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The Economic and Societal Impact of University College Cork

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JELs: I23, I25

1. INTRODUCTION

Located in the heart of Cork city, University College Cork has been the comprehensive university of the south of Ireland since 1845. Today, UCC is a globally-oriented, research-led university with more than 22,000 students and more than 3,000 staff (Anon, 2021). It is the greenest university in Ireland, currently ranked 8th in the world and 1st in Ireland for its success in delivering on sustainability goals. Reaching into the community, both locally and globally, there are many educational, financial, developmental, medical, societal and cultural benefits to having a leading-edge, world-class university in the region. In the same way that UCC's role in society and the community has developed over the past 176 years (Galvin et al., 2017), the University has also become engrained economically in Ireland and the Southwest.

Established as a teaching institution expected to play an important role in Ireland's economic and cultural development, UCC has trained many professionals who have made major contributions to public life around the world. UCC first opened for lectures (as Queen's College Cork) in November 1849 with just 115 male students. Removing barriers and extending opportunities through education have been core objectives from the outset, and women were first admitted as students in 1886 and comprised almost 20% of the total student body by 1910. In 2021 the annual first year intake at UCC was almost 60% female students and UCC continues to work to broaden access to third level education.

Since its foundation UCC has led the way for third level research and development, and today it ranked in the top 1.1% of universities worldwide based on the quality of its research outputs (QS Quacquarelli Symonds, 2022) and is home to several of Ireland's elite research centres. We are international leaders in research areas such as photonics, the microbiome, sustainability, marine and renewable energy and maternal and child health, and have vibrant research clusters focussed on topics such as fintech, family law, social inclusion and gender equality. Our research connects to international, national and local issues and has a real impact on society. As a research-intensive university, teaching at UCC draws connections between the cutting-edge research and the curriculum; a mode of teaching known as research-led teaching.

The Economic and Societal Impact of University College Cork (Hutchinson and Hogan, 2018) provided an in-depth analysis of UCC's impact across five key areas: economic; workforce development; business; creation and discovery; and society and community. It demonstrates the significant and important impact which UCC contributes to the economy of Cork and the Southwest and the national economy of Ireland. This paper builds on that 2018 report. To ensure authenticity we have reported on the original data and in some key areas have included more recent data alongside the original numbers. We have also provided some additional more recent examples and evidence of impact reflecting the growing and evolving nature of the impact of the University over time.

2. ECONOMIC IMPACT

The economic impact of the University was assessed in terms of expenditure, taxation and jobs. UCC's impact at a regional and national level was assessed in line with best practice (Halterbect et al., 2017) through examination of the expenditure of the University, the spending of those employed by UCC, those who study there, those who have graduated in the past year, as well as those who visit UCC on an annual basis (Anon, 2016).

The total economic impact (Gross Value Added) of UCC is €853m per annum, meaning that UCC generates €2.3m per day for the Irish economy. The impact generated by expenditure is €728m annually and the fiscal contribution including taxes and social insurance contributions amounts to a further €125m each year. Taking 2016 as a representative year, UCC produced €853m in output for a €151m state investment, a return of €5.68 to the Irish economy for every €1 of state investment (Neisser, 1941). This compares favourably with the Leading European Research Universities (LERU Group) (Anon, 2017c), where return is estimated at €5 for every €1 invested.

UCC's turnover was €350m per annum in 2016 (Anon, 2020a) (now €421m for the UCC Group), of which 43% (€151m) was invested by the state. In 2016, for every €1 invested by the state in UCC, the state directly got approximately €0.83 cent in return in the form of VAT and payroll taxes including employee contributions. Furthermore, UCC supports 14,708 jobs annually, approximately 1 in every 15 jobs in Cork city and county.

3. WORKFORCE DEVELOPMENT IMPACT

UCC's workforce development impact in the region and beyond, including the ability to graduate high calibre 'world ready' and 'work ready' individuals was assessed by looking at the investment into, and the output from, a UCC graduate's education in financial terms. We examined the subsequent effect on the salary of UCC graduates in the first year after graduation relative to non-graduates and what this might mean financially over the lifetime of a professional career.

The Graduate Attributes Programme at UCC (UCC, 2022b) comprises a suite of student-centric initiatives to optimise the journey of all students and prepare them to live, learn and lead in a co-created future. Through our academic curriculum, as well as through co-curricular and extra-curricular activities, we empower our students to develop lifelong, life-wide and life-deep transferable and transversal skills. UCC's Graduate Attributes Programme is unique in its focus on whole person development, nurturing both employ-agility and active citizen mindsets and skillsets, and its approach is whole system and whole journey.

