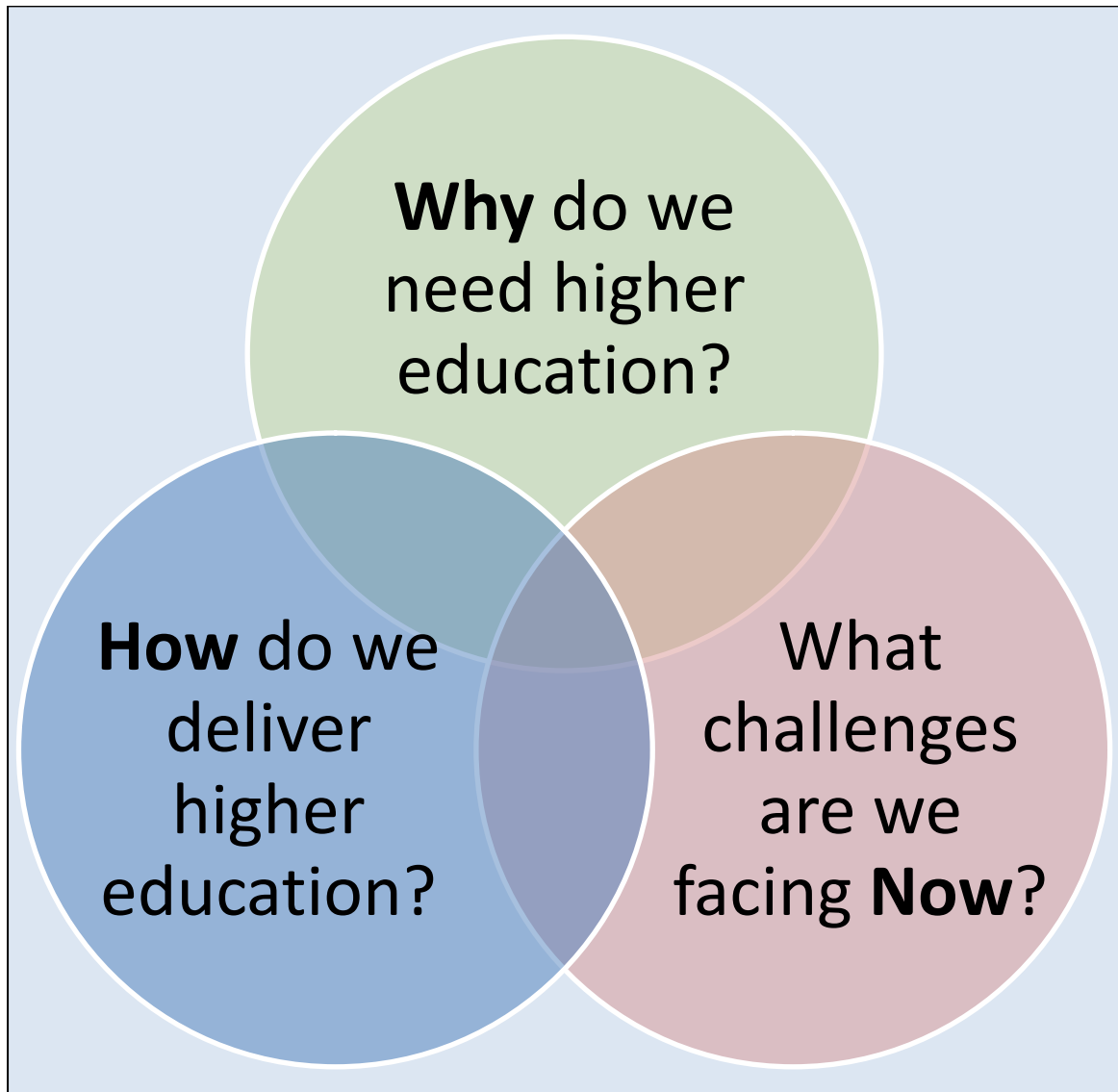


The Higher Education Big Conversation

Stage One – Did you know?



The Why

Did you know that by 2020 over half of Northern Ireland's workforce is expected to require higher level skills?

With relatively few natural resources, and with a growing knowledge economy, Northern Ireland's greatest resource is its people and their skills. **It is clear that as we grow our knowledge economy we will become increasingly reliant on higher level skills, with over 52% of the 2020 workforce expected to require sub-degree qualifications and above.**

Higher level qualifications are usually gained after formal school education. They range from 'sub-degree' courses, such as foundation degrees, through to undergraduate degrees, and right up to postgraduate qualifications such as Masters degrees and doctoral degrees (PhDs). They sit at levels 4 and above on the skills ladder.

Skill Levels (NQF/QCF/FHEQ)	Examples	Terminology
8	Doctorate; Vocational Qualifications (VQs) Level 8	Postgraduate
7	Masters; Postgraduate Certificate; Postgraduate Diploma; VQs Level 7	
6	Honours degree; VQs Level 6	First-degree
5	Foundation Degree; Higher National Diploma; VQs Level 5	Sub-degree
4	Higher National Certificate; VQs Level 4	
3	A-Levels; VQs Level 3 (e.g. NVQ Level 3)	Intermediate
2	GCSE grades A*-C; Essential Skills Level 2; VQs Level 2 (e.g. NVQ Level 2)	
1	GCSE grades D-G; Essential Skills Level 1; VQs Level 1 (e.g. NVQ Level 1)	Low
Entry	Entry Level qualifications in adult literacy; other qualifications	Entry

Northern Ireland's universities and university colleges are our main providers of higher level skills at the first-degree and postgraduate levels (6-8), while the six regional further education colleges specialise in sub-degree provision (4-5). The qualifications they provide fuel our economic growth by supporting the needs of all kinds of industries.

Did you know that the research carried out in Northern Ireland's universities not only attracts millions of pounds into the Northern Ireland economy, but is also supporting growth and job creation in a wide range of industries?

Universities receive grant funding from government on an annual basis to support their research and development activities. Known as Quality-related Research (QR) funding, these grants are made with reference to quality. The system used throughout the UK for assessing the quality of research is called the [Research Excellence Framework \(REF\)](#).

The latest REF exercise was in 2014 and some 70% of the research submitted by Northern Ireland's universities was rated as 'world leading' or 'internationally excellent'.

In several subjects, Queen's or Ulster University were assessed as being in the top 5 of UK universities, namely Law, Art & Design, and Agriculture, Veterinary and Food Science, with Queen's having the highest rating in the UK in Anthropology and Development Studies.

This funding in turn helps universities to secure research grants and contracts from other sources, such as from the UK Research Councils, the European Union and industry partners. These alternative sources of funding are normally made available for research projects on a competitive basis, and so a strong research base can be an important factor in enabling universities to lever funding opportunities from elsewhere. This is known as the Dual Support System.

In 2013/14 the almost £50 million was provided to the universities in QR funding, and this helped them go on to attract nearly £90 million in research grants and contracts from other sources.

This funding is helping to support a wide range of research which is having a real impact on our lives locally, nationally and globally. Research, by advancing

knowledge in all kinds of fields, is a key driver for growth and job creation in the Northern Ireland economy, and is advancing Northern Ireland's reputation on the international stage.

Lighter Aircraft Design

The research of Professor Brian Falzon of Queen's University Belfast into advanced composites is having a major impact on aircraft design. Through sophisticated virtual testing of new, lighter materials, Professor Falzon is encouraging more and more industry partners to use carbon fibre, reducing not only their costs but also their environmental footprint. Ultimately, this research is improving the productivity levels of many aerospace companies such as Bombardier, and creating a demand amongst them for the skills and expertise in composites originating in Northern Ireland.

Hybrid London Buses

It was with the help of Professor Roy Douglas of Queen's University that the Ballymena based company Wrightbus Ltd secured the ['New Bus for London' contract](#). These hybrid double-decker buses are the most environmentally-friendly of their kind, benefitting air quality and reducing carbon emissions. Key to the success was the engine performance simulation research led by Professor Douglas, which allowed designers to assess how the bus would perform during its drive cycle. The contract was worth over £230 million, with 600 buses ordered in 2012 and another 200 in 2014.

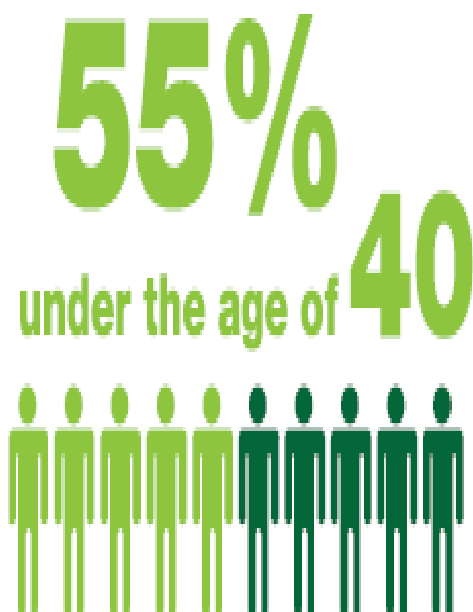
Connected Health

Research into connected health at Ulster University's [Nanotechnology & Integrated Bioengineering Centre \(NIBEC\)](#) has been leading to innovative medical solutions for over 20 years. But it is also having a significant impact on the economy, generating 35 patents and three high value spin-out companies so far: Heartscape Technologies, Intelesens and Heartsine. These companies are valued at £100 million and are employing over 150 people.

Of course, research and development is not just about making money and improving productivity. It is also making a massive impact on people's lives in all kinds of ways, ranging from pioneering new methods of diagnosing and treating cancers to helping us understand and deal with our divided society. More of these impacts will be explored in later sections.

Did you know that Northern Ireland's higher education system is one of the first things which investors ask about when considering coming to Northern Ireland?

Northern Ireland's population of about 1.8 million is one of the youngest in Europe, with over 40% aged 29 or under and 55% under the age of 40. On top of this the education system is recognised as one of the best in Europe, consistently outperforming the other UK regions in terms of academic qualifications. Northern Ireland is heralded for its highly educated, highly skilled workforce, with a strong and loyal work ethic.



This has proven extremely beneficial in attracting foreign direct investment, especially in many knowledge based areas like:

- [ICT and Electronics;](#)
- [Financial Services;](#)
- [Creative Industries;](#)
- [Aerospace and Defence;](#)
- [Business and Professional Services;](#)
- [Food and Drink;](#) and
- [Life and Health Sciences.](#)

Outside of London, Northern Ireland is the leading UK region for attracting inward investment, and one of the first things which potential investors ask is the strength of our higher education system, and the supply of highly skilled individuals which it produces.

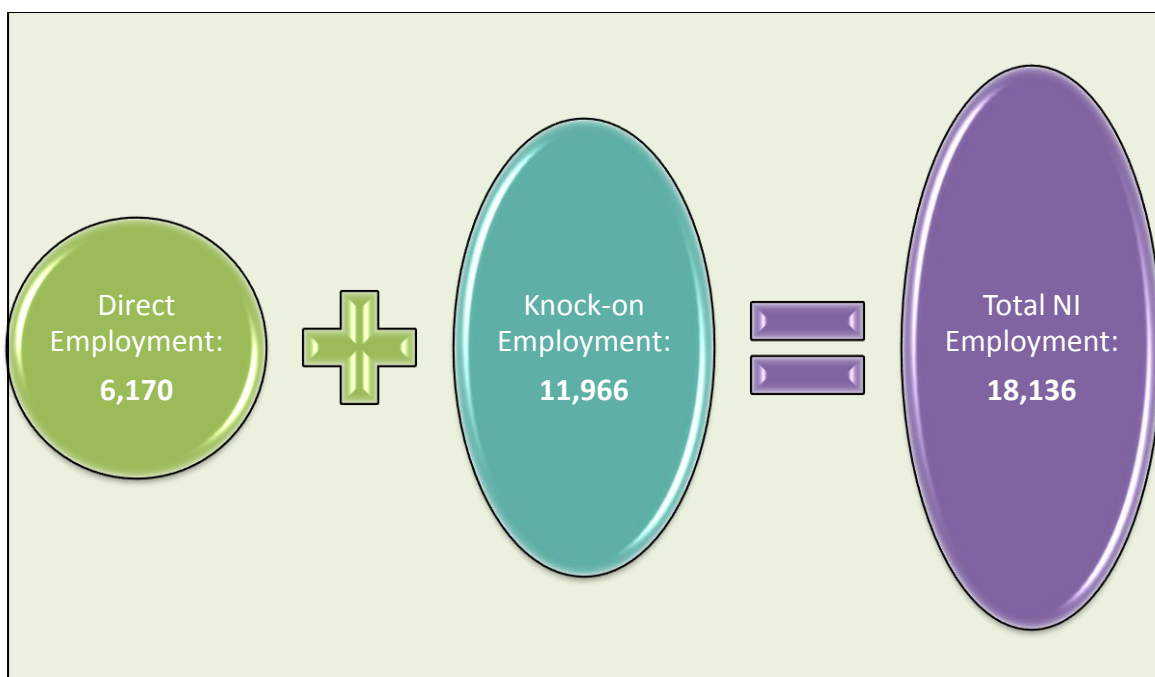
[Click here to find out why investors in the business, professional and financial services sector choose to come to Northern Ireland.](#)

Did you know that higher education providers are businesses in their own right, with an important role to play in creating jobs, generating spending, and boosting other parts of our economy?

Higher education institutions provide thousands of jobs across a wide range of occupations. As well as libraries, laboratories and offices, they also have sports and recreation facilities and catering and accommodation services.

On top of this they, along with their students, create **knock-on employment** in other parts of the economy by creating demand for a wide range of local services and businesses, and the jobs which come with them. For example, the presence of large communities of students in and around the Queen's and Stranmillis campuses in South Belfast created demand for the establishment of numerous shops, bars, restaurants, estate agents and all kinds of other local services and businesses.

