The future impact of the members of Yorkshire Universities: an assessment

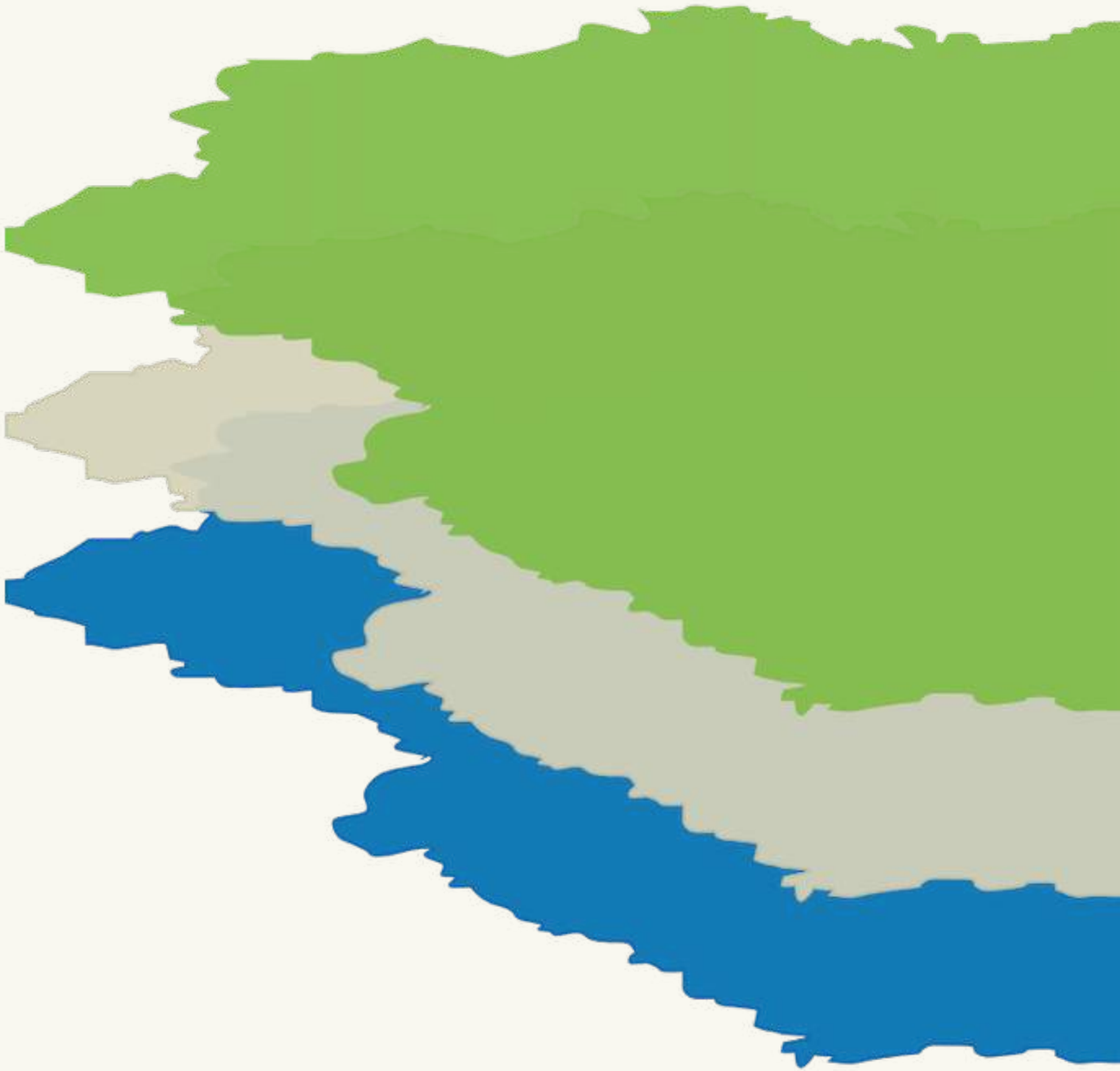
June 2022

About this report

Since 1987, Yorkshire Universities (YU) has been the regional voice for higher education in Yorkshire.

