

Access and Labour Market Outcomes of Internships During Higher Education in Italy and the United Kingdom

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Introduction

In the last two decades, education to work transitions for young people have become more turbulent and uncertain. The role of work experience and, more specifically, internships, during higher education (HE) in facilitating access to work and enhancing labour market outcomes has been debated in academic and policy literature (Holford, 2017; Roberts, 2017; Weiss et al., 2014). For HE students, internships are widely considered as a way of accessing work experience and on-the-job training, assumed to enhance their labour market outcomes, in particular at the early career stage. For example, almost half (46%) of 18-35 year-olds in the EU-27 reported having undertaken an internship at some point in their lifetime (European Commission, 2017), with younger cohorts experiencing a higher prevalence of internships than older cohorts, suggesting that internships are becoming more common (Broek et al., 2017). Nevertheless, not everyone benefits equally, and different types of internships may be associated with different kinds of outcomes (Bathmaker et al., 2013; Cullinane and Montacute, 2018), raising questions about how the opportunity to access internships varies by HE experience, gender and social class (Curiale, 2010).

While there is no one fixed definition of internships, in this paper we follow Broek et al. (2017, p.16), in alignment with other studies (e.g. Stewart et al. 2018), by distinguishing between 1) internships undertaken as part of vocational/academic curricula; 2) internships associated with active labour market policies; and 3) internships in the open market. In contrast to Tzanakou and Hunt (forthcoming), which focuses on internships after graduation from HE, we focus on ‘curricular’ and ‘open market’ internships taking place during HE studies during the first cycle (bachelor level) of the Bologna Process.

We explore how these internships affect graduates’ transitions to work in the UK and Italy, countries in which the incidence of internships during HE study used to be lower compared to other European countries (Allen and van der Velden, 2011), but has increased over time (European Commission, 2017). This expansion highlights the increasing importance of internships undertaken during HE for enabling a smoother transition to the labour market and for mitigating the risk of high-skilled workers moving down the occupation ladder (Beaudry et al., 2016). In both countries, the connection between HE and the labour market is relatively loose, in that the field of study does not strongly determine routes into occupations and professions (Lore and Little, 2010; Little, 2001; Schizzerotto and Barone, 2006, in: Di Stasio, 2014), although this linkage may be stronger in Italy than in the UK. The two countries also have different institutional arrangements,

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with the UK often viewed as an example of a liberal, and Italy – of a conservative and corporatist welfare state (Esping-Andersen, 1990), arguably moving towards more the liberal regime arrangements on some dimensions in recent years (Scruggs and Allan, 2008). Both countries are also more liberal than other European countries in their regulation of internships undertaken during HE.

While the incidence of internships and work experience has increased in both the UK and Italy (Holford, 2017; Cammelli et al., 2011), labour market regulation, especially pertaining to internships and work placements, seems to apply only to a limited extent in both countries. Thus, Italy and the UK provide an interesting comparison of internships and their characteristics in national institutional and regulatory contexts. In Italy, curricular internships are widely considered first as ‘training’, while in the UK most types of internships tend to be first seen as ‘work experience’.¹ This leads us to ask, does undertaking internships during HE lead to different early career outcomes for graduates in the UK and Italy, and if so, why?

The remainder of this paper is structured as follows: first, we give a brief overview of research on internships. Then, we outline the surrounding HE and labour market contexts in the UK and Italy. After explaining the methodological approach used (datasets, samples and empirical strategies), we present our results. The final section discusses the implications of our results and ends with key recommendations for regulating internships undertaken during HE.

Internships and early employment outcomes. Theoretical framework and existing evidence in Italy and the UK

There are several key theoretical reasons for why we might expect internships to affect labour market outcomes. We focus on two main theoretical perspectives: human capital and signalling/screening. From the human capital perspective, the typical insight is that ‘learning is earning’ (Becker, 1964; Smetherham, 2006): undertaking an internship, like other forms of workplace training, leads to skill development, which leads improved productivity, and in turn to higher wages (e.g. O’Connell and Byrne, 2012). We may also interpret the human capital insight more broadly, and consider that the skills developed during an internship make a candidate more employable than someone with similar educational experience but no internship. The broad implications of this perspective are that all internships should improve labour market outcomes.

In contrast, from the signalling/screening perspective (Spence, 1973), internships do not necessarily need to lead to skill development (although they may do so). Rather, internships act as

¹ See, for example, for the UK: ‘An internship is a great way to gain experience and discover what a particular role is like’ <<https://www.prospects.ac.uk/jobs-and-work-experience/work-experience-and-internships>> and, for Italy: ‘An internship is a period of on-the-job training that gives students and recent graduates the opportunity to acquire professional skills and know-how transferable to the world of work and to gain experience of a real work environment’ <<https://www.unive.it/pag/17134/>>.

information to differentiate graduates entering the labour market, which is deemed to be increasingly important when educational credentials inflate (Brown, 1995). For example, internships might improve employment prospects because job-seekers use them to signal their general abilities and learning potential to employers (who are unable to observe applicants' ability directly). From the related 'job queue' perspective, job-seekers can also use internships as a signal that they will require less training if hired compared to job-seekers who have not done internships. The key insight is that to be an effective signal, internships should differentiate employable from less-employable candidates, i.e. the signal should provide quality information, and that what matters is the relative positioning in the 'job queue' rather than absolute skill levels (Di Stasio et al., 2016). The broad implications of this perspective are that internships that effectively communicate information about applicant quality should improve labour market outcomes for those applicants.

There is a research gap on the impact of internships on graduates' early career outcomes in Italy as a whole. Research focused on curricular internships undertaken during high school or HE in an Italian province showed that a significant share of internships is undertaken in industries characterized by low-skilled and highly repetitive jobs, such as trade and catering (Dorigatti et al., 2015), suggesting that internships may not be effective in terms of skill acquisition. Other evidence, based on a study in the Italian ICT sector, found that internships did not act as a signal of employability and did not improve employment chances as might have been expected, possibly owing to the perceived short-term nature of the internships and to the lack of regulation regarding their content and duration (Di Stasio, 2014). However, other research has found positive associations between internships and employment outcomes after graduation (AlmaLaurea, 2013; Unioncamere-Ministero del Lavoro, 2012). Therefore, the nature of the association between internships and graduates' employment outcomes in Italy remains unclear.

In the UK, there is also limited research on how internships affect labour market outcomes. Most of the literature tends to report on qualitative studies that focus on students' experiences of internships and perceptions of skills they developed, with the findings being broadly positive (Silva et al., 2016). In contrast, some of the quantitative research, however, has cast doubt on the linkages between internships and labour market outcomes (e.g. Wilton, 2002). Other work has shown how different types of internships might reinforce existing inequalities and prevent social mobility (Tzanakou et al., forthcoming; Holford, 2017; Hunt and Scott, 2017). This evidence suggests that not all types of internships equally affect labour market outcomes, and that more individuals from more privileged backgrounds (e.g. those with higher level of economic, social and/or cultural capital, or holding higher credentials) are more likely to access to the 'best' internships, and less privileged individuals may be less likely to do so, reproducing existing social inequalities.