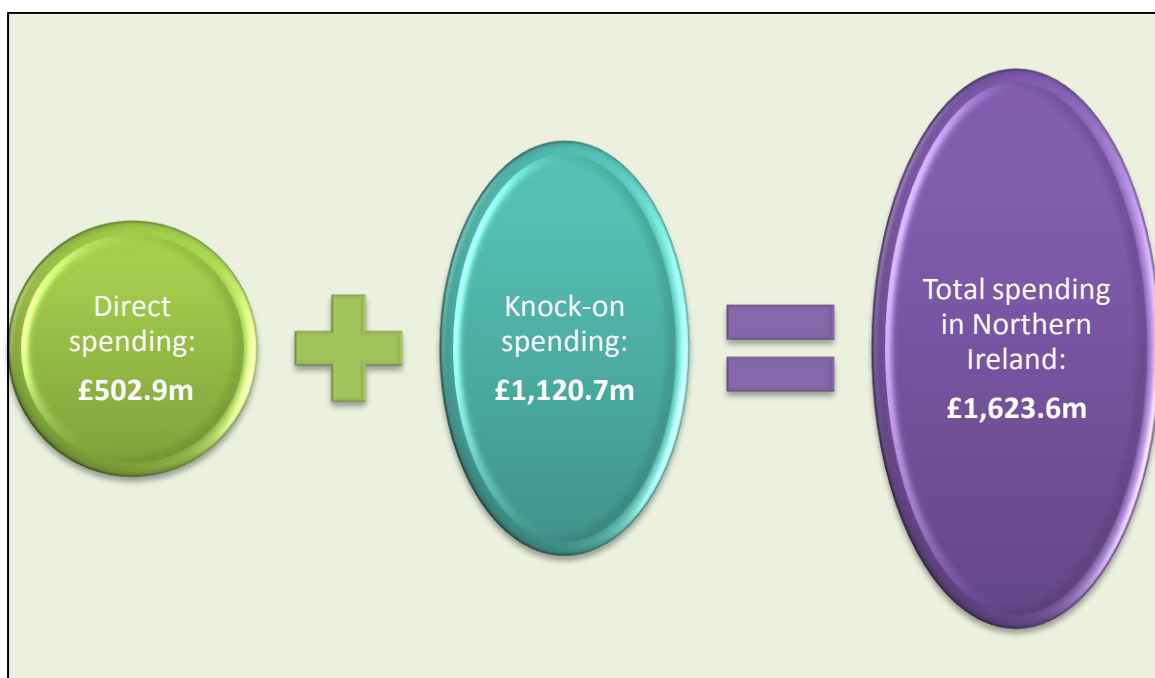
Research has shown that in 2012/13 Northern Ireland's higher education institutions directly created over 6,000 jobs and indirectly created almost 12,000 in Northern Ireland. **That means for every job created almost another two were created in other parts of the economy.**



As well as creating jobs, higher education institutions and their students also make significant contributions to the economy by generating spending and other types of economic activity.

As with job creation, direct spending can create **knock-on spending** which ripples through other parts of the economy. For example, higher education institutions spend money on staffing costs, and when those staff spend their salaries in other parts of the economy this represents knock-on spending.

In total, in 2012/13 Northern Ireland's higher education institutions and their students generated over £1.6 billion of spending in the Northern Ireland economy.



Did you know that higher education providers and the flow of knowledge which they create also help other businesses innovate and grow?

Knowledge exchange is the process by which knowledge, expertise and skilled people are exchanged between the research base and its user communities to contribute to economic competitiveness, effectiveness of public services and policy, and quality of life. This can be achieved through a wide range of activities, such as through consultancy services, commissioned and collaborative research, and secondment and placement positions. **Northern Ireland's universities, as the largest practitioners of research in the country, have a particularly important contribution to make to the economy in this respect.**

Knowledge exchange is formally supported in various ways, notably through the [Northern Ireland Higher Education Innovation Fund \(NI HEIF\)](#) and the [Connected Programme](#). NI HEIF provides core funding for the universities' business and community-facing activities, encouraging them to respond to the innovation needs of businesses and ultimately helping them to increase their productivity. Meanwhile the Connected programme provides funding to the universities and the further education colleges to enable them to come together to provide a 'one-stop-shop' for companies wishing to access the research base for new innovations.

Case Study

APT Innovations manufactures water pump products for use in touring caravan and motor home water drainage systems. Supported through Connected, Ulster University's Biomedical Science team was able to investigate a series of water samples and apply a complete purging plan using the company's drainage product, reducing bacteria counts by over 99.9%. **As well as the obvious health and safety benefits, the research, by demonstrating the effectiveness of the product, was able to considerably raise its value.** The company is now selling the product in 12 different countries.

Through various commercial interactions with businesses and wider communities, Northern Ireland's universities are now securing over £90 million per year in funding. This funding includes:

- I. Nearly £30 million in Collaborative Research Income.** This is research undertaken between a university and another organisation from the business or community sectors. It is funded primarily from public sources such as the UK Research Councils and government Departments.
- II. Nearly £20 million in Contract Research Income.** This is specific research which a sponsor requires, normally addressing the particular needs of a specific business.
- III. £9 million in Consultancy Contracts.** This is when existing knowledge and expertise are contracted out to other organisations and individuals.
- IV. £6 million in Facilities and Equipment Related Services.** This is when higher education institutions hire out their facilities and equipment to third parties, for example for conference hire.
- V. Over £5 million in Education and Continuing Professional Development.** This is when higher education institutions offer training programmes for learners already in work who are undertaking the course for professional development.
- VI. £12 million in Regeneration Funding.** This is when higher education institutions invest intellectual assets in economic, physical and socially beneficial projects.
- VII. £11 million in Income from Intellectual Property.** This is normally in the form of licences granted to private companies, allowing them to exploit an invention protected by a patent.

In the wider UK context, this income from business and community interaction represents 2.4% of the UK total, which is a strong performance given that Northern Ireland accounts for 2.2% of UK Gross Value Added.

Did you know that higher education providers not only support the growth of other businesses, but they also generate many of their own?

Northern Ireland's higher education providers have generated hundreds of new spin-out companies, helping them to commercialise their activities and contribute to the economy. They are normally set up to exploit the Intellectual Property that has originated through research in the higher education provider. **In 2013/14 there were 51 spin-out companies still active after 3 years in Northern Ireland, which represented over 5% of the UK total.**

Queen's University was one of the first universities in the UK and Ireland to form spin-out companies, with the establishment of Queen's University Belfast Incubation Unit Limited (QUBIS) in 1984 to commercialise the University's research and development activities. QUBIS has been involved in the creation of 65 companies and 1,250 high quality jobs.

Andor Technology, a spin-out company from Queen's University, **designs and manufactures cameras which were used by a team of international astronomers to discover two new Jupiter-sized planets.**

Kainos is a high-growth IT services company providing digital technology solutions and agile software development to enterprise customers. The company was founded as a joint venture between Queen's University and Fujitsu in 1986 and now has 730 staff across seven offices.

8over8 is a leading provider of Contractual Risk Management solutions to organisations that design, build and operate high value assets. It began as a spin-out from Ulster University and was acquired in 2014 by the AVEVA Group.

Did you know that more people from areas of social and economic disadvantage participate in higher education in Northern Ireland than any other part of the UK?

Higher education is open to everybody with the ability and the desire to benefit from it, regardless of their backgrounds or personal circumstances.

Higher education places in Northern Ireland are open to students on the basis of merit, and the student support system helps to ensure that the cost of higher education does not prohibit people from participating.

Higher education providers in Northern Ireland recruit students from a wide range of backgrounds, with a particular focus on welcoming students from areas of social and economic disadvantage. They do this in lots of different ways, such as through offering bursaries to students from lower income backgrounds. They also run a range of outreach programmes, with the aim of reaching out to communities and schools where people are underrepresented in higher education.

Ulster University's [Step Up](#) programme invites secondary school students from disadvantaged and underrepresented areas in Derry/Londonderry and Belfast to attend the University during their A-level years. This gives them a taste of what higher education is like, helping them to view it as a viable option for them when they finish school, when otherwise they might not have done. The programme has had a great deal of success and some 97% of those who have participated in the programme have successfully progressed to university.

I hadn't expected to go to university. When I was growing up most people went straight into work once they finished their GCSEs. Step-Up helped me with the transition into university through the practical aspects of the course and the confidence that I developed over the two years.

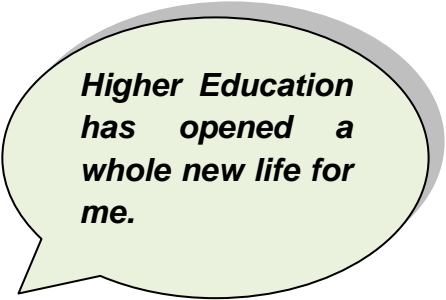
- Nicole McIntyre,
Radiographer

In 2012/13 some 38% of young full-time first degree entrants came from areas of economic disadvantage, compared to a UK average of 32%.

Gaining a higher level qualification is one of the best ways for people to improve their life opportunities and employment prospects, making higher education one of our most important and effective enablers of social mobility in Northern Ireland. And higher education is not just for young people. Often through flexible part-time study, more and more people who have already left education and entered the working world are now returning to university or college to improve their employment prospects.

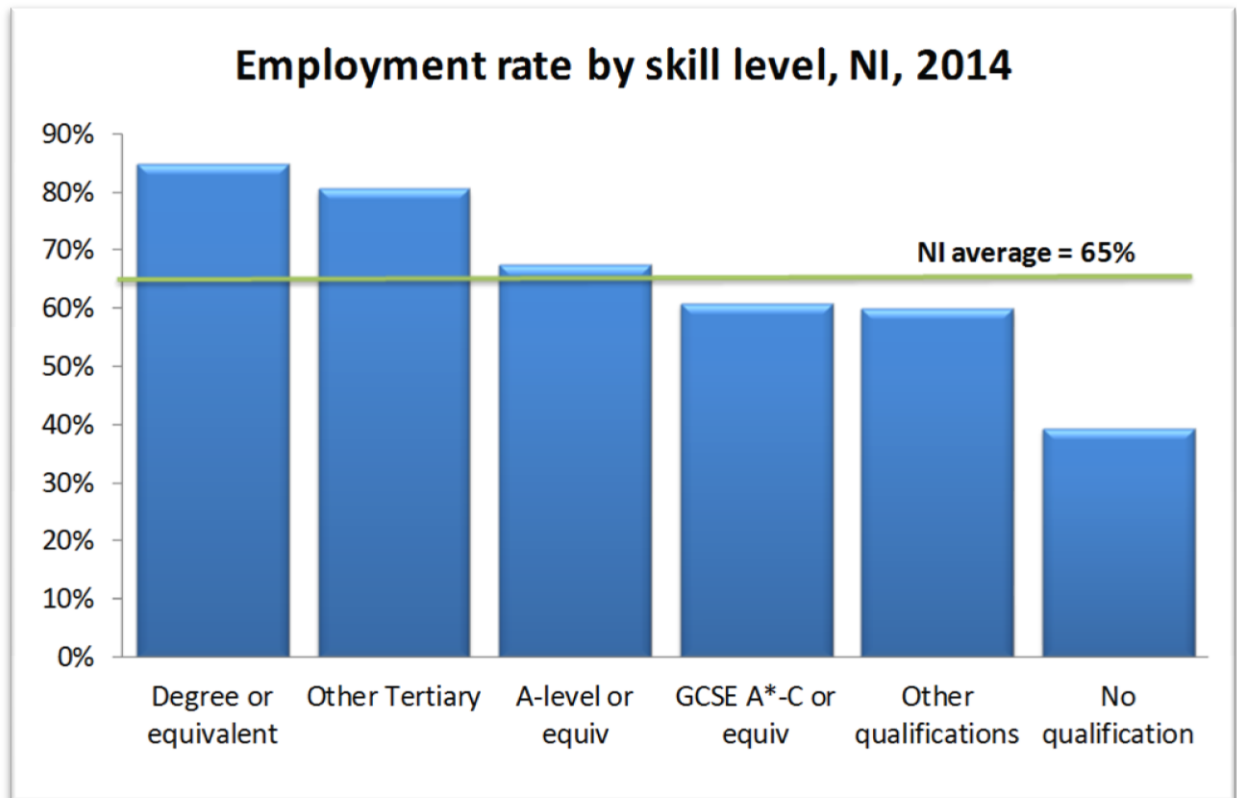
Lindsay McCord, 29 from North Belfast, moved from a life on benefits to reaping the benefits that higher education can offer.

[Read Lindsay's story.](#)

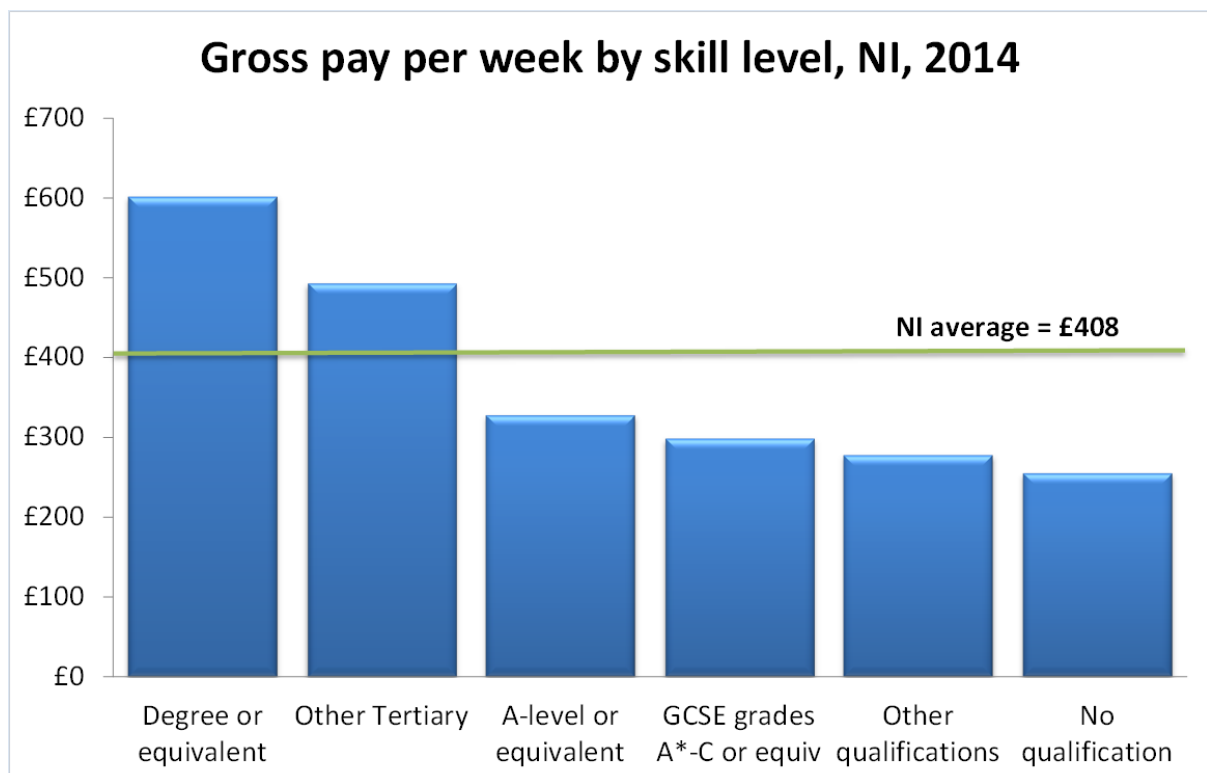


***Higher Education
has opened a
whole new life for
me.***

In 2014, the employment rate amongst people with 'degree level' or 'other tertiary' level qualifications, such as those provided in Northern Ireland's further education colleges, was over 80%, which was significantly higher than the Northern Ireland average.