This analysis presents a forecast of the impact of YU member institutions – the universities of Bradford, Huddersfield, Hull, Leeds, Leeds Beckett, Leeds Trinity, Leeds Arts, Sheffield, Sheffield Hallam, York, and York St John, as well as the Leeds Conservatoire – over the next five years.

Analysis and design by Open Impact.
Contact: james.ransom.16@ucl.ac.uk.



Methodology

This analysis uses historic data to predict future impact. The changing economic and policy environment means that the actual impact could differ.

Projections are based on the latest open-access data from the Higher Education Statistics Agency (HESA), UK Research and Innovation (UKRI), and the Office for National Statistics (ONS). Links to datasets are provided under each table.

A full methodology with contextual information, detailed assumptions (including that past trends continue and that the economic and policy environment remains stable), and details of calculations by table is available separately. For most tables, trend analysis involves applying a line of best fit to the data. The benefits and limitations of this approach are detailed in the full methodology.

YU member institutions will train over **15,000** nurses, **5,400** medics, and **19,700** teachers over the next five years.

Image: Window of a business, Leeds

Table 1: Projection of the number of key workers who will be trained by YU member institutions over the next five years

Nurses	Medics	Teachers
15,050	5,400	19,700

Modelled on: HESA Student Data survey 2020/21

YU member institutions will also meet the skills needs of the broader economy. **66%** of employers in Yorkshire & Humber anticipate a need for upskilling in the next 12 months. Demand for higher level skills is projected to continue rising throughout the decade.

Source: Employer Skills Survey table 189; Working Futures 2017-2027, p.119. Image: Hull

By June 2027, YU member institutions will have delivered the equivalent of **3,442** years of professional development training and education courses to businesses and charities.[1]

[1] To put this in perspective, 3,500 years ago the ancient Egyptian empire was at its height.

Table 2: Forecast of the number of days YU member institutions will provide training and upskilling to businesses and the community over the next five years

1 year	18 months	2 years	5 years
209,328	318,928	439,150	1,256,197

Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data

Over 90% of YU member institutions have an enquiry point for small businesses and **three quarters** have a service to help enterprises understand their needs.

Image: Small business, York

Table 3: The percentage of YU member institutions providing specific forms of support to businesses

An enquiry point for SMEs	Assistance to SMEs in specifying their needs	Distance learning (online course content)	Continuous work-based learning	Short bespoke courses for business on campus	Short bespoke courses at business premises	Extra-mural courses for the public
92%	75%	75%	83%	83%	83%	83%

Data source: Higher Education Business and Community Interaction (HEBCI) survey data 2019/20

Over the next five years, YU member institutions will be commissioned to provide **£989 million** of support and services to small enterprises, businesses and not-for-profits.

This includes specialist advice, access to the latest facilities and equipment to develop innovative products, and conducting bespoke research projects.

Image: Sheffield

Table 4: The forecast value of services provided by YU member institutions to SMEs, businesses and not-for-profits over the next five years

1 year	18 months	2 years	5 years
£195,344,040	£293,323,613	£391,918,294	£989,002,168

