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# Higher Education – Business and Community Interaction Survey 2010-11

## Northern Ireland Analysis



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## Background

1. The annual Higher Education – Business and Community Interaction (HE-BCI) survey is carried out by the Higher Education Statistics Authority (HESA) in order to provide reliable and relevant information to support policy development, and to inform funding decisions related to the Knowledge Transfer<sup>1</sup> activities of UK Higher Education Institutions (HEIs).
2. The HE-BCI survey is the primary source of metrics used to determine Queen’s University Belfast (“Queen’s”) and University of Ulster’s (“Ulster”) core funding allocations for their Knowledge Transfer activities through the Higher Education Innovation Fund, which is administered by the Department as part of its wider core grant.
3. The most recent HE-BCI survey – the eleventh in the series – was published in July 2012 and provided data on the continuing development of the interaction between HEIs and the wider world of Business<sup>2</sup> and the community, covering **academic year 2010-11**. It also contains 2009-10 data for comparison purposes.
4. HE-BCI focuses exclusively on output data covering a range of activities, from the commercialisation of new knowledge, through the delivery of professional training, consultancy and services, to activities intended to have direct social benefits. It should be noted that this survey records the interactions between Northern Ireland HEIs and businesses located both within and outside the region – it is not possible to determine the share of these Northern Ireland HEI’s interactions that are purely Northern Ireland based.

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<sup>1</sup> Knowledge Transfer is used to describe HEIs activities in economic regeneration, regional engagement, relations with industry, intellectual property, the exploitation of research outcomes and other matters related to the HEIs Business and Community function.

<sup>2</sup> ‘Business’ in this context refers to private, public and third-sector parties of all sizes, with which HEIs interact in a broad range of ways.

## Purpose

5. The purpose of this paper is to present a summary of the key findings of the latest survey from a Northern Ireland perspective. The analysis focuses on Part B of the HE-BCI, that is, the financial and numeric outputs of HEIs Knowledge Transfer activities.<sup>3</sup> This is the first time the Department has published a Northern Ireland summary report.
6. A summary of key HE-BCI indicators (2003-04 – 2010-11) is presented in the Annex.
7. The UK HE-BCI report provides further context and methodological detail. The latest UK HE-BCI report can be accessed by clicking [here](#) or visiting [www.hefce.ac.uk](http://www.hefce.ac.uk).

## Key points

8. The HE-BCI report sets out the Northern Ireland position relative to the UK and should be read in context, where the Northern Ireland economy represents **2.9%** of the UK population, **2.2%** of UK GVA<sup>4</sup> and **2.1%** of FTE academics in the UK.
9. The HE-BCI data show a continuing increase in the overall exchange of knowledge between NI HEIs and the public, private and third sectors. Northern Ireland's performance, as measured by HE-BCI, compares favourably to the UK.

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<sup>3</sup> Part A focuses on the strategic aims and levels of development within HEIs.

<sup>4</sup> GVA is a measure of economic activity, similar to but statistically distinct from GDP, that allows for regional analysis.