People with degree level qualifications in Northern Ireland also earn on average roughly 50% more than the Northern Ireland average.



Did you know that higher education providers are helping to improve community relations in Northern Ireland?

Northern Ireland has a unique political history and is still a highly divided society. A wide range of services in Northern Ireland, including many aspects of education, are provided on a segregated basis, and these divisions come with a monetary cost.

Higher education in Northern Ireland is not segregated, and universities and further education colleges contribute towards a more integrated and cohesive society by providing a shared space for students from different parts of the community and ethnic and religious groups to interact and engage with one another with common purpose.

On top of this, research undertaken at our universities is helping us better understand and address the causes of division in Northern Ireland.

For example, the work of Professor Paul Connolly of Queen's University has shown just how deeply rooted these divisions can be. His research on promoting respect for ethnic and cultural diversity amongst children has led to an educational programme which has been adopted and embedded in over 1,200 preschool settings in Northern Ireland, involving more than 40,000 children.

When we started this research we found that in Northern Ireland, children as young as three were capable of holding sectarian and racist attitudes. But we also realised that here was a window of opportunity, the chance to give children a much more inclusive sense of others and a much more positive respect for the difference, while at the same time not stopping them developing a strong sense of their own identity.

- Professor Paul Connolly, Head of Queen's School of Education

This work is having a major impact outside of Northern Ireland as well. Early childhood programmes based on Paul Connolly's work with Early Years are being developed in Columbia, Indonesia, Kenya and Serbia. It has also led to the funding of an international initiative called [Una](#), established to reduce racial and ethnic divisions and conflicts and to build socially inclusive communities through effective early childhood programmes. More than 80 experts from 33 different countries are taking part.

Northern Ireland's higher education providers also have impressive records in reaching out to their local communities through sport, music, art, literature, drama and educational activities which are open to the public. For example, they have impressive suites of world class sporting facilities which they make available to local sports teams.

Similarly, students themselves are actively engaged in supporting local communities through community-focussed projects and volunteering activities. Thousands of students volunteer for example in [homework clubs](#), targeted at pupils in areas with significant educational challenges.

Case Study

Edel McGovern of Queen's University has been volunteering with [Positive Futures](#) – a charity that supports children, young people and adults with learning disabilities, acquired brain injuries and those on the autistic spectrum.

Did you know that higher education providers benefit not only those who go there to study, but their research is having a real impact on people's lives?

Important research is helping to transform people's lives in a range of areas, notably in areas such as cancer care. For example, with support from the Department's Connected programme a local company, Axis Three, has come together with a 3D medical imaging specialist at Ulster University to support the Ulster Cancer Foundation to develop an innovative tool to help women make better decisions about breast reconstruction following surgery. The pioneering project will use the latest digital technology to enable women to see how breast reconstruction may look for them.

Currently around 21% of breast cancer patients having a mastectomy opt for immediate breast reconstruction and, for many women, these decisions are being made at a very stressful time. Many have expressed a desire to speak to others who have been in a similar situation or have already gone through a similar procedure but haven't had the chance to do so.

- Liz Atkinson, Head of Care Services for the Ulster Cancer Foundation

The Centre for Cancer Research and Cell Biology (CCRCB) at Queen's University is also undertaking world-class research in areas like biomarker discovery, which can help identify and treat cancers earlier. In 2012 it was awarded a Queen's Anniversary Prize for world-class achievement in cancer research through its leadership of the Northern Ireland Comprehensive Cancer Services programme, **which has seen cancer survival rates in Northern Ireland move from the bottom of the UK league table to the top.**

Research at Ulster University on the benefits of taking folic acid

The importance of folic acid in early pregnancy is well known and Ulster University has been crucial to recent awareness campaigns and informing medical advice. New research into the long-term

supplements prior to and in early pregnancy is helping to reduce the incidence of conditions such as spina bifida, which can form within the first four weeks of pregnancy.

This important research has already resulted in government advice to women of child bearing age being adapted and the University has recently secured almost half a million pounds of research funding to further explore the long-term benefits of folic acid on brain function and psychological development among children.

The How

Did you know that Northern Ireland has three universities, two university colleges and six further education colleges responsible for providing higher education?

Queen's University and Ulster University

The two biggest and most well known universities in Northern Ireland are Queen's University Belfast and Ulster University. Queen's is a Russell Group university with a strong focus on research, located in Belfast. Ulster is a multi-campus university, with campuses in Coleraine, Magee, Jordanstown and Belfast. **Together they enrol almost 50,000 students per year, mainly at degree level or above.**

Both Queen's and Ulster are autonomous institutions. This means that they are legally responsible for their own affairs.

The Open University

Northern Ireland's third university is the Open University, which has campuses in Northern Ireland as well as England, Wales, Scotland and the Republic of Ireland. But the Open University is not only unique for operating on a UK- and Ireland-wide basis. It is also the world's first distance learning university, allowing people to undertake whole qualifications remotely through the help of modern technologies. **The Open University in Northern Ireland now enrolls over 4,000 students per year, and it is also legally autonomous.**

Stranmillis and St Mary's

In addition to the universities, Northern Ireland also has two university colleges, Stranmillis and St Mary's. They specialise in educating Northern Ireland's teachers but also offer some professionally related degree courses in other areas such as Early Childhood Studies, Health, Physical Activity and Sport and the Liberal Arts.

Together they now enrol close to 3,000 students per year.

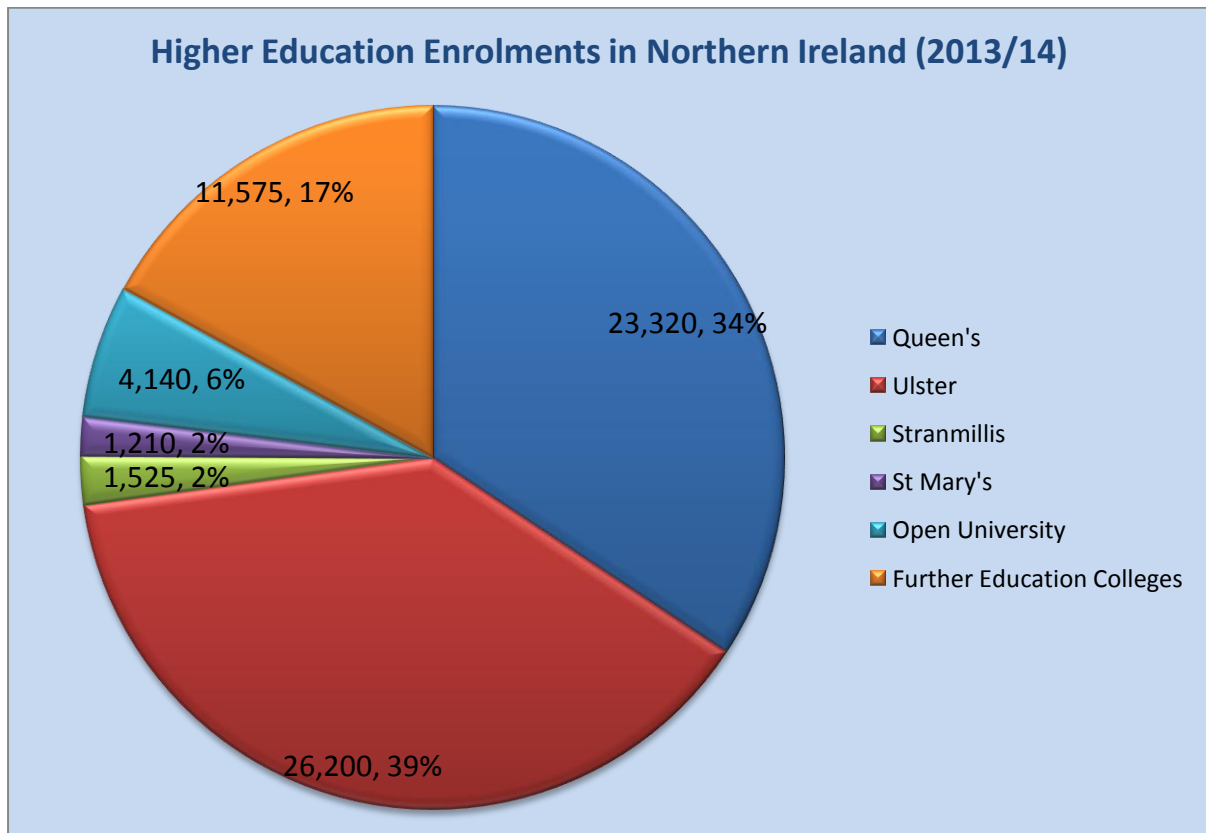
The Further Education Colleges

Northern Ireland has six regional further education colleges: Belfast Metropolitan College; Northern Regional College; North West Regional College; Southern Regional College; South Eastern Regional College; and South West College.

In addition to their offering of mainstream further education courses, up to A-level and equivalent qualifications (level 3), the colleges offer a range of higher education courses, mainly at the 'sub-degree' levels (4-5), such as Foundation Degrees.

Together, the further education colleges now enrol over 11,500 students per year on higher education courses.

Did you know that Northern Ireland's further education colleges deliver almost a fifth of all higher education in Northern Ireland?



The 'traditional' route into and through higher education in Northern Ireland is for students to complete their A-levels at school and progress directly into an undergraduate degree at a university or university college. But this route is not for everyone, and Northern Ireland's six regional further education colleges offer a wide range of 'sub-degree' higher education courses, such as Higher National Diplomas and Foundation Degrees.

These courses are much more focussed towards specific employment and so they are highly valued by employers. They are qualifications in their own right, but they can also act as alternative entryways into full degree courses at a university. In fact, every Foundation Degree in Northern Ireland is developed to allow students to progress directly into a related undergraduate degree course at a university, normally directly into the start of the second year.

Did you know that there are lots of ways to participate in higher education other than full-time study, and that people are increasingly opting to earn while they learn by balancing their studies with employment?

Full-time Delivery

The most traditional form of delivery at the universities and university colleges is full-time study, which is largely preferred by young people who have recently finished school. By studying full-time students can complete most sub-degree courses in one or two years and most degree courses in three or four. At the postgraduate level, most Masters courses can be completed in just one year on a full-time basis while doctoral degrees normally require three or four years.

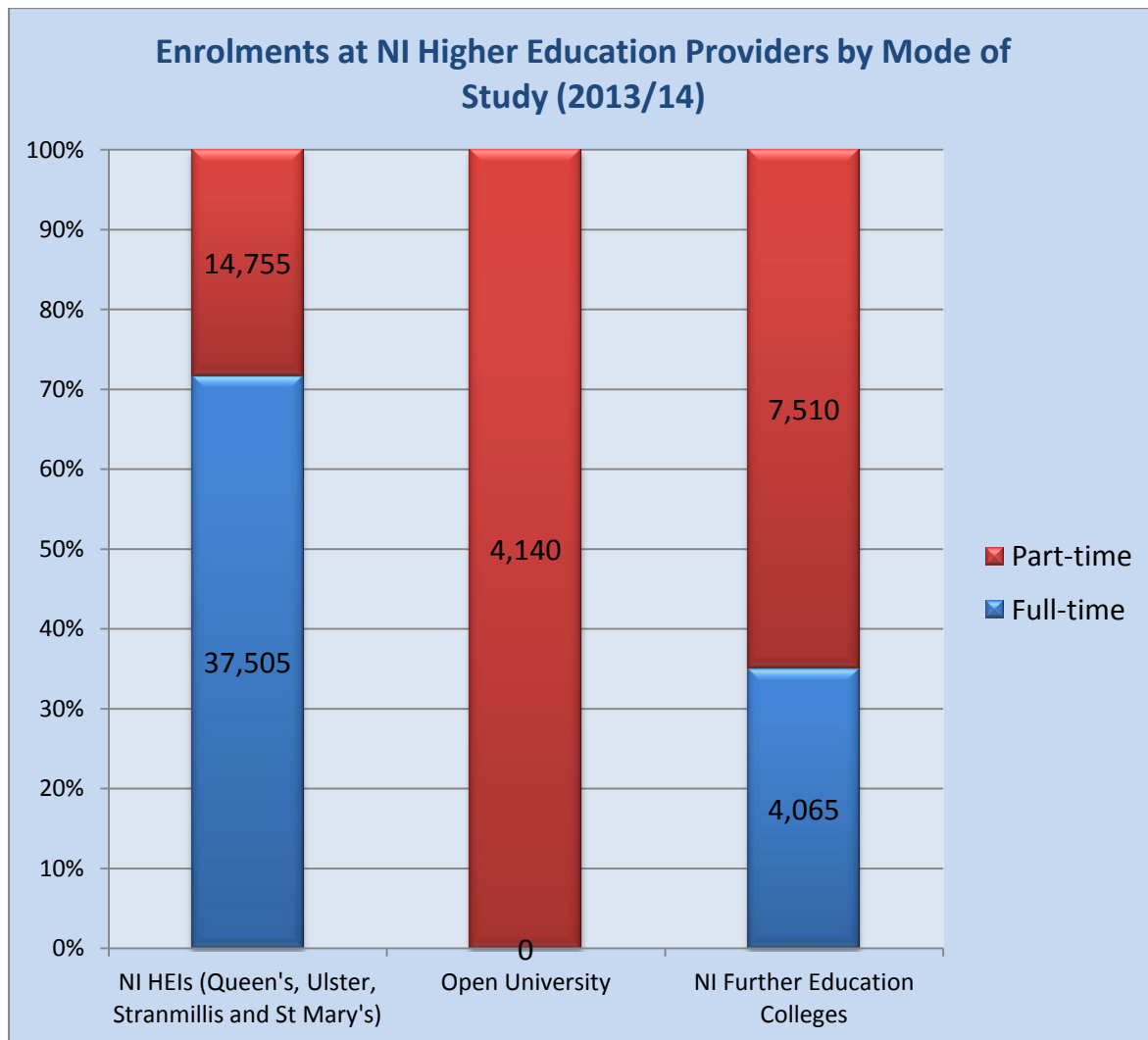
In 2013/14 some 41,570 students were enrolled on full-time courses at Northern Ireland's universities and colleges, accounting for about 61% of total enrolments. Full-time courses are the norm at the universities (except for the Open University), where they account for accounting for about 72% of total enrolments. Meanwhile, it is the opposite case at the further education colleges, where they account for about 35% of total enrolments.