Studies from other countries have tended to support the signalling perspective, where undertaking an internship provides a signal to potential employers about motivation and commitment of the interns, positively affecting their employment opportunities (Weiss et al., 2014; Saniter and Siedler, 2014). The subject of study and whether the internship is mandatory or voluntary also seem to play an important role (Nunley et al., 2016; Gault et al., 2000). Qualitative studies have been mostly preoccupied with the type of skills that graduates can develop by undertaking an internship, complemented by the skills acquired during their study curriculum (e.g. Crebert et al., 2004).

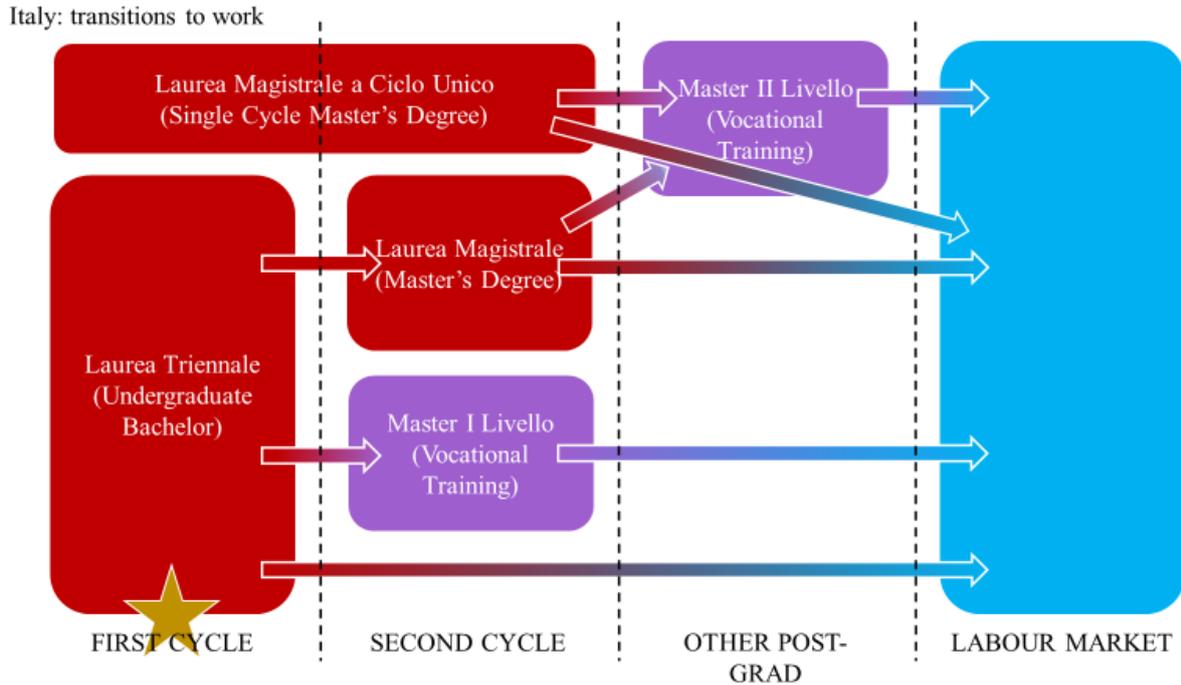
Overall, the literature suggests that internships are broadly positively associated with labour market outcomes, such as the probability of employment, better job match, and higher wages. However, there is a lot of variation in the results depending on the types of internships, labour market outcomes and countries used in the studies. In general, most of the literature has been limited to national case studies, specific industries and disciplinary subject fields. With notable exceptions (e.g. Hadjivassiliou et al., 2012), there is a lack of multi-perspective cross-country studies on the impact of internships on graduates' early labour market outcomes that account for internship heterogeneity.

Institutional variation and contextual considerations in Italy and the UK

Higher education

In the early 2000s, Italy reformed its HE system by introducing the so-called “3+2” Bologna system. The new system, based on a two-cycle degree structure consisting of a first-level degree (*Laurea Triennale*, a three-year bachelor's-type degree); a second-level degree (*Laurea Magistrale*, a two-year master's degree); with some programmes maintaining a five/six-year single-cycle, replaced the programmes of the old system lasting at least four years. In addition, there are single-cycle Master's Degrees (*Laure Magistrale a Ciclo Unico*, 5-year courses) for specific field of studies such as Law and Medicine. Furthermore, there are vocational training programmes that can be accessed by *Laurea Magistrale* and *Laurea Triennale* holders, which are not part of the HE system and are not equivalent to a masters' degree awarded in HE institutions. These vocational training programmes aim at providing skills relevant to specific occupations (e.g. human resources managers, technical occupations, etc.), and have their own specific transitional path. In Figure 1, we show the simplified structure of the two-cycle Italian HE system.

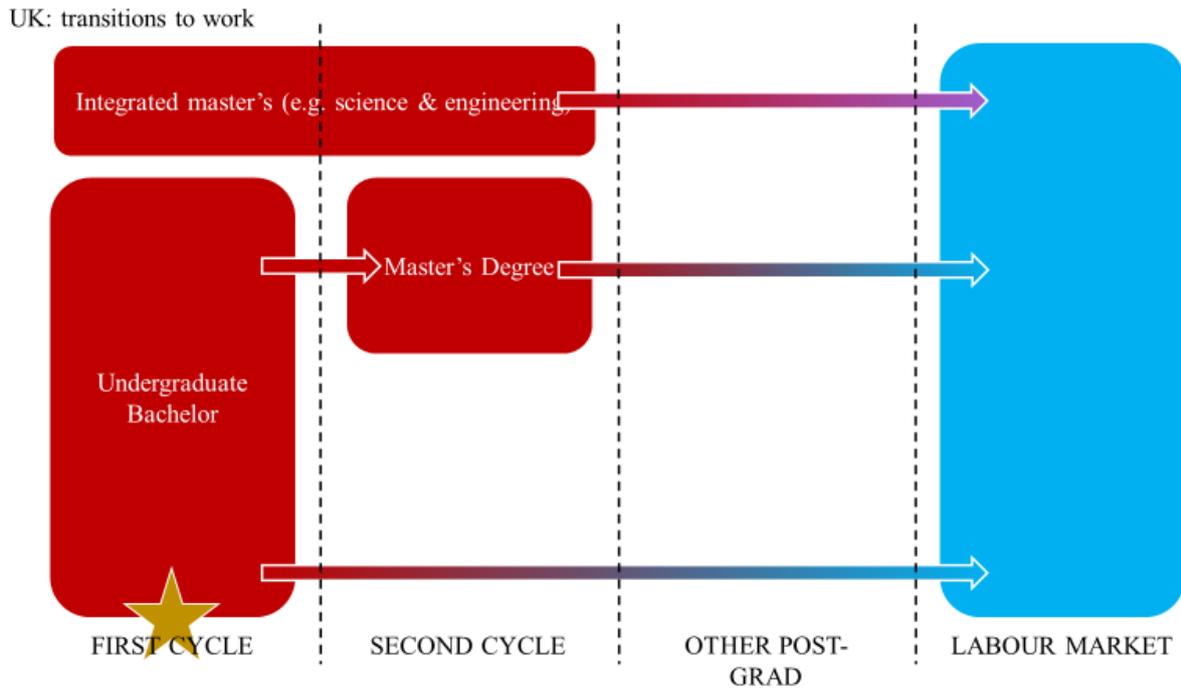
Figure 1: The Italian two-cycle HE system and graduates' transitions to work



