

University Outcome Agreements

Summary of Progress and Ambitions



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Scotland's universities are helping deliver the Scottish Government's vision for a smarter, fairer, wealthier and greener Scotland. This year, in return for the Scottish Government's £1 billion investment, universities have confirmed their continued commitment to:

- Improving access to people from under-represented backgrounds.
- Delivering high quality learning, and retaining and supporting students to completion.
- Delivering the right learning in the right place.
- Creating more effective transitions from college to university.
- Developing highly skilled graduates ready for work.
- Delivering world-leading research.
- Supporting innovation and strengthening collaboration with industry.
- Reducing their impact on the environment.

This summary sets out some of the achievements of Scotland's higher education institutions in relation to these eight key priority areas.

The Scottish Funding Council (SFC) has used the most recent available data to assess progress in this report. In most cases this is HESA¹ data for academic year 2015-16. The data draws on the measures of progress identified in SFC's *University Outcome Agreement Guidance for AY 2014-15 to 2016-17: refresh*². A full explanation of these measures can be found in the technical annex of the guidance (Annex C). Refreshed guidance and technical guidance will be issued during summer 2017.

¹ Higher Education Statistics Agency.

² [Guidance for the development of University Outcome Agreements: 2017-18 to 2019-20.](#)

Key achievements and successes

- The number of Scotland-domiciled undergraduate entrants to Scottish HEIs has grown by over 10% in the last five years, from 31,838 in 2011-12 to 35,104 in 2015-16 – the highest number of students ever recorded entering our universities.
- SFC allocated £646m in teaching funding during 2016-17 to deliver 118,000 funded places for Scotland-domiciled and EU students. In total over 235,000 students from across the world studied at Scottish institutions during 2016.
- In 2015-16 the sector's recruitment of students from the 20% and 40% most deprived areas in Scotland reached an all-time high of 14.4% and 31.4% respectively.
- The number of undergraduate entrants declaring a care experienced background has increased from 266 in 2013-14, to 286 in 2015-16, a rise of 7.5% or 20 students.
- 85% of students at Scottish institutions were satisfied with the overall quality of their programme of study in the 2017 National Student Survey, compared to 84% for the UK as a whole.
- The proportion of graduates entering positive destinations (i.e. employment or further study) stood at 95.3% in 2014-15, the latest data available, up from 93.5% in 2011-12.
- Thirteen Scottish universities and 73 individual academic departments have now been recognised with Athena SWAN awards for their work to advance gender equality.
- During 2016-17 SFC invested over £231.8m to support research excellence through the Research Excellence Grant. In 2015-16 SFC core research funding for Scottish institutions leveraged an additional £791m³ in research income for the sector in 2015-16 – an increase of 2.75% or £21.7m on the previous year.
- In 2015-16 Scottish HEIs had over 32,000 knowledge exchange interactions with public, private and voluntary sector organisations – over 21,000 of them based in Scotland. This activity generated over £450m in income to support the sectors teaching and research activities.

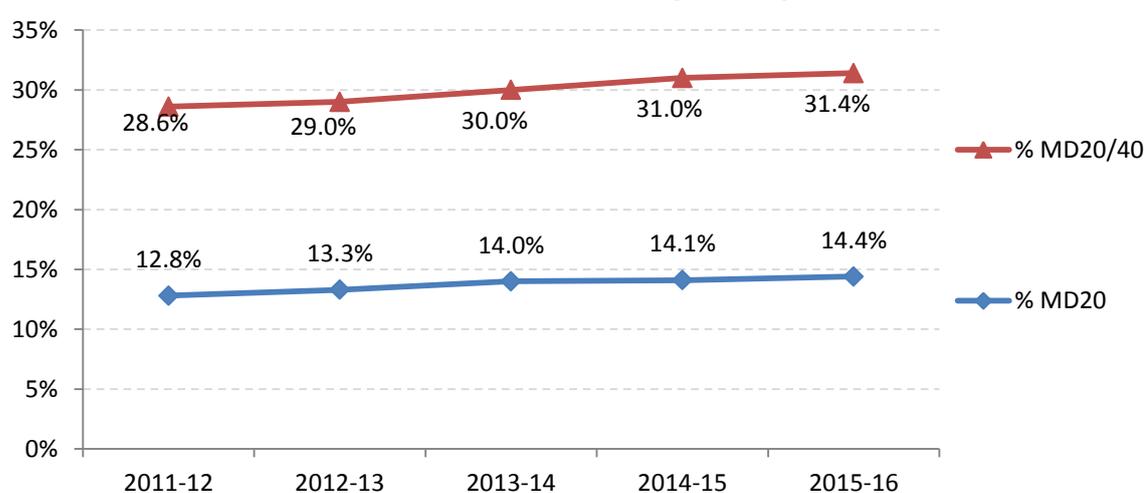
³ Total research income for Scottish HEIs in 2015-16, excluding funding council grants (SFC/HESA).

Universities are improving access to people from under-represented backgrounds

In their Outcome Agreements, institutions have restated their ambition to: removing barriers to accessing higher education with commitments; *to increase* the proportion of Scotland-domiciled undergraduate entrants from the 20% most deprived areas⁴; *to work* with schools with low progression rates to higher education; and *to develop* strategies to recruit and support under-represented groups across the curriculum.

In 2015-16 the sector's recruitment of students from the 20% and 40% most deprived areas in Scotland reached an all-time high of 14.4% and 31.4% respectively.

Proportion of Scotland-domiciled undergraduate entrants from the 20% and 40% most deprived postcodes



Source: SFC/HESA.

Note: The MD40% most deprived areas comprise the 0% to 20% most deprived quintile AND the 20% to 40% most deprived quintile, as defined by the Scottish Index of Multiple Deprivation (SIMD).

In the four years to 2016-17 SFC funded 2,639 additional access places targeted at institutions with the highest student demand so as to allow greater recruitment of students from the 20% and 40% most deprived areas. For 2017-18 we expect institutions to focus the use of these mainstreamed places to facilitate recruitment of those from the 20% most deprived backgrounds.

Overall performance is the result of a range of contributions from all our institutions. Universities located in conurbations close to areas with high concentrations of deprivation (i.e. SIMD20 and 40 datazones), and with a strong focus on addressing regional skills needs, (e.g. Glasgow Caledonian and the University of the West of Scotland) have the highest proportion of entrants from SIMD20 backgrounds. Institutions with higher entry tariffs where demand for places is usually significantly in excess of the number of places available, have in the past faced greater challenges

⁴ SFC uses the Scottish Index of Multiple Deprivation (SIMD) as its preferred measure for identifying deprivation and monitoring progress with widening access to universities.

in widening access to their undergraduate programmes. But our universities recognise, right across the sector, that widening access and reducing the barriers to higher education is a core responsibility.

The proportion of Scotland-domiciled undergraduate entrants from the 20% most deprived areas by institution

	2011-12	2012-13	2013-14	2014-15	2015-16
Aberdeen	4.9%	5.1%	4.9%	5.5%	4.6%
Abertay	15.6%	15.8%	15.9%	15.7%	17.2%
Dundee	11.3%	10.5%	15.7%	15.9%	15.0%
Napier	11.5%	10.9%	11.8%	10.6%	11.3%
Edinburgh	5.7%	5.5%	6.9%	7.0%	6.1%
Glasgow Caledonian	20.5%	21.8%	22.4%	20.6%	22.7%
Glasgow School of Art	11.9%	7.0%	14.9%	23.0%	14.9%
Glasgow	12.5%	12.9%	14.5%	13.9%	13.3%
Heriot-Watt	8.6%	9.0%	8.9%	11.7%	10.5%
UHI	8.1%	8.0%	9.4%	8.7%	8.4%
Queen Margaret	10.0%	12.5%	12.1%	11.4%	9.3%
Robert Gordon	6.5%	6.6%	6.4%	7.2%	7.6%
RCS	5.0%	8.4%	8.2%	8.1%	13.8%
SRUC	9.0%	6.8%	10.6%	11.5%	11.9%
St Andrews	3.4%	5.0%	5.6%	5.2%	5.2%
Stirling	11.4%	10.2%	11.4%	14.2%	12.7%
Strathclyde	11.8%	13.5%	12.7%	13.5%	14.8%
UWS	25.2%	27.4%	25.5%	28.5%	27.6%

Source: SFC/HESA.

Note: the Open University submits a single UK wide data return to HESA. Scotland only data is not available.

In its final report in March 2016, the Commission on Widening Access (CoWA)⁵ recommended that by 2021 students from the 20% most deprived communities should represent at least 10% of each institution's full-time first degree undergraduate entrants⁶. The Scottish Government accepted this recommendation, alongside all others in the CoWA Report, but the latest data shows progress with this ambition has been slower than we would have hoped. Nevertheless, the range and quality of the access and outreach activities now in place across the sector – given greater focus and energy with the appointment of the new Commissioner for Fair

⁵ [A Blueprint for Fairness: The Final Report of the Commission on Widening Access.](#)

⁶ SFC uses a broader measure of *all* UG entrants from SIMD20 data zones. SFC will ask institutions to share their ambitions for progress using both measures in future OA cycles.