## **A: Income from Business and Community Interaction**

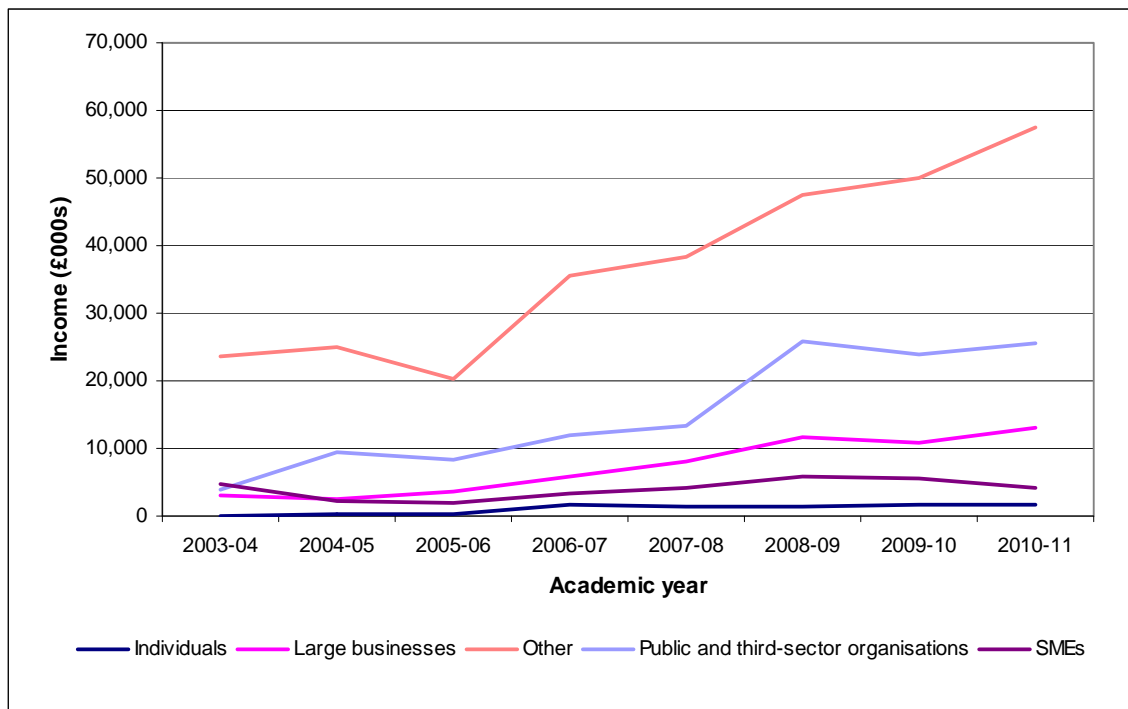
10. In 2010-11, **UK HEIs** received £3.3 billion (including Government funding) from business and community interaction, an increase of around 7% - in cash terms - since 2009-10.

11. The comparable figure for **NI HEIs** is £102 million, which represents a 13.7% increase – in cash terms – from 2009-10 income levels. Income from business and community interaction has grown considerably (187%) since 2002-03 (this can be seen graphically in figure 2). NI HEI's income from business and community interaction of £102 million represents 3.1% of the UK total.

### **Income by partner**

12. Spending by large businesses on interaction activities with NI HEIs increased overall by 19% from £10.9 million (in 2009-10) to £12.9 million (in 2010-11) while non-commercial partners in the public and third sectors, charities and social enterprises increased their spending by 7.5% from £23.8 million to £25.5 million. There has however been a fall of nearly 28% in total spending by small and medium-sized enterprises (SMEs) on engagement with NI HEIs in cash terms (see figure 1).

**Figure 1: NI HEI Total income by partner 2003-04 to 2010-11 (real terms)**



### **Research-based interactions and intellectual property**

13. Income received by Northern Ireland HEIs through business and community interactions can be broken down further into a range of categories: collaborative research, contract research, consultancy contracts, facilities and equipment related services, education and continuing professional development, regeneration and intellectual property.

### **Collaborative Research Income**

14. The HE-BCI survey defines collaborative research as R&D undertaken collaboratively between a HEI and an organisation/individual from business or community sectors.

15. Income from collaborative research in Northern Ireland grew by 23% from around £32.5 million in 2009-10 to £39.9 million in 2010-11 (see Figure 2).

