BiGGAR Economics

University of the Highlands and Islands Moray College

Moray College UHI
Economic Impact Assessment

A final report to UHI
25th September 2020

BiGGAR Economics

Contents

1. Introduction

This report presents an assessment of the economic impact of Moray College UHI in 2019.

This report presents an assessment of the economic impact of Moray College UHI in 2019. This is linked to a wider commission to evaluate the collective economic contribution made by UHI and its academic partners.

The analysis is based on data provided to BiGGAR Economics by Moray College in Spring 2020, together with an interview with College Principal, David Patterson in July 2020.

1.1 Background

Originating at Elgin Technical College in 1971, Moray College UHI is now the third largest partner of the UHI, teaching around 6,000 students. Provision ranges from bespoke pre-employment short courses to PhD study. Students are provided with the option of studying either full or part-time on campus, with the flexibility to study from home and student enrolment has increased consistently over recent years.

> Mission: "To transform lives and to be at the heart of transformation in Moray, and in the wider region."

The College has two main sites situated in Elgin and operates several learning centres throughout Moray. Becoming a part of the UHI has allowed Moray College to broaden their curriculum offering and deliver it on a wider regional scale. It has also created the ambition of transforming the traditional ancient city of Elgin into a modern university town. The College also sits on the project board of the Moray Growth Deal Project.

Firmly embedded in the local community of Moray, the College seeks to align its academic offerings with the needs of businesses in the area using input from local employers to develop its courses.

The College is home to the Moray School of Art, one of just five major art schools in Scotland. It also hosts the Alexander Graham Bell Centre for Digital Health, Linkwood Technology Centre and the Gas, Oil and Renewables Assessment Centre.

1.2 Reference Year and Geography

Our analysis is intended to measure the impact created by the UHI and its academic partners over a given timeframe, in this case it is 2018/19, the most recently completed academic year for which data are available. Throughout the report this has been referred to as 2019. Graduate data relate to students who graduated in 2019.

The impacts are presented for two geographies, the Moray Council local authority area and Scotland as a whole.

1.3 Measurement and Method

The economic impacts are assessed in terms of two commonly used measures:

- Gross Value Added (GVA), which is a measure of economic output; and
- jobs.

GVA impacts are reported to nearest whole £ million and jobs are reported to the nearest 100, or nearest 10 depending on the scale of impacts. Student numbers are rounded to the nearest 10.

A detailed description of the metrics and the methods used to calculate impacts is provided in the Methodological Appendix at the end of the main UHI report.

1.4 Report Structure

The remainder of this report is structured as follows:

- Section 2 introduces Moray College UHI's quantitative economic impacts, which result from supporting students, delivering research, employing staff and running services; and
- Section 3 reflects on the wider benefits of the college, which are the result of research and commercialisation activity, support for the labour market, and links with industry and communities.

2. Economic Impacts

This section presents the economic impact created by Moray College UHI.

Its impacts are described according to the themes set out in the UHI's strategic plan:

- supporting students;
- focussed research; and
- a university for all the region.

The summary tables at the end of this section show the estimated total economic contribution made by the College. This should be read alongside the wider benefits supported by organisation which are described in section **Error! Reference source not found.**.

A full description of the methodology used to estimate these impacts is contained in an Appendix to the UHI's main report.

2.1 Supporting Students

Engaging in education brings an opportunity for people to enhance their earnings potential over the course of their working lives. The sub-section below quantifies the lifetime productivity benefits associated with the qualifications awarded to students at Moray College UHI.

The College has a total student body of 5,145 across its further and higher education courses. The curriculum offering for students is at the heart of the College and it aims to meet the needs and expectations of a diverse and geographically dispersed student body. Its approach facilitates greater access to a range of courses that offer pathways through tertiary education, delivering qualifications at all 12 SCQF levels from access courses up to and including PhD level. For all students, especially those living in communities where tertiary education was previously limited or non-existent, this represents a step change in the local education offering.

In 2018/19, Moray College UHI had 1,380 qualifiers from its full-time and part-time courses. In cases where students achieved more than one award in the same year, the productivity premium was applied to the highest level of award received by each qualifier to avoid double counting.

The table below show the highest qualification achieved by students at Moray College in 2018/19. Qualified undergraduates were assumed to have achieved Level 10 on the SCQF scale, which assumes they have completed an honours qualification. For those that do not complete honours level, assigning this group to Level 9 does not affect the analysis below.

