

7 GRADUATE PRODUCTIVITY IMPACTS

The University of Oxford also contributes to the economy through the long-term economic effects from its teaching activity. The skills and knowledge given to students at the University enables students to become more productive employees after graduation.

7.1 Graduate Productivity

This section describes the additional value that graduates from the University of Oxford add to the UK economy as a result of the education they receive. The education that University of Oxford students receive enables them to contribute more to their employer and generate a greater benefit for the UK economy than they would otherwise be able to. The GVA of this productivity gain includes the additional profits that employers are able to generate by employing graduates and the additional employment costs they are willing to pay in order to generate these additional profits.

The subject of graduate earnings premiums has been well researched so information about them is readily available and can be used to provide a measure of the additional contribution graduates make to the economy each year. Unfortunately, information about the additional profits of graduate employers or the additional taxation revenue they help to generate is not readily available so the impact presented in this section is likely to underestimate the true productivity impact of learning.

Information about the graduate premium for different subject areas is provided in a research paper produced by the Department for Business Innovation & Skills¹⁸, which considered data from the Labour Force Survey between 1996 and 2009. Although the data used in the report is now somewhat dated, evidence from the OECD¹⁹ suggests that returns to higher education are fairly consistent over time. For this reason, the report remains the most robust and comprehensive source available for estimating this impact.

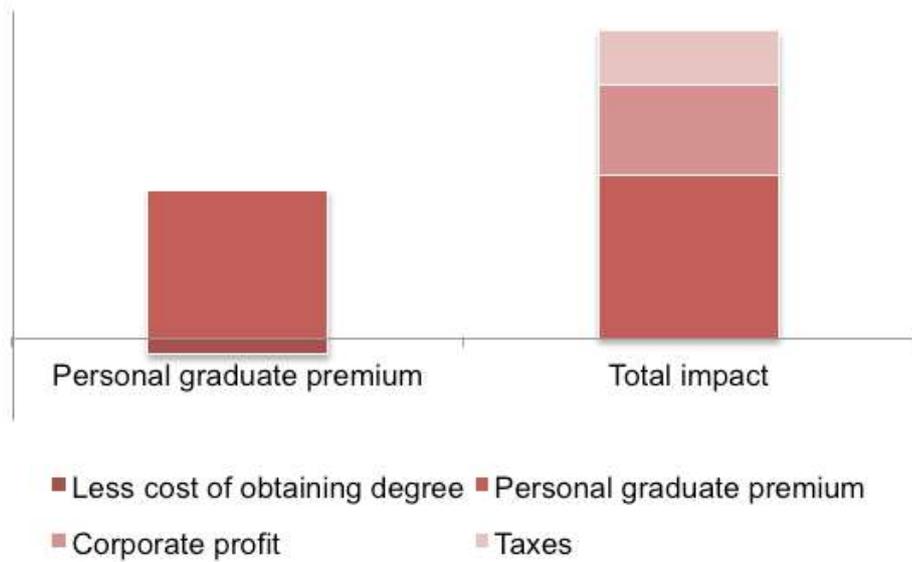
The analysis considered the after tax earnings of a graduate compared to the after tax earnings of a non-graduate. Direct costs, such as tuition fees less student support, and indirect costs such as foregone earnings were then subtracted from the gross graduate premium for each degree subject to give the net graduate premium.

In this way the total graduate premium gives the combined personal economic benefit the year's graduates will obtain rather than the increase in national productivity associated with the degree, which will be higher. It therefore does not include the corporate profit associated with each graduate as well as the taxes paid to the Treasury. For these reasons (as illustrated in Figure 7.1) the impact presented in this section is likely to underestimate the full impact that graduates from the University of Oxford generate for the UK economy.

¹⁸ Department for Business Innovation & Skills (2011), The Returns to Higher Education Qualifications.

¹⁹ Education at a Glance, OECD Indicators series

Figure 7.1 – Personal Graduate Premium Benefit Vs. Economic Benefit



Source: BiGGAR Economics

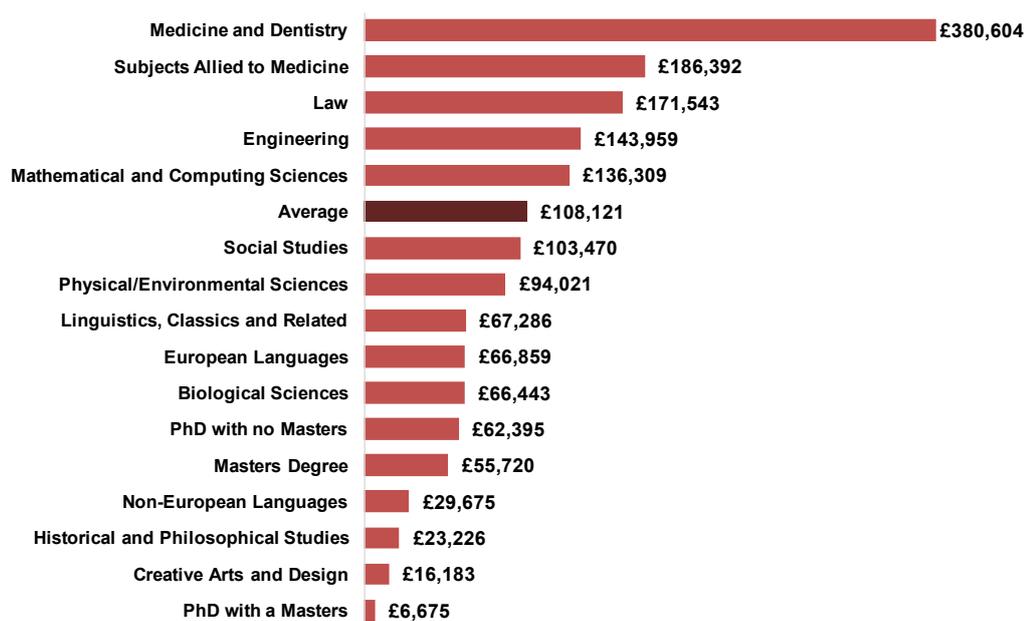
7.2 Estimating the Graduate Earnings Premium