Note: The internship data in this paper concern only the first cycle (internships that are undertaken by individuals who are students in higher education for their first degree, represented by the star)

In the UK, the typical HE two-cycle structure is a three- or four-year full-time undergraduate degree (certain degrees, e.g. in medicine, dentistry, etc., take longer), after which graduates join the labour market. Some undergraduate courses, in science and engineering-related fields in particular, offer an integrated master's degree. Master's courses typically last one or two years, and are often studied for professional purposes (Little, 2011), although the proportion of graduates entering master's courses straight after the bachelor degree has been increasing. While vocational aspects have been present in UK HE for a long time, the role of work experience became prominent again from the 1990s onwards (Little and Harvey, 2007). In Figure 2, we show the simplified structure of the two-cycle HE system in the UK.

Figure 2: The UK HE two-cycle system and graduates' transitions to work



Note: The internship data in this paper concern only the first cycle (internships that are undertaken by individuals who are students in higher education for their first degree, represented by the star)

The Bologna reform led to a noticeable expansion of HE in Italy, with the number of graduates entering the labour market doubling from around 174,000 in 2002 to around 326,000 in 2018 (MIUR, 2019). During the years immediately after the “3+2” reform, the Italian graduate labour market provided employment opportunities to the additional graduate workforce (Bosio and Leonardi, 2010), but the situation deteriorated after the outbreak of the financial crisis (Franzini and Raitano, 2011). In response, one of the strategies to facilitate university-to-work transitions consisted in encouraging internships programs both during studies and after graduation. As a result, an increasing number of degree courses introduced internships in their curriculum and awarded credits to participating students. Alongside the shift from a one-cycle to a two-cycle education system, the share of graduates who undertook a curricular internship (an internship that is part of a programme of study) increased from 15% in 2000 to 58% in 2017 (AlmaLaurea, 2001; 2018).

In the UK, HE has been expanding substantially over the last few decades. The number of graduates from all undergraduate programs increased from around 350,000 in 2001-02 to just under 425,000 in 2018-19 (HESA, 2020). However, it is difficult to estimate the proportion of

students participating in internships or placements during HE and there is a lack of comprehensive data. Some evidence suggests that there has been a decline in the number of undergraduate students taking up sandwich degree placements (sandwich degrees typically include a year-long placement/internship in industry, though the precise structure may vary): specifically, from just under 10% in 1999-2000 to around 5% in 2012-13 (Jones et al., 2017), although there is some suggestion that the number has increased since (e.g. Grey, 2019).

A key issue in both countries is the relatively loose connection between the HE system and the labour market (Lore and Little, 2010; Little, 2001), whereby the field of study does not strongly determine the professions in which one might be employed. Although the Italian HE-labour market linkage has moved away from a tight coupling in recent decades, and has been described as ‘loose’ (Schizzerotto and Barone, 2006, in: Di Stasio, 2014), it arguably remains more centralised and more regulated than that of the UK (Lore and Little, 2010). It is widely reported that in institutional configurations where the education-labour market link is strong, internships may be less important in affecting employment outcomes. In contrast, in institutional configurations where the education-labour market link is loose, internships may be more likely to affect employment outcomes, for example, because the educational system does not provide the full range of information required by employers (Di Stasio et al., 2016; Di Stasio, & van de Werfhorst, 2016). Thus, we expect the association between internships and labour market outcomes to be stronger in the UK than in Italy.

Labour market context in Italy and the UK

There are several main labour market context differences between Italy and the UK. First, the overall rate of economic activity is lower in Italy (56%) than in the UK (70%, 2017 labour force participation rate), partly explained by the lower participation of women in the labour market in Italy. Second, the 2008 recession hit Italy more than the UK. While the overall unemployment rate was at similar levels in Italy and the UK in 2008 (6.7% and 5.6% respectively), by 2014 it almost doubled in Italy (12.7%) while it only slightly increased in the UK (6.1%) after peaking at 8.1% in 2011.² Third, youth unemployment is consistently higher in Italy than in the UK, both as stand-alone rate and as ratio of youth to adult unemployment rates, and this difference has increased since the recession (although the ratio of youth to adult unemployment has been converging during the last few years). In the UK, although youth unemployment increased from 15.0% to 21.3% between 2008 and 2012, the rates returned to pre-recession levels by 2015. However, in Italy, the youth unemployment rate more than doubled from 21.2% to 42.7% between 2008 and 2014. As a result, since the recession, Italian graduates have been facing substantial difficulties in finding their first job, arguably more than their counterparts in other countries (Eurostat, 2020). Yet, Italian graduates are still better off compared to Italian non-graduates, experiencing a higher probability of employment and a lower increase in the unemployment rate than their non-graduate peers during the same period (AlmaLaurea, 2018).

² Here and in the rest of this paragraph, unemployment statistics are taken from Eurostat (2020).

One key measure of graduate employment outcomes is the proportion of graduates working in ‘graduate-level’ jobs. Although there are several ways of classifying jobs into graduate- and non-graduate, in this chapter, we use ‘graduate jobs’ for jobs that ‘normally require knowledge and skills developed on a three-year university degree’ to perform the job tasks in a competent way, following the definition and classification system developed by Elias and Purcell (2013, see also our methodology section). In Italy, the share of graduates employed in non-graduate jobs lies between 23% (Cattani et al., 2018) and 33% (Ricci, 2018), a disappointing proportion that reflects the low proportion of graduate jobs demanded in the labour market (Green and Henseke, 2017, 2016). UK data suggest that around a third of graduates are employed in non-graduate jobs, which increases to around 50% for recent graduates (ONS, 2017). Employers’ demand for graduates has not kept up with its relative supply, which has led in turn to an increased emphasis on employability initiatives during HE, including an increase in the take up of placements and internships (Brown and Hesketh, 2004). In this context, in the UK, internships are used to demonstrate work-readiness, and work experience is widely encouraged by and viewed as necessary by employers.

Internships and regulatory aspect of internships in Italy and the UK

There is evidence of increasing diffusion of internship types in both the UK and Italy, and of a loose-regulatory basis. Less than half of trainees aged 18-35 in Italy (43%) and in the UK (47%) had their most recent traineeship based on a written traineeship agreement or contract with the host organisation or company, whereas in EU-28, six out of ten respondents with traineeship experience (62%) signed a proper traineeship agreement (European Commission, 2017).

