



**QUEEN'S  
UNIVERSITY  
BELFAST**



**LE**  
**London  
Economics**

## **The economic impact of Queen's University Belfast**

**Pulse update**

**London Economics, April 2025**

# Overview of components

London Economics were commissioned to assess the **economic impact of Queen's University Belfast**, focusing on the **2022-23 academic year**. The analysis is split into:



The impact of the University's **research and knowledge exchange activities**;



The impact of the University's **teaching and learning activities**;



The impact of the University's contribution to **educational exports**; and



The impact of the University's **operating and capital expenditures**.

The study follows our two previous similar analyses of the University's impacts, which focused on the 2015-16 and 2020-21 **academic years**. Importantly, this study is a **'pulse' report**, ahead of the next full economic and social impact analysis for the 2025-26 academic year. As such, we have used publicly available data where possible, rather than requesting the level of detailed information that would usually be requested. Therefore, we have not undertaken the analysis in the same level of detail as those previous studies. Nevertheless, this report provides an indication of the direction of the University's impact since the previous study.



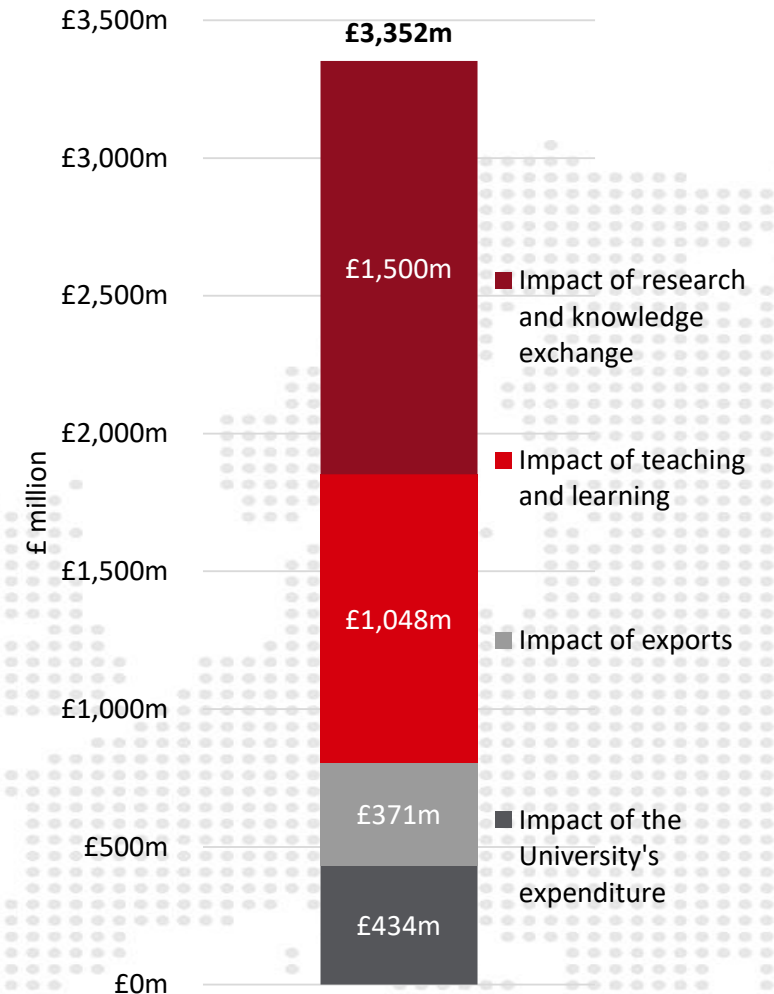
# £ Summary: Total economic impact



# Total economic impact of Queen's University Belfast

- The **total economic impact** on the UK associated with Queen's University Belfast's activities in 2022-23 was estimated at approximately **£3.35 billion**:
  - The University's **research and knowledge exchange activities** account for approximately **£1.50 billion (45%)** of this impact;
  - The value of the University's **teaching and learning activities** stands at **£1.05 billion (31%)**;
  - The impact of the University's **educational exports** stands at approximately **£371 million (11%)**; and
  - The impact generated by the University's **operating and capital expenditure** stands at **£434 million (13%)**.
- Compared to Queen's University Belfast's operational costs of **£441 million<sup>1</sup>** in 2022-23, this corresponds to benefit-to-cost ratio of approximately **7.6:1**.

Total economic impact of Queen's University Belfast's activities in 2022-23



Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

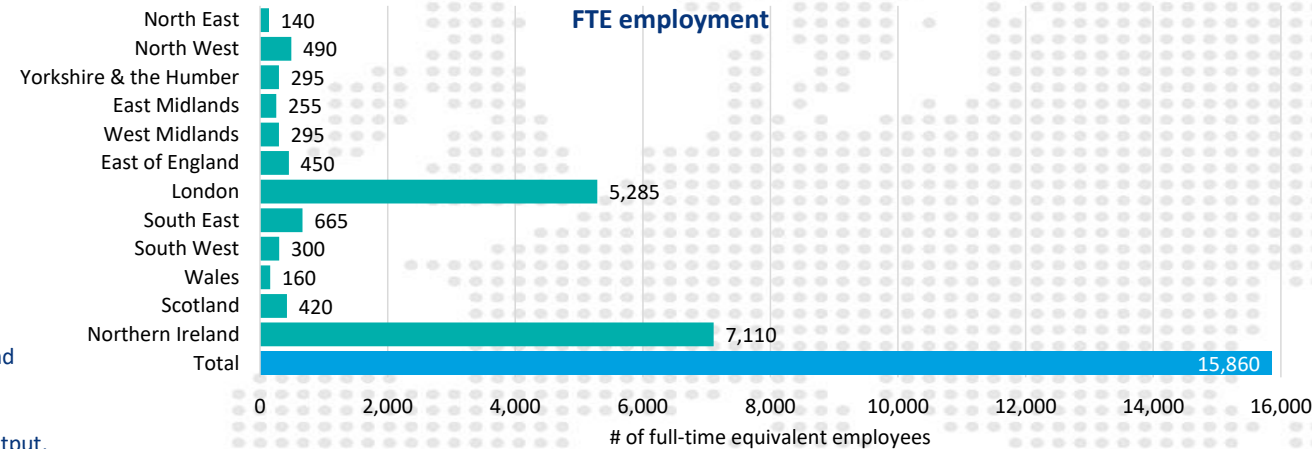
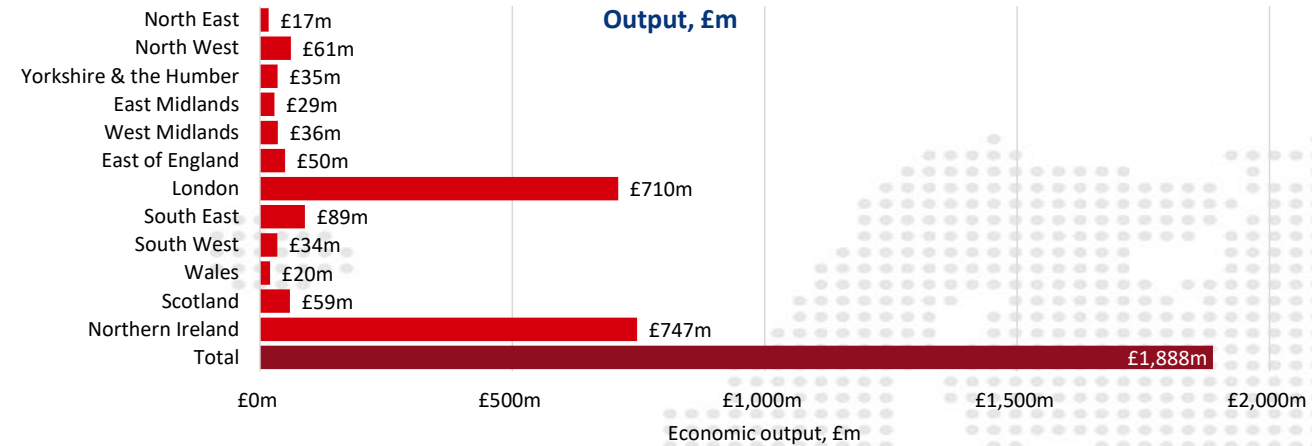
1. From the University's total operating expenditure (excluding capital spending) in 2022-23 (£441m), we excluded a total of £1m in depreciation and amortisation and movement in pension provisions, as it is assumed that these cost items are not relevant from a procurement perspective (i.e., these costs are not accounted for as income by other organisations). Totals do not sum due to rounding.



# Total economic impact of Queen's University Belfast

## Total economic impact (in terms of output and FTE employment) of the University's activities in 2022-23, by region (where possible)

- Part of the University's economic impact can be broken down by region<sup>1,2</sup>. This was achievable for approximately **56%** of the University's total impact (**£1.89 billion** of the total of **£3.35 billion**).
- In total, **40% (£747 million)** of the University's identifiable impact by region occurred in Northern Ireland, with **38% (£710 million)** taking place in London<sup>3</sup>, **5% (£89 million)** occurring in South East England, and **3% (£61 million)** occurring in North West England. The remaining impact took place throughout the rest of the UK.
- In terms of employment, the University's activities in 2022-23 supported approximately **15,860** FTE jobs throughout the UK, with **7,110 (45%)** of these jobs located in Northern Ireland, and **5,285 (33%)** supported in London.
- The University directly employed **4,175** full-time equivalent staff and supported a further **11,685** jobs through its activities.