Access⁷ – gives a strong platform towards reaching the 2021 ambition. In their recently published Outcome Agreements twelve of Scotland’s nineteen HEIs expect to have achieved this target by 2017-18, and all but two institutions⁸ with intakes below 10% have given explicit commitments to achieving this target by 2021.

The Scottish Government has published the first of its annual reports on progress with implementing the CoWA recommendations⁹. The report highlights the range of work underway, and concludes that good progress has been made with delivery of the Commission's foundational recommendations in a significant programme of systemic and cultural change in Scotland’s approach to widening access.

The proportion of Scotland-domiciled undergraduate entrants from low-progression schools taking part in the Schools for Higher Education Programme (SHEP)¹⁰ provides a useful measure that, taken with SIMD data and other evidence, provides a more rounded understanding of institutions’ progress in reducing barriers to higher education. This measure has remained largely static for the sector as a whole over the past three years from 4.4% (1,414 entrants) in 2011-12 to 4.6% (1,624 entrants) in 2015-16. However, it captures the particular success of institutions that have targeted their access and outreach activities on engagement with students from this group of schools. The University of Edinburgh and Queen Margaret University both performed significantly above the sector average with 7.9% and 7% of their entrants from SHEP schools respectively in 2015-16. SFC’s SHEP and Access to High Demand Professions (AHDP) programmes are designed to achieve equality of opportunity and access to higher education, specifically targeting low progression schools and pupil’s from deprived backgrounds. SFC is developing a school’s engagement framework to ensure a more integrated approach to secure greater impact across our school engagement activities, aligning more effectively with the recommendations of *A Blueprint to Fairness* and the Scottish Government’s Youth Employment Strategy.

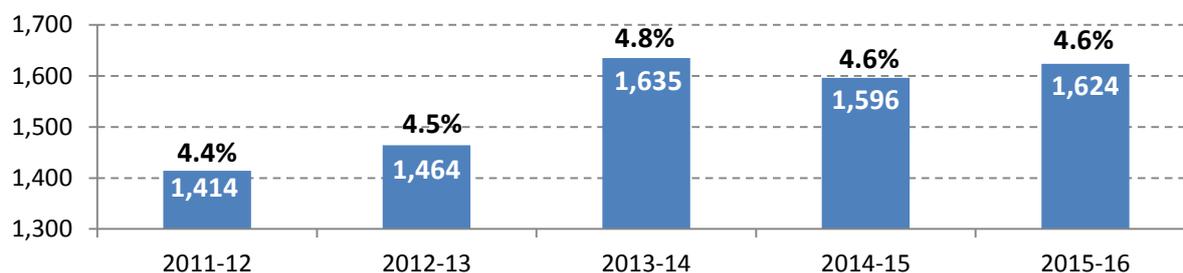
⁷ Professor Sir Peter Scott was appointed the first Commissioner for Fair Access in December 2016.

⁸ Aberdeen and Robert Gordon universities have not given this commitment. The final report of CoWA recognised the particular challenges that the use of SIMD presents to institutions in the North East of Scotland and asks SFC to consider additional measure when monitoring progress of these universities towards the Commission’s targets. We will continue our discussions with these institutions on how to best take forward this recommendation.

⁹ [Implementing a 'Blueprint for Fairness': A report on progress with recommendations of the Commission on Widening Access.](#)

¹⁰ Schools in the SHEP programme typically have rates of progression to higher education that are significantly below the national average.

Number and proportion of Scotland-domiciled UG entrants from SHEP schools



Source: SFC/HESA.

Improving outcomes for care experienced learners

Young people with care experience are amongst the most disadvantaged in our society and have some of the worst educational outcomes. Currently, 5% of young people with care experience go from school to university compared to 40% of school leavers as a whole. The Scottish Government has accepted the CoWA recommendation that, by 2017, those with care experience who meet the access threshold should be entitled to the offer of a place at a Scottish university; and it has committed to provide these students with a full bursary for the duration of their programme of study. SFC works closely with agencies such as *Who Cares? Scotland*, and *NUS Scotland*, and with these partners has set an ambition that there be no difference in the outcomes of care experienced learners compared to their peers.

The number of undergraduate entrants declaring a care experienced background has increased from 266 in 2013-14, to 286 in 2015-16, a rise of 7.5% or 20 students. Based on current performance and commitments made by institutions in their Outcome Agreements we expect this figure to increase to c345 by 2017-18, a significant step towards achieving SFC's national ambition to increase entrants from this group to 400 by 2018-19. We will continue to work closely with institutions to improve data capture and analysis to better monitor progress. We have also asked institutions to outline their commitments for improving support for students and staff with caring responsibilities, and we will collect relevant data through HESA from 2017-18 to monitor progress with this.

Robert Gordon University (RGU) has recently become a partner to the Unite Foundation Scholarship Scheme network. The Foundation offers three years of free accommodation to young people who have been in care or are estranged from their families. The scholarship is about more than just a room or a financial saving. It aims to be part of a transformative experience for students that will help them to achieve long-term success by also providing employability opportunities to enhance and develop their employability skills with other partners of the Foundation who share a commitment to these students. The network has 28 member institutions across the

UK, including **RGU, Edinburgh, Glasgow Caledonian, Napier, and Strathclyde universities**. Glasgow Caledonian University also offers all care experienced students free accommodation in its halls of residence for two years. The accommodation is available to students 365 days a year and not just during term time.

Queen Margaret University's (QMU) South East Scotland Academies project (SESAP) provides school pupils with an opportunity to build academic knowledge, practical and transferable skills through a 2 year Senior Phase Pathways programme leading to a certificated award. The project was designed to provide young people aged 15-18 years (S4 to S6 of high school) with the educational building blocks and work experience needed to prepare them for a range of opportunities in Tourism and Hospitality, Creative Industries, Food Science and Nutrition and Health and Social Care. On completion pupils can progress to employment or into a programme in further or higher education. The Pathways project has demonstrated the extent to which Higher Education can achieve better connectivity and co-operation between education and the world of work.

For a number of years the **University of St Andrews** has worked in close partnership with the Robertson Trust to deliver the First Chance partnership where pupils participate in a range of events and workshops and articulate into college or university. Activities include community based tutoring sessions, accessible revision materials, workshops on developing core exam skills (e.g. Critical Thinking, Debating etc.), prelim and exam revision days, residential summer schools and monthly close reading practice. Additional sessions designed to inform pupils and parents about higher education options and provide networking opportunities are also held.

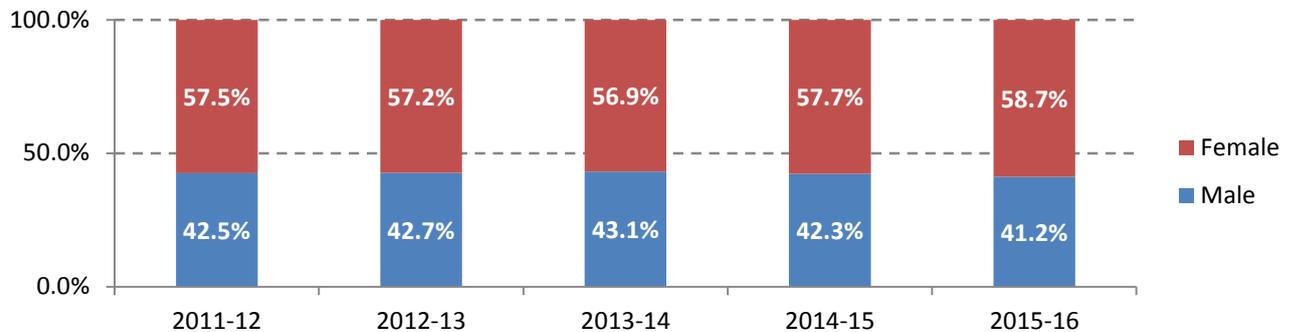
All pupils chosen to participate in the programme have the potential to apply to university in the future, but may require additional support to achieve their goal. A new First Chances Foundation programme prepares S3 students for the main programme. Schools nominate pupils each year to the Foundation programme based on access criteria, including SIMD20/40, free school meals, first generation, in care, and young carers. Over 150 S3 pupils are selected for the Foundation programme each year, with 386 pupils engaging across S3-S6 during 2016-17. This number is expected to rise to c500 pupils each year by 2018-19.

Addressing gender imbalances

Many subject areas from school, college and university are heavily 'gendered' - that is, they tend to have high concentrations of either men or women. At university level such courses are often those most closely related to particular occupations, such as nursing, engineering or teaching, and therefore have a significant impact on students' future careers, and the character of those professions.