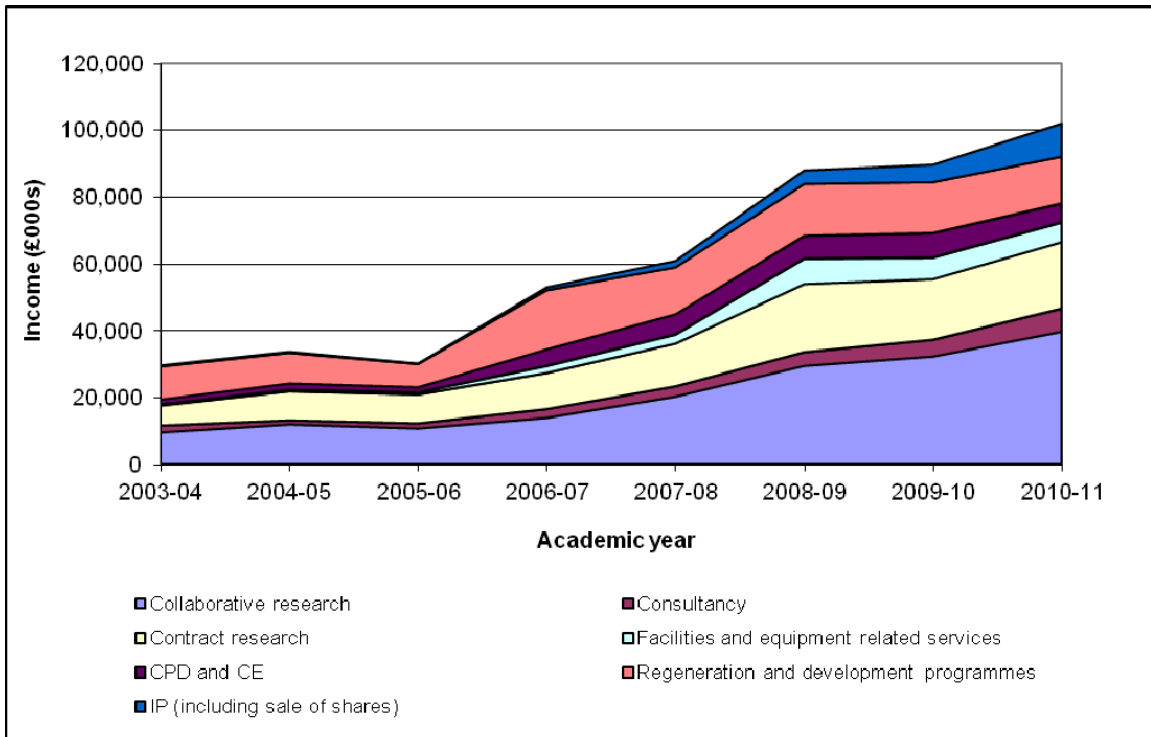
Income from this source has increased by 308% since 2003-04. In relative terms, the performance of local HEIs in gaining income from collaborative research is strong, representing 4.6% of the UK total.

### Contract Research Income

16. Contract research is when Government or commercial bodies arrange for specific research to be done, usually under a contractual agreement.

17. The survey shows that contract research income has risen by 10% from £18.2 million to £20 million over the last academic year. Income from this source has increased by 238% since 2003-04. Contract research income of £20 million represented 1.9% of the UK total.

**Figure 2: Selected HE-BCI income streams 2003-04 to 2010-11 (real terms)**



## **Consultancy**

18. Universities also engage in consultancy contracts, which is a more direct form of knowledge exchange between Higher Education and the economy. Consultancy contracts are diverse: they range from helping charities, to innovative rapid prototyping, to advanced training in both scientific and art-based environments.

19. Income from consultancy contracts grew by 38% to £6.9 million in 2010-11, up from £5 million in 2009-10. Income from this source has also increased by 226% since 2003-04. Income from consultancy of £6.9 million represented 1.9% of the UK total in 2010-11.

## **Facilities and Equipment Related Services**

20. Facilities and equipment related services relates to the use by an external party of physical academic resources of the HEI.

21. Income from use of facilities and equipment has fallen over the last year by around 8%. It should be noted however that the total value of contracts has increased exponentially over the longer term, growing from £174k in 2002-03 to £5.9 million in 2010-11. Income from facilities and equipment related services of £5.9 million represented 4.6% of the UK total.

## **Education and Continuing Professional Development**

22. This includes revenue generated by Continuing Professional Development (CPD) courses, defined as a range of short and long training programmes for learners already in work who are undertaking the course for purposes of professional development, up skilling or workforce development.

23. Income from continuing professional development (CPD) and continuing education (CE) activity has fallen by around 24% from £7.2 million in 2009-10

to £5.5 million in 2010-11. CPD income has however grown by 245%, in real terms, since 2003-04. Income from CPD and CE of £5.5 million represents 0.9% of the UK total.

### **Regeneration**

24. Regeneration funding is an important way for HEIs to invest intellectual assets in economic, physical and socially beneficial projects.

25. Income from regeneration programmes fell, from £15.2 million in 2009-10 to £13.9 million in 2010-11, a decrease of 8%. Over the longer term, income from this source has increased steadily, growing by 41% over the period 2003-04 to 2010-11. Income from regeneration of £13.9 million represents 6.8% of the UK total.