- Specifically, it was possible to disaggregate the direct, indirect, and induced impact of the University's research and knowledge exchange activities (**£1,084 million**, excluding productivity spillovers from research); the impact of the University's educational exports (**£371 million**); and the impact of the University's expenditures (**£434 million**).
- A full breakdown of the impact results for *each strand* (as well as in total) by region *and* sector, and in terms of output, employment, *and* GVA, will be provided in a data dashboard.
- As discussed in the [research and knowledge exchange section](#), this large impact in London is due to the University's largest spinout being headquartered in London. As much of that spinout's activities take place in Northern Ireland despite its headquarters being in London, it is likely that the impact on Northern Ireland is underestimated.

Note: Monetary estimates are presented in 2022-23 prices, and employment estimates are rounded to the nearest 5. Totals may not add up precisely due to rounding.



# Total economic impact of Queen's University Belfast

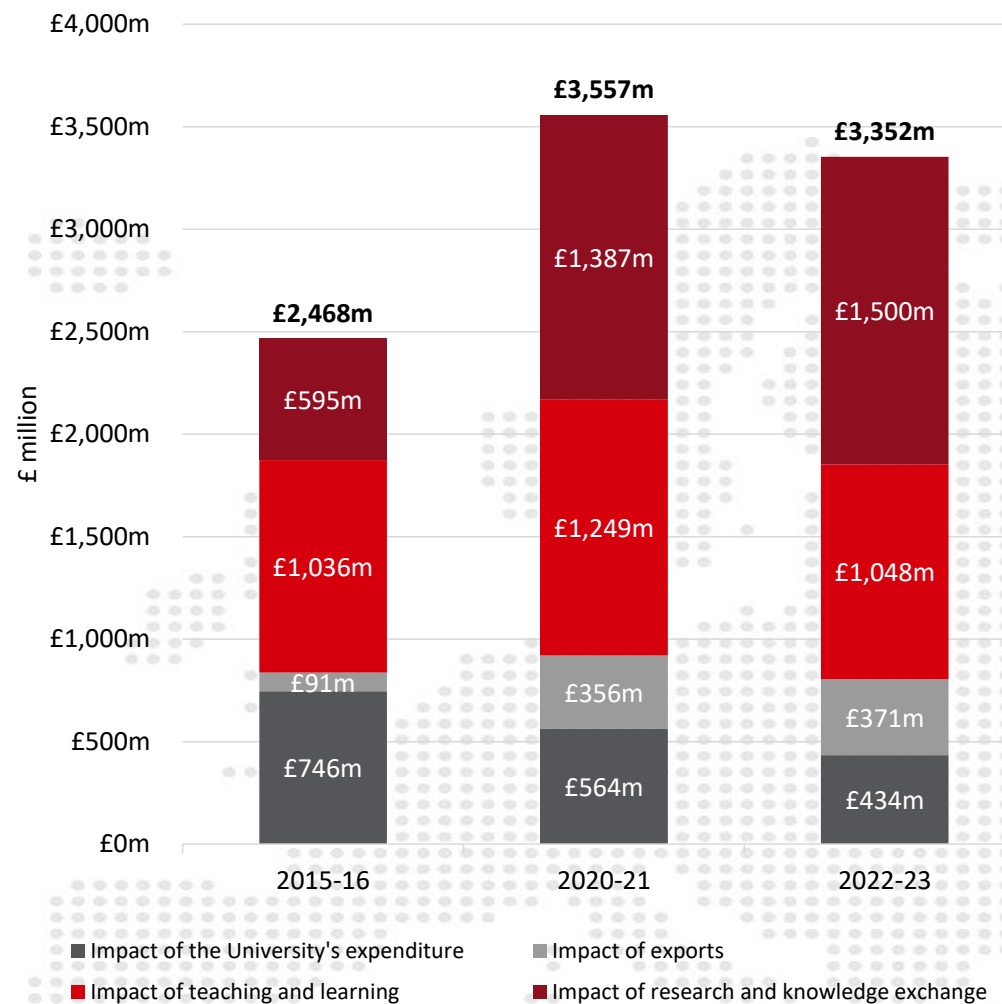
- Compared to our previous analyses of the economic contribution of Queen's University Belfast, the University's impact has **decreased by 6% in real terms** (i.e. adjusted for CPI inflation) since 2020-21 (from **£3.56 billion** to **£3.35 billion**). In nominal terms (i.e. not adjusting for inflation), the University's economic impact has increased by **10%**, from **£3.04 billion** in 2020-21.
- However, note that the analyses across the three years are not *perfectly* comparable, due to several methodological refinements and additions over time. For example, compared to the analysis undertaken for 2020-21, some specific impact items have been 're-allocated' to different strands, where:
  - Among other effects, the analysis for 2022-23 of the impact of the University's **research and knowledge exchange** activities includes the impact associated with the University's wider knowledge exchange activities (e.g. IP licensing) as well as the *indirect and induced* impact of the University's research.
  - In contrast, in the analysis for 2020-21, both of these impacts were implicitly included in the estimated impact of the **University's expenditure**.

These methodological 're-allocations' are (partially) responsible for the *increase* in the impact of research and knowledge exchange in 2022-23, and the *decline* in the impact of the University's expenditure.

- The decreased real-terms impact in 2022-23 compared to 2020-21 is partially driven by a decline in the University's domestic student numbers, from **8,605** starters in 2020-21 to **7,260** in 2022-23.
- Other aspects of the University's activities, such as its overall expenditure, research income and the turnover of its spinout companies, have increased in nominal terms since 2020-21. However, high inflation (of nearly 17%) during the period has eroded much of that increase in real terms.
- Furthermore, as part of our recent methodological improvements, we have updated the economic multipliers used in our analysis, which has generally reduced the size of the estimated multipliers, and therefore reduced the estimated impact of the University.<sup>1</sup>

1. Further information on the comparison of the University's economic impact between 2020-21 and 2022-23 will be provided in a separate data dashboard.

## Total economic impact of Queen's University Belfast's activities in 2015-16, 2020-21, and 2022-23



Note: All estimates are presented in 2022-23 prices, to allow for a comparison of estimates from different years in real terms (i.e. adjusted for inflation). Totals may not add up precisely due to rounding.



# The impact of research and knowledge exchange activities



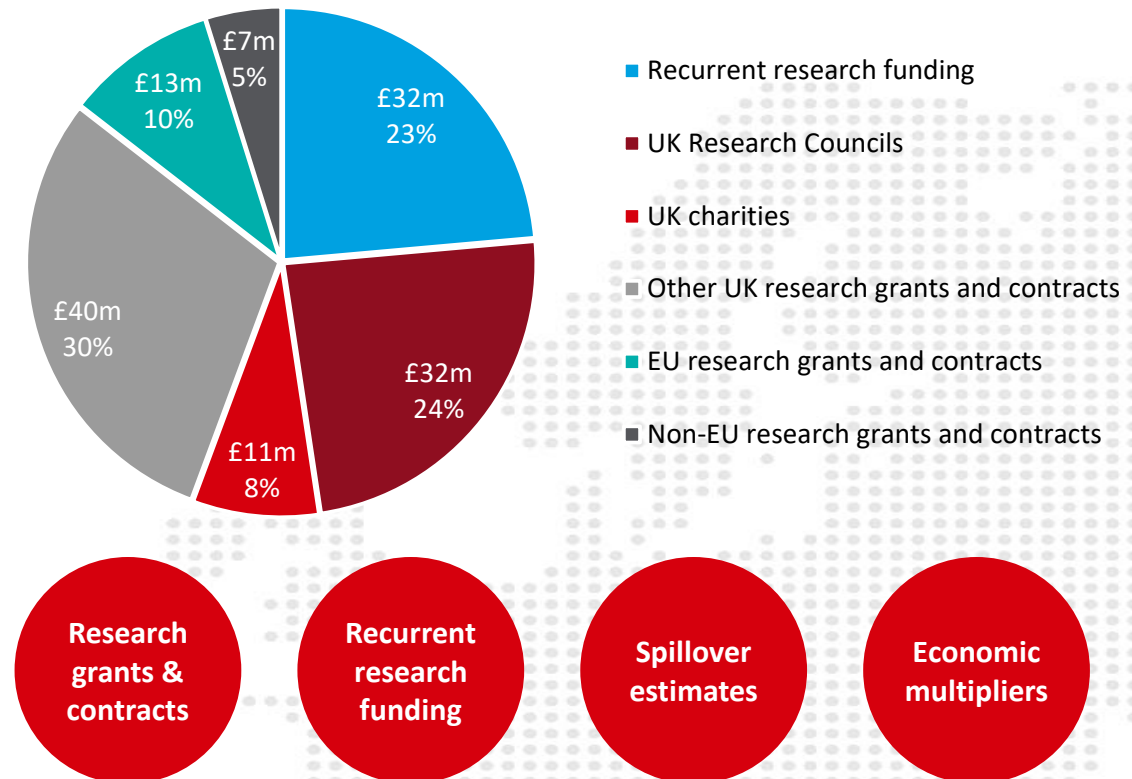




# Impact of Queen's University Belfast's research activities

- To understand the impact of Queen's University Belfast's research activity, we use financial data (for 2022-23) on the University's **research grants received from recurrent research funding and income from other research grants and contracts** (e.g. UK Research Councils, government, charities etc.).
- From this total of **£135 million** in research income received by Queen's University Belfast, we deduct **£36 million** in contract research income to avoid double-counting with the impact of the University's wider knowledge exchange activities.<sup>1</sup>
- We then assess the **direct, indirect, and induced economic impacts associated with the University's research activity on the UK economy**:
  - These impacts reflect the chain reaction of subsequent rounds of spending throughout the economy, i.e. a 'ripple effect'.
  - The impacts are estimated using **economic multipliers** derived from a **multi-regional Input-Output model** (combining UK-level Input-Output tables with (sub-)regional data to achieve a granular breakdown by UK ITL2 region).<sup>2, 3</sup>

Research income received by Queen's University Belfast in 2022-23 (£m, by source)



1. The **£135 million** of income from research grants and contracts includes income from **collaborative research (public and cash sources only)** and **contract research**. Income for these two knowledge exchange activities is *also* recorded separately within the Higher Education Business and Community Interaction Survey (HE-BCI). To avoid double-counting between the research and knowledge exchange strands of analysis, contract research funding is deducted from the impact of research and considered within wider knowledge exchange activities instead. In contrast, collaborative research is implicitly considered within the impact of the University's research.
2. The UK has 41 International Territorial Level 2 (ITL2) regions (there is no further breakdown within Northern Ireland, so the ITL1 and ITL2 regions are identical). For more information, see [here](#). The classification is based on the ITL boundaries established as of January 2021.
3. Specifically, we apply the average economic multipliers associated with organisations in the government, health and education sector located in Northern Ireland (given that the research income is accrued by Queen's University Belfast itself), i.e. we assume that the University's income and expenditure patterns are the same as for other institutions operating in Northern Ireland's government, health and education sector.