In August 2016 SFC published its Gender Action Plan¹¹ (GAP) in which we made clear our ambition that by 2030 the gap between male and female participation will be reduced to 5%, and that no college or university subject will have an imbalance of greater than 75% of one gender.

Scotland-domiciled undergraduate entrants by gender



Source: SFC/HESA.

All our institutions have a public duty proactively to promote gender equality in relation to their staff and governing bodies, and we have asked HEIs to develop their own Gender Action Plans for submission to SFC during summer 2017 outlining the actions they will take to achieve the outcomes outlined in their Outcome Agreement. These should align with and support the aims of SFC's Gender Action Plan. We will publish these on our website in due course.

¹¹ [Gender Action Plan.](#)

Gender balance of UG entrants by subject area (headcount)

Subject	Male		Female	
	2014-15	2015-16	2014-15	2015-16
Subjects allied to Medicine (including nursing)	16%	14%	84%	86%
Education (including teaching)	20%	17%	80%	83%
Psychology	22%	22%	78%	78%
European Languages, Literature and related subjects	26%	23%	74%	77%
Linguistics, Classics and related subjects	28%	28%	72%	72%
Social studies	27%	29%	73%	71%
Veterinary Sciences, Agriculture and related subjects	35%	32%	65%	68%
Medicine and Dentistry	38%	33%	62%	67%
Law	35%	35%	65%	65%
Biological Sciences	36%	37%	64%	63%
Creative Arts and Design	37%	39%	63%	61%
Business and Administrative studies	41%	39%	59%	61%
Historical and Philosophical studies	43%	40%	57%	60%
Mass Communications and Documentation	45%	40%	55%	60%
Combined	44%	41%	56%	59%
Languages	33%	50%	67%	50%
Physical Sciences	59%	59%	41%	41%
Mathematical and Computer Sciences	57%	63%	43%	37%
Architecture, Building and Planning	69%	69%	31%	31%
Technologies	76%	79%	24%	21%
Computer Science	84%	84%	16%	16%
Engineering	86%	87%	14%	13%

Gender balance	>75%	60-75%	40-60%
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Source: SFC/HESA.

In those Outcome Agreements for 2017-18, institutions identified subject areas with significant gender imbalances (i.e. >75%), and their plans to secure improvement. Overall, in 2015-16, 41.2% of Scotland-domiciled undergraduate entrants were male and 58.7% female, a gap of 17.5%, showing little improvement over the past five years. SFC recognises, however, that meaningful and sustainable progress will be secured only through strong leadership and partnership working – over a sustained period– requiring a collaborative approach with the university and college sectors, schools and local authorities, and the new Commissioner for Fair Access amongst others.

The Athena SWAN Charter evolved from work between the Athena Project and the Scientific Women’s Academic Network (SWAN). It was established in 2005 with the support of Equality Challenge Unit (ECU) and the UK Resource Centre for Women in SET to encourage and recognise institutions’ commitment to advancing the careers of women employed in delivering STEM subjects (science, technology, engineering

and mathematics) in higher education and research – recognising their significant underrepresentation in these areas, particularly in senior posts. In May 2015 the Charter was expanded to recognise work undertaken in non-STEM subjects and now recognises work to address gender equality more broadly, and not just barriers to progression that affect women. During 2016 the commitment of Scottish HEIs to advancing gender equality was reflected in the announcement of 8 new Athena SWAN awards, including an institutional Bronze Award to the University of the West of Scotland. Twelve Scottish universities now hold institutional awards, and 73 academic departments.

Edinburgh Napier University this year is working with the Equality Challenge Unit on a new programme to address gender imbalances in Nursing. The programme has two key components: a mixed methods research study on the experience of male nurses, and specific recruitment activities aimed at encouraging men into nursing. The first recruitment event 'Men into Nursing' was held in October 2016 and attracted a diverse male audience across a range of age groups from across Scotland. A group of experts and practitioners shared experiences with the attendees through discussion groups and Q&A panels, to provide an insight into why Nursing is a valid career route for male students and attendees were able to tour the nursing teaching facilities. A number of the University's current and former students were involved and their enthusiasm and commitment provided inspirational role models for the attendees.

*The University sector runs a wide range of outreach programmes and early interventions – often with industry partners – that aim to break down gender barriers. The **University of Strathclyde** has partnered energy giant BP to launch Engineering the Future for Girls, a programme aimed at addressing gender inequality in engineering by providing a one-week summer school for S3 girls. The programme, which runs in the last week of the school year, aims to inspire girls to consider studying and pursuing a career in engineering. Girls participating in the programme were set a wide range of engineering challenges, with lots of hands on activities designed to make it fun and engaging. **Heriot Watt University's** Dragonfly programme runs a range of activities aimed at S2 girls who are interested in a career in STEM, including workshops for coding and apps building. **Glasgow Caledonian University** runs a number of outreach programmes with the Engineering Development Trust (EDT) including Inspire for Boys, Inspire for Girls and HeadStart for Girls. These programmes offer a range of hands-on activities, projects and placements which connect industry and education to deliver life-changing experiences for young people.*

*The Women in Science Festival established by the **University of Dundee** is the World's only festival dedicated to celebrating women in STEM. The festival aims to promote careers in science to everyone, especially women and girls. It supports professional women to develop their careers and showcases the talented and exciting research taking place across Scotland. In 2017, the public were invited to discover the*

trailblazing women, past and present, who have made history with their pioneering work.

Universities are delivering high quality learning, and retaining and supporting students to completion

Universities are committed to enhancing the quality of their learner experience and increasing the number of students who successfully complete their programmes of study. SFC allocated £646m in teaching funding during 2016-17 to deliver 118,000 funded places for Scotland-domiciled and EU students. In total over 235,000 students from across the world studied at Scottish institutions during 2016.

Retention

In 2015-16 the proportion of Scotland-domiciled undergraduate entrants to Scottish universities returning to study in year two increased to 90.6%, from 89.4% in 2011-12, and close to SFC's national ambition of at least 91% retention by 2016-17. However, 2015-16 rates for entrants from the 20% most deprived backgrounds, lie almost 4 percentage points behind those of all entrants at 86.7%.

Retention rates for Scotland-domiciled UG entrants and selected groups

	2011-12	2012-13	2013-14	2014-15	2015-16
All	89.4%	90.9%	91.3%	90.5%	90.6%
SIMD 0-20	84.6%	87.2%	87.7%	87.5%	86.7%
SIMD 0-40	85.7%	87.7%	87.8%	88.1%	87.7%
Male	87.4%	89.4%	90.1%	88.8%	88.9%
Female	90.9%	92.0%	92.2%	91.8%	92.0%
21 and over	86.1%	87.3%	87.2%	87.1%	87.3%
under 21	90.6%	92.2%	92.7%	91.8%	91.9%
White	89.7%	91.0%	91.2%	90.5%	90.6%
BME	90.9%	89.9%	92.6%	90.7%	92.0%
Disability	88.4%	89.4%	89.6%	89.3%	89.4%
Care experience	n/a	n/a	n/a	82.7%	84.3%

Source: SFC/HESA.

Individual institution data for 2015-16 shows a wide range of outcomes, highlighting the particular challenges faced by those institutions more successful in attracting students from under-represented backgrounds. We understand that students from the most deprived communities often require additional support throughout their time at university. In 2015, we repurposed our regional coherence funding to focus support on those institutions able to demonstrate and maintain a significant

commitment to the support, retention, and successful outcomes of students from the most disadvantaged and deprived backgrounds. The *Widening Access and Retention Fund (WARF)* allocates almost £15m funding annually to eight HEIs for this purpose. The University of the West of Scotland delivers the highest number of articulating students across the sector, and recruits over a quarter of its students from the 20% most deprived communities. WARF funding is helping the UWS focus on retention support for these students to ensure successful outcomes.

Retention rates for Scotland-domiciled UG entrants

	2011-12	2012-13	2013-14	2014-15	2015-16
Aberdeen	92.5%	93.4%	94.7%	93.0%	93.7%
Abertay	92.1%	95.2%	94.9%	90.3%	88.9%
Dundee	91.9%	94.1%	93.5%	92.6%	94.6%
Napier	89.1%	91.0%	90.8%	89.9%	88.9%
Edinburgh	94.1%	93.8%	93.7%	93.7%	93.7%
GCU	91.6%	92.4%	92.6%	91.6%	91.3%
GSA	97.3%	93.6%	95.7%	97.4%	96.1%
Glasgow	93.9%	92.9%	93.5%	94.4%	94.1%
Heriot-Watt	90.1%	90.1%	93.4%	91.5%	91.0%
UHI	85.8%	88.0%	85.4%	80.3%	85.3%
QMU	89.8%	90.9%	89.0%	87.5%	85.9%
RGU	91.6%	91.9%	93.5%	92.1%	92.7%
RCS	95.2%	94.2%	95.8%	99.2%	93.2%
SRUC	80.9%	86.5%	86.8%	85.6%	83.0%
St Andrews	97.9%	97.1%	97.1%	97.3%	96.6%
Stirling	92.4%	93.8%	93.8%	93.7%	92.6%
Strathclyde	92.9%	93.7%	93.0%	93.4%	92.5%
UWS	76.0%	80.3%	82.4%	84.5%	84.5%
Scotland	89.4%	90.9%	91.3%	90.5%	90.6%

Source: SFC/HESA.