Part-time Delivery

Full-time higher education requires students to commit a great deal of their time to their studies. While many students do work during their studies on a part-time basis, it would not normally be feasible for a full-time student to also work full-time. For people who do work full-time, or people with other commitments such as caring responsibilities, part-time study can allow them to learn at a pace which suits them.

Across all of Northern Ireland's higher education providers about 26,400 students were enrolled on part-time courses in 2013/14, accounting for about 39% of all enrolments.

Part-time is the most prevalent mode of higher level study at the further education colleges, and the Open University is unique in that it only caters to part-time learners.



Distance Learning

Universities and colleges are increasingly embracing online and distance learning. Many are now making whole libraries available to their students online, allowing assignments to be submitted electronically, and offering students the opportunities to participate in lectures, group discussions and even one-on-one tuition through video conferencing. **Equipped with a laptop or i-pad, it is now entirely**

possible for students to undertake entire qualifications without ever actually setting foot in their university or college. The Open University, specialising in flexible provision, is leading the way in the provision of distance learning, and even offers a wide range of totally free online courses. These courses can be a great way for prospective students to dip their toes into higher education before deciding whether or not it is the right path for them.

Employer-led Learning

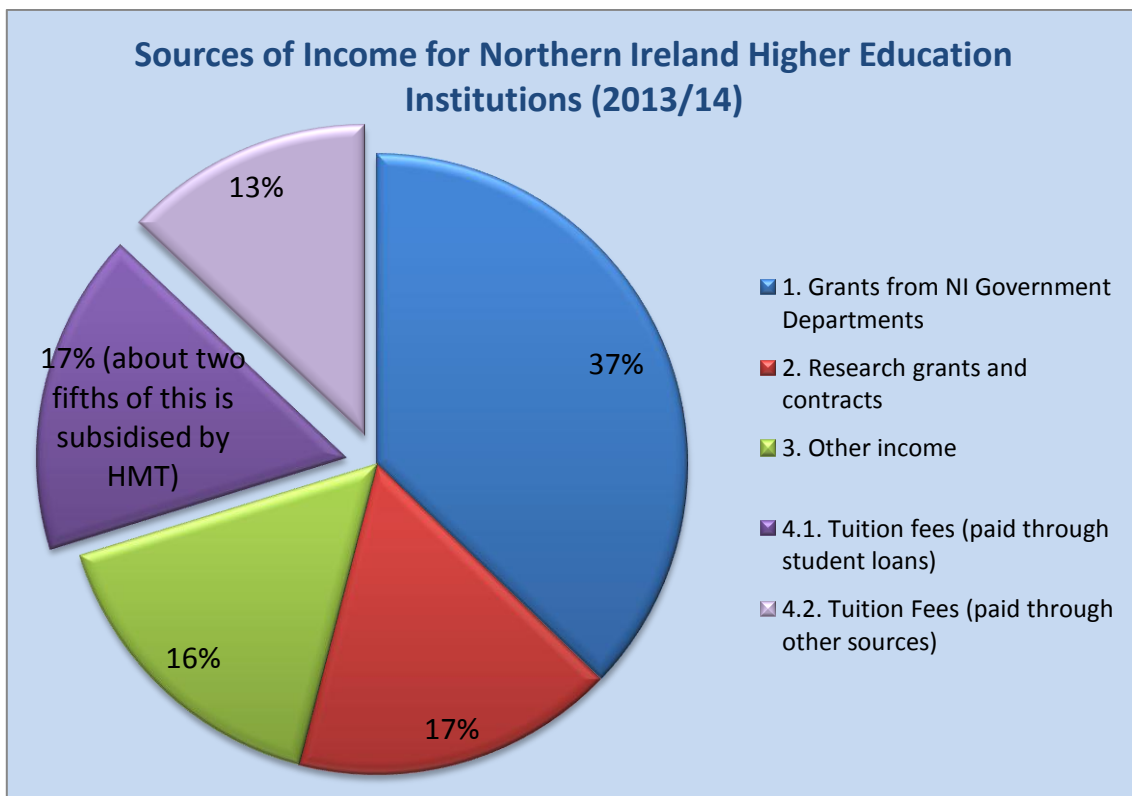
Increasingly, employers are taking a leading role in the content, funding and delivery of higher education in Northern Ireland. A range of companies are working with local universities and colleges to help students combine their studies with relevant employment. For example, the local IT company Kainos, through its [Earn As You Learn](#) scheme, offers school leavers the chance to join the company as junior software engineers, working four days a week and studying their degree part-time over four years. Under this model Kainos covers students' tuition fees and also usually offers them permanent jobs at the end of the scheme.

[The new apprenticeships system](#) will also see more employers working with universities and colleges in this way than ever before. **Apprenticeships will be available right up to degree and PhD levels, allowing people to combine paid employment with part-time study at a university or college in clearly defined subjects linked to their job roles.** This combination of on- and off-the-job training maximises the apprentices' potential and their chances of gaining well-paid and sustainable employment.

Did you know that the majority of funding for higher education in Northern Ireland comes from two main sources: grants from Northern Ireland government Departments and tuition fees from students?

In 2013/14 Northern Ireland's higher education institutions received income of about £523 million.

This funding comes from a wide variety of public and private sources, but **the majority (67%) comes from two main sources: grants from Northern Ireland government Departments and tuition fees from students.**



1. Grants from Northern Ireland Government Departments

The main source of public investment for higher education in Northern Ireland comes through recurrent grant funding from government Departments, paid on an annual basis. **Totalling close to £200 million per year, these grants are paid for two main reasons: teaching and research.** The teaching grants correspond to the number of students being taught at an institution and the subjects those students are taking. Meanwhile the research grants are paid with reference to the quality of an institution's research output, and this funding can in turn help institutions attract research grants and contracts from other sources.

2. Research Grants and Contracts

In addition to recurrent grant funding for research from Northern Ireland government Departments, higher education institutions can also receive research grants and contracts from a wide range of other sources, most notably from the UK Research Councils but also from UK-based charities, industries and EU sources. These grants are usually awarded on a competitive basis and so can depend heavily on how research-engaged the university is.

3. Other Income

Universities can make money through a wide range of other activities, for example by hiring out their facilities to local businesses and organisations and providing catering and residency services. The majority of UK higher education institutions, including those in Northern Ireland, are also charitable bodies, meaning that they can receive funding through endowments and donations.

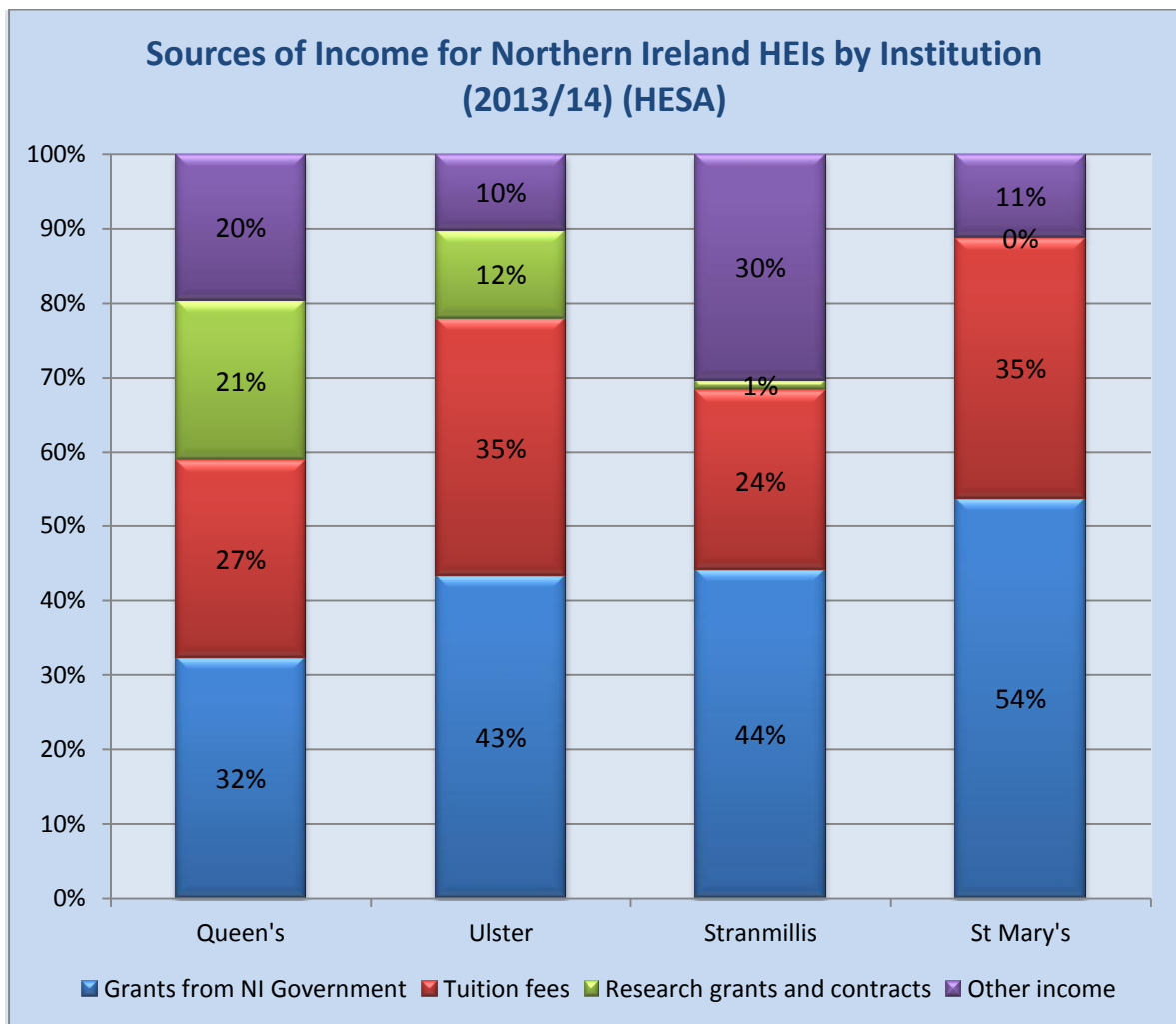
4. Tuition Fees

The biggest source of private investment for higher education in Northern Ireland is tuition fees, paid by students. Most full-time undergraduate students can access financial support through the Student Loans Company to cover the cost of their tuition fees through student loans. **These loans do not have to be repaid until after a student has graduated and once their earnings have reached a specific threshold, in much the same way as people pay their taxes.** Due to their [progressive repayment terms](#), these loans are heavily subsidised by government through Her Majesty's Treasury (HMT).

In 2013/14 over half of all tuition fee income was paid through student loans, and it is currently forecasted that about 40% of that will not be repaid. **In other words, about a fifth of universities' tuition fee income is, ultimately, expected to be paid by government.**

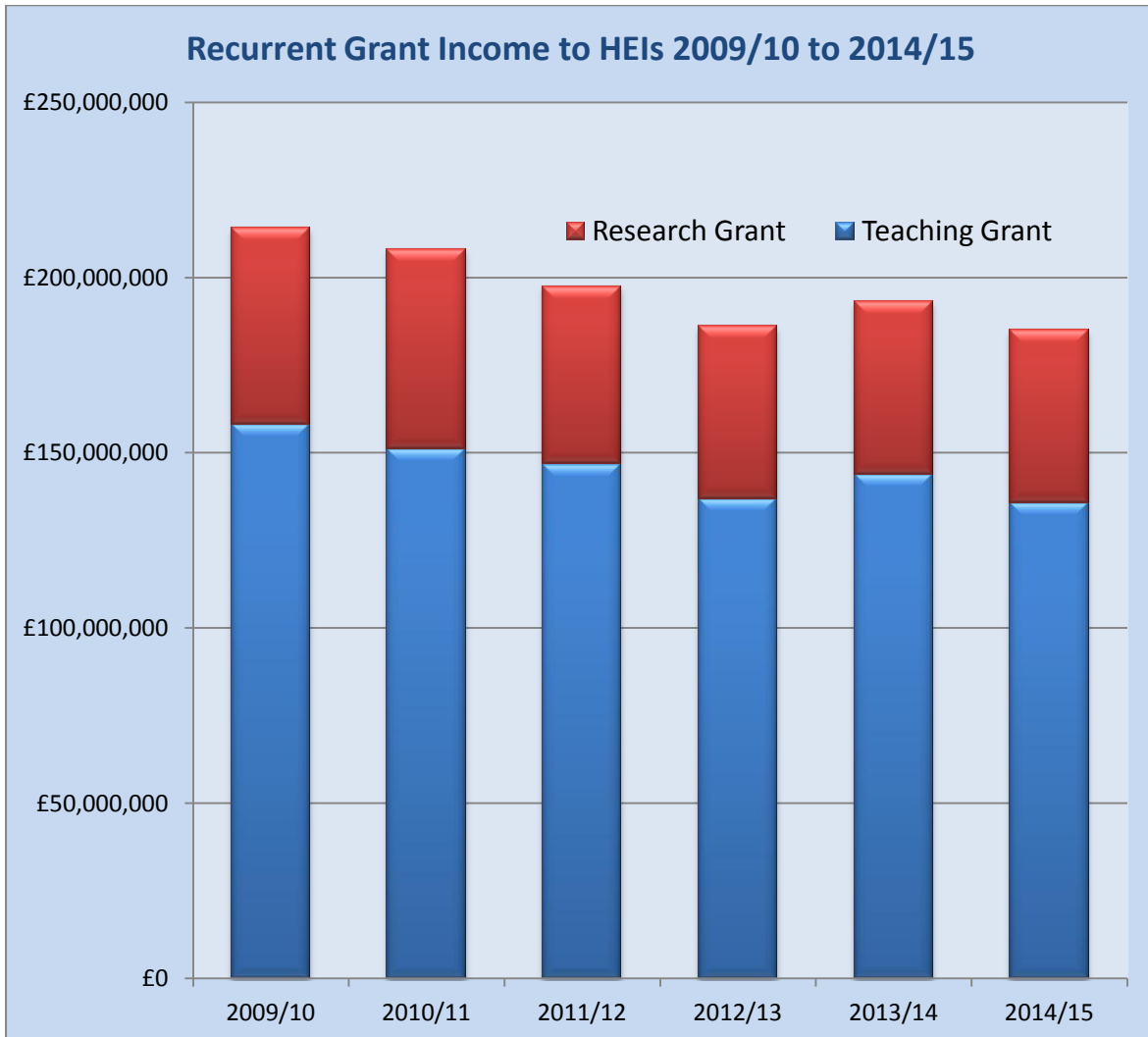
Funding by Institution

These funding sources can vary significantly between different institutions. For example, Queen's is a research intensive institution and this is well reflected in its share of funding from research grants and contracts.