# Impact of Queen's University Belfast's research activities

- The resulting **gross direct, indirect, and induced economic impact** of the University's research was estimated at **£207 million**. To assess the **net impact** of this research, we deduct a total of **£99 million of Exchequer costs**, including:
  - **£32 million** in recurrent research grant funding,
  - **£32 million** in UK Research Council funding, and
  - **£34 million** in (other) research income from UK central government, local authorities, health and hospital authorities.<sup>1</sup>
- We thus arrive at an estimated **net direct, indirect, and induced research impact of £109 million**<sup>2</sup>:

Net direct, indirect and induced impact associated with the research income received by Queen's University Belfast in 2022-23 (£m, by type of impact)



Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

9 1. This is included within the **£40 million** of income from 'other UK research grants and contracts' in the chart on the [previous slide](#) (which also includes **£6 million** of income from UK industry, and **£0.02 million** from other UK sources).  
2. Within this total, the net direct impact of **£52 million** is estimated by multiplying the net total impact (**£109 million**) by the ratio of gross direct impact (**£99 million**) to gross total impact (**£207 million**).



# Impact of Queen's University Belfast's research activities

## Productivity spillovers

- In addition to the direct, indirect, and induced impacts of Queen's University Belfast's research activities, the wider academic literature indicates that investments in R&D induce positive **productivity spillovers to the rest of the economy**.
- **Private sector productivity spillovers:** Existing economic literature suggests that:
  - Every **£1m** of UK Research Council funding for universities results in private sector spillovers of **£12.7m<sup>1</sup>**
  - Every **£1m** spent on public R&D at universities results in private sector spillovers of **£0.2m<sup>2</sup>**

Type of income	Research income	Spillover multiplier
Research Councils and UK charities	£43m	12.7
Other research income	£92m	0.2
Total adjusted income / average multiplier <sup>3</sup>	£99m	4.2

## Economic impact, £m

- Combining the University's research income by source (net of contract research income) with the relevant spillover multipliers, the total productivity spillovers associated with the University's research in 2022-23 were estimated at **£416 million**.
- Adding this figure to the net direct, indirect, and induced impacts of research (**£109 million**), the total impact of Queen's University Belfast's research activity on the UK economy in 2022-23 was estimated to be approximately **£525 million**.

Type of impact	£m
Direct, indirect, and induced impact	£109m
Private sector productivity spillovers	£416m
Total impact of research	£525m

Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

1. Haskel, J., & Wallis, G. (2010). 'Public support for innovation, intangible investment and productivity growth in the UK market sector' ([here](#)).

2. Haskel, J., Hughes, A., & Bascavusoglu-Moreau, E. (2014). 'The economic significance of the UK science base' ([here](#)). Note that a recent publication for the Department for Science, Innovation and Technology ([here](#)) replicates the Haskel et al. (2014) approach, using more recent data and a more granular breakdown of industries than was previously possible. The paper finds a somewhat higher productivity multiplier estimate than that found by Haskel et al., of **0.4**. However, this new estimate is not comparable with the Haskel et al. (2014) estimate, as it refers to a rate of return of 40% after 6 years, rather than in the year in which the research was undertaken. The authors also highlight that data limitations mean that their results provided may be over-estimates. As a result, we (conservatively) still use the Haskel et al. (2014) paper for the estimate of the rate of return on public sector research. More generally, the application of this relatively low multiplier (0.2) to Queen's University Belfast's other research income (i.e. **£92 million** of 'other' research income (excluding funding from Research Councils and UK charities)) likely results in an *underestimate* of the true productivity spillovers associated with the University's research.

3. Again, from the total of **£135 million** of research income received by the University in 2022-23, **£36m** of contract research is deducted to avoid double-counting with wider knowledge exchange activities. We implicitly assume that the productivity spillover multiplier associated with contract research is the same as the average multiplier associated with other (i.e. non-contract) research funding.



# Impact of the University's knowledge exchange activities

We further assess the impact of the University's knowledge exchange activities, including its **spinouts**, and **wider knowledge exchange activities**:

## Wider knowledge exchange

- **Direct impact:** Based on HE-BCI data for 2022-23 on the University's income from wider knowledge exchange activities (**£68 million**). This includes:
  - Consultancy services (**£11 million**);
  - Contract research (**£36 million**);
  - Business and community courses (**£5 million**);
  - IP licensing (**£11 million**); and
  - Facilities and equipment related services (**£5 million**).
- **Total direct, indirect and induced impacts:** Again, estimated by applying relevant **economic multipliers** derived from the multi-regional Input-Output model<sup>1</sup> to the above direct impact.

## Spinouts & start-ups

- **Direct impact:** Based on the turnover of Queen's University Belfast's **43 active UK-based spinout companies** (**£424 million**) in 2022-23 – where available.<sup>2, 3</sup>
- **Total direct, indirect and induced impacts:** Again, estimated by applying relevant **multipliers** associated with these spinouts, assigned based on each firm's industry and the (ITL2) region of its main registered office address.

1. As with the impact of the University's research, here, we again apply the average economic multipliers associated with organisations in the government, health and education sector located in Northern Ireland (given that the income is accrued by Queen's University Belfast itself). In other words, we assume that the income and expenditure patterns of the University are the same as for other institutions operating in Northern Ireland's government, health and education sector.

2. Based on a total of **26** spinouts (out of **43**) for which turnover information was available and greater than zero. This includes only spinouts with Queen's University Belfast ownership. We exclude any dissolved companies, those that are primarily non-UK based, and those for which we could not find any identifying information through Companies House. The information is based on the 2022-23 financial year, the start and end date of which varies across companies.

3. Due to the exclusion of non-UK based firms and dissolved firms, as well as the use of supplementary turnover (and employment) data from Companies House (where available), some of the figures here differ slightly from the University's published HE-BCI results ([here](#)), which records a total of **£423 million** in turnover for the 43 spinout companies with some University ownership.





# Impact of the University's knowledge exchange activities

## Key assumptions

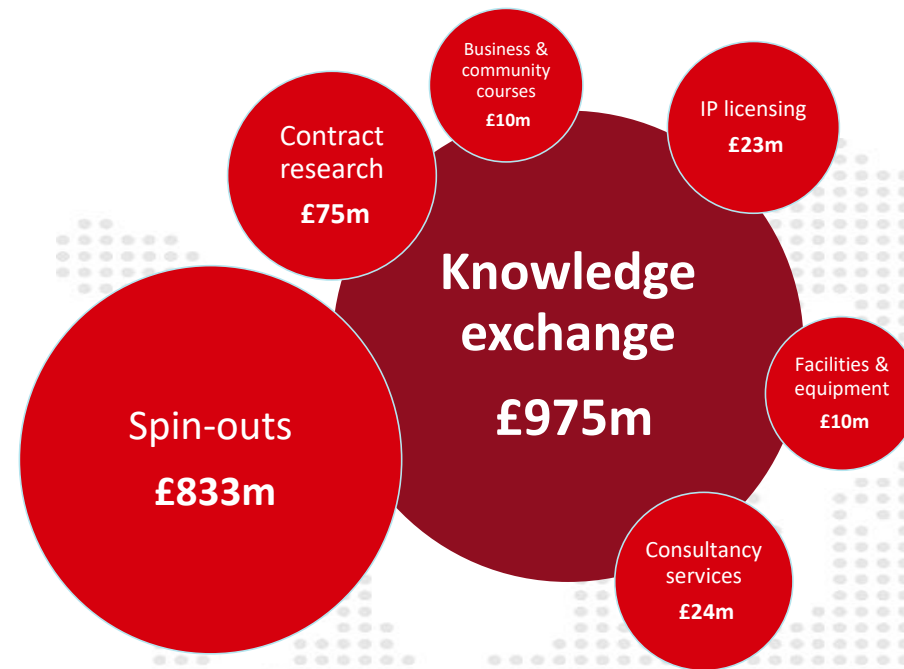
- We assess the impacts associated with the total of approximately **£424 million** in turnover of the University's **43 spinouts** and the University's **£68 million income from wider knowledge exchange activities**.
- We apply the following average **economic multipliers** for the impact on Northern Ireland, and the UK as a whole:

Type of activity	Impact on:	
	Northern Ireland	UK
Spinout companies	0.16	1.97
Wider knowledge exchange activities	1.33	2.10

- E.g. we assume that every **£1 million** of income from consultancy services provided by Queen's University Belfast generates a total of **£2.1 million** of economic output throughout the **UK economy** as a whole, of which **£1.33 million (63%)** is generated in **Northern Ireland**.