Note: the Open University submits a single UK wide data return to HESA. Scotland only data is not available.

High quality learning

The last cycle of Enhancement-led Institutional Reviews (ELIR) conducted by QAA Scotland concluded that all of Scotland's HEIs had in place effective systems for managing academic standards and enhancing the student learning experience, (individual institution reports are available from the QAA website¹²). There were no reviews during 2015-16, since SFC and QAA Scotland led a sector wide review of all the elements of Scotland's Quality Enhancement Framework (QEF) – of which ELIR is a part – to ensure it remains relevant and fit-for-purpose. As the review concludes, SFC, the Scottish Government, the sector, and students have reaffirmed their

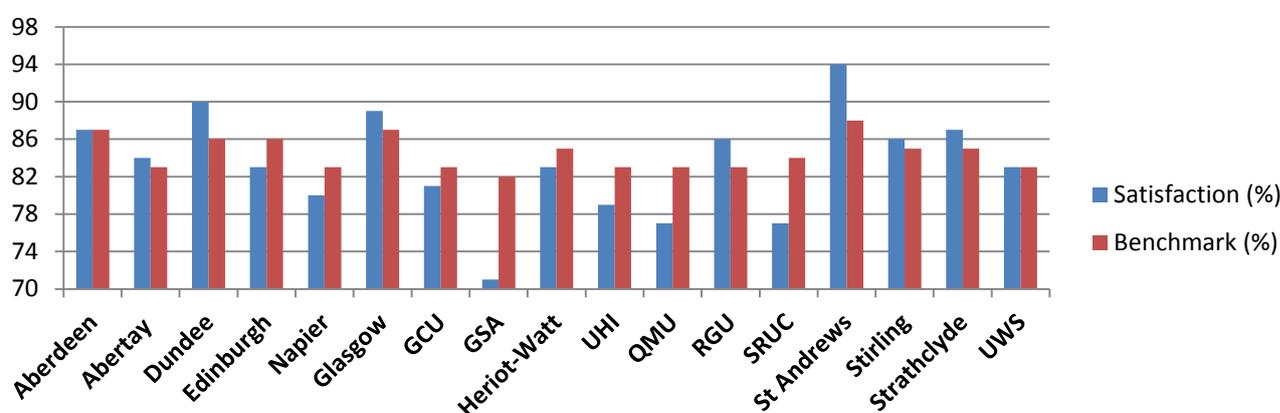
¹² [Quality Assurance Agency for Higher Education.](#)

commitment to Scotland’s distinct, enhancement-led, approach to quality assurance, and to the advancement of student partnerships and learner engagement.

The outcome of the 2017 National Student Survey (NSS) of almost ½ million students across the UK provides evidence that the quality of the learner experience at Scottish universities has been maintained at a high standard over the past year. In 2017, 85% of students at Scottish institutions were satisfied with the overall quality of their programme of study, (86% in 2016 and 2015), slightly above the UK average of 84%, (England 84%, Wales 84%, Northern Ireland 85%).

The 2017 survey ranked the University of St Andrews first in Scotland for the quality of its learner experience with 94% of its students satisfied with the quality of their course (+6 points above its benchmark figure¹³). St Andrews has ranked in the top five HEIs in the UK for over a decade – an achievement of sustained excellence. The University of Dundee (90%, +4) also retained its position amongst the best performing institutions in the UK, with student satisfaction at above 90% for a fourth successive year. Conversely, some institutions performed significantly below expectations and we will be discussing with them their plans for improvement as part of the Outcome Agreement process.

National Student Survey (2017) overall student satisfaction with their course of study, and benchmark figure



Source: HEFCE.

Note: the Open University submits a single UK wide data return to HESA. Scotland only data is not available. RCS did not meet the publication threshold and therefore does not feature in this year’s survey.

Looking further afield, the UK Government introduced its ‘Teaching Excellence Framework’ (TEF) to recognise and reward excellence in teaching and learning. Scottish HEIs can take part in TEF if they wish, and five institutions chose to do so in 2016. The results of the first TEF were announced in June 2017 with all five Scottish HEIs performing strongly. Dundee, St Andrews and Robert Gordon universities have

¹³ Benchmarks are based on the sector average satisfaction levels adjusted to reflect the mix of students at each institution to show where we would expect each institution to be.

been awarded TEF Gold awards for delivering consistently outstanding teaching, learning and outcomes for its students, with Abertay and Heriot-Watt universities awarded Silver awards for teaching and learning that consistently exceeds rigorous national quality requirements.

*Making the Most of Masters (MMM) is a strategic collaboration between employers, universities, enterprise agencies, and post-graduate masters students to disseminate the MMM model of credit-bearing Work Based Projects as an alternative to a traditional masters dissertation. MMM projects are solution focused, address real research needs within an organisation and give students valuable workplace learning. Recent examples included an **Abertay University** stormwater management MSc project working with C&D Associates and a Taylor Wimpey to install an innovative new technology at a new residential development. A **University of Aberdeen** student on its MSc in Global Health and Management programme worked with Aberdeen based charity Soapbox Collaborative to carry out a systematic review to find evidence on training approaches in Hygiene for staff with low literacy and low income levels in developing countries. An MSc student in Environmental Management at the **University of Stirling** worked with Scottish Natural Heritage on a peatland restoration project to bring environmental benefits including natural flood management, creating new wildlife habitats and carbon lock-up.*

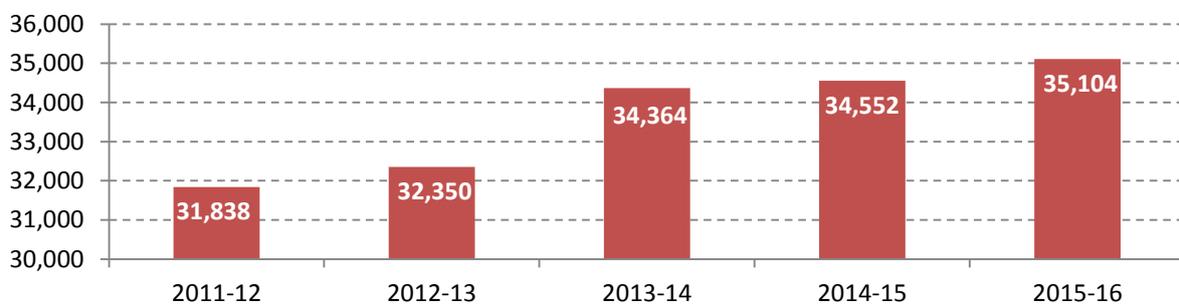
*The **University of Dundee** is working in partnership with ElevatorUK.com to establish the city's first Centre of Entrepreneurship in Dundee, dedicated to supporting entrepreneurs with everything that they will need on their business journey. The vision is to further develop and support an entrepreneurial and enterprising culture in Dundee positively contributing to the area's economic health and to job creation. To ensure the new Centre in Dundee is easily distinguishable around the world it aims to have a focus on fast-tracking businesses located in the city from the creative industries, digital technology and life sciences sectors coupled with embedding a design-led approach – all areas that Dundee as a city is becoming increasingly renowned for. The Centre will provide a focal point for any student, researcher, staff member or recent graduate to access expert support and advice to explore a new business idea or to learn the latest enterprising skills.*

Universities are delivering 'the right learning in the right place'

In their Outcome Agreements, institutions have committed to providing education that best meets the changing social and economic needs of Scotland and supports a flourishing and diverse culture. Examples include offering more opportunities to study STEM subjects (science, technology, engineering and mathematics), supporting the National Gaelic Language Plan, and collaborating to secure effective and efficient provision to meet the needs of industry and public services, e.g. engineering and nursing.

SFC has a statutory duty to ensure coherent provision across Scotland. We discharge this duty by providing funded places to institutions for high quality HE programmes, working closely with institutions (and employers) to ensure that gaps in provision are identified and addressed, and staging interventions (e.g. facilitating collaboration) and providing strategic funding to support nationally unique and important provision. The number of Scotland-domiciled undergraduate entrants to Scottish HEIs has grown by over 10% in the last five years, from 31,838 in 2011-12 to 35,104 in 2015-16 – the highest number of students ever recorded entering our universities. The total number of enrolments (UG and PG) to Scottish HEIs in 2015-16 was 235,565, an increase of 1% on the previous year.