The subject in which a student graduates determines the earnings premium that they can expect to achieve over the course of his or her working life. The impact associated with graduates from the University of Oxford was therefore estimated by applying the graduate premium for each degree subject to the number of graduates in each subject area.

On average undergraduates can expect to earn £108,121 more over their working life than if they had not gone to University²⁰. However, this average hides considerable variation as graduates in medicine and dentistry can expect to earn over £380,000 while graduates in creative arts and design can only expect to achieve a premium of £16,183 during their working life. The graduate premium by degree type is given in Figure 7.2 (only the premiums for degree types offered at the University of Oxford are included).

²⁰ Department of Business, Innovation and Skills, The Returns to Higher Education Qualifications 2011

Figure 7.2 – Graduate Premium by Subject Area



Source: Department of Business, Innovation and Skill (2011), *The Returns to Higher Education Qualifications*.

The graduate premium is realised in the area in which the graduate resides. University of Oxford graduate data indicates that 74% of graduates remain in the UK after graduation. 26% of graduates live outside the UK and the graduate premium for these were excluded from the UK graduate productivity impact.

Table 7.1 – Location of Graduates

	Oxford City	Oxfordshire	UK	Outside UK
Location of Graduates	12.5%	15.5%	73.8%	26.2%

Source: University of Oxford

In 2014/15, 3,398 students graduated from the University with undergraduate degrees and a further 4,439 students graduated with postgraduate degrees. A breakdown by subject area is provided in Figure 7.3. The academic division, with the largest number of undergraduate graduates was Humanities, which accounted for 36% of UG graduates in 2014/15.

Figure 7.3 – University of Oxford Graduates by Degree Type



Source: University of Oxford

The graduate premium of the University of Oxford’s students is split between the locations where the students reside after graduation. In total, those students who graduated from the University of Oxford in 2014/15 and remained in the UK could expect to realise an estimated graduate premium of £431.5 million over their working lives.

Table 7.2 – Graduate Premium by Study Area (£m)

	Oxford City	Oxfordshire	UK
GVA (£m)	73.1	90.6	431.5

Source: BiGGAR Economics

The economic contribution of the University of Oxford’s graduates, as estimated in this chapter, is likely to be a conservative estimate. Throughout its 900 year history, the University has educated numerous students who have become notable in a variety of fields, including 50 Noble Prize winners and three Fields Medal winners (recognising existing and potential future achievement in mathematics).

In addition, a recent study undertaken by the Sutton Trust²¹ found that on average University of Oxford graduates command a higher salary than graduates from a newer university. The report found that graduates from newer universities (post 1992) had an average starting salary of approximately £18,009 per year, whereas average starting salaries for Oxbridge graduates were around £7,500 (42%) per year higher at £25,582. Oxbridge graduates also earned a premium of £3,300 over graduates from other elite universities. The study also found there were differences in terms of the likelihood of gaining a professional job, with 80% of Oxbridge graduates in professional employment, compared with only 51% of graduates from post-1992 universities.

²¹ The Sutton Trust (2014), Earning by Degrees, Differences in the Career Outcomes of UK Graduates

It would not therefore be unreasonable to expect the University of Oxford's graduates to make a higher economic contribution than suggested by the graduate premium figures upon which this study has based its estimates.

7.2.1 Wider Societal Impacts

It is important to note that the graduate premium quantified above focuses only on the economic benefit of each year's cohort of graduates. It does not take into account the significant wider benefits to the individual and society of higher education.

These benefits have been well documented²² and include:

- reduced risk of unemployment;
- better physical health;
- reduced risk of depression; and
- greater civic engagement.

Many of the benefits identified translate directly into economic benefit. For example, better physical and psychological health would lead to reduced health costs for the economy. These impacts are impossible to quantify but improve the well-being of individuals and have a wider societal impact.

In addition, the University of Oxford has a particularly international student body (as discussed in Section 6.1). Interaction with fellow students can therefore lead to increased sensitivity towards other cultural perspectives, cultivate freedom of expression, and a higher acceptance of differences.²³ The University of Oxford therefore has an important role to play in helping shape individuals and consequently societies that are open to new ideas and diversity, making an important contribution to the UK's 'soft power'.

A further wider benefit of higher education is personal growth and social development beyond academic learning through off-campus activities such as part-time work and volunteering. This benefit has further spill-over effects after graduation with those individuals being more likely to interact in social networks, such as participation in voluntary and charitable organisations.

The University of Oxford's teaching will therefore have significant wider impacts which although unquantifiable are equally important on an individual and societal level.

²² Institute of Education, University of London (July 2001), *The wider benefits of higher education*, published by HEFCE

²³ Department for Business Innovation & Skills (September 2013), *The Wider Benefits of International Higher Education in the UK*.