1. While many of the University's spinouts are located in Northern Ireland, the small multiplier for Northern Ireland is driven by the fact that the spinout with the highest turnover is headquartered in London, meaning that the company's whole turnover is attributed to London, despite the fact that many of its activities are undertaken in Northern Ireland. Thus, the impact of the University's knowledge exchange activities in Northern Ireland is likely to be underestimated.

## Economic impact, £m



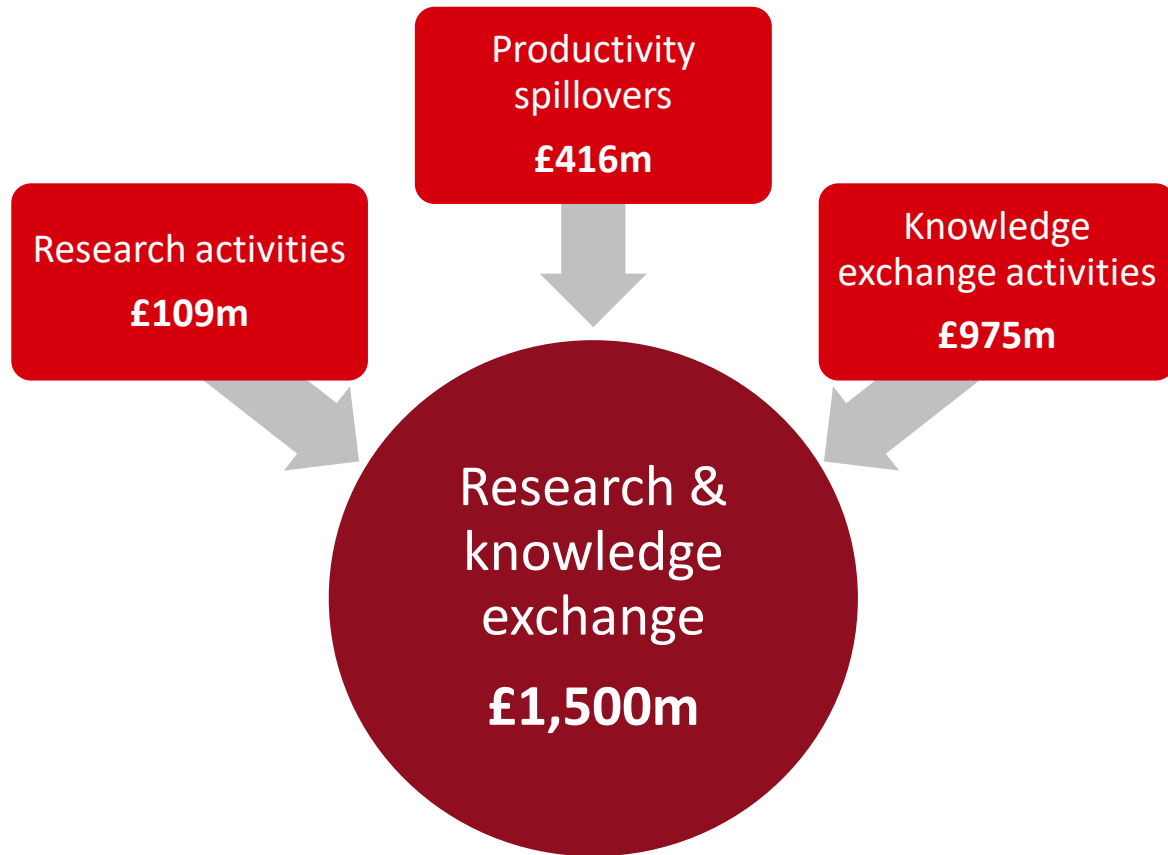
Note: Estimates presented in 2022-23 prices. Totals may not add up precisely due to rounding. Figure not to scale.

- In aggregate, the University's knowledge exchange activities contributed approximately **£975 million** to the UK economy in 2022-23.
- This includes **£833 million** associated with the University's spinout companies, and **£142 million** associated with its contract research, consultancy services, IP income, business and community courses, and facilities and equipment hire.



# Total impact of research and knowledge exchange

Total economic impact of Queen's University Belfast's research and knowledge exchange activities in 2022-23 (£m)



Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

- The **total economic impact** associated with Queen's University Belfast's research and knowledge exchange activities in 2022-23 was estimated at approximately **£1.5 billion**. Of this total:
  - **£109 million** is associated with the (direct, indirect, and induced) impacts of the University's research income from UK Research Councils and other sources;
  - **£416 million** is associated with the productivity spillovers of the University's research to the rest of the UK economy; and
  - **£975 million** is associated with the University's knowledge exchange activities (including **£833 million** from spinout and companies, and **£142 million** from wider knowledge activities).
- In other words, for every **£1 million** invested in Queen's University Belfast research, **£11.1 million** was generated across the UK economy from its research and knowledge exchange activities in 2022-23.



# The impact of teaching and learning



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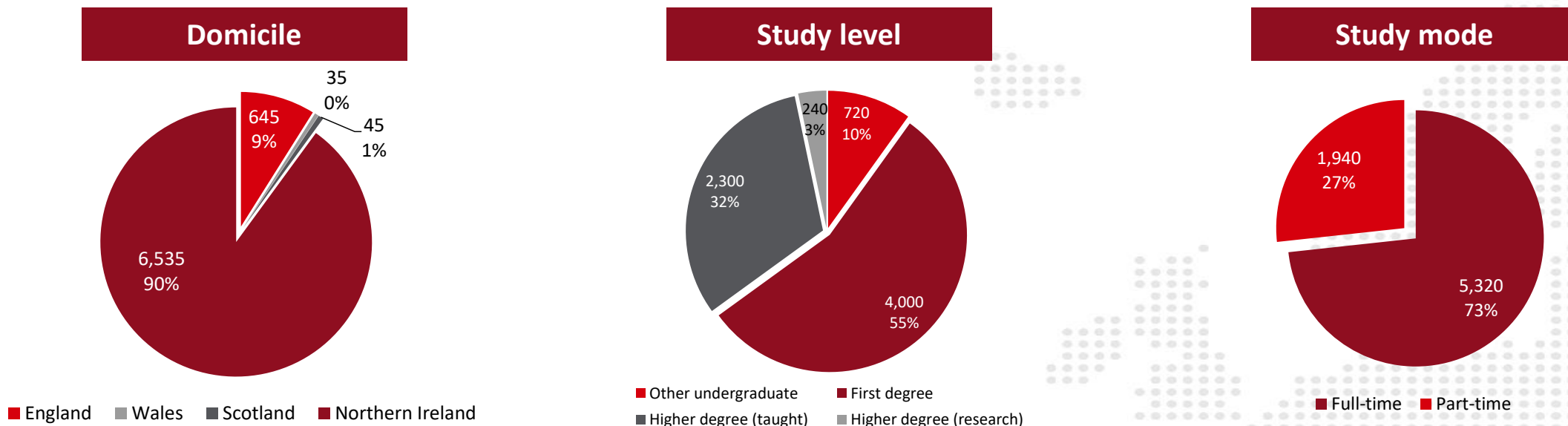




# The impact of teaching and learning

- The impact of teaching and learning focuses on the **2022-23 UK cohort of student starters at Queen's University Belfast**, i.e. on the **7,260 UK domiciled students** who started formally recognised qualifications (or credits/modules) at the University in 2022-23.
- The analysis is **tailored to the specific characteristics** of this cohort (in terms of study mode, Home Nation domicile, level of study) and combines this with information on **other characteristics from the 2020-21 cohort** (age, prior attainment, gender, subject of study).<sup>1</sup>

## # of UK domiciled first-year students at Queen's University Belfast in 2022-23



Source: HESA Table 1. All student numbers have been rounded to the nearest 5. Totals may not add up precisely due to rounding.

HESA Table 1 contains data on a total of 10,600 first-year students from Queen's University Belfast. From this total, we excluded 10 students who did not have a stated Home Nation domicile, and 3,325 non-UK domiciled students (who are instead considered as part of the analysis of the impact of the University's [educational exports](#)). Totals may not add up precisely due to rounding.

- Based on uprated estimates of the **net graduate premium** and the **net Exchequer benefit per student** from the 2020-21 analysis and the number of students in the current cohort expected to complete their studies,<sup>2</sup> we estimated the total economic impact of the University's teaching and learning activities (over students' lifetime, presented in today's money terms).

1. The 2022-23 analysis is based on student cohort data from HESA, where breakdown was only available by study mode, level, and Home Nation domicile. The 2020-21 analysis was based on more detailed data provided by the University, thus, the current analysis assumes the distribution by gender, prior attainment, age, and subject of study is similar in 2022-23 and 2020-21.

2. Estimates for 2020-21 were uprated to 2022-23 prices using Consumer Prices Index (CPI) inflation. Other underlying assumptions (e.g. related to completion rates) were the same as those used for the 2020-21 analysis (see Section 3 [here](#)). This may overestimate the teaching and learning impact, as the overall graduate labour market has weakened since the previous study was undertaken.