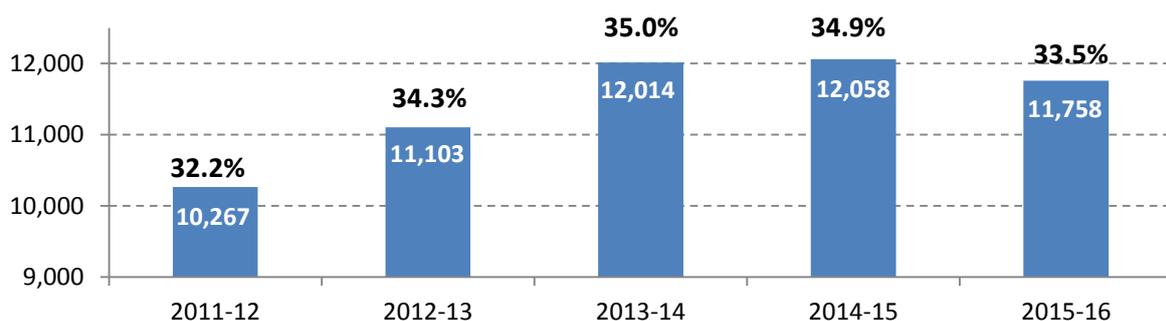
Scotland-domiciled undergraduate entrants into Scottish higher education institutions



Source: SFC/HESA.

SFC made available 300 additional places for four years from 2012-13 (1,200 in total) to support the provision of STEM subjects, with the places mainstreamed into institutions' core teaching grants from 2016-17 onwards. These places have been distributed amongst those institutions with the highest quality research in STEM subjects. While these places represent a small proportion of the sectors overall provision in science and technology, they have helped sustain the proportion of undergraduate entrants to STEM courses at consistently over a third of all provision, helping meet demand for graduates in strategic and high added value sectors such as the life-sciences and energy.

Number and proportion of Scotland-domiciled undergraduate entrants on STEM programmes



Source: SFC/HESA.

In their Outcome Agreements institutions have described how they have responded to evidence of current and future skills requirements of employers, and better targeted recruitment of courses of national and regional economic significance. SFC made available 342 additional undergraduate *Skills for Growth* places for three years to 2014-15. In 2016-17, we provided additional funding for a further 171 places, bringing the total to 1,197. We allocated these places in response to proposals submitted by institutions that demonstrated evidence of industry need, skills gaps, industry support, strong student demand, and high quality work-placements as integral elements of the programme. Places were awarded to eleven institutions mostly to STEM-focused programmes that support the energy and life-sciences sectors. Institutions have reported these additional places have been taken up by students, supporting the development of critical mass in key areas of provision.

*The provision of additional SFC funded Skills for Growth places allowed the **University of Strathclyde** to recruit 25 undergraduate students per year to its highly innovative and newly established Biomedical Engineering programme. The University's Biomedical Engineering department was ranked first for Medical Technology in the UK in the Complete University Guide for 2018 and the additional places will go some way in meeting rapidly expanding demand for graduates from industry, the NHS, and for industrial and academic research.*

*The **Scottish Drama Training Network (SDTN)** is a partnership of the **12 colleges and 5 higher education institutions** that offer programmes (technical and performance) in television, film, theatre or radio from NQ to postgraduate level. Based at the **Royal Conservatoire of Scotland** the Network has created a new Graduate Ensemble to perform at the Pleasance Theatre during this year's Edinburgh Festival Fringe. Eighty students graduating during the summer auditioned for places in the Ensemble which has been produced and directed by acclaimed Scottish theatre director, Mark Thomson. Eight students will perform throughout the Festival to audiences including agents and industry representatives, supported by five technical and production arts students. A Festival and Events Masters students from **Queen Margaret University** and two students from the RCS Transitions 20/40 access programme will work on placement with the production. A student on the BA Digital Arts and Design programme at the **University of the West of Scotland** won a competition to create a logo and publicity. If successful it is intended that the Graduate Ensemble production be an annual event providing life change opportunities to Scotland's drama students.*

*Gaelic language and culture at undergraduate level is available at the **University of Glasgow** and the **University of the Highlands and Islands (UHI)** with Masters level programmes at the **Royal Conservatoire of Scotland** (MA Learning and Teaching Gaelic Arts), and at the **University of Edinburgh** (MA in Gaelic and Education). UHI*

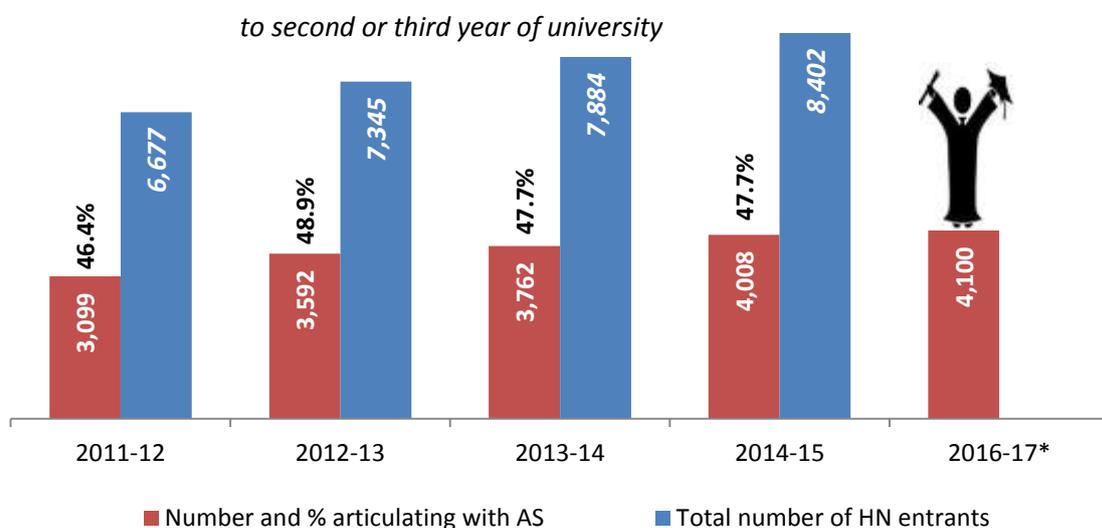
has introduced a Gaelic Pathway programme for primary teacher training as well as piloting a PDGE for secondary Gaelic Medium education in 2015/16. Universities also offer a wide range of opportunities for students to maintain their fluency and develop Gaelic culture through a range of initiatives including accredited and non-accredited language programmes and residency schemes co-locating Gaelic speaking students.

Universities are smoothing the transition from college to university

Articulation is an alternative to the traditional route of progressing to year one of university from school, and has proven to be an effective pathway for widening access to undergraduate programmes at university. SFC's is supporting colleges and universities as they develop and maintain articulation pathways and routes that ensure no loss of time for the student and value for public money.

As a direct result of close partnership working between colleges and universities, over 4,000 students articulated with advanced standing (AS) in 2014-15, (that is, where a student enters second year of a degree programme with an HNC or third year of a degree programme with an HND, therefore receiving full credit for prior HE study). We believe there is further scope for growth, and have set a national ambition to increase the number of students articulating with AS to 4,100 by 2016-17, with steady incremental growth beyond this. And over the period to 2025 SFC wants to increase to 75% the proportion of students articulating with advanced standing. We will also consider reviewing the definition of articulation to include all qualifications at SCQF levels 7 and 8, and will help increase the number of articulating students from deprived backgrounds and underrepresented protected characteristic groups.

Number and proportion of Scotland-domiciled learners articulating from college to degree level courses with advanced standing



* SFC aspiration.

Source: National Articulation Database (compiled from data from FES, HESA and SQA).

SFC is currently rebuilding the National Articulation Database on a more secure statistical platform. This will enable more analysis of this data, and we expect this work to be completed over the summer. The latest data for 2015-16 will be reported later this year. Our intelligence suggests that the number of articulating students will be significantly higher than 2014-15.

Over 66% of all articulation with advance standing in 2014-15 was delivered through five institutions, with the University of the West of Scotland alone accounting for 22.5% of the sector total. While we are keen for these key institutions to sustain their current level of articulation activity, we believe this is considerable scope for other HEIs to contribute more, offering articulating students a richer subject and institutional choice.

From 2013-14 we provided over 1,000 additional places each year for 3 years¹⁴ to expand the scale of '2+2' or '1+3' (HNC to year 2, HND to year 3) guaranteed articulation partnerships between colleges and universities. Institutions have reported 100% enrolment to these places. We provided a fourth and final tranche of 1,118 places in 2016-17.

