact area before moving to study there – this includes both domestic and international students
 - 3) Apply the average expenditure per student (split by full- and part-time) to these breakdowns of the student population (excluding expenditure which represents a transfer to the University, such as tuition fees and rents, for those living in University accommodation)
 - 4) Allocate this expenditure to sectoral categories in our input-output model, using a best fit analysis of the categories in the Student Income and Expenditure Survey
 - 5) Apply leakage rates for each of the impact geographies, to each expenditure category
 - 6) Estimate the economic impacts from this expenditure using our input-output model.
- A.9 We have estimated the total economic impact from this expenditure, as well as the portion which comes from students who were originally from outside the impact area.

Skills and productivity impacts

- A.10 Productivity impacts have been based on evidence of earnings uplifts for different types of degree, along with the productivity captured by their employers in the form of higher profits or increased competitiveness, and by co-workers or other employers due to the transfer of knowledge.
- A.11 To estimate these economic benefits, the study has drawn upon research that measures the Net Present Value (NPV) of the additional earnings and employability benefits that individuals can expect to achieve by gaining a postgraduate degree compared to people who do not hold a postgraduate degree.
- A.12 The NPVs for different degree types and sector subject areas are applied to all those University graduates who had found employment (using data from the DLHE 2014/15 survey). A series of adjustments are applied to account for the difference in earnings between geographies, the benefit of increased productivity and the financial costs incurred by undertaking a degree.

Visitor Impacts

- A.13 Two sources of visitor impact have been examined.

- A.14 Firstly, the impacts from visits by students' friends and family. There is no direct data available on this, so we have estimated it using data from Visit Britain on the average spend of visitors to the East Midlands, and assuming that each student receives on average 1 visit per term. The economic impacts from this expenditure are then estimated using our input-output model.
- A.15 We do have data on the number of visits to graduations, open days and UCAS events, but there is no data on their origin or spending behaviour. We have therefore assumed that the visitor origin follows the profile of all students at the University and then used STEAM data to estimate their average expenditure. Economic impacts are then estimated using our input-output model.

Appendix B - Consultees

- Vicky Addison, Head of Business Incubation & Growth, University of Lincoln
- Justin Brown, Commissioner for Economic Growth, Lincolnshire County Council
- Sukhy Johal MBE, Founding Director for the Centre of Culture and Creativity, University of Lincoln
- John Latham, Director of DVC Projects, University of Lincoln
- Ursula Lidbetter, CEO Lincolnshire Cooperative
- Caroline Low, Director of Panning, University of Lincoln
- Craig Morrow, Artistic Director of Lincoln Performing Arts Centre, University of Lincoln
- Gary Stimson, Product Manager, E2V Technologies Ltd.
- Emma Tatlow, Visitor Economy Project Manager, Lincolnshire Chamber of Commerce
- Paul Squires, Professor in Biomedical Science, University of Lincoln
- Michael Christie, Reader, University of Lincoln
- Suzannah Turner, Research Projects Manager, University of Lincoln
- Val Braybrooks, Dean of Holbeach & NCFM, University of Lincoln
- Sarah Barrow, Deputy Head of College, University of Lincoln
- Niro Siriwardena, Professor of Primary & Pre-Hospital Health Care, University of Lincoln
- Jacqueline Grey, Industry Liaison and External Relationships Manager, University of Lincoln
- Heather Hughes, Professor of South African Studies, University of Lincoln
- Simon Pearson, Director of Lincoln Institute for Agri-Food Technology, University of Lincoln
- Andrew Simons, Principal Process Development Engineer, GS Ae
- Lynda Crosby, Careers and Employability Manager, University of Lincoln
- Mark Stow, Head of Careers & Employability, University of Lincoln.



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