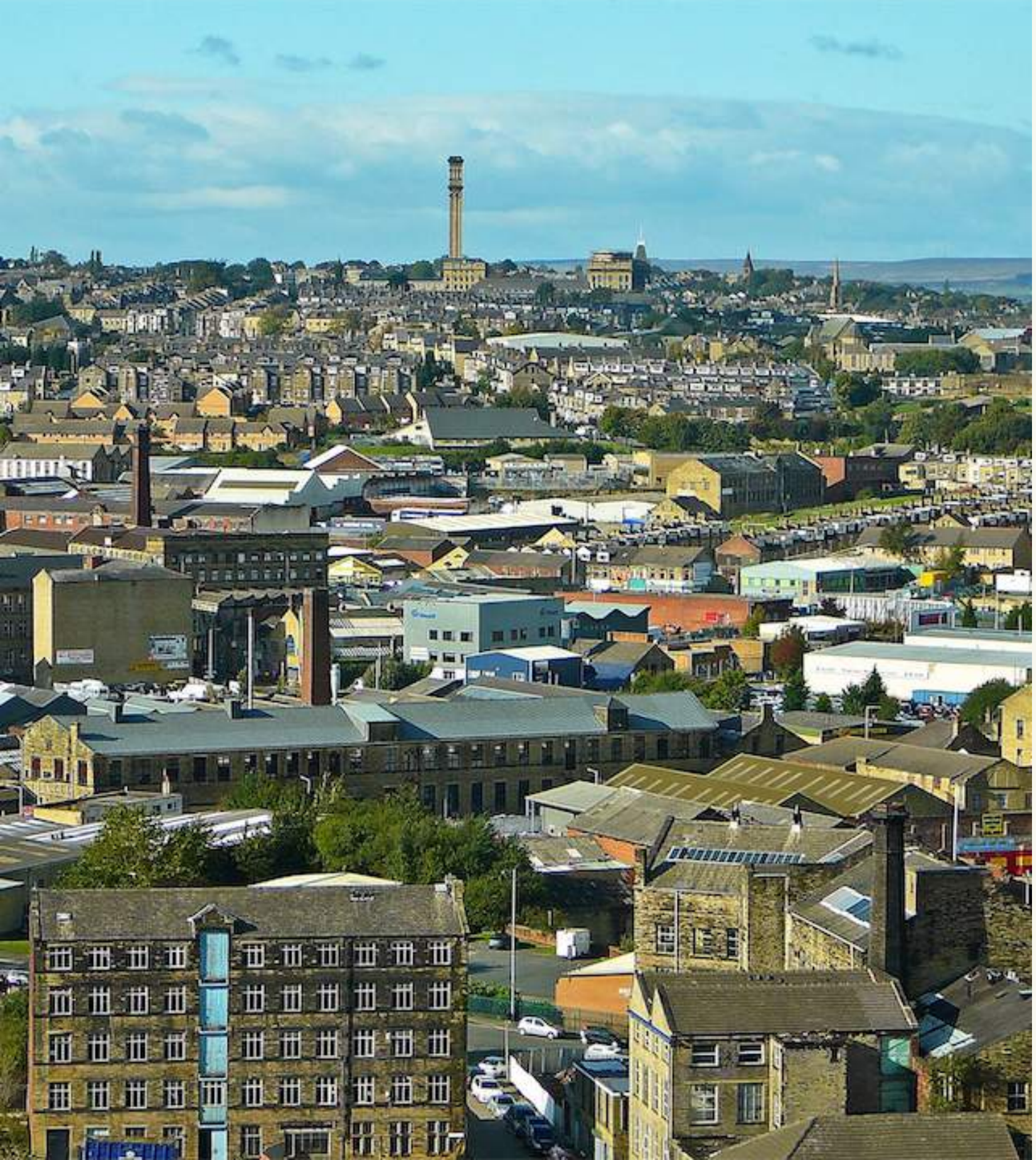
Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data

YU member institutions also attract public funds to spend on collaborative research with businesses and non-academic organisations. This was worth **£1.4 billion** over the past five years, and is expected to increase to over **£2.2 billion** over the next five years.

Table 5: The forecast value of research between YU member institutions and non-academic partners, involving public funding, over the next five years

1 year	18 months	2 years	5 years
£389,581,325	£590,894,196	£805,251,485	£2,208,367,294

Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data



This research translates into impact in priority sectors. YU member institutions have been awarded over **£170 million** of competitive funding from Innovate UK since 2014. This funding has a focus on collaboration with business, and showcases areas of research and industry strength – especially in manufacturing.

Image: Bradford

Table 6: Competitive funding awarded to YU member institutions by Innovate UK in thematic areas 2004-2022

	Innovate UK funding
Ageing Society, Health & Nutrition	£17,549,893
AI & Data Economy	£6,324,121
Clean Growth & Infrastructure	£10,790,454
Manufacturing, Materials & Mobility	£135,751,891
Total	£170,416,359

Data source: Innovate UK

Over the next five years, YU member institutions are forecast to form over **1,000** new companies and charities. These include university spin-offs, social enterprises, and graduate and staff start-ups.