*The Engineering Academy is a collaboration between the **University of Strathclyde**, partner colleges and the engineering industry to increase widening access participation in engineering. A partnership model has been developed where Engineering Academy students of the University complete an enhanced HNC at a partner college and on successful completion transfer to second year of their chosen undergraduate degree within the University's Faculty of Engineering. This partnership working has allowed a continued focus on supporting students through key transitions and with specific study needs; impacting positively on retention and success of students.*

To enhance intake from the 20% and 40% most deprived communities the partnership actively focus on low progression schools and work closely with college partners and the Scottish Wider Access Programme, (SWAP). The Engineering Academy offers students the chance to engage with sponsoring companies who mentor the Academy students throughout their studies and support their professional development, whilst also providing paid summer placements for many students. This allows students to put the theory they learn into practice and get hands-on industrial experience, enhancing their CVs and employability. Many students return to the same company over the period of their study and a small number of companies have offered 1 year internships to students. The first intake of Engineering Academy students graduated in the summer of 2017, while approximately 50% of these students have achieved the necessary grades and will continue onto the Masters programme (MEng).

¹⁴ 1,020 additional places in 2013-14; 1,089 in 2014-15; and 1,118 in 2015-16.

Glasgow Caledonian University's College Connect Team and strategic partnerships with the Glasgow colleges has developed an effective infrastructure for articulation that includes joint planning on curriculum design, admission, transition, and CPD for staff. The central aim of College Connect is to enhance the student experience of articulation and to achieve an increase in the numbers of students recruited through articulation. The College Connect Academy offers students a programme of activities designed to help with the transition from college to university, including UCAS and Transition Support Workshops, open days, masterclasses, online learning resources, student social activities, induction events and mentoring support. College students can also use an innovative online pathfinder tool to find learning programmes that best suit their needs.

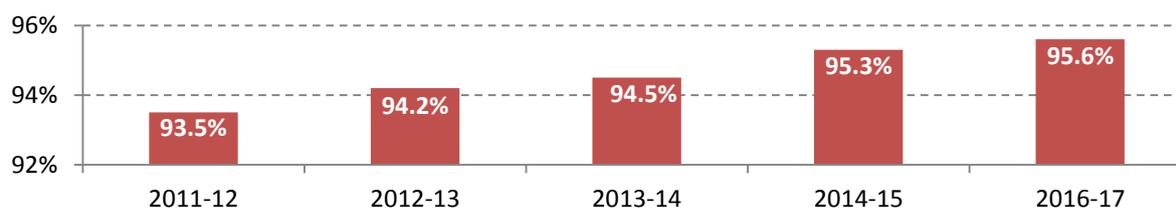
The University of Aberdeen has intensified its articulation activities with two new college collaborations for 2017. A pilot group of students from North East Scotland College's HND Legal Studies programme will join the University in September on their LLB degree, which will be the first progression route in Scotland in Law. A new articulation route has also been agreed with Dundee and Angus College with students from the College's HNC in Mechanical Engineering articulating to Aberdeen's BEng Mechanical and Civil Engineering degrees, with the first students starting in September. Robert Gordon University (RGU) already has longstanding articulation partnerships with these college partners, and has seen year-on-year growth in the number of students entering its undergraduate programmes with advanced standing. These partnerships have led to RGU and college staff and students developing shared approaches to teaching and learning, further cementing the joint working relationship.

Universities are developing highly skilled graduates ready for work

Institutions are committed to *increasing* the proportion of students entering graduate-level occupations, *enhancing* skills for the work place and *developing* students for a competitive international labour market.

Longitudinal data on graduates entering positive destinations show a sustained year-on-year increase in those leaving university for employment or further study, from 92.3% in 2009-10 to 95.6% in 2014-15.

Percentage of Scotland-domiciled graduates entering positive destinations



Source: HESA Destinations of Leavers in Higher Education (DLHE) survey.

We have seen above how universities support learner journeys and deliver high quality learning opportunities that match the needs of business and public services. Through curricular and extra-curricular activities, universities across the sector are developing new and innovative ways to foster students' prospects, supporting them in the transition to employment or further study, and in the application of their learning.

Graduate level apprenticeships

Graduate Level Apprenticeships provide work-based learning opportunities up to Master's degree level for those in work, helping drive and sustain economic growth. The initiative, led and funded by SFC's partner agency, Skills Development Scotland (SDS), has been created in partnership with industry and the further and higher education sector, combining academic knowledge with skills development to enable participants to become more effective and productive in the workplace. Employees can equip themselves with higher levels of academic learning and industry accreditation, helping them progress as professionals, and helping employers develop their workforce and their skills to industry and professional standards.

By the end of 2017, nine of Scotland's universities and colleges will be delivering Graduate Level Apprenticeships, with an initial focus on ICT/Digital, Civil Engineering and Engineering. There are plans to expand programmes into new sectors during 2018 including Business Management, Cyber Security and additional Engineering and Construction frameworks.

Abertay University is the National Centre for Excellence for Computer Games Education and is the only European university to be ranked in the prestigious Princeton Review's 2015 list of the 'Top 25 Schools to Study Game Design'. The University has agreed a new strategic partnership with a leading Chinese entertainment and creative enterprise, Perfect World Education, to develop and nurture new talent to meet the demands of the international computer games industry and to provide a platform for collaboration and cultural exchange in computer game education.

*Robert Gordon University is launching Graduate Level Apprenticeships (GLA) and is the first university in Scotland to officially validate their GLA courses. The School of Computing will offer two newly created GLAs for 2017-18 in BSc (Hons) Software Development and BSc (Hons) IT Management for Business. Working in partnership with **Skills Development Scotland**, these are four-year undergraduate degrees, will be delivered in a unique and innovative way which sees employers working as partners with RGU and co-designers of the student learning experience. Employers will play a significant role in providing the learning opportunities which bring the students' theoretical studies to life and the portfolio of evidence around which much of their academic assessment will be based, while also acting as mentors to GLA students. Students earn a full-time salary as they learn so are an ideal option for anyone concerned about student debt and who would prefer to learn in a more practical, hands-on way. The programme allows them to see the immediate relevance of their academic studies, forming a great link between academic study and the post-university workplace.*

*Craig Bell, a MEng Computing Science student at the **University of Strathclyde** has been awarded first prize in the e-Placement Scotland Placement of the Year Awards 2016. Craig worked with ThinkAnalytics, a real-time personalised content recommendation engine, for three months using the skills learned on his computer science course to design, create and implement a metadata analysis tool and JIRA migration tool. Commenting on the placement, Loretta Perry, Head of HR & Development for ThinkAnalytics noted that 'For the business this is all positive reinforcement of the quality of the teaching and the curriculums in place at Scottish universities in supporting and preparing students for transferring what they have learned at University into the workplace'.*

Universities are delivering world-leading research

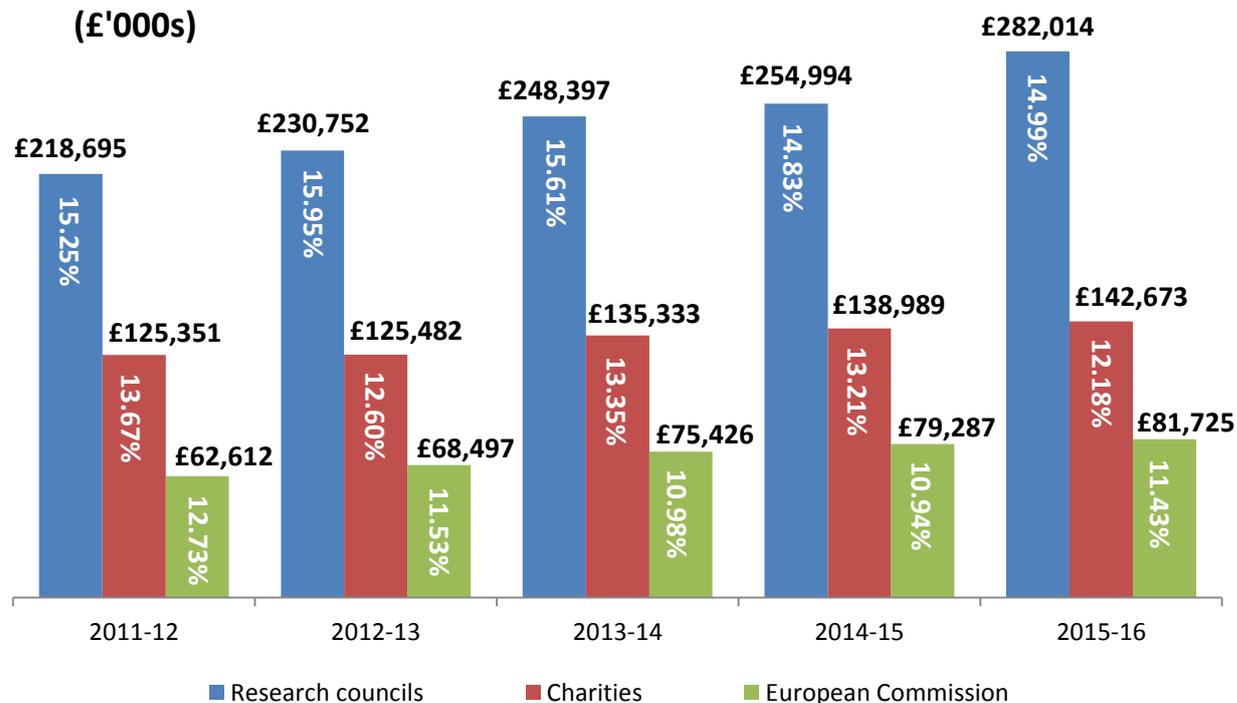
The outcome of the Research Excellence Framework (REF2014¹⁵) demonstrates the strength and depth of research activity across Scottish HEIs with 4* (world-leading) research carried out in all of Scotland's nineteen HEIs. 77% of submissions from Scottish universities were judged to be either 4* or 3* (internationally excellent), compared to 54% in 2008. REF2014 was the first exercise to assess the impact of research on the economy, society, culture, public policy or services, health, the environment or quality of life. 86% of research submitted by Scottish universities was found to have 'very considerable' or 'outstanding' impact, outperforming the UK as a whole and demonstrating universities' commitment to seeing the potential of their research realised to the benefit of the whole country. An independent review of REF commissioned by the UK government and chaired by Lord Stern was published in September 2016; it concluded that the REF had been a success, and made a number