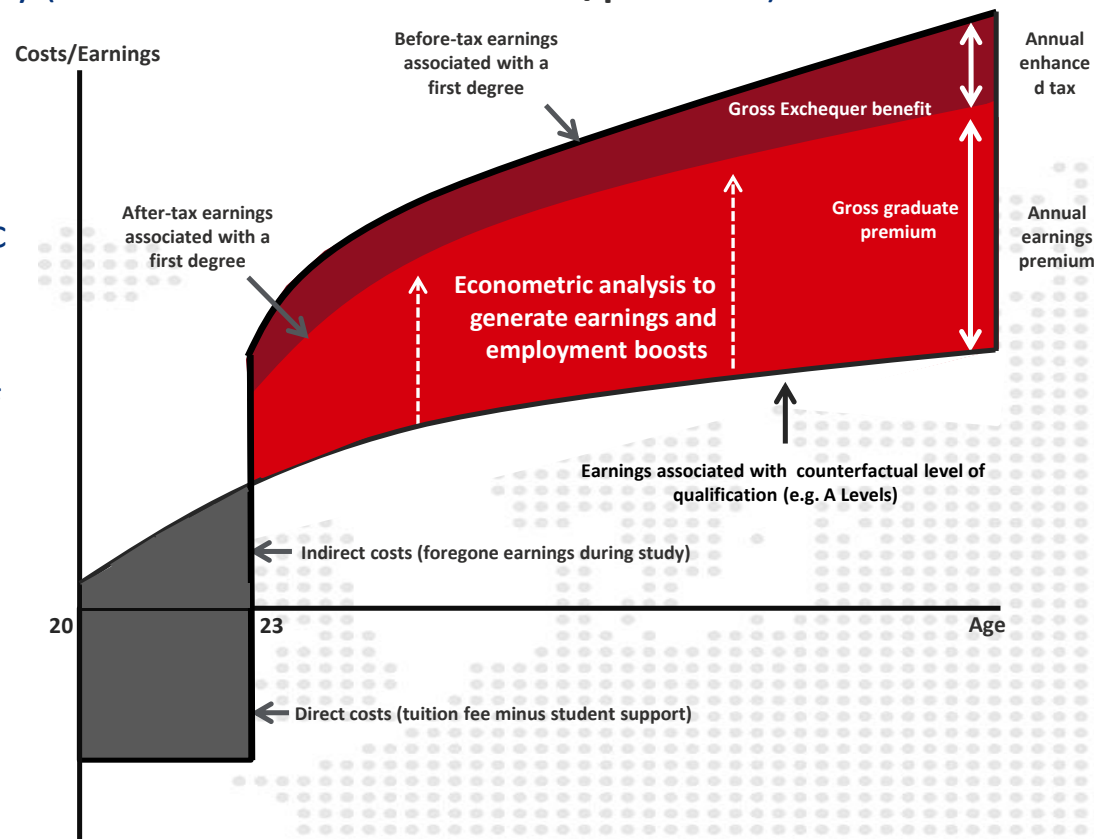


# The impact of teaching and learning

The impact of QUB's **teaching and learning activities** is captured by the **enhanced employment, earnings, and taxation receipts** associated with the completion of HE qualifications (and credits/modules) at the University (minus the **costs of attendance/provision**).

The **graduate premium** and **Exchequer benefit** were estimated for the **2020-21 cohort** (where more detailed data was available) as follows:

- **Net graduate premium** = [Enhanced lifetime earnings net of income tax, VAT, and NI] - ['effective' tuition fee costs following receipt of public tuition fee support, maintenance funding, and Queen's University Belfast bursaries]
- **Net Exchequer benefit** = [Additional income tax, VAT and NI] – [costs of public maintenance funding, tuition fee support, and teaching grants]
- **Upated** based on CPI inflation **between 2020-21 and 2022-23**
- **Aggregated** by the **2022-23 cohort** of UK domiciled Queen's student starters (**7,260 students**), and adjusted for **completion rates**
- **Adjusted** for the **known characteristics** of the cohort (e.g. **study mode, domicile, and study level**)



Labour  
Force  
Survey  
data

OfS  
teaching  
grant data

HMRC tax  
and NI  
rates

SLC/SAAS  
data

OfS  
completion  
rates

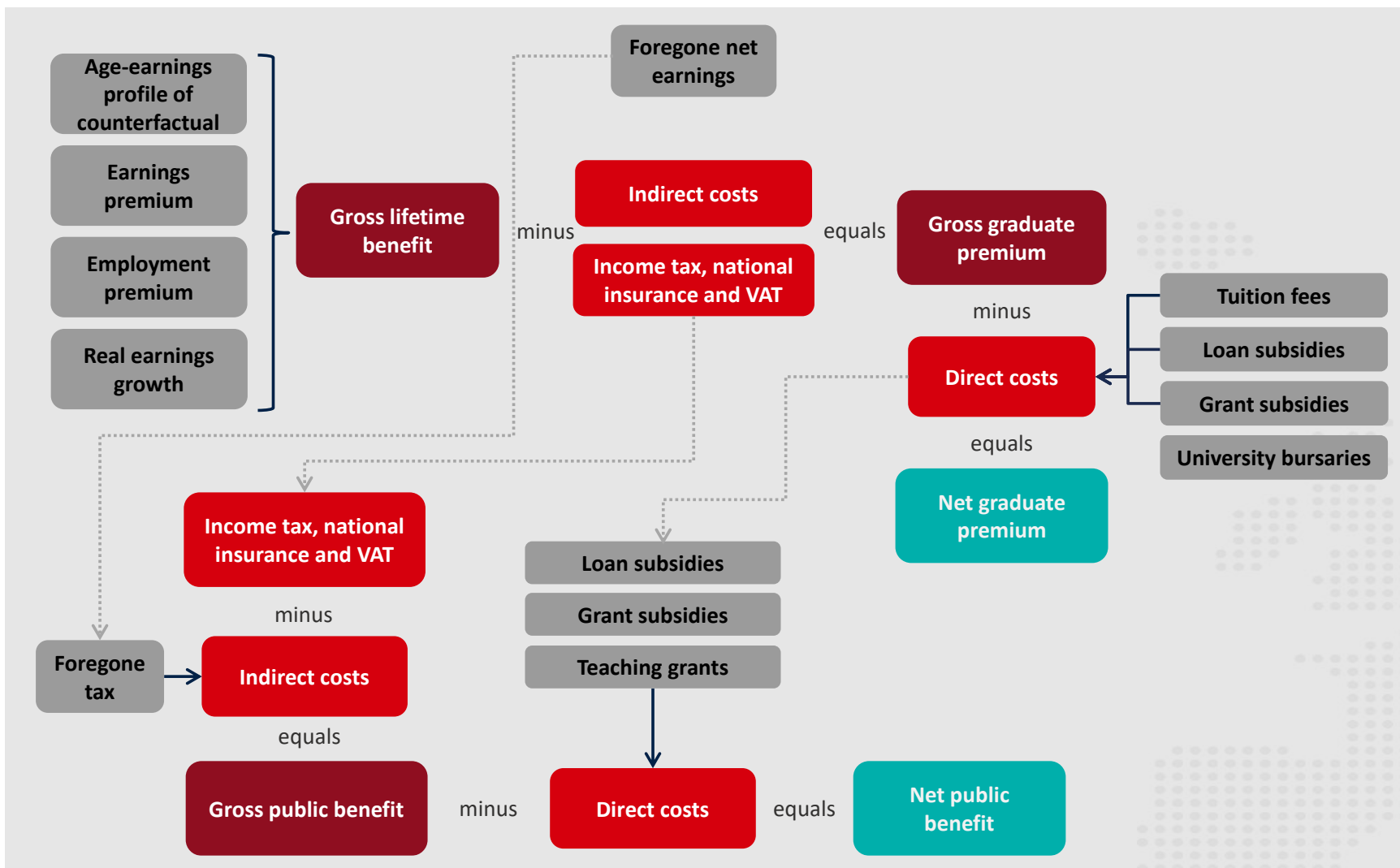
Queen's  
University  
Belfast  
data

HESA  
student  
data



# The impact of teaching and learning

The net graduate premium and net Exchequer benefit per student were estimated as follows (for the 2020-21 cohort):



The estimates were generated separately by:

- Beneficiary (net graduate premium vs. Exchequer benefit, 2);
- Gender (2);
- Domicile (Home Nation, 4)
- Level of study (5);
- Mode of study (2)
- Highest prior attainment (7)

→ Total of 1,120 iterations (!).





# The impact of teaching and learning

## Net graduate premium and Exchequer benefit

Average net graduate premium and net Exchequer benefit per UK domiciled student in the 2022-23 Queen's University Belfast cohort

Level of study	Net graduate premium		Net Exchequer benefit	
	FT	PT	FT	PT
Other undergraduate <sup>1</sup>	£27,000	£38,000	£25,000	£16,000
First degree <sup>1</sup>	£121,000	£38,000	£108,000	£16,000
Other postgraduate <sup>2</sup>	£76,000	£58,000	£79,000	£53,000
Higher degree (taught) <sup>2</sup>	£66,000	£66,000	£74,000	£65,000
Higher degree (research) <sup>2</sup>	£40,000	£66,000	£100,000	£68,000

Note: All estimates constitute weighted averages across men and women (weighted by the estimated number of student completers in the 2022-23 cohort) and are presented in 2022-23 prices, discounted to present values, and rounded to the nearest £1,000.

Estimates are relative to the next highest level of qualification: 1. vs. A levels; 2. vs. first degrees.

Net graduate premium and Exchequer benefit may be overestimated, as inflation was applied to 2020-21 estimates.

- E.g. the average net graduate premium<sup>1</sup> associated with a full-time first degree at Queen's University Belfast (compared to A level qualifications as the highest prior attainment) was estimated at **£121,000**, with a net Exchequer benefit of **£108,000**.

1. The estimates rely on an econometric analysis of the Labour Force Survey (LFS) of the impact of HE qualification attainment on earnings and employment outcomes for the 2020-21 cohort. Within the LFS, no information is available on the particular HEI attended; therefore, the underlying estimated marginal earnings and employment returns are *not* specific to Queen's University Belfast's students/graduates. Rather, the analysis was adjusted to reflect the characteristics of the University's 2020-21 student cohort (e.g. in terms of subject mix, level of study, mode of study, prior attainment, gender, average age at enrolment, etc.). This analysis was then applied to the 2022-23 cohort, adjusted for the level of study, domicile and mode of study of the 2022-23 cohort.

