Within-Graduate Wage Inequality and the Role of Subject Major

Joanne Lindley\(^1\) and Steven McIntosh\(^2\)

\(^1\) Department of Economics, University of Surrey

\(^2\) Department of Economics, University of Sheffield

Abstract

This paper considers variation in graduate wages by subject of degree, comparing the UK and the US. The well-known graduate wage premium is shown to differ substantially by subject, with the grouping of subjects into three main groups (Science, Technology, Engineering and Maths (STEM); Law, Economics and Management (LEM); and Other Social Sciences, Arts and Humanities (OSSAH)) shown to have some importance. Variation in wages between graduates by subject is typically larger in the US than in the UK. The paper also shows that employment shares by subject differ between men and women. Such differences in subject choice can therefore potentially explain some of the labour market differences between the genders.

A longer time series of data on subject of degree in the UK allows changes over time in the employment share of graduates and wage differentials by subject to be documented. Combining this information on relative supply and wage shifts allows us to estimate the change in relative demand by subject of degree. These changes in relative demand can be compared to productivity differentials by degree subject, estimated on a panel of industries, which reveals the extent to which the increase in demand for graduates has been for those that are most productive. The results show that the increase in demand has been largest for STEM subjects. Such subjects also are typically also associated with the highest productivity levels. There are some anomalies, however, with high and increasing demand for unproductive subjects, such as in the case of Law.