In Italy, ‘curricular internships’ during the undergraduate degree course can be done in a private firm, the public sector or the university. These internships can be either optional or mandatory depending on the course, but when students participate in either type of curricular internship, they need to acquire course credits to complete their degree. Moreover, curricular internships are always unpaid (except for very particular cases) and can take place either during or outside university term time. In the UK, placements may be part of the HE curriculum as structured work placements, sandwich placements, or other arrangements, depending on the type of course and subject studied. In most cases, the universities’ role is mainly confined to advertising opportunities for industrial placements. It is usually students who are responsible for applying to and finding placements, often through personal contacts and networks. If students are unsuccessful in getting a placement, they may complete the degree without the industrial component. Some students may also undertake ‘vacation internships’, which are not part of the HE curriculum. The existence of these different terms and sometimes their interchangeable use raises challenges in distinguishing between these different types of work experiences and their effects on labour market outcomes.

In Italy, strict regulations apply only to HE-level apprenticeships leading to HE degrees, internships undertaken during school (secondary) education and internships undertaken after graduating HE (the so-called Fornero reform). Curricular internships that take place during HE are less-well centrally regulated. Italian universities are constitutionally entitled to establish their own

regulations and have a high degree of autonomy in setting up their own rules to implement curricular internships. Usually, they issue quite broad guidelines to which placement offices should refer to when signing specific agreements with employers' association or single employers available to host trainees. These bilateral agreements thus constitute the main rules of reference for curricular internships in Italy, shaping their design, content and duration (including the training objectives and skills to be developed). This loosely regulated system, however, raised increasing concerns among the academic community and policy makers as media exposed cases of labour exploitation at the expenses of young students and workers by hosting organizations (Dorigatti et al., 2015).

In the UK, labour market regulation around internships is a grey and complex area, as discussed in detail in Tzanakou and Hunt (Forthcoming). If an intern counts as a 'worker' (if they are promised a contract of future work), they are entitled to the National Minimum Wage. However, students doing an internship lasting less than a year that is part of a higher or further education course based in the UK are not entitled to the minimum wage, though some may be paid at the employer's discretion (UK Government, 2019). While student interns are excluded by minimum wage legislation, they are included in regulations regarding working time and health and safety (Stewart et al., 2018). Individual HE institutions are responsible for ensuring the quality of their students' work placements and have their own internal quality assurance guidelines and procedures. At a national level, the Quality Assurance Agency for HE has produced a Code of Practice on WBL (QAA, 2007). Whilst not formally binding, HE institutions are expected to take the Code of Practice into account when developing their own guidelines. However, this Code has been criticised for its limitations in terms of learning content and transparency in hiring practices and the lack of evidence regarding effectiveness of such practices (Higgins and Newton, 2012).

Methodology

Data

We draw our data from two longitudinal surveys of graduates' HE and labour market experience: *AlmaLaurea* for Italy and *Futuretrack* for the UK. *AlmaLaurea* is a Consortium of Italian universities that collects data about graduates' early career paths from 75 Italian universities (around 90% of all graduates at the national level, N=109,313 for those graduating in 2009) at the time of graduation (a survey on the "graduates' profile") and at one, three and five years after graduation (three surveys on the "graduates' employment conditions"). *Futuretrack* is a national longitudinal survey, tracking people who applied in 2005/06 for full-time undergraduate degree programmes in the UK in four waves, from the point of application to HE in 2005-06 until 2011/12 when most will have graduated and will have been working in the labour market for one and a half to two and a half years (Purcell et al., 2013). The *Futuretrack* survey N ranges from around 120,000 in Wave 1 to around 17,000 in Wave 4.³

³ Although the surveys measure similar issues, they are not identical. For instance, Italian cohorts of surveyed graduates are selected based on the year of graduation rather than that of enrolment, which means there are important

To facilitate comparative analysis between Italy and the UK, we focus on first-degree graduates who enrolled around 2005-06 and who completed their studies around 2009-10, just as the impact of the financial crisis started to bite. The Futuretrack data is restricted to graduates who graduated around 2009-10, who had a bachelor's degree only, who were UK-nationals and lived in the UK at the time of applying to HE, and who did not study overseas ($N \approx 9,000$). The AlmaLaurea data is restricted to graduates who enrolled between 2005 and 2006 and graduated in 2009, and looks at graduates' employment outcomes one year after graduation ($N \approx 48,000$).

We explore two empirical questions: (1) what affects the likelihood of doing an internship during study in the UK and Italy, and (2) how does doing an internship affect labour market outcomes. The labour market outcomes of interest in this study are: (1) whether one is employed (Italy) or unemployed (UK); (2) whether one is in a graduate job (SOC(HE)2010, Elias and Purcell (2013)) (Italian data is only available for 5 years after graduation), and (3) the wage in one's current job at the time of the survey (wage data for wages in first job after graduation are available for the UK).. To facilitate comparison of Italian and UK data, we use the Italian 'curricular internship' as the reference point, and include, for the UK, sandwich placements and structured work placements, which may be optional or mandatory, and paid or unpaid (see Higgins and Newton (2012) for further discussion) and which usually take place during university term time. We broadly view these as 'curricular' internships. For the UK, we also include vacation internships in a firm, which are optional, can be paid or unpaid and which usually take place outside of university term time. Vacation internships are widely considered internships in the UK, but we view them as 'open market' rather than 'curricular' internships in the Broek et al. (2017) framework. We also include, for both countries, a variable proxying whether graduates did any paid work while at university or not, as an additional control.

The labour market outcomes of interest in this study are: (1) whether one is employed in a new job one year after graduation; (2) whether one is employed in a graduate job (SOC(HE)2010, using the Elias and Purcell (2013) classification;⁴ and (3) the wage in one's current job at the time of the survey.

In order to assess the main determinants of the probability to do an internship during studies, we estimate two logistic models, one for each country, where the event of doing an internship is measured by a binary variable (0/1, where 1=internship, 0=otherwise). We use a similar approach when looking at the probability of doing different types of internships. To evaluate internship effectiveness, we estimate regression models for each of the three labour market outcomes in each

differences in terms of age and years taken to complete their studies. Furthermore, AlmaLaurea only gathers information about internships and work experience during HE and/or at the time of graduation, but not afterwards.

⁴ Note that for the graduate job variable, Italian data is only available for 5 years after graduation, UK data are available for the first job after graduation and for the job held at the time of the Wave 4 survey.

country. Whether one is in employment and whether one is working in a graduate job are binary variables (1=yes, and 0=no). In both countries, wages are measured by a multi-category variable that is well-approximated by a continuous variable. We therefore use logistic specifications for the dependent variables being in employment and working in a graduate job, and a log-linear OLS model for the wage dependent variable. The choice of the logistic estimator is justified by the binary nature of the response variable, while the OLS estimator is the typical econometric technique to estimate the wage equation when the dependent variable is continuous or can be assumed to be continuous.

In the absence of suitable longitudinal data, we cannot address the sample selection bias arising from the fact that we observe the probability of getting a job only for those graduates who are economically active, and that we observe the wage and the job type only for employed graduates. A typical correction is the well-known two-step estimator (Heckman, 1979), which requires the identification of one or more exogenous exclusion restrictions to be used as regressors in the selection equation. As our data does not match this requirement, we decided to run the regressions within the subsample of employed graduates only.⁵ Nonetheless, thanks to the inclusion of a wide set of control variables, our estimates still provide valuable measures of association between types of internships and labour market outcomes.