¹⁵ The REF is conducted jointly by the four UK HE funding bodies (SFC, HEFCE, HEFCW and DELNI) and is the process for assessing the quality of research in higher education institutions in the UK, replacing the Research Assessment Exercise (RAE), last conducted in 2008.

of recommendations to ensure a greater focus on interdisciplinary research; strengthening the focus on institutions as a whole rather than narrowly on individuals; reducing the costs to universities; and widening the notion of ‘impact’ to include influence on public engagement, culture and teaching. The next REF will take place in 2021.

During 2016-17 SFC invested over £231.8m to support research excellence through the Research Excellence Grant, giving them a platform to compete with the best universities in the UK and internationally. In 2015-16 SFC core research funding for Scottish institutions leveraged an additional £791m in research income for the sector – an increase of 2.75% (£21.7m) on the previous year. This included a record £282m in UK research council funding, some 14.99% of the UK total, only marginally below SFC’s target share of >15%.

The amount and percentage UK share of income from Research Councils, major research charities and the European Commission (£'000s)



*Note: percentages show Scottish HEIs share of UK total.
Source: SFC/HESA (see page 30 of SFC Outcome Agreement technical guidance).*

Edinburgh and Glasgow universities, Scotland’s largest, multi-faculty research intensive institutions, account for over half of all research income won by Scottish HEIs (34.5% and 22.5% respectively), and almost two-thirds of Scotland’s share of competitively won research income from the UK research councils (42.5% and 25.7% respectively). However, as the REF2014 demonstrated, there is research excellence in all of Scotland’s higher education institutions. Heriot-Watt and Strathclyde universities have seen dramatic growth in research income over the past 5 years of

31.5% and 29% respectively, and REF2014 ranked Queen Margaret University's research into Speech and Language Sciences as second in the UK, validating SFC's approach that encourages and supports institutions to focus resource on areas of excellence and unique and specialist expertise.

Total research income from all sources 2011-12 to 2015-16 (£'000s)¹⁶

	2011-12	2012-13	2013-14	2014-15	2015-16
Aberdeen	57,808	60,274	66,045	63,316	63,999
Abertay	1,017	1,544	1,245	1,099	909
Dundee	66,742	68,391	78,977	82,369	72,865
Napier	5,566	4,718	4,513	4,654	4,607
Edinburgh	193,119	200,123	215,934	247,391	272,895
GCU	3,858	4,124	5,178	5,780	5,914
GSA	2,625	2,362	2,325	3,959	4,069
Glasgow	124,351	128,090	133,618	172,982	177,790
Heriot-Watt	22,748	26,952	27,104	29,556	33,209
QMU	3,490	3,458	3,113	3,170	1,759
RGU	3,179	2,387	2,629	2,298	2,421
RCS	46	35	82	162	143
St Andrews	37,290	39,201	39,230	40,468	45,054
SRUC	16,274	17,706	18,000	16,298	17,015
Stirling	8,255	10,459	10,973	11,555	11,492
Strathclyde	42,535	50,412	52,184	65,473	59,921
UHI	18,295	16,295	15,204	14,858	12,738
UWS	2,688	2,694	3,151	3,825	4,128
Total sector income	609,886	639,225	679,505	769,213	790,928
Annual increase		29,339	40,280	89,708	21,715
% annual increase		4.81%	6.30%	13.20%	2.75%

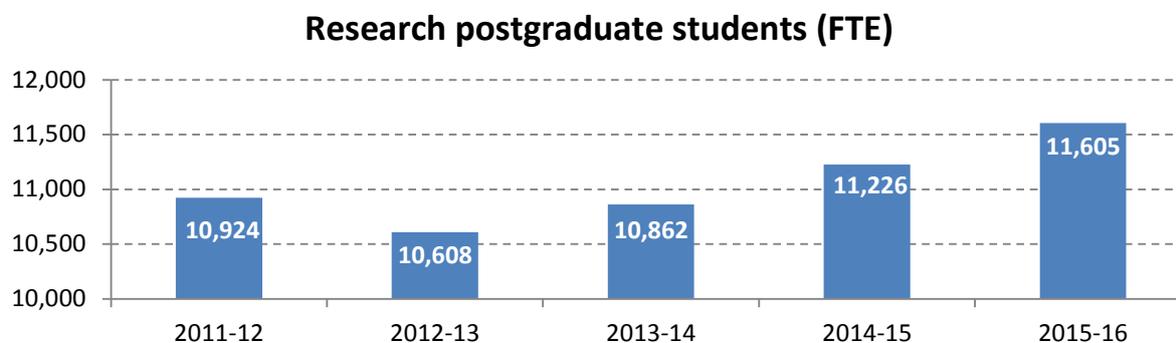
Source: SFC/HESA.

Note: the Open University submits a single UK wide data return to HESA. Scotland only data is not available.

SFC is committed to ensuring the best possible environment for the development of early career researchers and postgraduate students to secure Scotland's reputation for world-leading research. SFC allocated £34.6m in 2016-17 through its Research Postgraduate Grant for institutions to invest in the environment needed for high quality research training, and support postgraduate research students to contribute to research in Scotland. Our ongoing investment in research pools and innovation centres also exposes our future research leaders to an environment of cutting-edge research with additional training in a range of high-level and transferable skills. In their Outcome Agreements, all our institutions have evidenced their commitment to the principles set out in the Universities UK *Concordat to support research integrity*. The number of research postgraduate students continues to show steady sustained

¹⁶ Not including SFC core Research Excellence Grant allocations.

growth to 11,605 in 2015-16, a rise of 5.87% since 2011-12. The universities of Edinburgh, Glasgow and Strathclyde account for 25%, 19% and 12% of this total respectively, but all our HEIs – including the small specialist institutions – support postgraduate research.



Source: SFC/HESA.

Since 2003 SFC has invested £150m in research pools to foster dynamic collaboration and enhance the sustainability, effectiveness and international competitiveness of Scottish research – a sum matched by partner HEIs. The research pools have been successful in establishing critical mass, attracting leading international researchers, and providing access to advanced equipment and technology on a shared basis, as evidenced by the outcome of REF2014 and in the sustained growth in the sector’s research income, and its success in securing a disproportionate share of competitively won research income.

*The Paul O’Gorman Leukaemia Research Centre at the **University of Glasgow** has won a €3m European Research Council grant to study Game-changing Precision Medicine for treating leukaemia. Led by Professor Tessa Holyoake, the grant will enable the team to study drug resistant leukaemia cells and use precision medicine to better target them. They hope that their work will reveal more accurate ways to target cancerous stem cells, and potentially lead to drugs that could cure some patients.*

*The **University of Stirling** is leading a multi-disciplinary Older Persons Routine Acute Assessment research project in collaboration with the **University of Dundee** and funded by the National Institute for Health Research to deliver practical changes, informed by research, in the care for older people with cognitive impairment and dementia when they are admitted to hospital for emergency treatment.*

*The **University of Aberdeen** recently announced a strategic partnership with Curtin University in Perth, Western Australia to deliver a high impact research and innovative teaching programme. The research will be delivered through a new Global Energy Institute which will offer Masters programmes and research programmes led by the needs of industry. Research strands in medicine will explore the challenges of*

delivering health care in remote and rural areas, and in creative arts, where such international alliances are rare, academics are already collaborating on creative writing courses. The research activities are accompanied by 12 PhD studentships, due to start in 2017, to carry out research in both Australia and Scotland.