Image: Huddersfield

Table 7: The forecast number of new companies and charities to be formed because of YU member institutions over the next five years

1 year	18 months	2 years	5 years
207	310	413	1,034

Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data

YU member institutions have a track record of attracting funding for local regeneration projects with significant economic and social impact. Over the past five years these had a value of over **£85 million**. Over the next five years, these will have a value of over **£96 million**.

Table 8: The forecast value to the economy of regeneration projects YU member institutions are involved in over the next five years

1 year	18 months	2 years	5 years
£18,105,261	£27,302,546	£36,789,141	£96,303,008

Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data

Over the past five years, YU member institutions delivered public events to **24 million** people. This is equivalent to every person in Yorkshire & Humber attending more than 4 events. Over the next five years, this figure is forecast to rise to over **62 million** attendees.

Table 9: Forecast of the number of people attending public events delivered by YU member institutions over the next five years

1 year	18 months	2 years	5 years
9,909,065	15,191,782	21,130,867	62,716,181

Modelled on: Higher Education Business and Community Interaction (HEBCI) survey data. Includes music, art and drama performances, public lectures and exhibitions, and television and radio programmes.

YU member institutions also have a direct impact on their local economies as large employers, and the spending of staff and students. Students add to the pool of local skills, and some will set up their own firms in the region.

Image: Leeds

About a third of students studying in Yorkshire are originally from the region.

The number of 18 year olds in Yorkshire is projected to increase by **18% between 2018 and 2030**, meaning potentially large growth in demand for higher education in the region over the next decade.

Sources: Yorkshire Universities; Wonkhe

Table 10: The number of students at YU member institutions (full-time equivalent, 2020/21)

	Students
YU member institutions	**183,515**

Data source: HESA Student Data survey 2020/21. Image: Sheffield

Table 11: The number of staff at YU member institutions (full-time equivalent, 2020/21)

	Staff
YU member institutions[2]	**28,470**

[2] Two universities opted out from full submission of staff data. See methodology for details.

Data source: HESA Staff Data survey 2020/21. Image: York

1.24% of people in employment in Yorkshire & Humber work for a university. That's **1 in every 89** people.

Table 12: The percentage of people in employment who are employed by YU member institutions

	Employees
YU member employees	31,475
Yorkshire & Humber total employees	2,533,000
Percentage employed by YU members	1.24%

Data sources: HESA Staff Data survey 2020/21; ONS labour market in the regions of the UK report

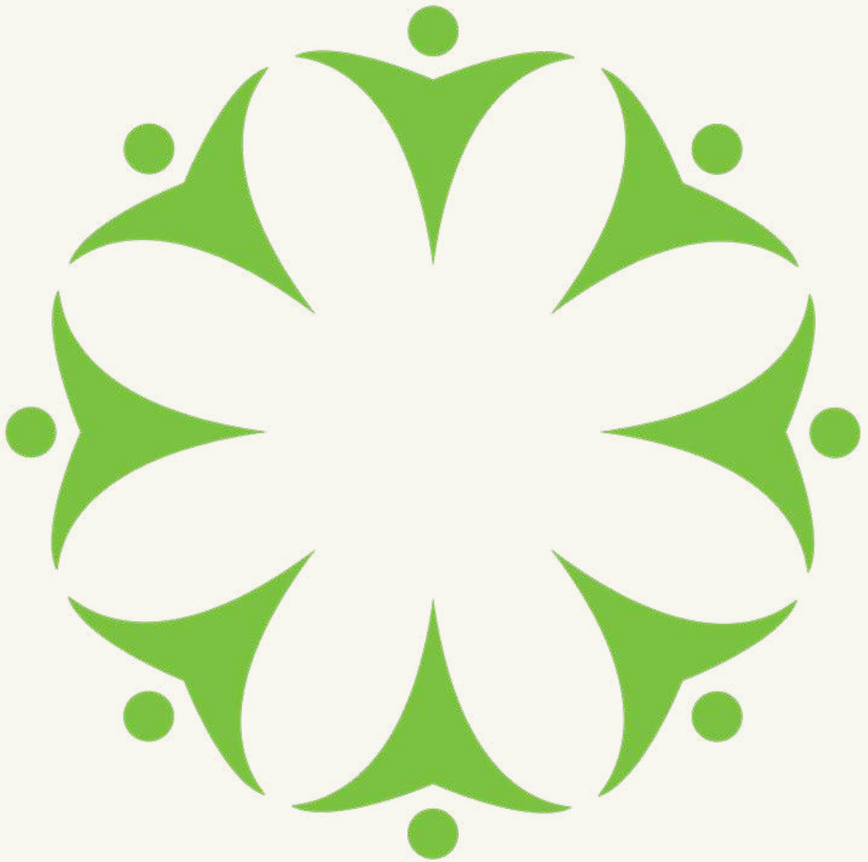
YU member institutions spend nearly **£1.5 billion** a year on their staff. University employees spend part of their income in the local economy, on goods and services in a range of sectors.