Using 2016 as the reference year, graduates who remain and work in Ireland create extra value for the economy of up to €24.8 million in the first year after graduation, compared with non-university graduates. In 2016, UCC graduated more students from undergraduate courses (4,097) than any other university in Ireland. (This increased to 4,184 in 2021. In total UCC graduated 8,081 graduates in 2021 across all levels of study including UCC's Lifelong learning scholars who participate through UCC's Adult Continuing Education Programmes). Employment rates of UCC graduates (which include those in further study) are at historic high levels at 97% in 2021, 94/95% in 2016 (Liston et al., 2016). The additional earning potential (output) from being a graduate of UCC as opposed to a non-graduate is 10.2 times the cost (input i.e. annual student contribution plus living costs combined) to that undergraduate degree (Harmon and Erskine, 2017, Gradireland, 2017).

4. BUSINESS IMPACT

UCC is an innovative university contributing significantly to business and industry needs as a result of its leading position in relation to research and development activities and its role in attracting foreign direct investment (FDI) and igniting indigenous investment into the Southwest region. The growth of FDI employment in the region is highly correlated with that of UCC. The growing reputation of UCC's creation and discovery environment has helped to facilitate world leading clusters such as pharmaceuticals where seven of the top 10 pharmaceutical companies in the world are located in the environs of UCC (Proclinical, 2017), where there is a highly skilled graduate population readily available.

UCC's research and development capabilities contribute greatly to the overall impact that the University has on the region. Through proactive collaboration, UCC has forged partnerships with many global names including Dell EMC, Intel, Pfizer, and Eli Lilly. These partnerships have remained strong through various economic climates.

UCC provides world-class training for business professionals. Business talent is nurtured and developed at UCC and this commitment to the business community is reflected in UCC's plans for the new state-of-the-art Cork University Business School in the centre of the city. The UCC owned Irish Management Institute (IMI) significantly enhances the university's resources for its delivery of executive education in Ireland.

5. IMPACT IN RELATION TO CREATION AND DISCOVERY

UCC is helping to drive the creation and discovery agenda in Ireland and is powering growth nationally, particularly for the Southwest region, through its significant research and development capabilities. It has a crucial role to play in knowledge creation and discovery, technology and knowledge transfer as well as a key role in commercialising that knowledge (Anon, 2017a). UCC's €101m investment (Financial Year 2020) (Anon, 2020a) in creation and discovery making it the leading Irish University for actively seeking and securing investment in research and development. Similarly, the €14m secured and invested by UCC's industry partners makes it the leading Irish university for research and development investment collaborations with Industry.

UCC hosts several of Ireland's elite research centres including APC Microbiome Ireland, recognised as world leaders in food and health. Such centres are home to brilliant scientists and their inter-disciplinary work impacts the lives of millions of people around the globe. In relation to how often APC's ground-breaking work is cited, APC has a H Index of 171 and average citations of 42.39 per paper (October 2021). Tyndall National Institute (TNI) through its €40m turnover each year, 250 staff and >200 PhD researchers is the only institute of this scale nationally (Anon, 2020b). TNI represents 40% of UCC's annual investment in creation and discovery; its international reputation is second to none (Anon, 2020a) and draws talent, investment and global corporations to Cork.

UCC is committed to continually strengthening its research and academic excellence across all disciplines with a focus on inter- and transdisciplinarity. This includes the enhancement of research, the support of innovation and the translation of research to tangible solutions to address emerging societal needs and global grand challenges, to secure a better future for all. In line with this vision, UCC Futures is an ambitious programme of development across ten indicative areas that will build a foundation for economic, societal and cultural resilience and prosperity. Other recent outstanding achievements of scholarship include the production of Atlas of the Irish Revolution, published by Cork University Press, one of only two publishing houses in Irish universities. The creative voices of the UCC community are internationally known – Seán Ó Riada, Seán Ó Faoláin, Frank O'Connor, Aloys Fleischmann, John Montague, Seán Ó Tuama, amongst others. Distinguished alumni include Eiléan Ní Chuillieanáin and Nuala Ní Dhomhnaill, both of whom have acted as the Irish Chair of Poetry (Anon, 2022). Exhibitions, talks and cultural events take place in Glucksman Gallery and right across campus and are open to the public.

6. IMPACT ON OUR SOCIETY AND IN OUR COMMUNITY

We examined UCC's impact on social responsibility and the promotion of responsible processes, the physical environment impact, socio-cultural impact and the leading role UCC has taken in widening participation in higher education.

UCC shapes and impacts the physical landscape of Cork as much as its heritage and culture. UCC's €241m development plan (2017 to 2022) is the largest of any organisation in Cork. Infrastructural developments such as the Cork University Business School, the Crow's Nest Student Accommodation and the Tyndall National Institute expansion represent a significant capital investment and are an indication of UCC's commitment to Cork and the region. UCC is a truly international university with approximately 18% of the student population and 30% of the staff originate from overseas (Academic Year 2020/21). UCC's 'Quercus' talented student programme, in partnership with Ford, sees the University continually invest in talented students right across sports, citizenship, entrepreneurship, academic and the performing arts (UCC, 2022c).