Supporting innovation and strengthening ties with industry

Higher education institutions are continuing *to develop*, and be involved with, new and innovative structures for industry-university collaboration and *to exploit* research for the benefit of the economy, society and our shared culture. In 2015-16 Scottish HEIs had over 32,000 interactions with organisation in the public, private and voluntary sectors – over 21,000 of them based in Scotland – providing consultancy, research and development and other forms of knowledge exchange activity. This work generated over £450m in income to the sector to support institutions' teaching and research activities.

SFC launched the Innovation Centre programme¹⁷ in 2012, working in partnership with Scottish Enterprise and Highlands and Islands Enterprise, and investing up to £120 million over five years to support the university infrastructure. The Centres facilitate collaboration between universities and businesses to deliver transformational change and growth in key industry sectors including oil and gas and life sciences. An independent review of the Innovation Centre Programme, chaired by Professor Graeme Reid and published in September 2016¹⁸, concluded that the initiative remained on track to achieve its vision. The eight Centres are now successfully established and are well placed to make a long-term impact on Scotland's innovation landscape. The report also makes a series of recommendations, including that universities make renewed efforts to involve as much of Scotland's excellent research base as possible with the programme, and that Scotland's colleges participation in the programme be maximised.

Supporting small and medium-sized companies

Scotland's 348,000 small and medium sized companies (SMEs) are the bedrock of our economy accounting for 54.6% of private sector employment and 40.5% of private sector turnover, and employing over 1.2m people. SFC has sought to facilitate engagement between SMEs and universities to support sustained economic growth. One such initiative is the Innovation Voucher Programme funded by SFC and administered through Interface¹⁹. The £5k vouchers provide an opportunity for SMEs to access academic experts to help solve problems and help them grow – applying our universities' world leading know-how to support companies that may not have the scale or resources to undertake their own research and development activities.

¹⁷ [SFC's Innovation Centre programme.](#)

¹⁸ [Independent Review of the Innovation Centres Programme.](#)

¹⁹ Founded in 2005 and funded by SFC, [Interface](#) supports businesses seeking to access academic support from Scotland's 23 higher education and research institutes.

We have seen sustained growth in the uptake of vouchers over recent years and in response SFC has increased the amount of funding available to support the programme during 2016-17 by £250k to £835k.

The SFC funded Converge Challenge is a company creation competition and entrepreneurship development programme for staff, students, and recent graduates of Scottish universities aimed at creating a new generation of entrepreneurs in Scotland. This year's competition saw 60 finalists shortlisted out of 212 entries from 19 institutions, with women now representing 43% of finalists.

There are three award categories: Converge Challenge – for established ideas; KickStart – for early stage ideas; and Social Enterprise – for ideas that will have a positive impact on social and environmental issues. Examples of this year's shortlisted business ideas include tools for brain cancer diagnostics; the world's first automated, small-scale food waste digester to generate biogas; garden design toolkits for adults with dementia; and an online platform to help people self-manage diabetes.

*Technology start-up company Capture Mobility has developed a roadside micro wind turbine that can generate electricity from the turbulence of passing traffic and filter carbon from the atmosphere. The company has run trials and plans are underway to use the turbines on the Forth Road Bridge, delivering sustainable energy for the bridge's lighting. The company contacted Interface, who matched them to the School of Engineering at the **University of Aberdeen** in a project funded by an SFC Innovation Voucher to help improve the efficiency and carbon filtration of the turbine. The company is in discussions with industry partners to explore the potential for installing turbines in remote locations, providing unobtrusive mobile phone charging stations and electric car charging points. The turbines have already attracted interest from overseas markets, including France, China, Brazil and Chile.*

*Other examples of how Innovation Vouchers have helped SMEs access academic expertise to grow their businesses include: Sunamp Ltd, which has worked with the **University of Edinburgh's** School of Chemistry to develop heat batteries that store energy as heat which can be released on-demand to provide heat and hot water; and Plansafe Solutions who worked with **Edinburgh Napier University** to develop bespoke software applications and web interfaces that support the on-site inspection of ventilation equipment and systems.*

*ClinSpec Dx – a simple blood test to detect brain tumours earlier – was the winning pitch chosen by an expert panel and an audience of 120 industry experts from the top 30 Converge Challenge applicants. Dr Holly Butler, a Research Associate at the **University of Strathclyde**, delivered the winning pitch showing how ClinSpec Dx can change brain tumour diagnosis statistics through earlier detection. Second place went to mycoBiologics, a portable diagnosis test for fungal infections similar to a*

*pregnancy test, led by Dr Fiona Rudkin, a Royal Society of Edinburgh Enterprise Fellow at the **University of Aberdeen**. Third place went to novosound, which has developed sensors that can provide high resolution ultrasound imaging at a fraction of the current cost, revolutionising the medical, dental and veterinary markets, led by Dr Dave Hughes, a Research Fellow at the **University of the West of Scotland**. The top six candidates share of the total prize fund of £170,000. The full list of shortlisted business ideas is on the Converge Challenge website²⁰.*

Universities are working towards reducing their impact on the environment

Our universities are becoming environmentally sustainable. All institutions in the sector now have Carbon Management Plans, under the Universities and Colleges Climate Commitment for Scotland (UCCCfS). The UCCCfS programme is delivered by the Environmental Association for Universities and Colleges (EAUC) and funded by the SFC. The commitment is a public declaration that institutions acknowledge the Scottish Government targets to reduce carbon emissions (80% by 2050), and will address the challenges of climate change and reduce their carbon footprints.

In 2015, 15 of Scotland's 19 HEIs took part in the first (and voluntary) year of climate change reporting. Under the Climate Change (Scotland) Act 2009, the new reporting scheme became mandatory for all publicly funded bodies from November 2016. Institutions will now be asked to report under four headings: climate change management; carbon emissions; climate change adaptation; and sustainable procurement. This new reporting framework will be reflected in SFC's guidance for the next outcome agreement cycle to be issued later this year.

*The **University of St Andrews'** 6.5MW biomass boiler and district heating system became fully operational in January 2017. The system will provide heat for the university's North Haugh estate – including 2,500 student rooms – and will reduce its carbon emissions by 20% to 6,000 tonnes. The project won Sustainable Development Award at the 2016 Scottish Renewables Green Energy Awards.*

***University of Dundee** are part of a procurement consortia to share resources through re-use of furniture, stationary and other goods. The consortia, operating through the Warpit web portal, has saved the University £102,000 and over 60 tonnes of carbon over the last two years.*

*Presented with the challenge of building a fit-for-purpose, early-years childcare facility for the children of its staff and students, the **University of Aberdeen** built the first fully certified Passive House Nursery in Scotland – an ultra-low energy building that requires little energy for heating or cooling. The space is designed to reflect best practice in early-years care, and a sustainable venue for the youngest members of the*

²⁰ [2017 Converge Challengers revealed.](#)

university community. The project has also helped to build capacity in the local construction sector, with the majority of the contractors involved in their first ever Passive House project, and has become a focal point in the region for discussing and sharing knowledge on low energy design. The project won the large institution Built Environment award at the prestigious 2016 UK Green Gown Awards for sustainability excellence.

Abertay University has explicitly embraced the idea of sustainable development as an institutional strategic aim in its new Strategic Plan (2015-2020): “ensuring we provide the highest standards of teaching, student support, and customer service and improving efficiency and sustainability in the way we do things”. The University is aiming to achieve this through a whole institutional approach involving changes to both estate and academic policy and practice. This application is focused upon the latter through the development and implementation its new teaching and learning enhancement strategy which prioritises “active citizenship” as one of four dimensions of our new Abertay Attributes and is exemplified in a variety of specific pedagogic initiatives with the intention of creating heightened sustainability literacy among Abertay staff, students and our wider community.

Financial sustainability

The financial results for the higher education sector in 2015-16 show a financially sound position overall, though there are continued variations in performances of individual institutions. The following factors have the potential to adversely affect the financial performance and sustainability of universities:

- Impact of the UK exiting from the EU.
- Fall in Rest of UK recruitment in an increasingly competitive market.
- Failure to achieve international student recruitment targets.
- Narrow focus of the UK Government Tier 4 visa pilot and other UK Visa and Immigration regulations.
- Unanticipated public spending cuts in research and/or teaching income.
- Impact of changes to UK research funding in the Higher Education and Research Act 2017.
- Failure to effectively manage major capital investment programmes and their financial impacts.
- Rises in staff and pension costs.

The negative consequence of this could be reductions in areas of activity which are important for the Scottish economy e.g. research activity. In order that we have early indication of any financial challenges facing individual institutions, SFC continues to monitor the financial sustainability of universities using a combination of financial

returns and 'softer' intelligence. A summary financial position of the university sector following analysis of the 2015-16 annual accounts is available on our website²¹.

²¹ [Summary financial position of the HE sector following analysis of 2015-16 annual accounts.](#)