### **Intellectual property**

26. Intellectual Property (IP) is a vital indicator for the value added by the HEI when interacting with a range of external partners. It is commonly in the form of licences granted to private companies, allowing them to exploit an invention protected by a patent.

27. Income from intellectual property (including sales of shares) grew by 91% from 2009-10 to 2010-11. In 2010-11, share sales generated £3.8 million of income compared to £1.1 million in 2009-10. Income from this source has increased by 3,277% since 2003-04. Income from intellectual property (including sale of shares) represents an impressive 14% of the UK total.

### **B: Commercialisation Activities**

28. Commercialisation activities are an important part of a University's enterprise activities. Knowledge transfer through commercialisation would usually take the form of licensing of a patent or the formation of a spin-off company.



## **Spin-off Companies**

29. Spin-offs are companies set up to exploit IP that has originated from within the HEI.

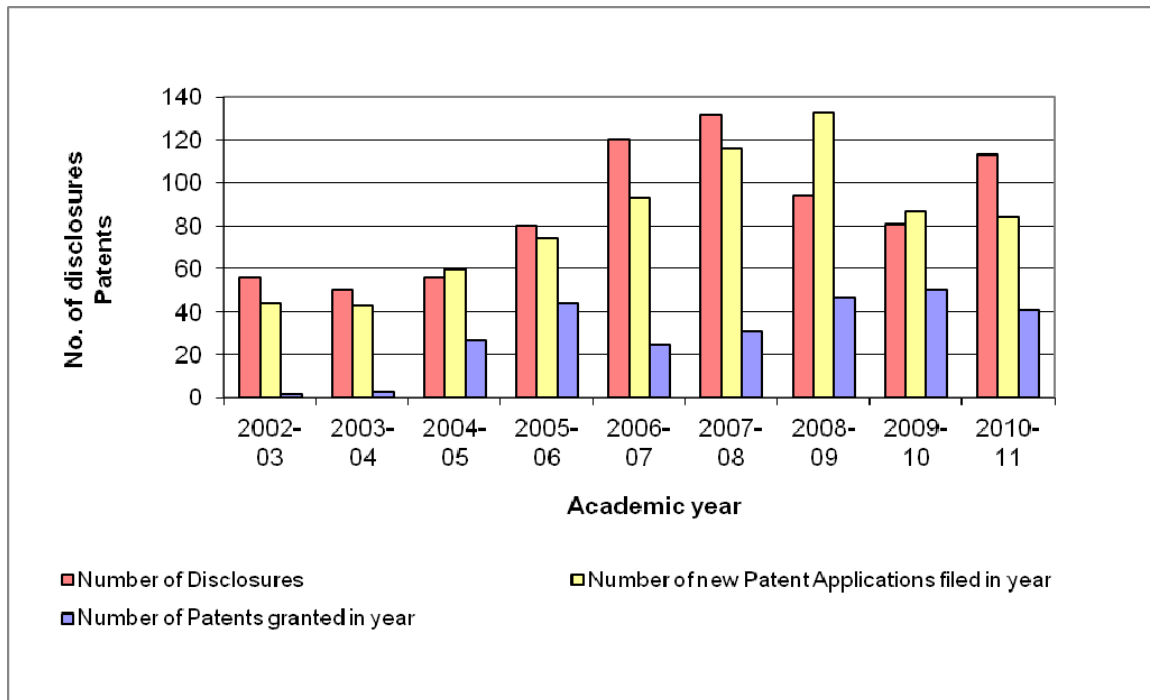
30. In 2010-11, the total number of spin-offs still active after 3 years in Northern Ireland was 49. This is a marginal increase from 2009-10 when the figure was 48. Over the longer term the number of spin-off companies still active after 3 years have increased by 32% between 2003-04 and 2010-11. The 49 spin-offs in Northern Ireland represent 4.9% of the UK total.

## **Disclosures**

31. The number of research disclosures is also a good indicator of the level of research and innovation in Northern Ireland. A disclosure occurs when research-active staff become aware of potentially exploitable research and work with others (often knowledge specialist staff) to develop those ideas.