Image: Hull

Table 13: Expenditure of YU member institutions on staff (2019/20)

	Expenditure on staff
YU member institutions	**£1,497,058,000**

Data source: HESA finance returns 2019/20. Image: Leeds



yorkshireuniversities.ac.uk

Methodological note

The future impact of the members of Yorkshire Universities: an assessment

Introduction

This research uses historic data to predict the future impact of the twelve members of Yorkshire Universities: the universities of Bradford, Huddersfield, Hull, Leeds, Leeds Beckett, Leeds Trinity, Leeds Arts, Sheffield, Sheffield Hallam, York, and York St John, as well as the Leeds Conservatoire. The exact methods differ depending on the data source and are detailed below. However, we make several assumptions: that the economic and policy environment remains stable, that universities continue to be able to engage in similar activities and are supported to do so, and that demographic trends and the number and make up of businesses remains the same.

Given the widespread disruption of COVID-19, and other events with wide-reaching effects such as the UK withdrawal from the EU, the rising cost of living, and Russia's invasion of Ukraine, conditions have changed markedly and will affect the forecasts. Understanding the implications of policy changes is also complex. For example, the end of support from the European Structural and Investment Funds (ESIF) programme in 2023 will mean UK nations and English regions are unable to access this funding, which has underpinned many job creation and regeneration projects. However, the UK Shared Prosperity Fund (UKSPF) offers £2.6 billion of funding for local investment by March 2025 (although concerns have been raised about the fund itself, and the potential for a gap in funding). In addition, specific policies and institutional practices may affect the accuracy of forecasts – where known these are detailed below.

General observations

Data accessed June 2022.

All forecasts are projected from a start date of 1 June 2022.

Information on English regions (NUTS1), LEPs, city regions or other territorial units is not included in all datasets and has been manually added where missing.

Several datasets have been updated since the 2021 Universities UK (UUK) forecasting report (*Universities and the UK's economic recovery: an analysis of future impact*). The composition of higher education providers can also change from year-to-year. Therefore this analysis cannot be considered directly comparable to that contained in the UUK report.

Year-on-year falls in figures, even where slight, can result in negative trends when projected forwards. Where a negative forecast is nonsensical – for example minus 100 of days of training provided to business – it has been recorded as zero.

The statistic on the number of employers who anticipate a need for upskilling in the next 12 months is taken from table 189 of the Employer Skills Survey (ESS) 2019. The survey collected data from over 81,000 employers.

Methods by data table

Data table 1 is based on university returns to the HESA Student Data survey 2020/21. Subjects are classified according to HESA's Common Aggregation Hierarchy (CAH), which allows us to pull out data on enrolments and qualifiers in key worker fields. The category of 'nursing' constructed for this research, for example, includes nine different fields, ranging from mental health nursing to midwifery. The category of 'medics' (constructed for this research) includes medicine by specialism (CAH01-01-03), medicine (non-specific) (CAH01-01-02), and medical sciences (non-specific) (CAH01-01-01), but excludes dentistry (CAH01-01-04). This subject coding system was introduced in the 2019/20 data release.