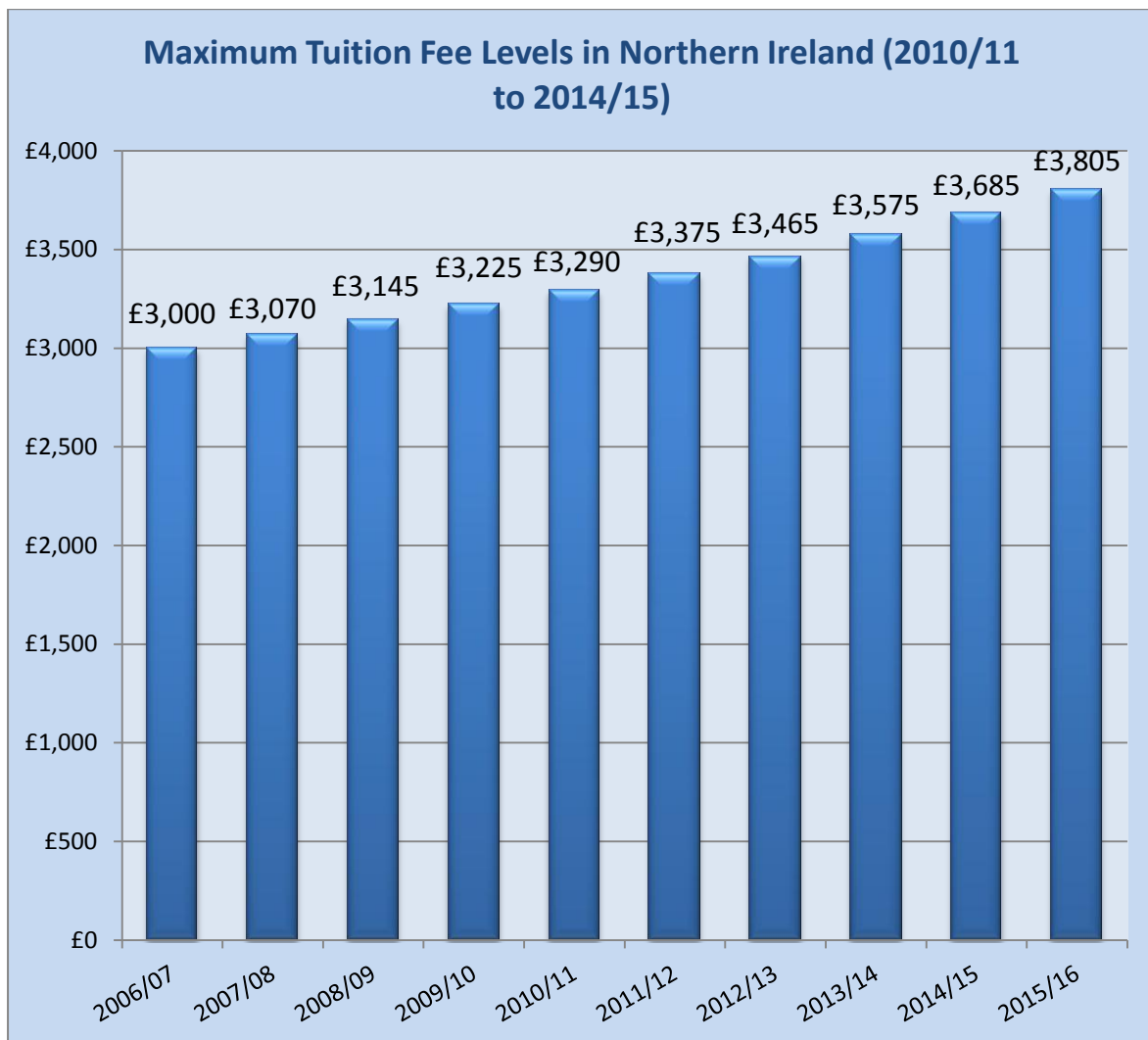
Did you know that the grant funding provided to higher education institutions has been reducing over the last six years?

From 2009/10 to 2014/15, the grant funding provided by Northern Ireland government Departments to universities has been cut by over 13%.



Did you know that tuition fee levels for most students in Northern Ireland have not risen beyond inflation since 2006?

Full-time undergraduate students from Northern Ireland commencing a higher education course in Northern Ireland will pay a maximum tuition fee of £3,805 in 2015/16.



In 2011, when tuition fees were about to be raised significantly in England, the Northern Ireland Executive froze tuition fees for local full-time undergraduate students at their current levels, subject to inflationary increases. This means that the Department caps the level of tuition fees which Northern Ireland's higher education

providers can charge to full-time undergraduate students from Northern Ireland and other parts of the European Union (outside of the UK).

Queen’s University, Ulster University, St.Mary’s University College and Stranmillis University College all charge the maximum fee level (currently £3,805) while the six further education colleges charge lower fee levels for their sub-degree courses, normally around £2,500.

As higher education is a devolved responsibility, each UK administration can set its own tuition fee levels. In England fees were raised to a maximum of £9,000 in 2012 and most students pay these through student loans. In Wales fees were also raised to a maximum level of £9,000 but most students can access fee grants to cover the majority of these costs, and loans to cover the rest. Meanwhile, in Scotland most Scottish students are not charged a tuition fee at all.

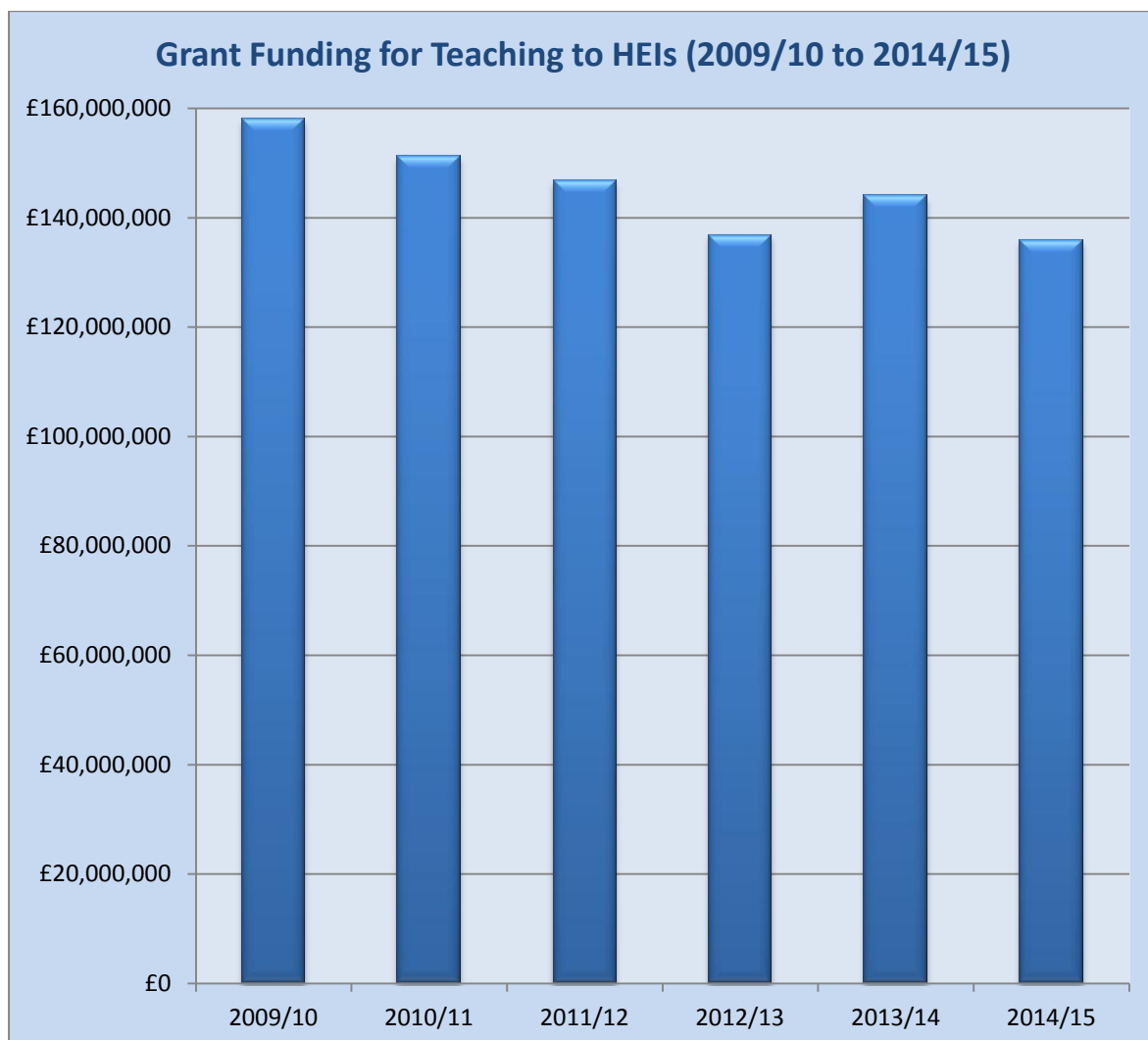
Each administration can also set different tuition fee levels for students from other parts of the UK. For example, while fees have been frozen for local students here in Northern Ireland, students coming here from other parts of the UK can be charged up to £9,000. Similarly, a Northern Ireland student going to Scotland can be charged up to £9,000 despite free fees policy for Scottish students.

Maximum Fee Levels throughout the UK (2015/16)

		Location of Study			
		England	Scotland	Wales	Northern Ireland
Student's Domicile	England	£9,000	£9,000	£9,000	£9,000
	Scotland	£9,000	£0	£9,000	£9,000
	Wales	£9,000	£9,000	£9,000	£9,000
	Northern Ireland	£9,000	£9,000	£9,000	£3,805

Did you know that the grant funding provided to higher education institutions for teaching depends on the number of students they teach and also on the subjects they study?

Since 2009/10, grant funding for teaching has reduced by about 14%.

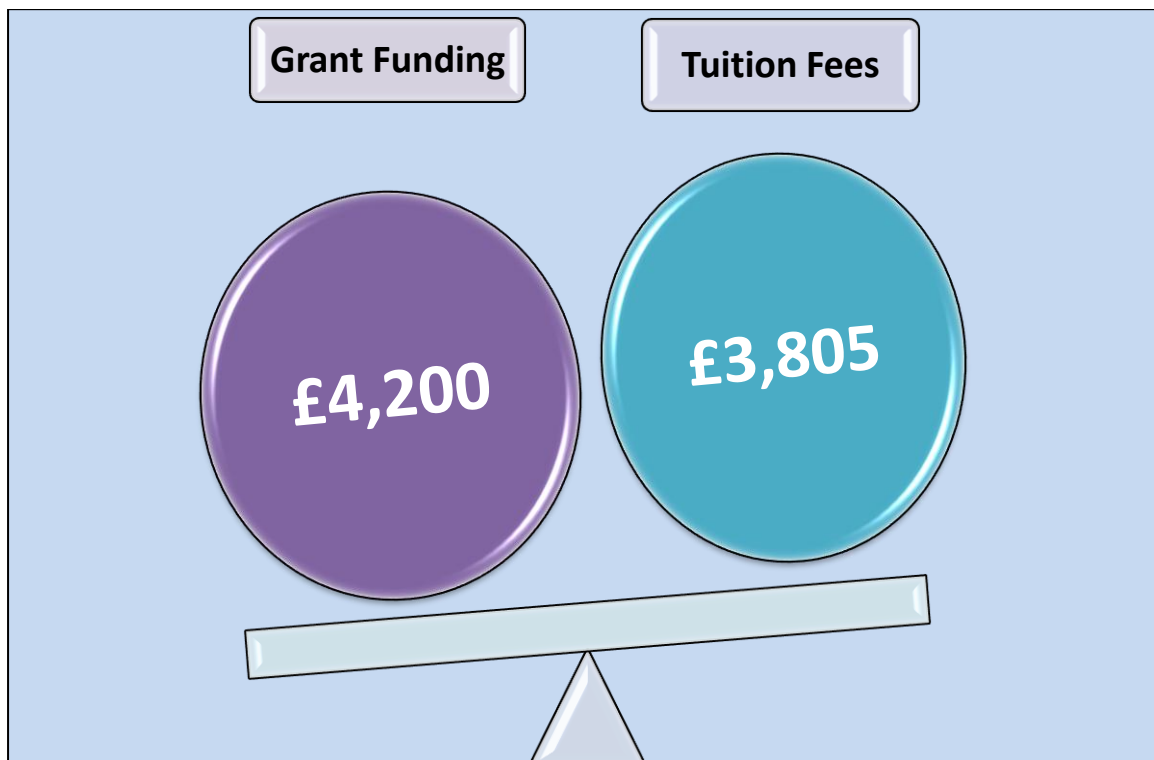


While the overall amount of funding available for this depends on the budgets set by the Northern Ireland Executive, the actual allocation of this funding between universities and colleges depends on the number of students they teach and the subjects they study. This is important because different subjects can cost very different amounts to teach. For example, at the moment about **£15,857 is**

provided for a final year medical student while just £2,855 is provided for a student undertaking a business degree.