Results

Incidence of and access to internships in the UK and Italy

A high proportion of the Italian respondents did either an internship (61%) or paid work (68%, see Table 1) during HE. The most frequent type of internship occurred in a firm (37%), followed by in the public sector (33%), while only a minority of students interned within university premises (20%).⁶ In the UK, around 20% of participants did structured work placements, 11% – sandwich placements, and 9% – vacation internships. Respondents could participate in more than one type of work-related activity.⁷ Almost 19% of participants did no work-related activity at all (see Table 2).⁸

<Table 1 here>

<Table 2 here>

⁵ This methodology is considered acceptable because there would be a high correlation between the error terms of the selection and the main equation if the Heckman two-step procedure was chosen. In such cases “Heckman’s estimator is particularly inefficient and subsample OLS may therefore be more robust” (Puhani, 2000, p. 65).

⁶ The remaining 9.6% of respondents who did an internship did not provide any information on the its type.

⁷ The percentage of cases refers to the percentage of respondents who mentioned undertaking this activity. Because this is a multiple response variable, the total frequency is greater than the number of cases, and the total of percentage of cases is greater than 100.

⁸ For the UK, we present unweighted and weighted descriptive statistics, and unweighted regression results. Our weighted regression analysis did not substantially affect the reported associations.

In terms of access to internships, we found that men from higher socioeconomic backgrounds were more likely to the types of internships associated with more positive labour market outcomes compared to women and individuals from lower socioeconomic background. In Italy women were more likely to do curricular internship (any type) while men had a higher, but not significant, probability to undertake an internship within a firm. Italian students from low socioeconomic background (based on father's occupation) more likely to do a curricular internship. However, our data show that student performance (average mark at their final exams) is more important than socio-economic background in accessing curricular internships (see Table 3). The field of study greatly affects which type of internship students' access. For example, students in natural sciences, medicine and related fields and education showed a higher propensity to do an internship (any type) whereas students in architecture, economics and engineering were more likely to do an internship in a firm. Students with paid work-related experience during HE were more likely to access curricular internships, especially in a firm.

<Table 3 here>

In the UK, in terms of gender and access, women were more likely than men to do a work placement and well as paid work for the money, and less likely to do a vacation internship, or to do no work-related activity at all (see Table 4). Graduates from routine/manual backgrounds were more likely to do no work-related activity at all and less likely than those from managerial & professional backgrounds to do a sandwich placement, project work, vacation internship. The subject of study also affected the type of work-related activity respondents did during study. For example, studying for engineering & technologies and social studies & law compared to humanities was associated with an increase in the likelihood of doing a vacation internship while studying STEM subjects (e.g. natural sciences, mathematics, engineering and technologies), business, languages and interdisciplinary studies increased the likelihood of doing a sandwich course.

<Table 4 here>

Do internships during HE affect labour market outcomes in the UK and Italy?

Evidence from Italy suggested that doing any curricular internship did not tend to improve employability of recent graduates in the labour market, whereas the UK experience showed somewhat more positive result. However, in Italy, undertaking an internship within a firm was associated with an increase in the probability of finding a job after graduation. This positive relationship was confirmed when controlling for the interaction term between internship within a firm and paid work, which was not significant. Thus, doing an internship within a firm and doing paid work enhanced the probability of employment, however, there was no additional benefit gained from doing both activities. We thus observe substitutability rather than complementarity between doing an internship within a firm and paid work. In contrast, in the UK, our analysis

shows that sandwich placements, and, to a lesser extent, vacation internships and structured work placements were positively associated with the probability of being in employment.

Undertaking an internship did not affect the likelihood of working in a graduate job (5 years after graduation in Italy). However, in the UK, doing a sandwich placement, a vacation internship or a structured work placement was positively associated with working in a graduate job. Unfortunately, we cannot say whether the findings arise owing to the effect of internships, or to the temporal difference in the nature of the data.

Last, in Italy, there was no significant effect of internships on wages, but in the UK, undertaking sandwich placements was associated with a 15.5% increase in wages (around 1.5 to 2.5 years after graduation), structured work placements – with a 7.0% increase, and a vacation internship – with a 21.4% increase. Paid work during HE was associated with small increases in wages in both Italy (2.7%) and UK (4.6%).

<Table 5 here>

Conclusions and implications for internship regulation

We found that comparing graduates' early career outcomes in two different institutional contexts highlights the importance of having a clear definition of internships to distinguish them from other types of work experience within and beyond national and institutional boundaries. What we count as an internship in Italy is slightly different from the UK definition. An agreed and detailed definition would enable us to compare internships in a meaningful and comprehensive way and enhances our academic understanding of this phenomenon.

In a nutshell, we show that internships both in the UK and Italy have a positive effect on being employed after graduation, and in the UK they also have a positive effect on wages. We find no evidence that internships positively affect the probability of getting a graduate job in Italy, but some evidence for this in the UK. We also find that in the UK social class still plays a significant role in shaping access to the 'best' internship opportunities (in terms of the associations with labour market outcomes), whereas In Italy, participation in the 'best' internships is substantially gender-biased.

While we find more positive outcomes associated with internships in the UK than in Italy, we argue that the particular way in which we operationalised and measured labour market outcomes captures only a part of the overall benefits of internships. We cannot report on less tangible qualitative benefits of internships such as individuals' experience of work in specific sectors, occupations and organisations, or how students make informed career-related decisions (Purcell et al., 2017). We need to consider more broadly the skills, experience and knowledge gained from

undertaking an internship, even if this is not directly reflected in the better job outcomes that we chose to look at.

We do offer a word of caution: our analysis appears to support the argument for the signalling role of internships, with the implication that if internships become curricular and compulsory, the signal they send may become diluted (e.g. Weiss et al., 2014). In other words, from the economic signalling perspective, increasing accessibility to internships has a trade off with labour market outcomes (e.g. in terms of wages) because employers can no longer use the internship marker as a signal of applicant quality or job readiness. However, we argue that the economic perspective is not the only way to look at this issue. A wealth of evidence suggests that internships help students decide what they want to do and develop a wide range of skills, which suggests it is still useful to improve access to internships in general. Yet, the extent to which graduates benefit from internships is partly hampered by the uncertainty stemming from the loose regulation of these activities.

Furthermore, the Italian findings on the lower effectiveness of internships on graduates' labour market outcomes compared to the situation in the UK should be viewed in the context of the growing number of graduates combined with the major demand-side shock occurred during the 2008-09 financial crisis. In Italy, that crisis potentially contributed to labour market inabilities to both absorb the additional supply of graduates, and to offer 'high quality' curricular internships to HE students. Curricular internships are characterized by a persisting loosely regulated regime, where working time, pay and skills content are defined by bilateral agreements in which these dimensions vary greatly depending on the relative bargaining power deployed by universities and hosting organizations, failing to secure a clear and consistent set of training objectives. In both countries, there is a need for an explicit regulatory framework for curricular internships which should include clear information about the content, duration, pay and supervision to ensure that such internships are of high quality and they are not exploitative and/or of limited use for HE students (Roberts, 2017; Stewart et al. 2018).