## Economic impact, £m

Total impact of teaching and learning associated with the cohort (by domicile, level of study, and beneficiary)

Type of impact	Domicile				
	NI	ENG	WAL	SCOT	Total
Students	£484m	£50m	£3m	£3m	£539m
Undergraduate	£373m	£39m	£2m	£1m	<b>£416m</b>
Postgraduate	£111m	£11m	£1m	£1m	<b>£123m</b>
Exchequer	£453m	£50m	£2m	£3m	£509m
Undergraduate	£323m	£37m	£2m	£1m	<b>£364m</b>
Postgraduate	£130m	£13m	£1m	£2m	<b>£145m</b>
<b>Total</b>	<b>£937m</b>	<b>£100m</b>	<b>£5m</b>	<b>£6m</b>	<b>£1,048m</b>

Note: All estimates are presented in 2022-23 prices and discounted to net present values. Totals may not add up precisely due to rounding.

- The total economic impact of Queen's University Belfast's teaching and learning activities associated with the 2022-23 cohort was estimated at approximately **£1.05 billion**.



# The impact of educational exports



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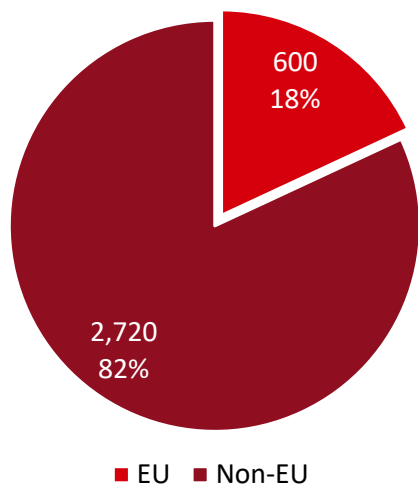


# The impact of educational exports

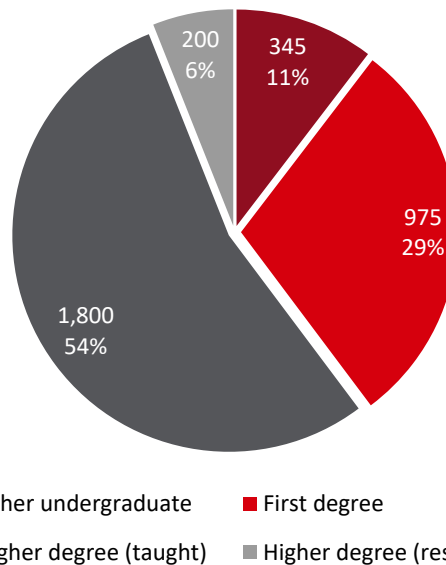
- We further assess the impact of the educational exports generated by Queen's University Belfast, contributing to the UK economy through the **direct injection of tuition fee and non-fee income from overseas**.
- As with the University's research and knowledge exchange activities, this income generates additional **indirect and induced impacts** throughout the UK economy, through supply chain and wage income effects.
- The analysis focuses on the **3,320 non-UK domiciled student starters in the 2022-23 cohort of Queen's University Belfast students**:

**# of non-UK domiciled first-year students at Queen's University Belfast in 2022-23**

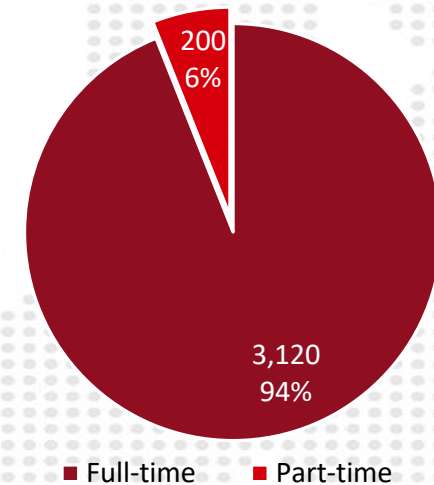
**Domicile**



**Study level**



**Study mode**



Source: HESA data ([here](#)). All student numbers have been rounded to the nearest 5. Totals may not add up precisely due to rounding.



# The impact of educational exports

- We estimate the income generated from non-UK domiciled students in the 2022-23 Queen's University Belfast cohort – **In present value terms over their total study duration** – including:
  - **Net tuition fee income**, i.e. gross fee income minus Queen's University Belfast's cost of providing fee waivers and bursaries to non-UK students<sup>1</sup>; and
  - **Non-tuition fee income**, based on estimates from the most recent Student Income and Expenditure Survey (SIES) of non-tuition fee spending of English domiciled students<sup>2</sup>. The estimates were then adjusted for the average stay durations in the UK for international students, and to reflect only off-campus expenditure (i.e. not accrued by the University itself<sup>3</sup>).
- **Aggregating** by the number of non-UK students in the 2022-23 cohort (and adjusting for completion rates<sup>4</sup>), we arrive at the **direct impact** of the University's educational exports.
- Again, we then assess the **indirect and induced impacts** associated with this export income using **economic multipliers** (from the above-described Input-Output model):
  - As with the (above) impact of the University's research and knowledge exchange income, the multipliers applied to **international fee income** were based on the average multipliers for Northern Ireland's government, health, and education sector<sup>5</sup>.
  - The multipliers applied to **international (off-campus) non-fee income** were based on the consumption expenditure patterns of households located in Northern Ireland (i.e. assuming that international students at Queen's University Belfast have similar expenditure patterns as 'typical' households in the Northern Ireland).

1. We used 2020-21 data provided by Queen's University Belfast from our previous study and uprated the components of net tuition fee income to 2022-23 fee levels by average tuition fee growth based on fee information published by the University (e.g. see [here](#) and [here](#)).
2. Institute for Employment Studies & National Centre for Social Research (2023). 'Student income and expenditure survey 2021 to 2022' ([here](#)). Uprated to account for 2022-23 prices. No equivalent recent study exists to examine the spending patterns of international students in Northern Ireland, so we assume that the spending patterns of those students are similar to those of English domiciled students studying in England and Wales.
3. This is to avoid any double-counting with the economic impact of the operating and capital expenditures of the University itself (see further detail [below](#)).
4. Using the same assumptions as for our previous study for Queen's University Belfast for the 2020-21 academic year.
5. I.e. we again assume that the income and expenditure patterns of Queen's University Belfast are the same as for other institutions operating in Northern Ireland's government, health and education sector.

SIES data

HESA  
student  
data

QUB data

Economic  
multipliers



## Key assumptions

- Average **stay durations** in the UK (based on an academic year of 39 weeks)<sup>1</sup>:

Level of study	EU	Non-EU
Undergraduate	39 weeks	42 weeks
Postgraduate	52 weeks	52 weeks

- % of total non-tuition fee expenditure that is **off-campus**<sup>2</sup>: 90%
- Economic multipliers** associated with international fee and non-fee income:

Type of income	Impact on:	
	Northern Ireland	UK
Tuition fee income	1.33	2.10
Non-fee income	1.31	1.92

## Economic impact, £m

- Total impact (by domicile and type of income):**

Domicile	(Net) fee income	Non-fee income	Total
EU	£8m	£45m	<b>£53m</b>
Non-EU	£158m	£160m	<b>£318m</b>
<b>Total</b>	<b>£166m</b>	<b>£204m</b>	<b>£371m</b>

Note: All estimates are presented in 2022-23 prices and discounted to net present values. Totals may not add up precisely due to rounding.

- The total economic impact associated with Queen's University Belfast's educational exports in 2022-23 was estimated to be **£371 million**.
- The majority of this impact (**86%, £318 million**) can be attributed to non-EU students, with the remaining impact (**14%, £53 million**) attributable to EU students.



# The impact of the University's operating and capital expenditures



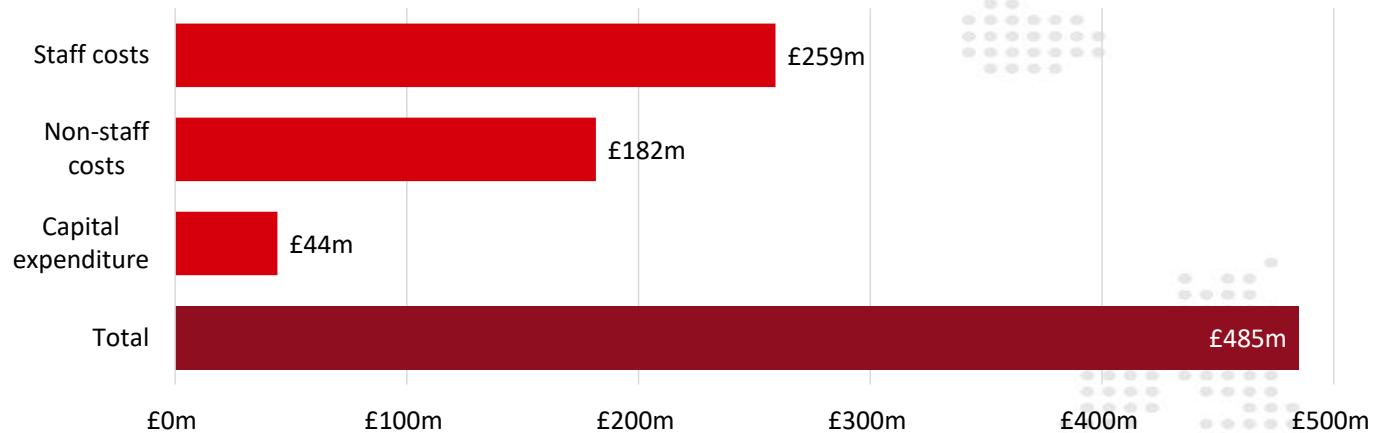
**LE**  
London  
Economics



# Impact of Queen's University Belfast's expenditures

- Queen's University Belfast's physical footprint **supports jobs and promotes economic growth** throughout Northern Ireland and the wider UK economy. This is captured by the **direct, indirect and induced impacts of the University's expenditures**.
- Direct impact:** This is captured by the University's operational and capital expenditures:

## Operating and capital expenditures of Queen's University Belfast in 2022-23<sup>1</sup>



Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

- Indirect and induced impacts:** As with the impact of the University's international fee, research, and knowledge exchange income, this was estimated by applying average **economic multipliers** associated with organisations in the Northern Ireland's government, health, and education sector (again derived from the Input-Output analysis).

