

Impact of sport and exercise science education on the UK economy

Following the parliamentary launch of a report on the impact of sport and exercise science education on the UK economy, Associate Prof Adam Hawkey FBASES (BASES), Prof Bridget Lumb (The Physiological Society) and Prof Karen Stanton (GuildHE) highlight the report's key findings.

Sport England estimates that sport-related activities generate £20.3 billion per year for the English economy alone and support over 400,000 jobs. This number is expected to rise with more students taking sport and exercise science (SES) courses at college and university. Those involved in SES know that it contributes to the advancement of athletic performance at the highest echelons of sport, the promotion of physical and mental well-being in everyone, and in the prevention and treatment of a range of medical conditions. Now, the release of *Sport and Exercise Science Education: Impact on the UK Economy*, a report produced by economic consultants Emsi on behalf of The Physiological Society, the largest network of physiologists in Europe, and GuildHE, the voice of smaller and specialist institutions, add social and economic benefits to this list.

The report, which was launched at the Houses of Parliament in May, is aimed at students considering SES courses, universities and colleges that are creating or expanding SES departments, and policymakers responsible for funding and supporting these endeavours. It is the first report of its kind to look in an unbiased and objective way at the value to those who undertake a programme of study in SES and to the UK generally. It was produced using information provided by institutions representing over a quarter of a million students from across the UK, along with national data from the Higher Education Statistics Agency. It features case studies from a diverse range of universities and colleges, both large and small, demonstrating the wider benefits for students and graduates, the national economy and wider society.

The "sport" aspect of SES included the examination of sport performance, coaching and officiating, and the impact of sport on the nation. The "exercise" component of SES included investigation of the positive and preventative impact of exercise on a wide range of major physical and mental health conditions, including inactivity, obesity, diabetes, cancer, cardiac rehabilitation and depression. This is one of the ways the exercise component of SES is intimately related to important health outcomes. Research in this area helps prevent and treat conditions and diseases, such as diabetes, that accrue significant direct costs to the NHS, as well as resulting in indirect costs to the UK economy, such as those due to a loss of productivity. For example, Type 2 diabetes treatment costs the NHS around £8.8 billion every year, which is just under 9% of the annual NHS budget (UK Government).

Other widely transferable health-related work undertaken beneath the umbrella of SES include: the study of healthy ageing; the production of occupational fitness and health standards; the investigation of the health-related benefits of different supplements; and the examination of the causes of sport-related deaths and injuries including soft tissue injuries, sudden cardiac death and drowning. Thus, by its very nature, SES brings together researchers from across different specialties, universities and colleges throughout the UK to undertake research into human activity and health.

The *Sport and Exercise Science Education: Impact on the UK Economy* report focuses on two distinct analyses: 1) national economic impact, measured in terms of graduate impact; and 2) benefits to students, society and the public purse.

The economic value of current and former SES students used a two-pronged approach that involved an economic impact analysis

and a benefits analysis. Results of the analysis reflect Academic Year 2016-17, the most recent full-set of data available. The study assesses the benefits of SES courses to local and national economies, focusing on the contribution of students, universities and colleges working in the field.

The major finding of the report is that SES courses add a staggering £3.9 billion in income to the UK economy, which is estimated to be the equivalent of 147,000 jobs. Average salaries for SES graduates after 6 months of employment are £21,100 per annum and, crucially, over the course of their careers, these SES graduates earn on average £667,000 more than they would without their degree. To put this into a practical concept, students entering onto a SES degree can expect to see a £5.50 return in higher wages for every £1 invested (see Figure 1).