Our research thus reinforces the significance of regulations that will ensure that recruitment for internships is open and transparent to avoid reproducing structured inequalities in the labour market (e.g. along gender and socioeconomic background lines, etc). Furthermore, to enable all students (irrespective of their socioeconomic background) to access opportunities that could be instrumental in furthering their career, regulations should protect less privileged individuals, for instance through access to state-funded bursaries or through introducing a minimum wage for all interns. Support should also extend to firms that are less able to pay their interns and/or to train them properly. The cost to government of doing so should be carefully contrasted with the potential broader social and economic gains made through improved youth employment outcomes.

Further research

Further research is needed to understand the meaning and role of internships in different countries. Otherwise, we run the risk of talking about various types of work experience in different contexts leading to ‘seemingly positive outcomes’ across the board, without exploring why this might be the case.

References

- Allen, J., & Van der Velden, R. (Eds.). (2011). *The flexible professional in the knowledge society: New challenges for higher education*. Springer Science & Business Media.
- AlmaLaurea. (2001). *Condizione occupazionale dei laureati: III indagine*. Bologna: AlmaLaurea.
- AlmaLaurea. (2013). *Condizione occupazionale dei laureati: XV indagine*. Bologna: AlmaLaurea.
- AlmaLaurea. (2018). *Condizione occupazionale dei laureati: XX indagine*. Bologna: AlmaLaurea.
- Bathmaker, A-B., Ingram, N., & Waller, R. (2013). HE, social class and the mobilisation of capitals: recognising and playing the game. *British Journal of Sociology of Education*, 34(5-6), 723-743.
- Beaudry, P., Green, D. A., & Sand, B. M. (2016). The great reversal in the demand for skill and cognitive tasks. *Journal of Labor Economics*, 34(S1), S199-S247.
- Becker, G. (1964). *Human Capital (2nd ed)*. Columbia University Press, New York.
- Bosio, G., & Leonardi, M. (2010). The impact of Bologna process on the graduate labour market: Demand and supply. *Giornale degli Economisti e Annali di Economia*, 69(3), 29-65.
- Broek, S., Hogarth, T., Baltina, L., & Lombardi, A. (2017). *Skills Development and Employment: Apprenticeships, Internships and Volunteering*. European Parliament, Directorate General for Internal Policies Policy Department A: Economic and scientific policy. IP/A/EMPL/2016-04, PE 602.056. Retrieved from [http://www.europarl.europa.eu/RegData/etudes/STUD/2017/602056/IPOL_STU\(2017\)602056_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/602056/IPOL_STU(2017)602056_EN.pdf)
- Brown, P. (1995). Cultural capital and social exclusion: some observations on recent trends in education, employment and the labour market. *Work, Employment and Society*, 9(29), 29–51.
- Brown, P., & Hesketh, A.J. (2004). *The mismanagement of talent: Employability and jobs in the knowledge economy*. Oxford: Oxford University Press.

Cammelli, A., Antonelli, G., Camillo, F., di Francia, A., Ghiselli, S., & Sgarzi, M. (2011). *Graduates' employment and employability after the "Bologna Process" reform. Evidence from the Italian experience and methodological issues*. (AlmaLaurea Inter-University Consortium Working Papers, No 1). Bologna: AlmaLaurea.

Cattani, L., Guidetti, G., & Pedrini, G. (2018). Overeducation among Italian graduates: do different measures diverge?. *Economia Politica*, 35(2), 491-521.

Crebert, G., Bates, M., Bell, B., Patrick, C. J., & Cragolini, V. (2004). Developing generic skills at university, during work placement and in employment: graduates' perceptions. *Higher Education Research & Development*, 23(2), 147-165.

Cullinane, C., & Montacute, R. (2018). *Pay as you go?: internship pay, quality and access in the graduate jobs market*. London: Sutton Trust.

Curiale, J.L., (2010). America's New Glass Ceiling: Unpaid Internships, the Fair Labor Standards Act, and the Urgent Need for Change. *Hastings Law Journal*, 61(6), 101-128.

Di Stasio, V. (2014). Education as a Signal of Trainability: Results from a Vignette Study with Italian Employers. *European Sociological Review*, 30(6), 796-809.

Di Stasio, V., & van de Werfhorst, H. G. (2016). Why does education matter to employers in different institutional contexts? A vignette study in England and the Netherlands. *Social Forces*, 95(1), 77-106.

Di Stasio, V., Bol, T., & Van de Werfhorst, H. G. (2016). What makes education positional? Institutions, overeducation and the competition for jobs. *Research in Social Stratification and Mobility*, 43, 53-63.

Dorigatti L., Grüning B.& Fontani C., (2015). Tra formazione e sfruttamento. Uno studio sui tirocini in Provincia di Bologna, in Cirillo R. (Ed.) *Nuove frontiere della precarietà del lavoro. Stage, tirocini e lavoro degli studenti universitari*, (pp. 187-215). Venezia: Società e trasformazioni sociali.

Elias, P., & Purcell, K. (2013). *Classifying graduate occupations for the knowledge society*. (Futuretrack working paper 5). Coventry: Institute for Employment Research, University of Warwick.

Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton University Press.

European Commission. (2017). *Eurobarometer 80.1 (2013)*. TNS opinion, Brussels, GESIS Data Archive, Cologne. ZA5876 Data file Version 2.0.0. Retrieved from <https://doi.org/10.4232/1.12768>.

Eurostat. (2020). Unemployment – LFS adjusted series (une): Unemployment by sex and age – annual data (une_rt_a); Unemployment by sex, age and educational attainment - annual averages (une_educ_a). Retrieved from <https://ec.europa.eu/eurostat/web/lfs/data/database>

Franzini M., & Raitano M. (2012). Few and underutilized? Overeducation on Italian graduates. In: E. Mandrone (Ed.), *Labour Economics: PLUS Empirical Studies*. Roma: Rubbettino.

Gault, J., Redington, J., & Schlager, T. (2000). Undergraduate business internships and career success: are they related?. *Journal of marketing education*, 22(1), 45-53.

Green, F., & Henseke, G. (2016). The changing graduate labour market: analysis using a new indicator of graduate jobs. *IZA Journal of Labor Policy*, 5(14).

Green, F., & Henseke, G. (2017). *Graduates and 'graduate jobs' in Europe: a picture of growth and diversification*. Centre for Global Higher Education working paper series no. 25. London: Centre for Global Higher Education.

Grey, M. (2019, April 11). The placement panacea [Blog post]. Retrieved from <https://www.hepi.ac.uk/2019/04/11/the-placement-panacea/>

Hadjivassiliou, P. K., Carta, E., Higgins, T., Rickard, C., Pesce, F., & Samek, M.(2012). *Study on a Comprehensive Overview on Traineeship Arrangements in Member States*, Synthesis Report prepared for DG for Employment, Social Affairs and Inclusion, European Commission, 31.5.2012. <https://op.europa.eu/en/publication-detail/-/publication/19623a37-37ee-4a60-b7ba-14a55526012f>

Heckman, J. J. (1979). Sample Selection Bias as a Specification Error. *Econometrica*, 47(1), 53-161.