HESA  
finance  
data

QUB  
financial  
statements

Economic  
multipliers

1. From the University's total operating expenditure (excluding capital spending) in 2022-23 (£441m), we excluded a total of £1m in depreciation and amortisation and movement in pension provisions, as it is assumed that these cost items are not relevant from a procurement perspective (i.e., these costs are not accounted for as income by other organisations). Therefore, our analysis is based on a total of £441m of relevant operating expenditure (and £44m of capital expenditure). Totals do not sum due to rounding.



# Impact of Queen's University Belfast's expenditures

## Key assumptions

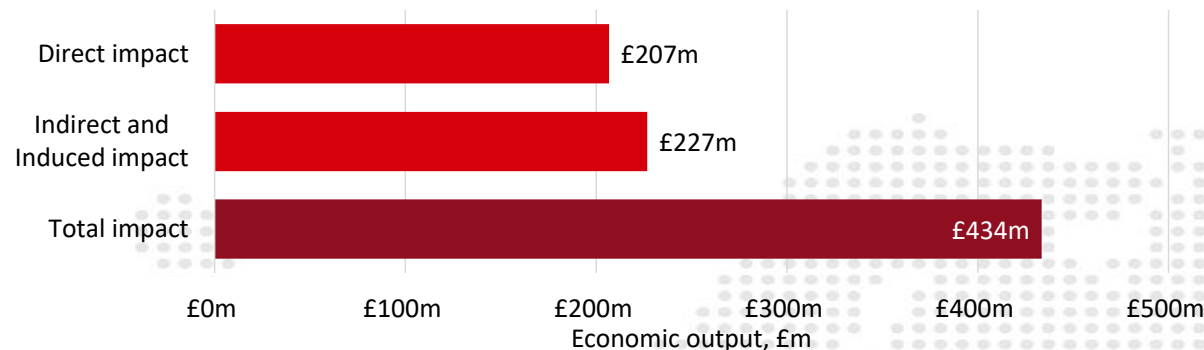
- Economic **multipliers** associated with Queen's University Belfast's expenditures:

Location of impact:	Northern Ireland	UK
Multiplier	1.33	2.10

Note: These multipliers are again based on average economic multipliers associated with organisations in the Northern Ireland's government, health, and education sector. Therefore, these are the same multipliers that are used to estimate the impact of the University's research and knowledge exchange activities and international fee income (see above).

- The estimates are adjusted to **avoid double-counting (£278m total)** with the above other strands of impact. We apply economic multipliers to the 'net' direct impact after these deductions. Specifically, we deduct:
  - The research-related income (excluding contract research income) received by the University in 2022-23 (**£99m**), to avoid double-counting with the impact of research;
  - The income from wider knowledge exchange activities received by the University in 2022-23 (excluding spinouts but including contract research income) (**£68m**), to avoid double-counting with the impact of knowledge exchange;
  - The University's non-UK fee income (**£87m**), to avoid double-counting with the impact of exports; and
  - The cost of University bursaries for UK students (**£25m**), to avoid double-counting with the impact of teaching and learning.

## Economic impact, £m



Note: All estimates are presented in 2022-23 prices, in economic output terms. Totals may not add up precisely due to rounding.

- The total economic impact associated with the University's spending in 2022-23 was estimated at **£434m**. This includes **£207m** of direct impact (in 'net' terms, after adjusting for double-counting with the other strands of impact) and **£227m** of indirect and induced impact.



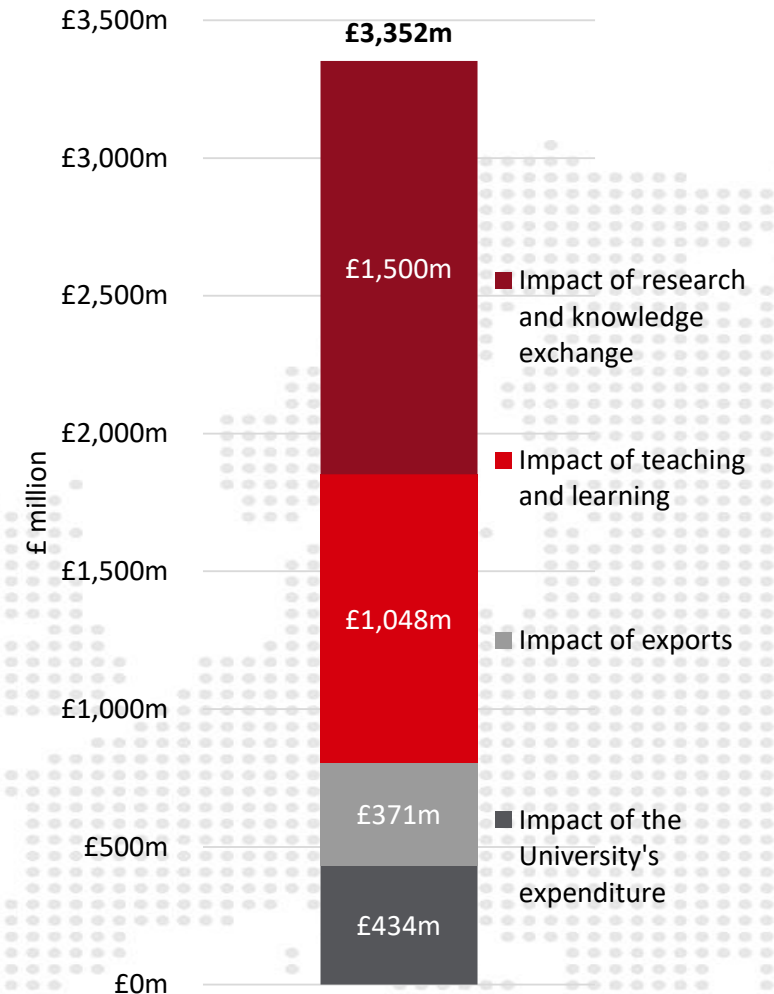
£ Total economic impact



# Total economic impact of Queen's University Belfast

- The **total economic impact** on the UK associated with Queen's University Belfast's activities in 2022-23 was estimated at approximately **£3.35 billion**:
  - The University's **research and knowledge exchange activities** account for approximately **£1.50 billion (45%)** of this impact;
  - The value of the University's **teaching and learning activities** stands at **£1.05 billion (31%)**;
  - The impact of the University's **educational exports** stands at approximately **£371 million (11%)**; and
  - The impact generated by the University's **operating and capital expenditure** stands at **£434 million (13%)**.
- Compared to Queen's University Belfast's operational costs of **£441 million<sup>1</sup>** in 2022-23, this corresponds to benefit-to-cost ratio of approximately **7.6:1**.

Total economic impact of Queen's University Belfast's activities in 2022-23



Note: All estimates are presented in 2022-23 prices. Totals may not add up precisely due to rounding.

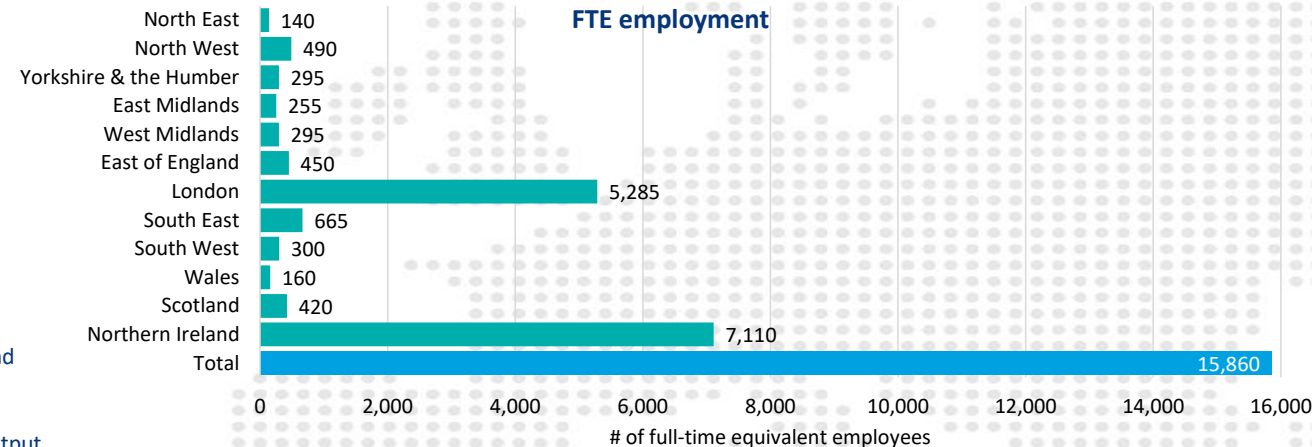
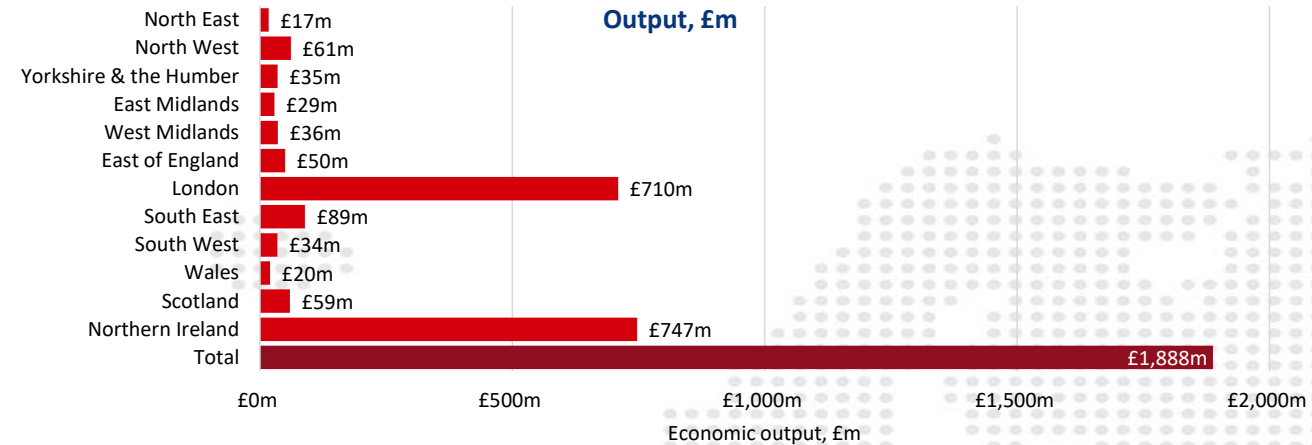
1. From the University's total operating expenditure (excluding capital spending) in 2022-23 (£441m), we excluded a total of £1m in depreciation and amortisation and movement in pension provisions, as it is assumed that these cost items are not relevant from a procurement perspective (i.e., these costs are not accounted for as income by other organisations). Totals do not sum due to rounding.



