The aim of this project is to produce a detailed economic impact analysis of the efficiency and impact of the higher education system in Ireland. Previous studies, such as the OECD (1969, 2006) analyses have only looked at particular question posed by those that commissioned the study. The result was the purposes and aims of Irish higher education were not fully analysed. In order to answer those questions a much more comprehensive economic analysis is proposed that is not focused upon relatively minor issues such as student fees but broadly-based and addressing the issues of academic output, cultural and societal impact, intellectual property, economic policy objectives, endogenous growth models and input-output analysis. By using these techniques a more complete understanding of the Irish higher education system will be obtained and a more critical set of key performance indicators based upon verifiable evidence can be formulated and evaluated. This blended methodology can then be applied to the analysis of university sectors and their research and intellectual property outputs in other jurisdictions and work towards the creation of an internationally comparable set of key performance indicators in the higher education space.

Methodology

The project will start with an analysis of the economic impact of higher education, using both standard macroeconomic and IO approaches to the calculation of multipliers. It will then proceed to aid policymakers in an understanding the importance of the urban environment in the creation of innovation and economic clustering, the economics of knowledge creation will be touched upon using the methodology outlined within the work of Foray (2004) and Lorenz & Lundvall (2006) in their work on the economics of knowledge. This work addresses the importance of different types of knowledge (i.e. Type I and Type II) and the importance of tacit knowledge in the creation of innovation. This will add an important component to the smart cities analysis that remains a research priority of the Irish government. On
knowledge creation and intellectual impact, the project will produce an analysis of patents and publications using UIC (University Industry Collaboration) indicators\(^1\) to see what are the strong and weak points are within the Irish research and research commercialization portfolio. Some work will be done with external affiliated staff in TCD to determine the economic value of the IP portfolio of the Irish universities. We cannot however evaluate purely on economic terms alone. The development of a methodology to capture, monitor and report on cultural and societal impact will focus on the identification of readily available metrics and associated quality indicators that can be internationally bench-marked. International research impact indicators including the CASRAI Framework for Research Impact Analysis will be assessed within this context.\(^2\) A further element of the project will be that en route we will develop a preliminary assessment of the value of non STEM research and graduates. We will draw on existing work on Canada\(^3\), Denmark\(^4\) and the UK\(^5\) in attempting this. The data for these analyses will be a by-product of the economic impact. Much existing debate presupposes a greater impact from STEM than other activities in universities and as such this needs to be benchmarked and challenged.

Qualitative work will also be involved, most probably be a survey to examine attitudes within the sector towards IP ownership, innovation capacity and questions on general perceptions of the HE sector.

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\(^1\) CWTS Leiden’s University-Industry Research Connections are based on a set of indicators which will be applied in the Irish context. [http://www.socialsciences.leiden.edu/cwts/research/uirc-scoreboard-2013.html](http://www.socialsciences.leiden.edu/cwts/research/uirc-scoreboard-2013.html)


\(^5\) [http://www.torch.ox.ac.uk/node/336](http://www.torch.ox.ac.uk/node/336)