Table 2-1 Qualifiers from Moray College UHI by SCQF Level, 2019

SCQF	Number Qualifiers	Examples of Awards Included
Level 1	60	National 1 Awards
Level 2	10	National 2 Awards, National Certificate, National Progression Award
Level 3	10	National 3 Awards, Skills for Work National 3, National Certificate, National Progression Award
Level 4	160	National 4, Skills for Work National 4, National Certificate, National Progression Award, SVQ 1
Level 5	300	National 5 Awards, Skills for Work National 5, Modern Apprenticeships, National Certificate, National Progression Award, SVQ 2
Level 6	300	Higher Awards, Skills for Work Higher, National Certificate, National Progression Award, Foundation Apprenticeships, Professional Development Award, SVQ 3
Level 7	340	Advanced Higher Awards, Scottish Baccalaureate, Modern Apprenticeships, HNC, Professional Development Award, SVQ 3
Level 8	90	Diploma of Higher Education, Technical Apprenticeship, HND, Advanced Diploma, Professional Development Award, SVQ 4
Level 9	10	Bachelors/ Ordinary Degree, Graduate Diploma, Technical Apprenticeship, Professional Development Award, SVQ 4
Level 10	100	Honours Degree, Graduate Diploma, Graduate Certificate, Graduate Apprenticeships, Professional Development Award
Level 11	20	Masters' Degree, Post Graduate Diploma, Professional Apprenticeship, Professional Development Award, Graduate Apprenticeship, SVQ 5
Level 12	-	Doctoral Degree, Professional Apprenticeship, Professional Development Award
Foundation Apprenticeships	<5	
Total	1,380	

Source: SCQF (2020); BiGGAR Economics Analysis of Data from UHI (Numbers have been rounded to the nearest 10)

The analysis considers the productivity impacts associated with qualifications at Level 4 and above. Three different methodologies have been used to suit available data on earnings premia associated with different levels of education. The groupings used and a brief description of the methodology applied in each case is described below. A full description of the methodologies used is contained in the methodological appendix in the main UHI report.

2.1.1 Qualifiers at SCQF Levels 4 to 6

SCQF Levels 4 to 6 represent qualifications gained in the senior phase of formal education (typically, ages 16-19) and in the initial stages of employment up to National Certificate and SVQ3 level. Foundation Apprenticeships are included as a Level 6 qualification. Based on the data received from UHI, it was estimated that 753 people received Levels 4 to 6 qualifications at Moray College UHI in 2018/19.

The methodology applied uses data from a study for the Department for Business Innovation and Skills[1] that measured the lifetime productivity impacts realised in England from achieving qualifications that are equivalent to SCQF Levels 4 to 6 in Scotland. The resulting productivity premium applied to qualifiers at these levels is shown in Table 2-2. The economic impact associated with each study area was estimated based on qualifiers' term-time address.

Table 2-2 Earnings Premium Assumptions, SCQF Levels 4 to 6

RQF Level	Equivalent SCQF Level	Productivity Premium
Level 1	Level 4	£8,667
Level 2	Level 5	£22,444
Level 3	Level 6	£29,444

Source: BIS (2011), Measuring the Economic Impact of Further Education and BiGGAR Economics Analysis

2.1.2 Qualifiers at SCQF Levels 7 and 8

SCQF Levels 7 and 8 represent advanced further education, modern apprenticeships, some professional development awards, SVQ Level 3/4, HNCs and HNDs. Based on the data received from UHI and its academic partners, it was estimated that 428 people received qualifications at Levels 7 and 8 from Moray College UHI in 2018/19.

To estimate the impact for qualifiers at this level, the analysis relied on a study by London Economics on the returns from RQF Level 4 and 5 qualifications for STEM and non-STEM subjects[2]. Based on European Commission guidance, these correspond with SCQF Levels 7 and 8 in Scotland. The study found that the premium realised was different for STEM and non-STEM subjects and also for full-time and part-time qualifiers. This is because many part-time students undertake courses at a later stage in their working lives and have less time in which to realise the benefits.

The premiums applied are shown in Table 2-3. The appropriate rate of return was applied to UHI qualifiers according to courses they graduated from and the mode of study. Impacts were allocated to each area according to where students lived.

Table 2-3 Earnings Premium Assumptions, SCQF Levels 7 and 8

Study Mode	STEM Subjects	Non-STEM Subjects
Full-time	£78,500	£28,500
Part-time	£45,200	£13,500

Source: London Economics (2017), Assessing the economic returns to Level 4 and 5 STEM-based qualifications

[1] BIS (2011), Measuring the Economic Impact of Further Education and BiGGAR Economics Analysis
[2] London Economics (2017), Assessing the economic returns to Level 4 and 5 STEM-based qualifications.