UCC has a tradition of promoting equality, diversity and inclusion for all. UCC was the first Irish university to admit female students (1885), the first to appoint a female professor (1910). In 2017 it built on this heritage and established an Equality, Diversity and Inclusion unit on campus. Moreover, UCC has become a designated Sanctuary University; 2018 will see UCC awarding seven scholarships to people from the refugee and asylum seeker community. A recent example of UCC's commitment to inclusion is its pledge to being an Autism Friendly University by making the physical, social and academic environments of the campus more 'autism-friendly' by undertaking a multi-year project to achieve these aims. A new Autism & Uni Student Toolkit was launched in 2020/21. A digital badge in Autism Awareness was developed and delivered to staff. The Bystander Intervention programme (UCC, 2022a) at UCC forms part of a strategic response to the issues of sexual misconduct and violence among student populations.

UCC contributed greatly to Ireland's response to Covid-19, not just in relation to academic research but in relation to contact tracing, sharing of infrastructure, vaccine clinics, providing expert opinion and leadership in public domain and developing pioneering apps to help sustain Irelands efforts against the spread of the pandemic.

UCC was the first university in the world to be awarded a Green Flag from the Foundation of Environmental Education. Over ten years on, UCC continues to lead the way in relation to impact on the environment and sustainability and through its actions and leading-edge research continues to champion action in relation to climate change and sustainability. UCC is the only university to be ranked top 10 in the world for sustainability as measured by UI Green Metric (UI Greenmetric, 2022) and for Impact as assessed by Times Higher Education (THE, 2022).

UCC has a very proud sporting tradition and the first university club founded was the Rugby club back in 1872 with the famous skull and crossbones being introduced in 1880. Today UCC has 53 sports clubs with local, regional, national and international athletes operating from its fantastic Mardyke Arena base. In addition, UCC has 100+ different student-led interest societies which run an average of 40 events per week.

7. CONCLUSIONS

The outputs of this report provide clear evidence of how UCC serves as a national and international engine of economic growth and underlines its strategic importance for Cork City and the Southwest Region of Ireland (Anon, 2017d).

Universities transform lives and shape society and are a major driver of growth and economic well-being of the citizens. In line with a recent LERU (Leading European Research Universities) (Anon, 2017c) report, the evidence demonstrates how UCC constitutes a powerhouse within the Irish economy and Irish society. At the most fundamental level, UCC is a major organisation with a significant role to play in Cork and the Southwest economy. It anchors institutions in the region, acts as a major employer to thousands of people across many occupational areas, purchases enormous quantities of goods and services and is a major contributor to cultural life and the built environment (Anon, 2014b).

Summing up its core contribution to the economy, UCC contributes directly by generating income and employment, but also by spending on supplies and services, by providing income to their staff, and through capital spending. UCC also contributes via students' spending, working, volunteering and undertaking placements, by knowledge transfer, entrepreneurial and innovation activity, via tourism activity of visitors to staff and students and events held at the universities and by lifetime productivity gains from teaching and learning (Shaheen, 2011) delivered by UCC – the 'graduate premium' (Harmon and Erskine, 2017). One cannot overlook the role of UCC as a talent attractor to the region especially at PhD and post-doctoral level, many of whom impact significantly on industry as well as within the University.

UCC also plays an important leadership role. A recent example of this was the leadership that UCC showed in relation to Climate Action and the UCC delegation led by Professor Brian Ó Geallachóir at COP-26 in Glasgow in November 2021. Volunteerism is commonplace as staff and student bodies undoubtedly contribute to the vibrancy of Cork and the surrounding area (Galvin et al., 2017). As TCD and UCD do for Dublin (Anon, 2015), UCC contributes to the attractiveness of the South-West Region as knowledge centre. UCC provides a space for discussion and creates connections between academia, students and companies that would not otherwise exist. This fosters an environment for innovation. It creates clusters of people, which lead to the creation of entire university ecosystems, which in turn draw more people to Cork. The South-West Region, because of UCC and its university ecosystem, has become a more attractive place to invest.

Not only has UCC become engrained economically but there are undeniable educational, developmental, business, medical, cultural and various other societal benefits to having a world-class university in Cork. In many ways the societal impacts of UCC are as wide as the financial impacts are deep. Often the debate in relation to the third level institutions in Ireland focuses on the financial and the cost to the Exchequer and the taxpayer. This report goes some way to balancing that debate by highlighting the significant impact UCC is having economically and societally (Anon, 2014a).

Note on Methodology

This report includes analysis, commentary, information and data drawn from the below reports and publications. It also draws on multiple reports and data (including 44 direct interviews) from sources internal to, and connected with, UCC. Similar to other economic impact reports (Anon, 2017b), we have analysed the University in a manner similar to that of a conventional industry, emphasising major economic characteristics. We have quantified the fiscal impact of UCC in the context of its position as a leading employer, world class research institution, and first choice destination of students. The input output economic analysis is based on established techniques dating back to Leontief's input output methodologies from the 1930's (CSO, 2015, Zhang et al., 2017, See also Hermannsson et al., 2015). Additional quantitative and qualitative analysis has been undertaken in respect of the workforce development impact of UCC, the business and FDI impact of UCC as well as the creation and discovery impact of our University. Finally, we established key impacts across our community and on society.

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