Subject Band	Band Description	Funding per Full-time Undergraduate (2014/15)
Band A	The clinical stages of medicine and dentistry courses	£15,857
Band B	Laboratory-based subjects	£5,913
Band C	Subjects with a studio, laboratory or fieldwork element	£4,159
Band D	All other subjects	£2,855

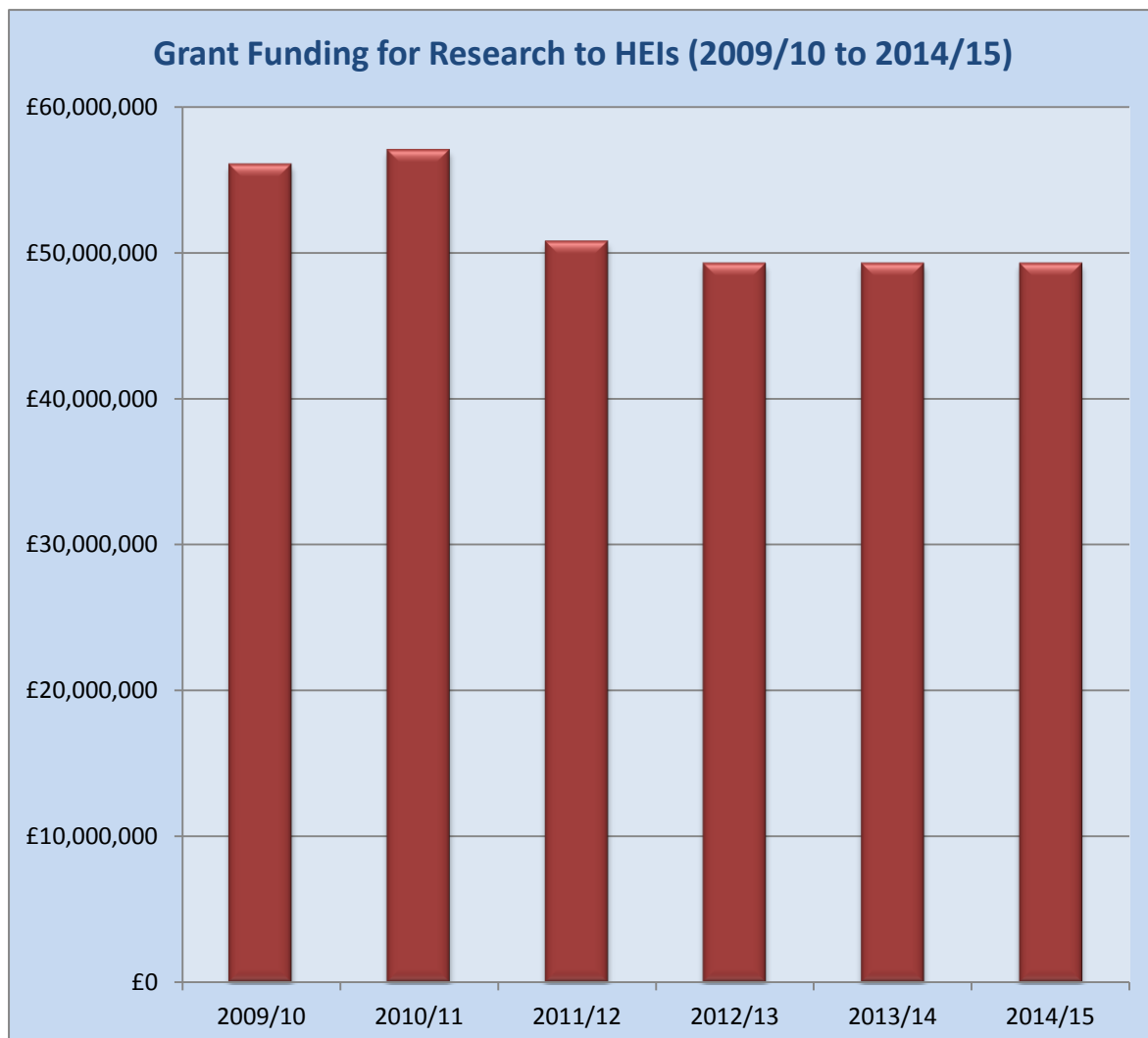
Across these bands, the average grant funding received per student was about £4,200 in 2014/15, with most students falling into bands B, C or D. This funding is not intended to cover the full costs of teaching a student and it is complemented by students' own contributions in the form of tuition fees.



Did you know that grant funding is also provided to support research at Northern Ireland's universities?

The majority of research funding received by Northern Ireland's universities is from non-Departmental research grants and contracts, gained on a competitive basis from sources like the UK Research Councils and European Union sources. This funding accounts for about 21% of Queen's University's overall income, and 12% of Ulster University's.


But grant funding for research is also provided by government. Since 2009/10, this funding has reduced by some 12%.



Quality-related Research Funding

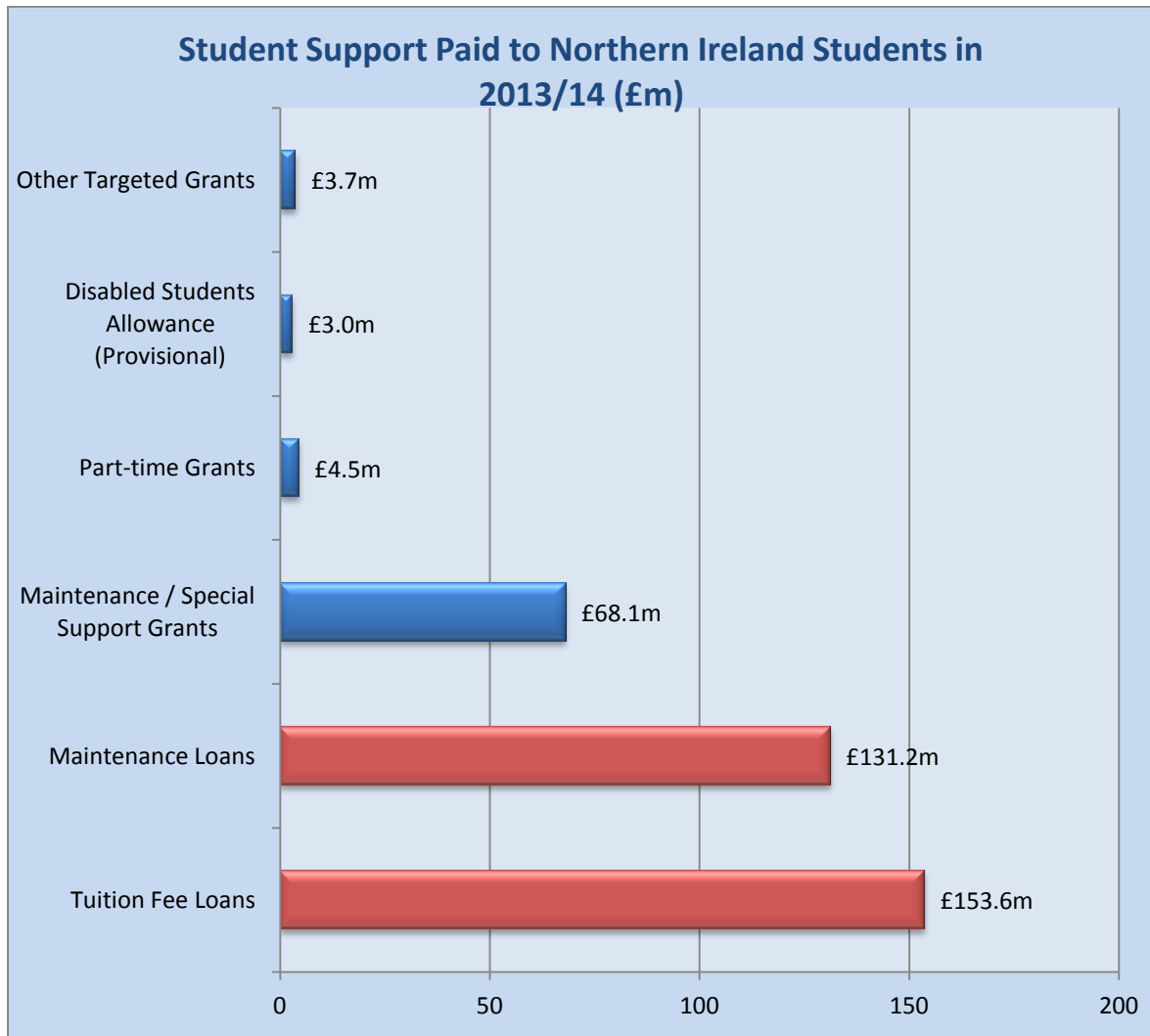
This funding is provided to research-engaged higher education institutions according to their performance under Quality Related Research (QR). This is a UK wide initiative allocated by reference to 'quality'. QR funding is distributed to the institutions based on their performance under QR and is used to cover the essential costs necessary to carry out research, including permanent academic staff salaries, premises, libraries and central computing costs. It also contributes to the costs of postgraduate research training.

In 2015/16 this research funding will reduce by some 8.5% due to budgetary pressures.



Did you know that significant levels of public funding are used to support students financially while they study?

In 2013/14, over £364 million was provided to students from Northern Ireland to help them with the costs of studying.



This support ranges from loans for tuition fees and maintenance costs to grants for childcare and travel costs. The costs of student support **grants** are met by Northern Ireland government Departments, and the majority of **grant expenditure** is used for maintenance grants for students from lower income backgrounds.

This grant expenditure is now totalling nearly £70 million per year in Northern Ireland, which accounts for about one tenth of the Department's overall budget.

Meanwhile, student loans are paid through the UK-wide student loan system, and the costs of providing them are covered by Her Majesty's Treasury.

Student loans do not need to be repaid until students have graduated and are earning over £17,335, at which point they repay at a rate of 9% of their income above that amount. This is much more similar to the way people pay their taxes than any commercial loans such as mortgages or bank overdrafts, and after 25 years any outstanding debt is forgiven entirely.

As the repayments are completely dependent on what a person earns, the level of student debt does not actually affect the level of repayments made. **A student owing £30,000 will repay the same amount per month as a student owing twice that much, provided they earn the same amount.**

	Employment Status	Gross Earnings		Student Loan Repayments	
		Annual	Monthly	Annual	Monthly
Laura	Unemployed	£0	£0	£0	£0
John	Employed	£16,000	£1,333	£0	£0
Alan	Employed	£30,000	£2,500	£1,140	£95
Jill	Employed	£60,000	£5,000	£3,840	£320

The Now

Did you know that the demand for higher level skills in the Northern Ireland economy is growing annually?

Higher level skills are vital for driving economic growth. For individuals, having higher level skills means greater employment opportunities and improved earnings potential. Higher level skills range from sub-degree qualifications at qualification levels 4-5, such as Foundation Degrees, through to postgraduate qualifications at qualification levels 7-8, such as Masters and doctoral degrees. Traditional undergraduate degrees sit at level 6.

Up to 2020, it is forecasted that an additional 7,200 jobs per annum will require higher level skills. From 2025-2030, this increases to 8,500 jobs per annum.

There is widespread consensus that improving the skills base of the Northern Ireland economy has the potential to boost productivity, the employment rate and ultimately international competitiveness.

Wealthier economies with higher living standards tend to have a strong skills base. Skills are not only correlated with final economic outcomes but are also an important driver of the growth performance and rising prosperity of economies. Economies such as Estonia and South Korea, which have invested heavily in their skills bases, have grown faster and are favourably positioned to grow strongly in future. They are closing the wealth gap with more advanced economies and may eventually overtake them, resulting in a new 'world order' of prosperity.

At the individual level, and across countries, skills are also positively correlated with employment rates and earnings. More highly skilled individuals earn higher wages and are more likely to be in employment, resulting in better social outcomes too.

However, skills shortages are constantly raised as one of the biggest issues facing local business and **Northern Ireland's skills base ranking**, where Northern Ireland's skills base is benchmarked against a number of international economies to monitor performance and to assess if policies are sufficient to improve the skills base, **has remained unchanged over the last decade, ranking 20th of 26 countries.**

Did you know that the demand for individuals with higher level skills in specific subject areas, such as Science, Technology, Engineering and Maths, is due to increase significantly up to 2030?

Based on forecasts up to 2025, there will be not enough individuals possessing sub-degree level (4-5) qualifications, such as Foundation Degrees, to meet the projected demand of employers. **Northern Ireland therefore needs to ensure a greater supply of individuals being educated and trained at levels 4 and 5 to meet the needs of the economy.** Significant undersupply is forecast to occur in the following subject areas at sub-degree level:

- retail and commercial;
- science and mathematics; and
- engineering and manufacturing.

The current level of individuals being educated and trained at degree level and above, according to forecasts, is “broadly in balance” to meet the projected needs of the economy up to 2025. However, **there is an imbalance between subject areas with not enough individuals undertaking subjects in specific subject areas, and too many in others.** It is forecast that there will be a significant undersupply in a number of subject areas including:

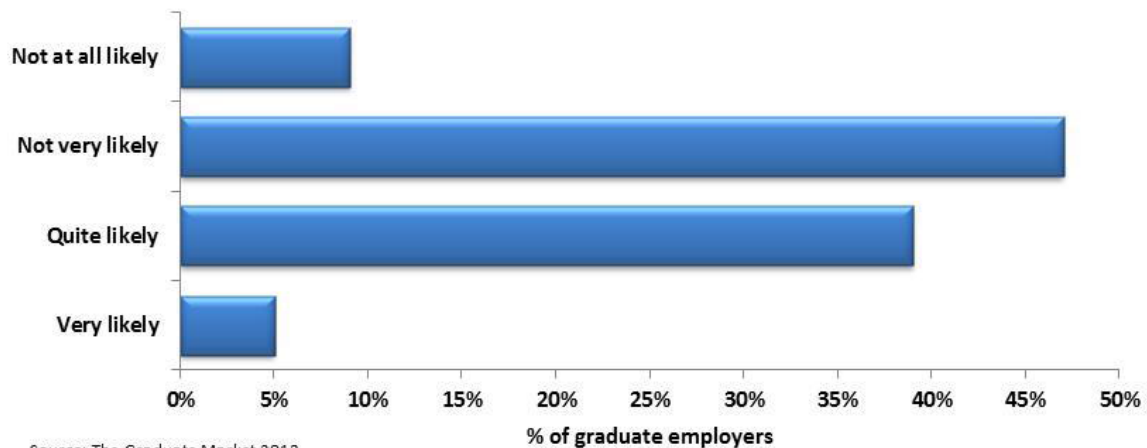
- mathematics and computer science;
- engineering; and
- physical and environmental sciences.

Under a lower corporation tax environment, the demand for higher level skilled individuals continues to increase, especially in the period from 2025 to 2030. Science, Technology, Engineering and Maths skills will clearly be important and in high demand in future, and even more so in the 12.5% Corporation Tax rate scenario. **Northern Ireland's future forecasted skills demand and supply will be further demonstrated in the Department for Employment and Learning's upcoming Northern Ireland Skills Barometer due to be launched this autumn.**

Did you know that it is not just the subject area which individuals study that matters to employers, but employability skills are also crucial?

Employers do not only focus on an individual's higher education qualification. Employability skills are also a fundamental requirement to secure employment, particularly in high skilled sectors for blue chip employers. These softer skills include: team working; good communication; people management; problem solving; and critical and objective thinking. These softer skills can be gained through work experience which also matters to employers when recruiting.