2.1.3 Qualifiers at SCQF Levels 9 to 12

SCQF Levels 9-12 represents higher education awards, Bachelors' degrees, Masters' degrees, PhDs and other equivalent qualifications such as Professional Development Awards. Based on the data received from UHI and its academic partners, it was estimated that 128 awards were made by Moray College UHI at Levels 9 to 12 in 2018/19.

The approach towards estimating the productivity premium associated with higher education graduates is based on research carried out by the Department for Business Innovation and Skills (BIS)[3]. This considers the lifetime earnings premium accruing to a graduate compared with others whose highest formal qualification is an A-level or equivalent qualification. This study also gives a breakdown of graduate premia by subject studied and highlights the considerable variation in the returns from different degree subjects. Their research implies that the average graduate premium for all first-degree qualifiers is estimated to be £108,100 over their working lives. The study also estimates the returns from postgraduate and research degrees.

The total productivity impact associated with the students who achieved Level 9 to 12 qualifications was estimated by multiplying the returns associated with each degree type and subject by the number of graduates who qualified in that subject and degree type in 2019.

To estimate the economic impact generated in each study area, a distinction was made between UK qualifiers and non-UK qualifiers, as graduates from outside the UK are less likely to remain in the UK after achieving their degrees. Based on the Destination of Leavers from Higher Education Survey[4], it is estimated that around 84% of graduates from Scottish institutions remain in Scotland on completion of their course. The graduate premium impact for UK-domiciled qualifiers in the Highlands and Islands was then estimated based on data provided by UHI for students' postcodes. Based on research from BIS, it is further assumed that only 20% of non-UK qualifiers remain in the UK following graduation. The total graduate premium across the Highlands and Islands and Scotland was then estimated by summing up these impacts.

2.1.4 Summary Productivity Impacts of Qualifications

Using these methods, the productivity impact associated with students receiving awards from Moray College UHI in 2019 is estimated to be £34 million GVA in Moray and £43 million GVA across Scotland. A breakdown of impact by qualification level is provided in the table below.

Table 2-4 Earnings Premium by Level of Qualification – Moray College UHI

	GVA (£ million)	
	Moray	Scotland
SCQF Levels 4-6 (Further Education)	14	17
SCQF Levels 7-8 (Higher Education)	15	17
SCQF Levels 9-12 (Higher Education)	5	9
Total	**34**	**43**

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

[3] Department for Business Innovation & Skills (BIS) (2011), The Returns to Higher Education Qualifications.
[4] Higher Education Statistics Agency (HESA) (2018), Destination of Leavers from Higher Education 2016/17.

2.2 Focused Research and Knowledge Exchange

The growing slate of research and knowledge exchange activity at UHI and its academic partners differentiates it as a University, reinforcing its original purpose of creating a transformational impact on the economy and communities of the Highlands and Islands.

Moray College UHI is home to the Alexander Graham Bell Centre for Digital Health, situated in Elgin, a research, education and business hub. Moray has a growing reputation in digital technologies which puts it in a good position to develop digital healthcare models and the Highlands and Islands has a broad supply chain in digital technologies, from research through to manufacturing. The Centre brings together the expertise in Digital Healthcare and Life Sciences within the region and across Scotland. It is a partnership between Moray College UHI, NHS Grampian, and Highlands and Islands Enterprise. The building provides teaching facilities for the college and houses medical research and training rooms used by NHS Grampian and available for businesses to lease. As a result of the research income generated, a portion of the core impact of Moray College UHI can be attributed to its focused research.

The impact of the quantifiable research and knowledge exchange activity at Moray College UHI is estimated to generate £500,000 GVA and support 22 jobs in the Moray Council area in 2019.

Table 2-5 Quantifiable Research & Knowledge Exchange Activity Impact

		GVA (£)
	Moray	Scotland
Total	**500,000**	**600,000**
		Employment
Total	**22**	**24**

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

2.3 A University for All of the Region

2.3.1 Core Impact

The core impact of an organisation is the economic contribution it makes through its main activities. The core impacts associated with Moray College UHI include:

- **direct impact** –the value that it adds to the economy through its own operations which can be estimated as the difference between total income and total supply spending. In 2018/19, the College had a total income of over £13 million and spent almost £3 million on supplies;
- **supply spending impact** – which measures the contribution made throughout the organisation's supply chain by its expenditure on goods and services. This amounted to £1 million in 2018/19;
- **staff spending impact** –staff at the College create an impact on the economy by spending their wages and salaries in the areas where they live. In 2018/19 staff at Moray College UHI received £10 million in salaries and wages; and
- **capital spending impact** - this contributes to economic activity by supporting businesses in the construction sector and the amount spent can fluctuate from year to year. Based on spending over the past five years and taking future plans

into account for the next five years, it is estimated that Moray College UHI spends around £0.3 million per year on capital investment.