In these returns, HESA distinguish between all those enrolled in a course, and those who graduated with a qualification in the period of the survey (2020/21). Those *enrolled* represent the stock of students working their way through university, in different years of study. This is the pipeline. *Qualifiers* are those who have now finished their programme of study. The projection of key workers over the following years is based on the most recent year of qualifiers. Numbers will fluctuate from year-to-year.

Data tables 2, 4, 5, 8 and 9 are taken from the Higher Education Business and Community Interaction (HEBCI) survey, managed by HESA. Up to seven years of data was analysed (2014/15 to 2020/21). Institutional data was extracted, and then a trend analysis applied. In basic terms, this applies a line of best fit to the data (using the least squares method), and then extends it forwards over the time scale we choose – in this case, yearly intervals from the start of June 2022. This allows us to 'smooth out' any unusual peaks or dips in the data and pick out overall trends, although it remains an imperfect science best suited for illustrating the overall direction of travel.

Plotted forecasts were then summed to form cumulative totals for one year, 18 months, two years, and five year projections. In other words, the projected figure for five years is the total of the forecast figures for five separate years: 1 June 2023, 1 June 2024, 1 June 2025, and so on.

Table 9 shows the forecast of the number of people attending public events. These include music, art and drama performances, public lectures and exhibitions, and television and radio programmes, and therefore impact extends outside of the region. The calculation of the population of Yorkshire & Humber on the preceding page is based on mid-2020 figures from the Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland Dataset published by the Office for National Statistics.

Data table 3 shows the overall provision of particular services as indicated in 2019-20 HEBCI survey (this information was suspended from the 2020-21 survey but may be reintroduced in future pending the ongoing HEBCI major review).

Data table 6 presents information on projects funded by Innovate UK between 2004 and March 2022 in four major sectoral areas which make up the majority of overall funding. Total project

funding is usually higher than the amount provided by Innovate UK, as partners also give cash or in-kind contributions. The *Universities and colleges and the Industrial Strategy: exploring data on knowledge exchange, research and skills* report technical appendix (PDF, 466kb) has a good summary of the strengths and limitations of this dataset.

Data table 7 is the forecast of newly registered companies. It is also drawn from the HEBCI survey, and data was analysed from 2014/15 to 2020/21. Given the lower figures here compared to income data, and greater volatility, an average was calculated of spin-offs created per provider per year over the past five years, rather than a trend analysis. This average was then projected forwards over the different timeframes.

Data tables 10 and 11 are drawn from HESA data for 2020/21, and are calculated on an FTE basis for comparability and a more accurate reflection of contribution. The data for staff is an under-count: from 2019/20, it is not mandatory for higher education providers in England and Northern Ireland to return information about non-academic staff, and 66 providers opted out, including the universities of Huddersfield and York.

Data table 12 uses the same data as above for staff numbers, but on a headcount basis and excludes atypical staff. This is to allow calculation of the proportion of employment in Yorkshire & Humber on the basis of Office for National Statistics figures, which are from the ONS labour market in the regions of the UK report March 2022.

Data table 13 shows university expenditure on staff. It is extracted from the 'consolidated statement of comprehensive income and expenditure' in the HESA finance returns for 2019/20.

Sources for data tables

1. https://www.hesa.ac.uk/data-and-analysis/students/table-51
2. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-2b
3. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-a
4. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-2a
5. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-1
6. https://www.gov.uk/government/publications/innovate-uk-funded-projects
7. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-4e
8. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-3
9. https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-5
10. https://www.hesa.ac.uk/data-and-analysis/students/table-2
11. https://www.hesa.ac.uk/data-and-analysis/staff/table-6
12. https://www.hesa.ac.uk/data-and-analysis/staff/table-1; https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/regionallabourmarket/march2022
13. https://www.hesa.ac.uk/data-and-analysis/finances/table-1