# Total economic impact of Queen's University Belfast

Total economic impact (in terms of output and FTE employment) of the University's activities in 2022-23, by region (where possible)

- Part of the University's economic impact can be broken down by region<sup>1,2</sup>. This was achievable for approximately **56%** of the University's total impact (**£1.89 billion** of the total of **£3.35 billion**).
- In total, **40% (£747 million)** of the University's identifiable impact by region occurred in Northern Ireland, with **38% (£710 million)** taking place in London<sup>3</sup>, **5% (£89 million)** occurring in South East England, and **3% (£61 million)** occurring in North West England. The remaining impact took place throughout the rest of the UK.
- In terms of employment, the University's activities in 2022-23 supported approximately **15,860** FTE jobs throughout the UK, with **7,110 (45%)** of these jobs located in Northern Ireland, and **5,285 (33%)** supported in London.
- The University directly employed **4,175** full-time equivalent staff and supported a further **11,685** jobs through its activities.



- Specifically, it was possible to disaggregate the direct, indirect, and induced impact of the University's research and knowledge exchange activities (**£1,084 million**, excluding productivity spillovers from research); the impact of the University's educational exports (**£371 million**); and the impact of the University's expenditures (**£434 million**).
- A full breakdown of the impact results for *each strand* (as well as in total) by region *and* sector, and in terms of output, employment, *and* GVA, will be provided in a data dashboard.
- As previously mentioned in the [research and knowledge exchange section](#), this large impact in London is due to the University's largest spinout being headquartered in London. As much of that spinout's activities take place in Northern Ireland despite its headquarters being in London, it is likely that the impact on Northern Ireland is underestimated.

Note: Monetary estimates are presented in 2022-23 prices, and employment estimates are rounded to the nearest 5. Totals may not add up precisely due to rounding.



# Total economic impact of Queen's University Belfast

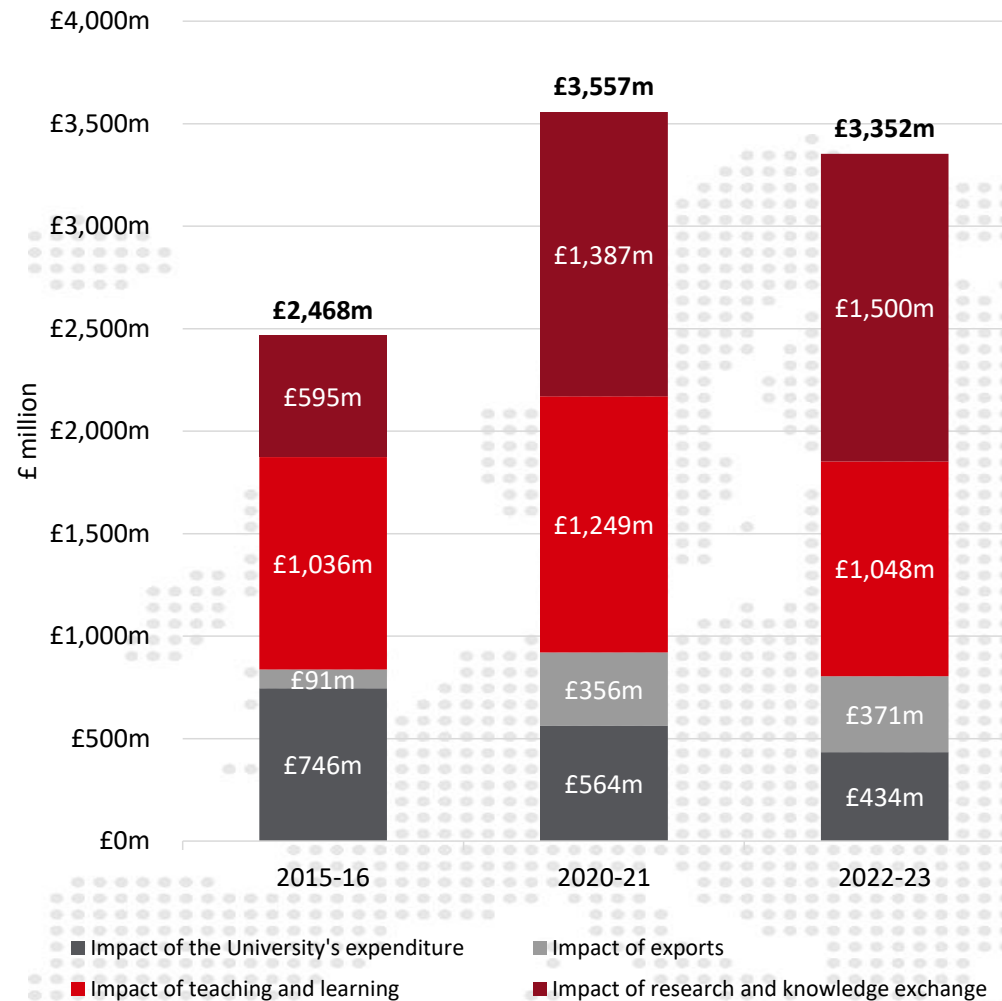
- Compared to our previous analyses of the economic contribution of Queen's University Belfast, the University's impact has **decreased by 6% in real terms** (i.e. adjusted for CPI inflation) since 2020-21 (from **£3.56 billion** to **£3.35 billion**). In nominal terms (i.e. not adjusting for inflation), the University's economic impact has increased by **10%**, from **£3.04 billion** in 2020-21.
- However, note that the analyses across the three years are not *perfectly* comparable, due to several methodological refinements and additions over time. For example, compared to the analysis undertaken for 2020-21, some specific impact items have been 're-allocated' to different strands, where:
  - Among other effects, the analysis for 2022-23 of the impact of the University's **research and knowledge exchange** activities includes the impact associated with the University's wider knowledge exchange activities (e.g. IP licensing) as well as the *indirect and induced* impact of the University's research.
  - In contrast, in the analysis for 2020-21, both of these impacts were implicitly included in the estimated impact of the **University's expenditure**.

These methodological 're-allocations' are (partially) responsible for the *increase* in the impact of research and knowledge exchange in 2022-23, and the *decline* in the impact of the University's expenditure.

- The decreased real-terms impact in 2022-23 compared to 2020-21 is partially driven by a decline in the University's domestic student numbers, from **8,605** starters in 2020-21 to **7,260** in 2022-23.
- Other aspects of the University's activities, such as its overall expenditure, research income and the turnover of its spinout companies, have increased in nominal terms since 2020-21. However, high inflation (of nearly 17%) during the period has eroded much of that increase in real terms.
- Furthermore, as part of our recent methodological improvements, we have updated the economic multipliers used in our analysis, which has generally reduced the size of the estimated multipliers, and therefore reduced the estimated impact of the University.<sup>1</sup>

1. Further information on the comparison of the University's economic impact between 2020-21 and 2022-23 will be provided in a separate data dashboard.

## Total economic impact of Queen's University Belfast's activities in 2015-16, 2020-21, and 2022-23



Note: All estimates are presented in 2022-23 prices, to allow for a comparison of estimates from different years in real terms (i.e. adjusted for inflation). Totals may not add up precisely due to rounding.



## Authors

Greta Dohler, Economic Consultant  
[gdohler@londecon.co.uk](mailto:gdohler@londecon.co.uk)

James Cannings, Senior Economic Consultant  
[jcannings@londecon.co.uk](mailto:jcannings@londecon.co.uk)

Dr Gavan Conlon, Partner  
[gconlon@londecon.co.uk](mailto:gconlon@londecon.co.uk)

Maike Halterbeck, Partner  
[mhalterbeck@londecon.co.uk](mailto:mhalterbeck@londecon.co.uk)

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**LE**  
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Somerset House, New Wing, Strand  
London, WC2R 1LA, United Kingdom  
[info@londoneconomics.co.uk](mailto:info@londoneconomics.co.uk)  
[londoneconomics.co.uk](http://londoneconomics.co.uk)  
@LE\_Education  
+44 (0)20 3701 7700