Summing up the economic impact generated by core activities, it is estimated that, in 2018/19, Moray College supported £13 million GVA and 580 jobs in Moray. Across Scotland, the College created an economic impact of £14 million GVA and 610 jobs. A summary of impact by source is provided in Table 2-6.

Table 2-6 Core Impact – Moray College UHI

		GVA (£ million)
	Moray	Scotland
Direct Impact	11	11
Supply Spending Impact	<1	1
Staff Spending Impact	2	3
Capital Spending Impact	<1	<1
Total	**13**	**14**
		Employment
Direct Impact	540	540
Supply Spending Impact	10	10
Staff Spending Impact	30	60
Capital Spending Impact	<10	<10
Total	**580**	**610**

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

2.3.2 Student Community

In 2018/19, there were 1,607 full-time students enrolled at the College on all further and higher education courses. The student community at the College creates an economic contribution in four ways: through their spending patterns, through working part-time in their local communities, through placements and through voluntary work. Each of these impacts is explained below:

- **Student spending** – students' spending habits during term time supports turnover and employment in the businesses where purchases are made. Student spending is estimated based on where they live and on their spending patterns which are informed by the "Student Income and Expenditure Survey 2014 to 2015"[5] which is published by the Department for Education (DfE). It is estimated that the full-time student community at Moray College UHI spend £17 million in the local economy each year.
- **Student part-time work** - students also make an economic contribution by working part-time during their studies, most commonly in the hospitality and retail sectors. Based on national data it was estimated that around 33% of full-time students worked during term time[6] for around 14 hours each week.
- **Student placements** - students at the College contribute to local employment by carrying out work placements. As well as giving students valuable experience, they also support the activities of businesses and organisations where they are placed. Data provided by the College indicate that 128 students took part in placements in 2018/19.

[5] Department for Education (2018), Student Income and Expenditure Survey 2014 to 2015.
[6] Office for National Statistics (2019), Labour Force Survey.

- **Student volunteering** – this makes an economic contribution to a range of organisations and helps to make services possible that may not happen otherwise. Based on the evidence from a study by the National Union of Students[7] (NUS), it was estimated that around 31% of students take part in volunteering activities and that each volunteer spends around 44 hours volunteering per year.

By summing the economic impacts generated by the College's student community, it is estimated that they contributed £11 million GVA and supported 310 jobs in Moray in 2018/19.

Table 2-7 Student Community Impact – Moray College UHI

	GVA (£ million)	
	Moray	Scotland
Student Spending Impact	7	10
Student Part-Time Work Impact	3	4
Student Placements Impact	<1	<1
Student Volunteering Impact	<1	<1
Total	**11**	**15**
		Employment
Student Spending Impact	170	230
Student Part-Time Work Impact	130	170
Student Placements Impact	10	10
Total	**310**	**410**

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

2.3.3 Tourism from Conferences and Events

The College attracts visitors to its students and staff and through organising conferences, events and graduations. This creates short-term tourist spending impacts in the local economy.

It is estimated that, in 2018/19, the economic impact associated with tourism-related activities at Moray College UHI was £205,000 GVA and 10 jobs in Moray.

2.4 Summary

The College is a significant part of the community's fabric. It is estimated that it generated an economic contribution that was £58 million GVA and 890 jobs throughout Moray in 2018/19.

[7] National Union of Students Connect (2014), The Student Volunteering Landscape.

Table 2-8 Total Impact Summary – Moray College UHI

		GVA (£ million)
	Moray	Scotland
Student Lifetime Earnings Impact	34	43
Research Impact*	1	1
Operational Impact	24	29
Total	**58**	**72**
		Employment
Research Impact*	20	20
Operational Impact	890	1,030
Total	**890**	**1,030**

Source: BiGGAR Economics Analysis, * Part of the research impact has been estimated based on the research income received by the College which is also included as part of its core impact. However, this element has only been counted once in the total impact for the College to avoid double counting. (Note, figures may not sum due to rounding).

Beyond its economic contribution, the College also makes an important contribution to the social, industrial and cultural fabric of life in the Moray. These wider impacts are described in the following section.