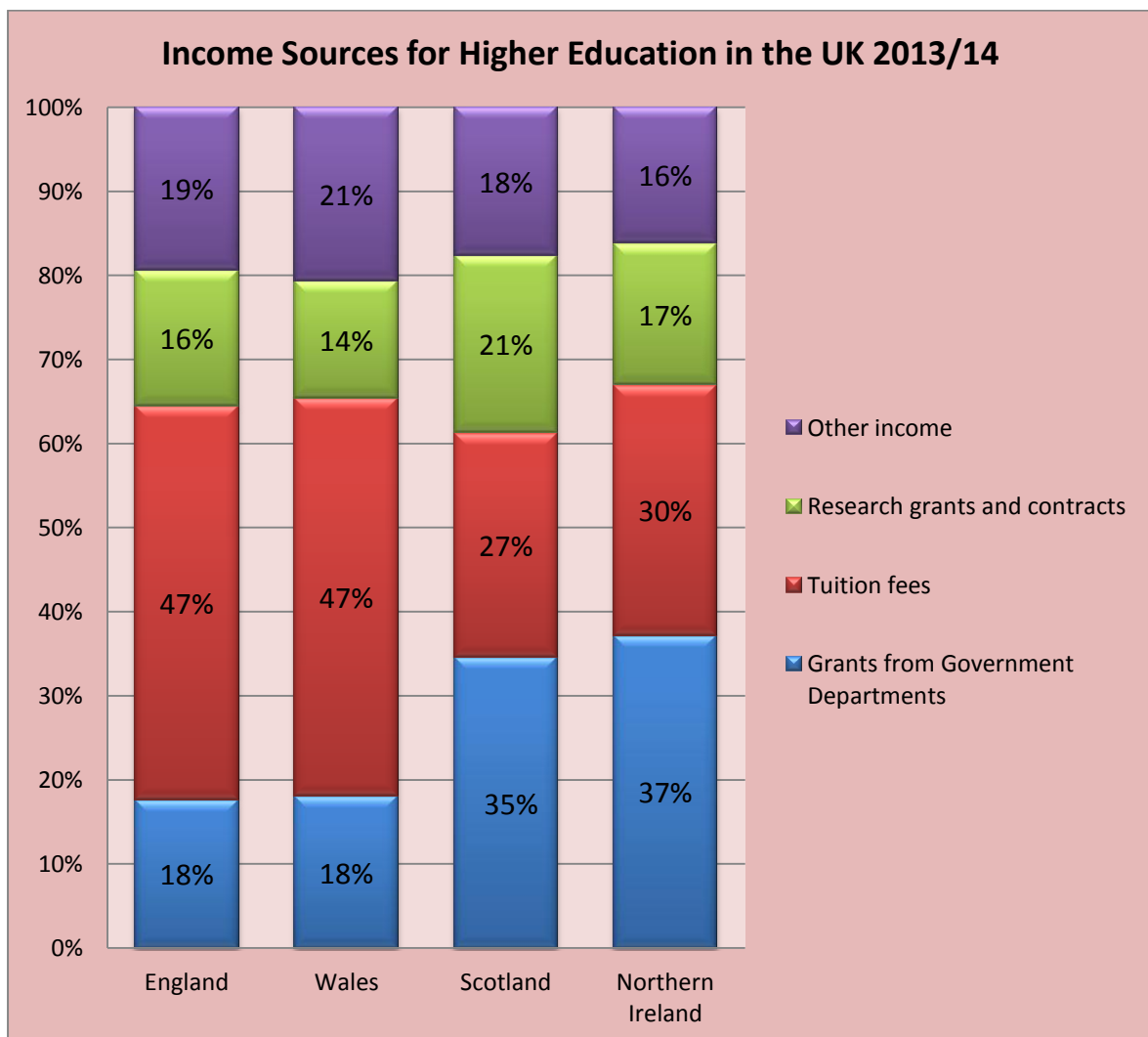
Likelihood that graduates with no work experience would get a job offer



Therefore qualifications alone will not ensure a graduate's employment prospects, and **many employers believe that graduates are inadequately equipped with the soft skills and knowledge needed to make a smooth transition from higher education into the work place.**

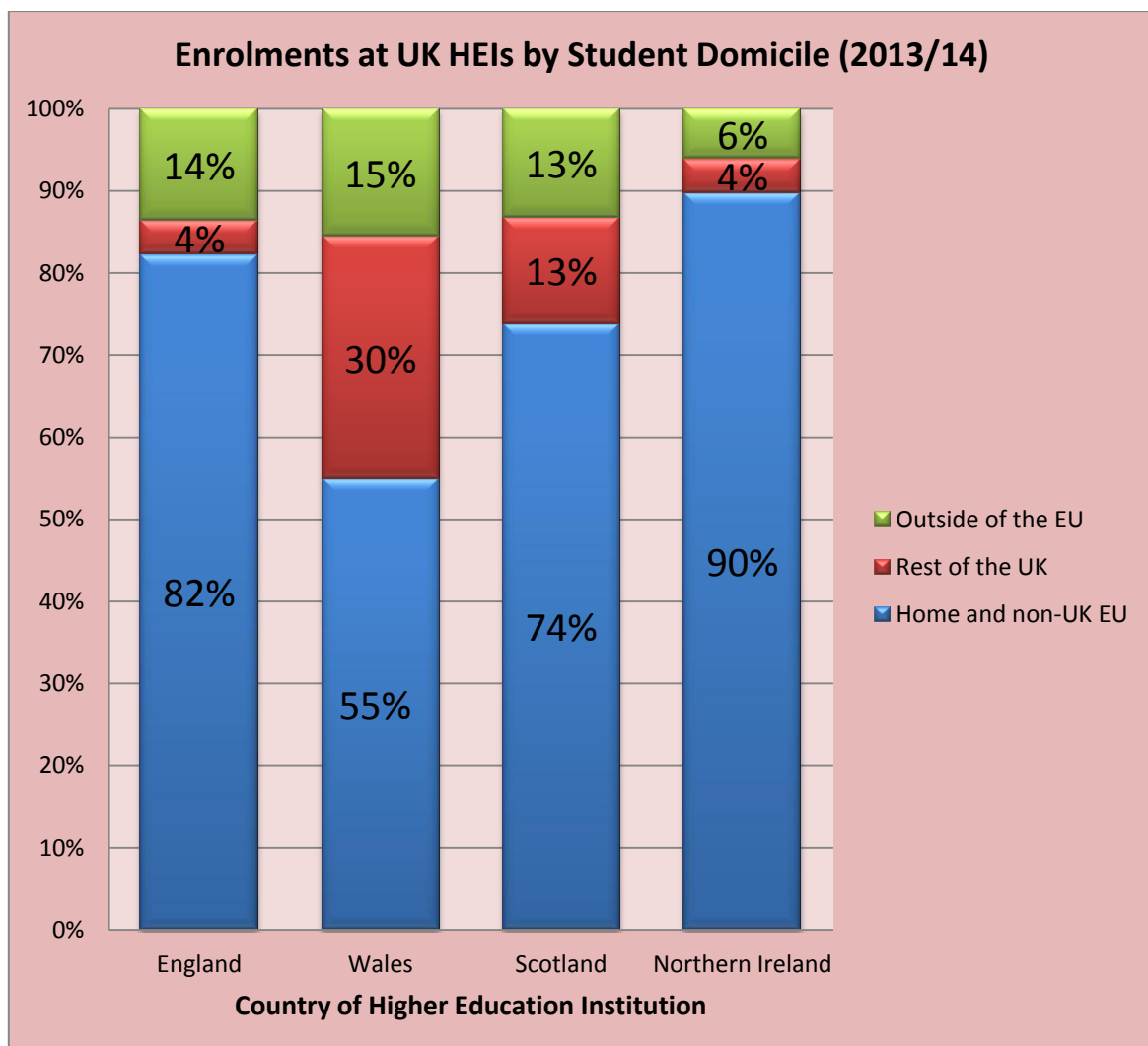
Did you know that, due to the funding system in place, Northern Ireland's higher education system is more reliant on public funding than any other part of the UK?

In 2013/14, 37% of the income of Northern Ireland's higher education institutions came from government Departments, making Northern Ireland's higher education institutions more reliant on this direct public funding than any other UK country.



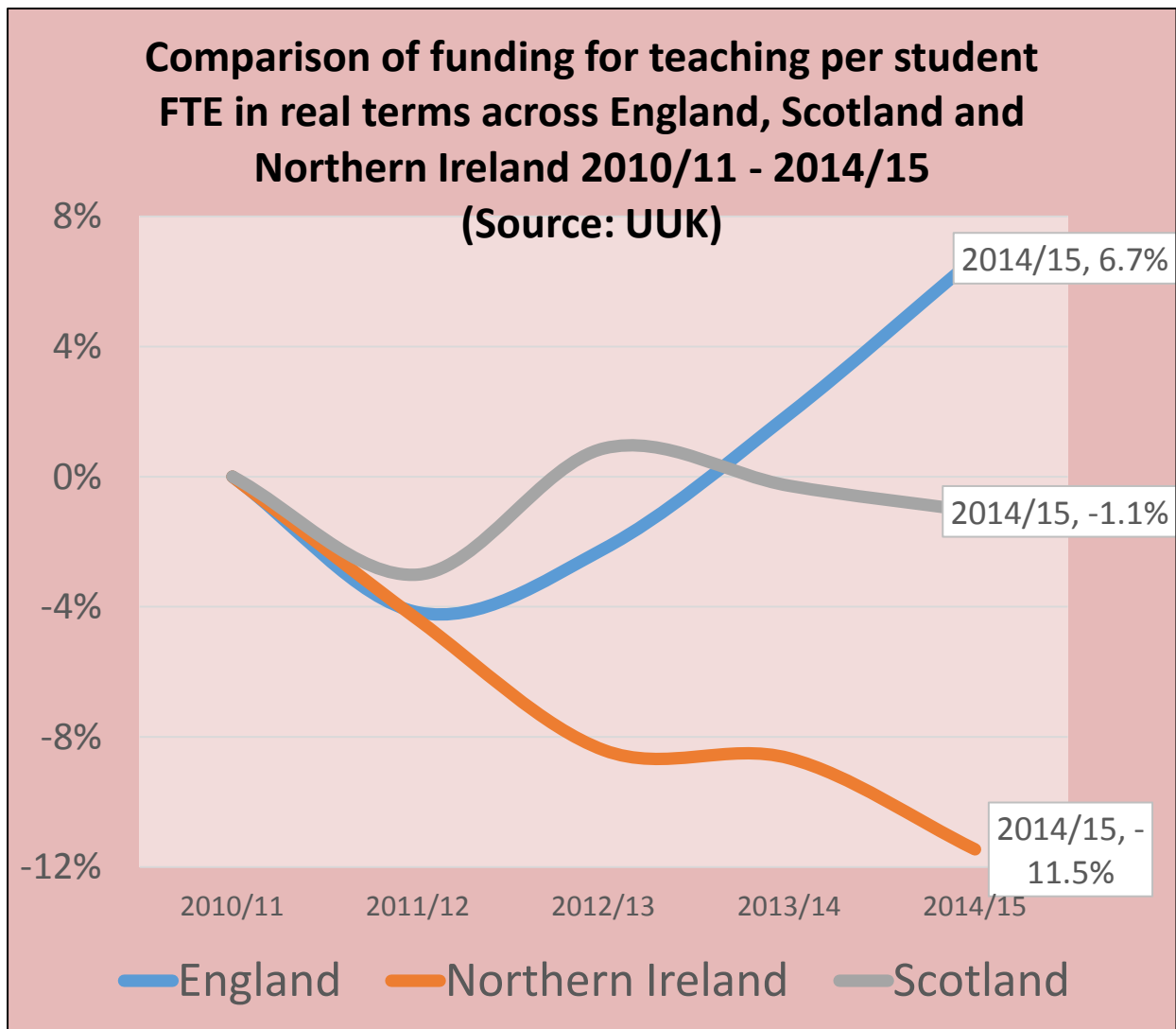
In England a new funding system has been introduced in recent years to shift the balance of higher education funding from direct government grants to greater tuition fees from students. Most English universities can now charge up to £9,000 to their students. Universities in Wales can also charge up to £9,000, but a grant is made available to students to cover the majority of these costs.

It is however notable that Northern Ireland's higher education institutions are more reliant on public funding than Scotland's, where most Scottish domiciled students pay no tuition fees at all and so significant levels of additional investment from the Scottish government are still required. But Scotland's higher education institutions do attract very large numbers of students from other parts of the UK and internationally, who can be charged higher tuition fees. England and Wales also have more enrolments from other parts of the world than Northern Ireland.



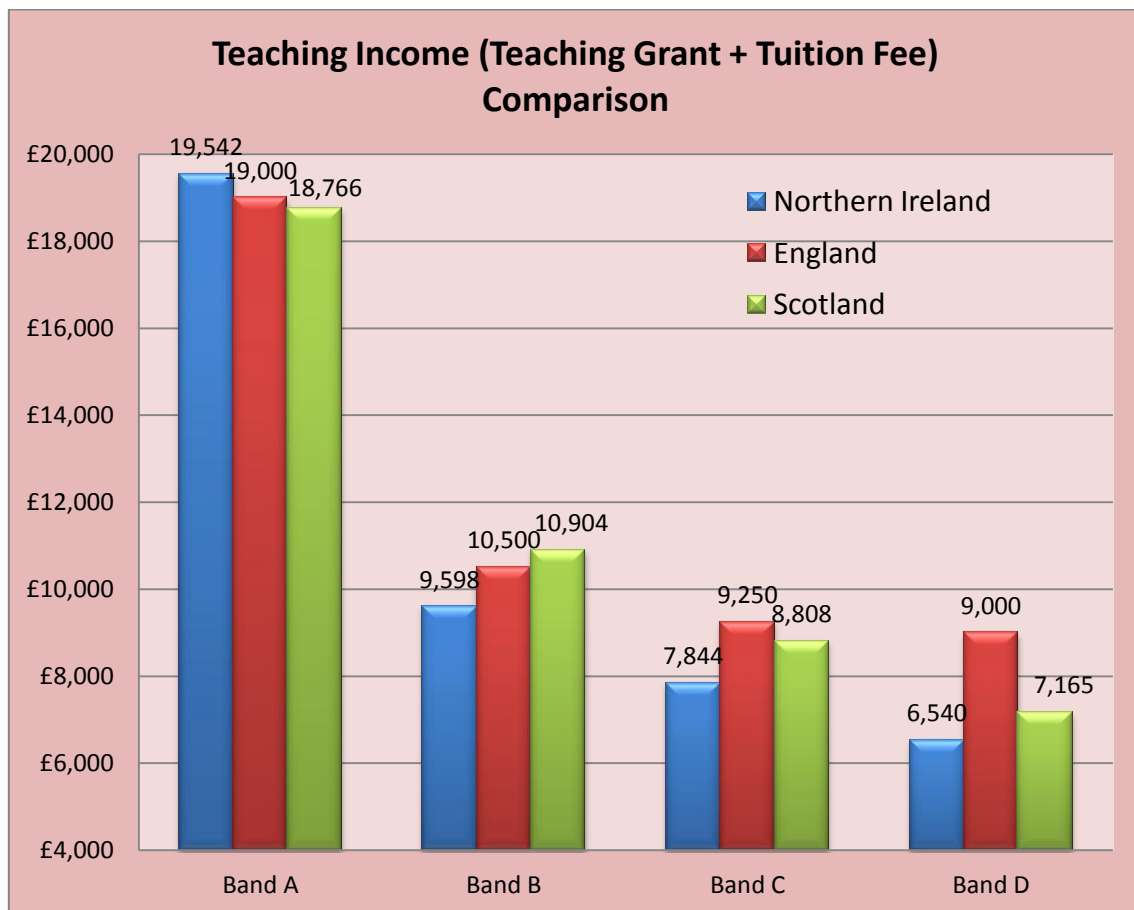
Did you know that Northern Ireland's higher education institutions are underfunded compared to their English counterparts by between about £1,000 and £2,500 per student?