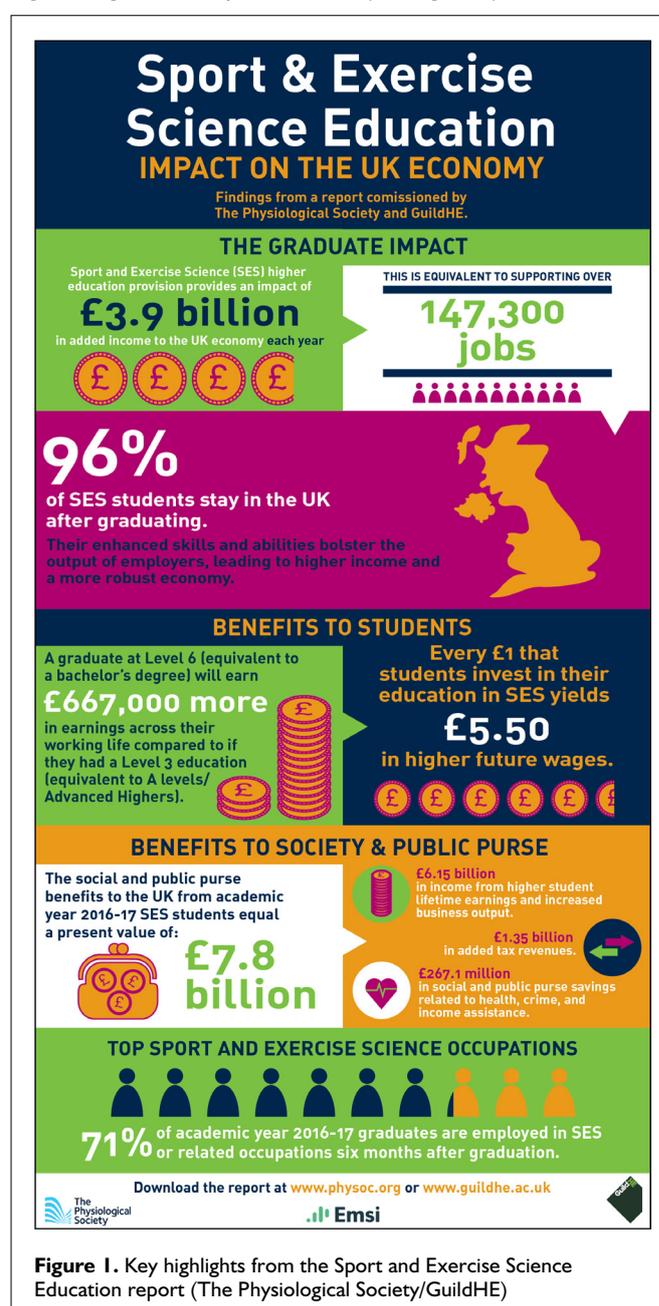


Figure 1. Key highlights from the Sport and Exercise Science Education report (The Physiological Society/GuildHE)

In addition to the social and economic benefits that the report highlights, it is also encouraging and exciting to see the breadth and depth of current SES practice in the UK. This diversity is best epitomised in the case studies contained within the report. These clearly demonstrate how universities, individuals and research groups linked to both The Physiological Society and BASES have a positive influence on the human and financial impact that SES students, practitioners and researchers have on local and national economies. These case studies also illustrate the impact and importance of SES knowledge exchange activities. Staff and students undertake work that benefits local communities and make crucial contributions to wider society in areas as diverse as community connected learning to adventure tourism.

For example, work at the University of Portsmouth into cold-water immersion physiology has been instrumental in establishing new approaches to water safety education, while the Occupational Performance Research Group (OPRG) at the University of Chichester helps to enhance the health and performance of personnel working in physically demanding occupations. Research at both the University of Worcester and Manchester Metropolitan University highlight the excellent work undertaken in developing disability sport, while Solent University and the University of Exeter demonstrate the mutual benefits of establishing partnerships with professional sporting organisations, which promotes “real world” learning opportunities for students. At Northumbria University researchers continue to investigate the important role that structured exercise programmes can have on improving the quality and duration of cancer survivorship, while at Liverpool John Moores University research is helping to understand how stair safety in old age can be improved through biomechanics and gaze behaviour.

SES is also a useful lens through which to recognise the value of diversity and inclusivity in science. The data kindly provided by institutions, supplementing national statistics from the Higher Education Statistics Agency, identifies SES as an area where diversity and inclusivity are both strong and are leading to positive outcomes. For example, case studies within the report highlight the contribution of SES courses in promoting women in sport and working with people from disadvantaged backgrounds.

While it is the culmination of hours of research and analysis, this report is just the beginning. For The Physiological Society, GuildHE and BASES it is hoped that the report will form the foundations of ongoing work within SES and further collaboration between the organisations. In fact, this is already coming to

The Physiological Society has a 140-year tradition of being at the forefront of the life sciences. It is the largest network of physiologists in Europe, with academic journals of global reach. Research in physiology helps us to understand how the body works; it also helps us to determine what goes wrong in disease, facilitating the discovery of new treatments. The Society is therefore committed to ensuring that the full potential of SES courses in the UK is realised and that departments have the opportunity to showcase their work. For more information visit www.physoc.org

GuildHE is the officially recognised voice of smaller and specialist universities and colleges in the UK. We champion a diverse higher education sector. We represent 50 members, including multi-faculty universities, university colleges, further education colleges and specialist universities from both the traditional and private (“not for profit” and “for profit”) sectors. Our members prepare students for success in specialist careers, such as SES. They offer living and learning in small academic communities and focus on delivering practical research for real-world impact. For more information visit www.guildhe.ac.uk



Above: Representatives from BASES (Adam Hawkey), The Physiological Society (Bridget Lumb), and GuildHE (David Lewellyn) at the report’s Parliamentary Launch

fruition with BASES and The Physiological Society currently producing a sport and exercise science-related animation designed to inform and inspire future students to enter into the discipline. Perhaps, most importantly though, this report has the potential to serve as a useful tool for sport and exercise scientists and related professionals in highlighting the economic and social value of this field of research, practice and study in the UK; in addition to our clear understanding of the health and performance benefits of the discipline. ■



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Bridget works in the Department of Physiology, Pharmacology and Neuroscience at the University of Bristol and is the President of The Physiology Society.



Prof Karen Stanton

Karen is the Vice Chancellor of York St John University and the Vice Chair of GuildHE.

References:

Sport England: www.sportengland.org/media/3174/economic-value-of-sport-summary.pdf

The Physiological Society, Sport and Exercise Science Education: Impact on the UK Economy Report. Available: www.physoc.org/policy/sport-exercise-science-education-impact-on-the-uk-economy/

UK Government: www.gov.uk/government/publications/health-matters-preventing-type-2-diabetes/health-matters-preventing-type-2-diabetes

Resources:

BASES Careers Guide: www.bases.org.uk/spage-resources-career_guide.html#

The Physiological Society Sport and Exercise Science Careers Guide: www.physoc.org/careers/sports-science/#

The Physiological Society link to Parliamentary launch on YouTube: www.physoc.org/news_article/parliamentary-launch-sport-exercise-science-impact-on-the-uk-economy/

Direct link to Parliamentary launch on YouTube: www.youtube.com/watch?v=uwvO-DX2qBY

*These links can also be used to access The Physiological Society/BASES Sport and Exercise Science animation.