Higgins, T., & Newton, B. (2012). *National Report on Traineeships – The UK*. Report prepared for DG for Employment, Social Affairs and Inclusion, European Commission, 31.5.2012.

Higher Education Statistics Agency (HESA) (2020). *Higher Education Student Statistics: UK, 2018/19. Figure 2a*. Retrieved from <https://www.hesa.ac.uk/news/16-01-2020/sb255-higher-education-student-statistics>

Holford, A. (2017). *Access to and returns from unpaid graduate internships*. ISER Working Paper Series 2017-07. Retrieved from <https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2017-07>

Hunt, W., & Scott, P. (2017). Participation in paid and unpaid internships among creative and communications graduates. In R. Waller, N. Ingram and Ward, M. (Eds.) *Degrees of Injustice: Social Class Inequalities in University Admissions, Experiences and Outcomes* (pp. 190-209). London: BSA/Routledge.

Jones, C.M., Green, J.P., & Higson, H.E. (2017). Do work placements improve final year academic performance or do high-calibre students choose to do work placements? *Studies in Higher Education*, 42(6), pp, 976-992.

Little, B. (2001). Reading between the lines of graduate employment. *Quality in Higher Education*, 7(2), 121-129.

Little, B., & Harvey, L. (2007). UK work placements: a choice too far? *Tertiary Education and Management*, 13(3), 227-245.

Little, B. (2011). The UK Bachelors degree—a sound basis for flexible engagement with an unregulated labour market?. In: H. Schomburg & U. Teichler (Eds.), *Employability and mobility of bachelor graduates in Europe* (pp. 143-170). Rotterdam: SensePublishers.

Lore, A. & Little, B. (2010). *The REFLEX study: exploring graduates' views on the relationship between higher education and employment*. London: Centre for Higher Education Research and Information, The Open University.

Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR). (2019). *Anagrafe nazionale degli studenti e deilaureati*. Retrieved from <https://anagrafe.miur.it>

Nunley, J. M., Pugh, A., Romero, N., & Seals Jr, R. A. (2016). College major, internship experience, and employment opportunities: Estimates from a résumé audit. *Labour Economics*, 38, 37-46.

O'Connell, P.J., & Byrne, D. (2012). The determinants and effects of training at work: bringing the workplace back in. *European Sociological Review*, 28(3), 283–300.

Office for National Statistics. (2017). *Graduates in the UK labour market: 2017*. London: Office for National Statistics.

Puhani, P. (2000). The Heckman correction for sample selection and its critique. *Journal of economic surveys*, 14(1), 53-68.

Purcell, K., Elias, P., Green, A., Mizen, P., Simms, M., Whiteside, N., Wilson, D., Robertson, A., Tzanakou, C., Atfield, G., Cooper, M., & Chohan, S. (2017). *Present tense, future imperfect? Young people's pathways into work*. Coventry: Institute for Employment Research, University of Warwick. Retrieved from https://warwick.ac.uk/fac/soc/ier/research/pathways/presenttensefutureimperfect_final.pdf

Purcell, K., Elias, P., Atfield, G., Behle, H., Ellison, R., & Luchinskaya, D. (2013). *Transitions into employment, further study and other outcomes: The Futuretrack Stage 4 Report*. Coventry: Institute for Employment Research, University of Warwick.

Quality Assurance Agency for Higher Education. (2007). Code of practice for the assurance of academic quality and standards in higher education. Section 9: Work-based and placement learning - September 2007. Retrieved from <https://dera.ioe.ac.uk/4500/10/PlacementLearning.pdf>

Ricci, A. (2018). Mis-match, percorsi di studio e condizioni produttive, in CNEL (Eds.). *XX Rapporto su mercato del lavoro e contrattazione collettiva* (pp. 81-93). Roma: Consiglio nazionale dell'economia e del lavoro.

Roberts, C. (2017). *The inbetweeners: the new role of internships in the graduate labour market*. Institute for Public Policy Research. London: IPPR. Retrieved from <https://www.ippr.org/publications/the-inbetweeners>

Saniter, N., & Siedler, T. (2014). *Door opener or waste of time? The effects of student internships on labor market outcomes*. IZA Discussion Paper No. 8141. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2432425##

Scruggs, L., & Allan, J. (2008). Social Stratification and Welfare Regimes for the Twenty-First Century: Revisiting "The Three Worlds of Welfare Capitalism". *World Politics*, 60(4), 642-664.

Silva, P., Lopes, B., Costa, M., Seabra, D., Melo, A. I., Brito, E., & Dias, G. P. (2016). Stairway to employment? Internships in higher education. *Higher Education*, 72(6), 703-721.

Smetherham, C. (2006). Firsts among equals? Evidence on the contemporary relationship between educational credentials and the occupational structure. *Journal of Education and Work*, 19(1), 29-45.

Spence, M. (1973). Job market signalling. *Quarterly Journal of Economics*, 87(3), 355–74.

Stewart, A., Owens, R. J., Hewitt, A., & Nikoloudakis, I. (2018). *The regulation of internships a comparative study* (No. 994987592002676). Geneva: International Labour Organization.

Tzanakou, C., Wilson, D., & Purcell, K. ‘Internships as a Pathway to Employment for Graduates in the UK: An agency-structure analysis?’ (forthcoming)

Tzanakou C., Hunt W. (forthcoming), The (non)instrumental character of unpaid internships: Implications for regulating internships, in A. Stewart, O’higgins S. N. (Eds.) *The Role and Regulation of Internships: A Comparative Perspective*.

UK Government. (2019). *Employment rights and pay for interns* [web page]. Retrieved from <https://www.gov.uk/employment-rights-for-interns>.

Unioncamere-Ministero del lavoro. (2012). I fabbisogni occupazionali e formativi delle imprese italiane nell’industria e nei servizi per il 2012. Retrieved from https://www.cliclavoro.gov.it/Moduli%20e%20Documenti/excelsior_2012_sintesi_principali_risultati.pdf.

Weiss, F., Klein, M., & Grauenhorst, T. (2014). The effects of work experience during HE on labour market entry: learning by doing or an entry ticket? *Work, Employment and Society*, 28(5), 788-807.

Wilton, N. (2012). The impact of work placements on skills development and career outcomes for business and management graduates. *Studies in Higher Education*, 37(5), 603-620.

Table 1: Distribution of work-related activities done during study (weighted), Italy.

Variable	Obs	Abs freq	Rel freq./mean (std. Dev.)
Any type of internship	48,058	29,320	61.01%
Internship in a firm	29,320	9,746	33.2%
Internship in the university	29,320	5,815	37.1%
Internship in the public sector	29,320	10,856	20.1%
Length of the internship (hours)	48,058	29,320	466.18 (1,044.36)
Paid work	48,058	32,751	68.15%

Notes: † All variables are weighted in order to refer the sample to the population of reference. †† The following variables are observed only if the graduate has undertaken an internship (N=29,320): Internship in a firm, Internship in the university, Internship in the public sector, Length of the internship (hours).

Table 2: Distribution of work-related activities done during study allowing for multiple responses (unweighted and weighted), UK.