32. Disclosures have increased by 40% to 113 in 2010-11, up from 81 in 2009-10. The number of new patent applications and the number of new patents granted have decreased by 3% (87 to 84) and 18% (50 to 41) respectively. Although there was a significant drop in the number of new patents granted, patent data should be viewed over a longer time series because of the time lag between applications and grants. Since 2003-04 the number of new patent applications and the number of new patents have increased by 95% and 1,267% respectively. The cumulative patent portfolio of the NI HE sector increased by 2% from 508 in 2009-10 to 520. This represented 3.2% of the UK total in 2010-11.

**Figure 3: Number of disclosures, patents filed on behalf of NI HEIs and patents granted**



### **Social, community and cultural activities**

33. HE-BCI also collects data on public events run by HEIs. These illustrate the wide-ranging civic, community and cultural contributions that HEIs make, though they describe only a small part of that range.

34. For example, over 17 thousand people attended free public lectures organised by HEIs, representing a small increase from 2009-10. Nearly 60,000 people paid to attend performance events – such as music, film, dance and drama – and 6,300 attended free performances. Exhibitions attracted nearly 41,000 visitors.

## Summary

35. The survey shows that overall Northern Ireland performs well across the majority of indicators. It has outperformed its UK peers in many respects including: the extent of collaborative research, income from intellectual property and the number of sustainable spin-off companies. However the economic downturn has impacted on some indicators, in particular revenue from Education & Continuing Professional Development.

**Table 1.1: Summary - Trends in Key HE-BCI Indicators**

Indicator	Recent change (since 2009-10)	Long-term trend (since 2003-04)	NI as a percentage of the UK total <sup>5</sup>
<b>Collaborative Research Income</b>	23%	308%	4.6%
<b>Contract Research Income</b>	10%	238%	1.9%
<b>Consultancy</b>	38%	226%	1.9%
<b>Facilities &amp; Equipment Related Services</b>	-8%	3,291% <sup>6</sup>	4.6%
<b>Education &amp; CPD</b>	-24%	245%	0.9%
<b>Regeneration</b>	-8%	41%	6.8%
<b>Intellectual Property</b>	91%	3,277%	14%
<b>Number of Spin-off Companies</b>	2%	32%	4.9%
<b>Number of Disclosures</b>	40%	126%	2.7%
<b>Patent Applications</b>	-3%	95%	3.7%
<b>Patents Granted</b>	-18%	1,267%	5.4%

<sup>5</sup> NI represents 2.2% of UK GVA  
 NI represents 2.9% of UK population  
 NI represents 2.1% of UK FTE Higher Education Academics.

<sup>6</sup> Percentage change from 2002-03

36. As this is the first time the Department has published a Northern Ireland summary report we are keen to invite comments for the development of future iterations. Please forward any comments or suggestions to the following email address [analyticalservices@delni.gov.uk](mailto:analyticalservices@delni.gov.uk).

37. A summary of key HE-BCI indicators (2003-04 – 2010-11) is presented in the **Annex**.

## Annex: Key Indicators from the HE-BCI Survey 2003-04 – 2010-11

<b>Real-terms income from all sources (£000s)</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
Collaborative research	9,789	12,218	11,003	14,182	20,515	29,682	32,483	39,892
Contract research	5,901	8,628	8,555	10,746	12,770	20,368	18,158	19,958
Consultancy	2,107	1,218	1,532	2,609	3,051	4,107	4,978	6,875
Facilities and equipment-related services	229	352	558	2,030	2,662	7,564	6,396	5,853
Continuing professional development and Continuing Education	1,600	1,977	1,627	5,009	6,004	6,744	7,249	5,517
Regeneration and development programmes	9,870	9,206	6,972	17,673	14,058	15,447	15,182	13,930
Intellectual property (including sale of shares)	293	299	115	861	1,897	4,039	5,181	9,895
<b>Outputs from NI HEIs</b>								
	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>
Patent applications	43	60	74	93	116	133	87	84
Patents granted	3	27	44	25	31	47	50	41
Formal spin-offs established	7	2	1	2	10	7	2	8
Formal spin-offs still active after three years	37	36	38	45	48	47	48	49