Overall funding levels have increased in England in recent years, largely due to the significant increases in tuition fees. This has resulted in a significant funding gap between Northern Ireland's universities and those in England and Scotland in regard to teaching funding provided per full-time equivalent student in real terms.



Per student, different amounts of funding are provided depending on the subjects studied, reflecting the fact that some are more cost intensive than others. Subjects are split into four price groups. Subjects are split into four price groups: A (the clinical stages of medicine and dentistry); B (laboratory based subjects); C (subjects with a studio, laboratory or fieldwork element); and D (arts and humanities and social sciences).

Across the three most popular groups, B to D, **Northern Ireland's universities are receiving between about £1,000 and £2,500 less funding per student than they would if they were funded under the English system.**

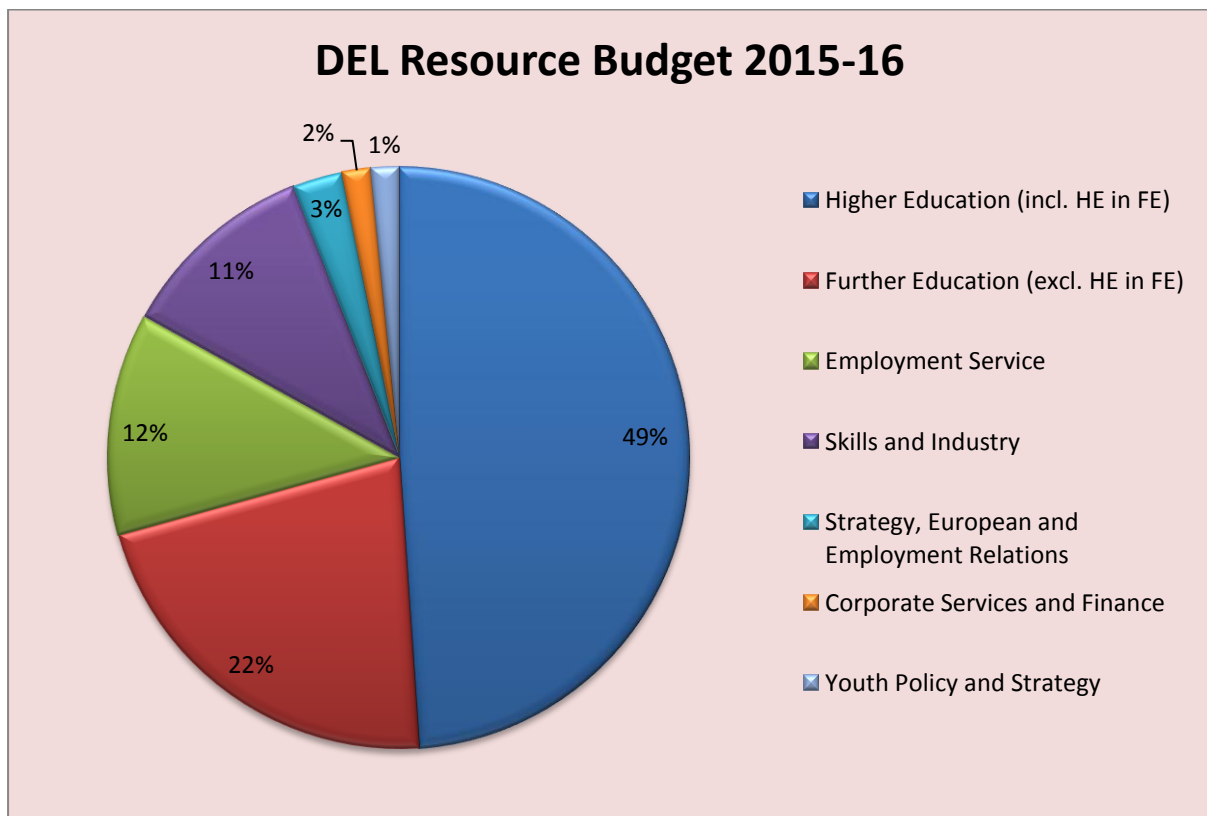


This underfunding is even more marked compared to other parts of the world as the UK itself invests less in higher education compared to most European Union countries, and less than half as much as the USA.

Did you know that the level of public funding available for Northern Ireland's higher education institutions is reducing significantly, leading to reductions in student places and staff positions?

In the current academic year, 2015/16, the public funding made available for Northern Ireland's higher education institutions for teaching and research has reduced by over £16 million.

This reduction was as a consequence of an extremely challenging 2015-16 budget settlement, which included unprecedented budget reductions for the Department for Employment and Learning. Over 80% of the Department's budget is used to enhance Northern Ireland's skills base, and most of the rest is used to support employment. As about a half of the Department's budget is used to fund higher education, it is very difficult to protect it in the context of cuts.

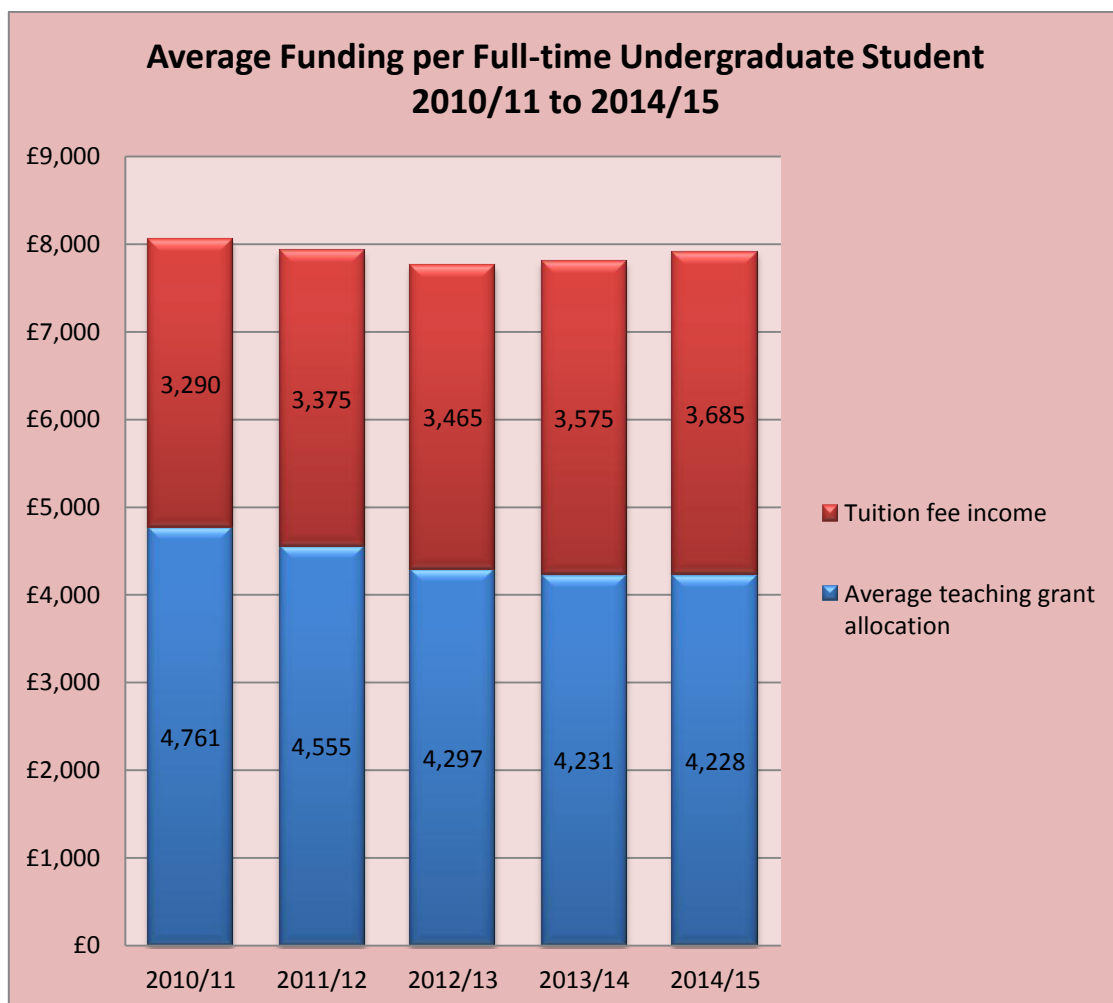


Given that funding from the Department accounts for some 37% of higher education institutions' income sources, this reduction in grant funding is having a significant impact.

In this academic year 540 undergraduate places for Northern Ireland students and 446 staff posts have been lost across the sector. **Over the next three years over 2,000 undergraduate places will be lost.** If budget reductions continue under existing funding arrangements, this situation will only worsen.

Such reductions result in fewer student places available for people in Northern Ireland, forcing people to either turn elsewhere for their higher education or in many cases not participate at all. **Historically about a third of Northern Ireland's students have migrated to Great Britain for their higher education, making Northern Ireland the only net exporter of students within the UK.** Continued reductions in places locally will likely intensify this trend.

In fact, even before these budget reductions, higher education funding has already been reducing over the last number of years.



Did you know that in countries with little or no tuition fees the costs of higher education are typically met instead by the wider taxpayer?

Nordic countries such as Denmark, Finland, Iceland, Norway and Sweden do not charge tuition fees to most of their students and also have very generous student support systems to help students with their day-to-day living costs. These countries share a strong cultural resistance to fees for higher education, rooted in the principle that access ought to be a right rather than a privilege. In these countries, the benefits brought about from a highly educated population are regarded first and foremost as a public good, and their funding models reflect that. As might be expected, entry rates to higher education in these countries are typically very high.

In the absence of contributions from students themselves the costs are typically borne by the wider taxpayer, often resulting in high rates of income tax.

Beyond these Nordic countries, Germany has also recently abolished tuition fees and others such as Cyprus, Greece, Malta, Slovenia and Turkey do not charge fees to full-time undergraduate students but they do to other kinds of students.

Another notable feature of many German-speaking countries, such as Germany, Austria and Switzerland, is the balance between academic and professional and technical training systems. In these countries lower university entry rates are coupled with stronger provision of vocational training, and both routes are regarded with similar esteem. These dual systems ultimately provide young people with a wider range of viable pathways to develop the skills and experiences required by employers, and they produce high levels of skills and low levels of youth unemployment. Many countries, Northern Ireland included, are developing new vocational training systems to try to emulate the Germanic experience.

Within the UK, the Scottish funding system, which does not charge tuition fees to Scottish full-time undergraduate students, fits best within this model of 'free' higher education – a commitment 'writ in stane' by the Scottish National Party. But fees are still charged to students from other parts of the UK and from outside of the European Union, and these students make up a very high proportion of Scotland's student population. These incoming students can essentially subsidise the costs of Scottish students.

Did you know that many other countries see higher education as a private as well as a public good and therefore the individual contributes towards the cost?

The model of 'free' education is rooted in the principle that higher education ought to be a right rather than a privilege, and that 'cost' should not prohibit anybody with the ability and the will to enter higher education from doing so. Other countries maintain that higher education, and the benefits it brings, is a private as well as a public good, and therefore both the individual and the state ought to contribute towards the costs, normally in the form of tuition fees.

Some countries, such as Australia, New Zealand, Canada, the USA, the Netherlands and England, charge relatively high tuition fees. At £9,000 per year, tuition fees in England are now the highest in the European Union.

But tuition fees in themselves are not necessarily prohibitive to fair access, especially when they are combined with generous and progressive systems of student support. In England and Australia, for example, student loans with affordable repayment arrangements are available to cover not only the full cost of tuition fees, but also to offer significant levels of support to students for their living costs.

In countries where fees are high but generous support systems are in place entry rates to higher education are actually higher than in most countries with low or moderate fees, with the exception of the Nordic countries. In fact, participation in higher education from people from disadvantaged backgrounds is actually higher in England than it is in Scotland, despite the 'free fees' policy.

Countries with higher tuition fees also tend to have higher levels of overall investment per student than countries with low or no tuition fees, and this investment supports high quality provision. This is reflected in most [university world ranking tables](#), the upper ends of which are almost always dominated by universities located in countries with high tuition fee structures, particularly the USA and the UK.

As well as enabling high quality provision, countries with high tuition fees are also often less restricted with regards to the quantity of that provision. England has now largely removed controls on student numbers since the introduction of higher tuition fees, and the rationing of student numbers has also been deemed unnecessary in Australia.

In some countries where high tuition fees are charged, governments do not provide any direct funding to the universities as they are private organisations. This is most prevalent in the United States where private universities charge extremely high fee levels reflecting the full cost of the students' education. Publicly funded universities in the United States on the other hand are on the decline as a result of decreasing public funding since the recession in 2007/08.

Did you know that many countries, Northern Ireland included, attempt to fund higher education through a roughly equal balance between public and private investment?

Countries such as Austria, Belgium, the Czech Republic, France, the Republic of Ireland, Italy, Poland, Switzerland, Spain and Mexico all charge relatively low tuition fees. For example, in the Republic of Ireland a 'contribution charge' of €2,750 is in place. These low or moderate tuition fee structures are usually bolstered by high levels of investment from the state, and as such higher education institutions can find themselves highly reliant on state funding. Beyond the Nordic countries, Germany and parts of the UK, this more balanced model is the most common within Europe.

This model is usually based on the principle that higher education is both a public and a private good, and both sides ought to contribute towards its costs. **With fees currently set at £3,805, Northern Ireland fits best within this model,** and higher education institutions here are also still highly reliant on public funding provided by the Department for Employment and Learning.

This funding model tends to work well when governments are able to invest sufficiently in higher education, but, equally, it can make higher education institutions highly susceptible to fluctuations in that investment. Amidst the economic challenges of recent years, many countries have reduced their investment in higher education, while at the same time they have maintained low or moderate tuition fee levels. **This choke on investment from both sides can have drastic consequences for both the quality of provision and the size of countries' higher education sectors.**

Northern Ireland is perhaps one of the best examples of this phenomenon. Over the last number of years funding per student has been reducing while tuition fees have remained frozen, and this gradual trend has intensified sharply in the current academic year as a result of severely reduced Executive budget.

In this context, Northern Ireland's higher education sector is contracting, and providers of higher education will struggle to continue to compete with their competitors nationally and internationally.

Without a renewed focus on public investment in higher education, the existing funding model is not sustainable and Northern Ireland's higher education sector will likely continue to contract unless an alternative funding model can be developed.