Type of work-related activity	Freq.	Unweighted % of responses	% of cases	Weighted % of responses	% of cases
A sandwich year undergraduate placement	989	7.39	10.84	7.57	10.9
One or more shorter structured work placement/s integral to course	1813	13.54	19.88	14.91	21.47
Assessed project work in external organisation as part of course	650	4.85	7.13	5.31	7.64
A vacation internship with an employer	807	6.03	8.85	4.83	6.96
Paid work	4968	37.11	54.47	35.51	51.14
Unpaid work undertaken to gain useful career-related experience	2275	16.99	24.94	16.5	23.77
Other work-related activity	119	0.89	1.3	0.87	1.25
None of the above	1713	12.79	18.78	14.07	20.27
Voluntary work, no information whether career-related	55	0.41	0.6	0.43	0.61
Total	13389	100	146.79	100	144.01

Valid cases 9,121; missing cases 19.

Table 3: Determinants of the probability of doing a curricular internship in Italy

	<i>Any internship (odds ratio)</i>	<i>Internship in a firm (odds ratio)</i>
Male	0.8415*** (0.0212)	1.0189 (0.0306)
Medicine and related	3.5736*** (0.1497)	0.3363*** (0.0212)
Natural sciences	3.0738*** (0.1596)	1.3841*** (0.0765)
Law	0.8446*** (0.0304)	1.2324*** (0.0579)
Architecture	2.2833*** (0.1398)	5.5569*** (0.337)
Education studies	5.2163*** (0.427)	1.7695*** (0.1273)
Science	0.7278*** (0.0451)	0.8609* (0.0738)
Economics	0.5575*** (0.0213)	2.2512*** (0.1018)
Engineering	0.7913*** (0.0347)	1.7666*** (0.0953)
<i>Humanities & Languages</i> (ref.)	1.0000	1.0000
Work-related exp	1.1053*** (0.0273)	1.3123*** (0.04)
Parents with degree	0.9686 (0.0296)	0.9166** (0.0341)
Average mark	0.9722*** (0.0064)	0.9630*** (0.0076)
N	45469	45469
Other controls	Type of high school, age, living area, area of study, Italian citizenship, internal migrant, studying period abroad, father occupation	Type of high school, age, living area, area of study, Italian citizenship, internal migrant, studying period abroad, father occupation
Pseudo-R ²	0.0994	0.0924

Standard errors in parentheses - * p < 0.10, ** p < 0.05, *** p < 0.01 - Odds ratio are reported

Table 4: Determinants of the probability of doing selected work-related activities during study, UK, (unweighted)

	Sandwich	Placement	Vacation Internship	Paid work for money	None
	Odds ratio (se)	Odds ratio (se)	Odds ratio (se)	Odds ratio (se)	Odds ratio (se)
Medicine & related	0.531** (0.112)	18.163*** (2.594)	0.861 (0.185)	0.354*** (0.039)	0.339*** (0.056)
Natural Sciences	1.044 (0.161)	0.944 (0.149)	0.894 (0.152)	0.891 (0.080)	1.144 (0.126)
Mathematical & Computer Sciences	3.545*** (0.588)	0.477** (0.129)	1.296 (0.258)	0.651*** (0.078)	1.084 (0.155)
Engineering, Technologies, Building	2.762*** (0.478)	1.678** (0.324)	3.181*** (0.548)	0.470*** (0.058)	0.818 (0.125)
Social Studies & Law	0.337*** (0.085)	0.797 (0.154)	2.113*** (0.351)	0.978 (0.102)	0.950 (0.123)
Business & Administrative Studies	4.955*** (0.756)	0.843 (0.166)	1.766** (0.371)	0.778* (0.089)	0.602*** (0.090)
Humanities & Languages (ref.)	1.000 (.)	1.000 (.)	1.000 (.)	1.000 (.)	1.000 (.)
Creative Arts & Design	0.388*** (0.097)	1.134 (0.202)	1.762* (0.418)	0.654*** (0.077)	1.223 (0.170)
Education	0.212*** (0.100)	18.539*** (3.586)	0.282 (0.205)	0.418*** (0.068)	0.078*** (0.036)
Interdisciplinary including a STEM subject	1.493* (0.304)	0.923 (0.215)	1.392 (0.325)	0.819 (0.109)	1.015 (0.164)
Interdisciplinary not including a STEM subject	2.025*** (0.402)	0.786 (0.208)	1.788** (0.392)	1.012 (0.140)	0.874 (0.153)
Male	0.863 (0.081)	0.755** (0.072)	1.507*** (0.148)	0.778*** (0.046)	1.321*** (0.096)
Managerial and professional occupations (ref.)	1.000 (.)	1.000 (.)	1.000 (.)	1.000 (.)	1.000 (.)
Intermediate occupations	1.197 (0.130)	1.150 (0.124)	0.926 (0.114)	0.985 (0.071)	1.102 (0.099)
Routine and manual occupations	0.860 (0.097)	1.002 (0.104)	0.514*** (0.076)	1.040 (0.072)	1.210* (0.102)
Other controls include:	HEI type, age, ethnic group, UCAS points and region lived in when applying to HE.				
Pseudo R ²	0.123	0.265	0.151	0.051	0.047
N	6057	6100	6057	6100	6100

Unweighted regressions. Odds ratios, standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001.

Table 5: Comparison of the association between undertaking an internship and the probability of being in employment and wages in Italy and the UK.

	Employment (probability of getting a job after graduation) †			Wages in current job		
	Italy	Italy	UK	Italy	Italy	UK
Internship (any type)	0.0257 (0.0585)			0.0059 (0.0114)		
Internship within a firm		0.0598*** (0.0886)			0.0144 (0.0142)	
Paid work	0.0569*** (0.0759)	0.0654** (0.0756)	0.048*** (0.150)	0.0272*** (0.0089)	0.0269*** (0.0089)	0.046** (0.015)
A sandwich year undergraduate placement			0.063*** (0.329)			0.155*** (0.023)
One or more shorter structured work placement/s integral to course			0.031* (0.209)			0.070** (0.022)
A vacation internship with an employer ††			0.037* (0.263)			0.214*** (0.024)
Controls (vary slightly between UK and Italian data)	Type of high school, age, living area, area of study, type of HE institution, Italian citizenship, internal migrant, studying period abroad, father's occupation, average mark, years to get the degree, degree classification.					
N	10409	10409	6018	7665	7665	5265
Pseudo-R ² (Wage regression: R ²)	0.0892	0.0903	0.068	0.5972	0.5973	0.261
	Marginal effects, robust standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001.			Log-linear OLS coefficients, robust standard errors in parentheses. Regression on subsample of employed graduates. * p < 0.05, ** p < 0.01, *** p < 0.001.		

Notes: Regressions for Italy are weighted by respondents' individual coefficients provided by the data collector (AlmaLaurea consortium). Regressions for UK are unweighted (weighted regressions were also conducted but did not substantially affect the results). † Italy, 1 year after graduation; UK, 1.5 to 2.5 years after graduation. †† The effect of vacation internship on the likelihood of employment was not significant in the UK weighted regressions, all other associations remained significant.