3. Wider Benefits

In addition to its economic impact, Moray College UHI brings a suite of wider benefits which support essential services, businesses and communities across Moray.

There are several ways in which Moray College UHI creates economic and wider benefits for the communities it serves. Routes to impact include support for the labour market through skills and other labour market development work, links that directly support businesses, research and commercialisation outcomes, and the various ways the college engages with and supports the community of which it is part.

3.1 Labour Market

Moray Economic Partnership's Economic Strategy (2018-28) aims to increase the proportion of the workforce educated above SCQF level 7 and in higher occupations. The college has a clear role to play here in supporting skills development in Moray's labour market.

Moray College UHI has a central place in skilling and reskilling people throughout their careers. Its offer ranges from employability skills, core skills, transferable skills to high level technical skills. From its campus in Elgin, the college delivers school provision through to PhDs.

Moray College UHI facilitates progression and articulation, with examples cited during consultations for this study about skills for life students being supported to progress to college for Higher National study, and then on into a degree. This is an important example of development within a labour market, and also provides important personal and community benefits.

3.2 Sector Development

Moray's business profile is dominated by micro-enterprises employing fewer than 9 people (88.5% of businesses) and small businesses employing 10 to 49 people (10%)[8]. Moray Economic Partnership's Economic Strategy (2018-28) aims to increase the proportion of businesses that employ more than 9 people. The college's role in supporting small businesses is important in delivering these aims.

The college tailors training to business need, supporting several key sectors in Moray including healthcare, engineering, hospitality, food and drink, business and management. It provides Modern Apprenticeships and continuous professional development (CPD) in several forms, including work based vocational qualifications, certificates, compliance course and professional development awards.

The college works closely with private and public sector partners across Moray, building and maintaining industry relationships and supporting important economic sectors. Manufacturing, including the food and drink industry, is the largest employer

[8] Source: ONS, Nomis Local Authority Profile, Moray, 2019

in the region, with an increasing demand for high level skills to support technology led innovation.

Aerospace and defence is another key industry, with RAF Lossiemouth hosting a large and busy aircraft station. In April 2018, the UK Government announced major investment in RAF Lossiemouth with the introduction of new aircraft. Over ten years, MOD investment in the region will total £3bn and the total number of people employed at RAF Lossiemouth will increase to over 2,200. Attracting family members and those who leave the Armed Forces into skilled local jobs will be an important aspect of maintaining a healthy labour market and supporting local businesses.

There is a considerable requirement for aerospace engineering skills in Moray. Recognising an important role here, the college is supporting aerospace and advanced technology developments, along with scale-up for micro-businesses. As part of the Moray Growth Deal, the college is leading on the Moray Aerospace, Advanced Technology and Innovation Campus (MAATIC). The project will include:

- an Aviation Academy;
- an Advanced Technology Lab;
- a Manufacturing Innovation Centre;
- STEM-promotion facilities; and
- additional on-site developments

The project aims to increase the skilled workforce for the aerospace industry, increase the share of young people in the population, increase inward investment in advanced technologies and research, and reduce inequalities.

As part of the Growth deal, Moray College will also be a partner in delivering the Business Hub, which seeks to increase the resilience of businesses in Moray, providing bespoke training to strengthen productivity and retain employment opportunities for young people.

3.3 Community and Civic Role

Universities are important anchor institutions in their communities. Moray College UHI serves this role, a major employer, closely networked with Moray's civic life and providing a wealth of opportunities for community engagement. The breadth of activity delivered by Moray College UHI is a particular asset in its community role, encapsulating both college and university impacts. An important college function is addressing skills deficiencies in the area, engaging people who are isolated from the labour market, working at a grass roots level with Job Centre Plus to support people in their personal development into work. An important university role, with community impacts, is the world class research and commercialisation opportunities, for example in aerospace engineering, attracting high value jobs and businesses, with all the supply chain and employee spending impacts that these bring to towns and villages.

Moray College UHI nurtures relationships with its local community and students are involved with several community projects. For example, horticulture students work with childcare organisations and care homes to maintain gardens and teach children about growing fruit and vegetables, and events students get involved with local events and fundraisers.

The college is one of the key partners in the Moray Community Planning Partnership, which is designed to improve the connection between national priorities and those at regional, local and neighbourhood levels as well as leading on key parts of Moray Economic Partnership's Economic Strategy.

BiGGAR Economics

BiGGAR Economics, Pentlands Science Park,
Bush Loan Penicuik, Midlothian, Scotland EH26 0PZ

info@biggareconomics.co.uk

biggareconomics.co.uk