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Interns and outcomes:
Just how effective are
internships as a bridge
to stable employment?

Niall O'Higgins
Luis Pinedo

Employment
and Labour
Market Policies
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Foreword

Across the globe, young women and men are making an important contribution as productive workers, entrepreneurs, consumers, citizens, members of society and agents of change. All too often, the full potential of young people is not realized because they do not have access to productive and decent jobs. Although they are an asset, many young people face high levels of economic and social uncertainty. A difficult transition into the world of work has long-lasting consequences not only for youth but also for their families and communities.

The International Labour Office has long been active in youth employment, through its normative action and technical assistance to member States. One of the means of action of its Youth Employment Programme (YEP) revolves around building and disseminating knowledge on emerging issues and innovative approaches.

In 2012, the International Labour Conference issued a resolution with a call for action to tackle the unprecedented youth employment crisis through a set of policy measures. The resolution provides guiding principles and a package of interrelated policies for countries wanting to take immediate and targeted action to address the crisis of youth labour markets. This paper is part of follow-up action on knowledge building coordinated by Niall O’Higgins of the YEP. It is one of three analyses of internship and other forms of work-based learning (WBL) developed in collaboration with the SKILLS Branch and the LABOURLAW unit of the ILO.

New and emerging forms of ‘non-standard’ employment are coming to dominate young people’s early labour market experiences. Amongst these, internships are increasingly becoming an integral part of the school-to-work transition. Yet little is known as to their effectiveness in providing a bridge to longer term employment and/or employability. The paper builds on existing ILO work on contractual arrangements for young people undertaken by the Youth Employment Programme, and focuses on the longer term impact of internships on young people’s labour market experiences.

This paper reviews the rather limited existing evidence on the effectiveness of internship as an integration mechanism for young people into the world of work. It seeks to identify which elements of internship are most useful in doing so. As well as reviewing existing studies, the paper analyses primary data using surveys of interns undertaken by the European Commission and the Fair Internship Initiative (FII).

As things stand, available information allows only a partial evaluation of the key question which this paper seeks to address. For example, it is evident that paid internships produce – on average – better labour market outcomes than unpaid internships do. It is not clear, however, the extent to which this is a causal consequence of payment, as opposed to – or in addition to – some type of selection mechanism. The analysis of the paper finds evidence to support the latter notion that paid internships lead to better post-internship outcomes, because the payment of interns is associated with a series of other programme features which can be seen as indicators of more structured programmes, which themselves tend to enhance impact. More research is needed in this area; the review and analysis presented here clearly establishes that paid, structured programmes lead to better labour market outcomes, but, we still need to better understand the mechanisms through which this occurs.

The paper was prepared by Niall O’Higgins and Luis Pinedo of the Employment and Labour Market Policies Branch of the Employment Policy Department. Excellent comments received during the presentation of the paper at the 5th Regulating for Decent Work Conference in the ILO, Geneva, in July 2017 and at the workshop on internship organised in the ILO to celebrate International Internship day in November 2017 helped to significantly improve the paper and analysis. The authors are also grateful to the FII for facilitating the access to, and interpretation of, their survey data. The authors wish to acknowledge in particular the help and support of Matteo de Simone and Lorraine Wong of the FII in these tasks. Luisa de Simone (YEP) also provided a substantive contribution in reviewing some of the literature and drafting the summary table. The paper was formatted and prepared for publication tirelessly and efficiently by Mariela Dyrberg.

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Contents

	<i>Page</i>
Foreword	iii
1. Introduction	1
2. What is an internship?	3
3. What does the existing evidence tell us?	5
4. Analysis of recent survey data.....	13
4.1 The Fair Internship Initiative survey	13
4.2 The Eurobarometer Survey	17
4.2.1 Short-run effects	17
4.2.2 Medium-term impact	20
5. Concluding remarks	24
References	27
Appendix A. Probit estimates on four post internships indicators, by gender	31
Appendix B. A structural linear probability model of the detemrinants of being employed	33

1. Introduction

Today, one in four of the world's young people are neither in employment nor in education or training. Globally, three out of four young people who do find a job, are working in the informal economy – and in developing countries the number reaches nineteen out of twenty (ILO, 2017). Young people continue to suffer disproportionately from decent work deficits and low-quality jobs measured in terms of working poverty, low pay and/or employment status, but also in terms of their exposure to occupational hazards and injury.

New and emerging forms of 'non-standard' employment are coming to dominate young people's early labour market experiences (ILO, 2016, chap. 3). Amongst these, internships are increasingly becoming an integral part of the school-to-work transition. Although initially introduced in high income countries, internships are now becoming more common also in low and middle income countries. In the USA, where internships first originated, recent estimates suggest that around 1.3 per cent of the entire US labour force are interns and around one half of college students report completing an internship as part of their studies.¹

The growing pervasiveness of internships has not, as yet, been accompanied by much systematic research on the extent to which – and under which conditions do – internships provide an effective bridge to longer term stable employment. This paper builds on existing work, and in particular, on chapter six of O'Higgins (2017) on contractual arrangements for young people, focussing on the longer term impact of internships on young people's labour market experiences.

The paper reviews the evidence, such as it is, on the effectiveness of internship as an integration mechanism for young people into the world of work. Moreover, it seeks to identify which elements of internship are most useful in doing so. As well as reviewing existing studies, the paper analyses primary data using surveys of interns undertaken by the European Commission (EC) and the Fair Internship Initiative (FII).

As things stand, existing information allows only a very partial assessment of the key question which this paper seeks to address. For example, it is evident from both the evidence reviewed, and the results of the analysis reported, here that paid internships lead to – on average – better outcomes than unpaid internships do. It is less clear however, the extent to which this is a causal consequence of the payment of interns, as opposed – or in addition – to some type of selection mechanism operating at the level of interns or firms. This could occur if, for example, paid internships attract more motivated candidates with better than average job prospects even in the absence of the internship. It could also arise if firms who take internships more seriously both pay their interns and also run better quality programmes leading to the acquisition of more work related skills by participants. These possibilities are by no means mutually exclusive, nor are they the only possible explanations for this ubiquitous finding. The analysis of the paper finds evidence to support the latter notion that paid internships lead to better post-internship outcomes, because the payment of interns is also positively correlated with a series of other programme features which can be thought of as proxies of 'better', more structured programmes. The paper also suggests ways to enhance our knowledge on the longer-term effectiveness of internships as a bridge to stable employment.

¹ Carnevale & Hansen (2015) cited in Owens & Stewart (2016).

2. What is an internship?

One issue which arises immediately is the fact that there is no agreed international definition of what constitutes an internship. Indeed, the European Commission uses the term traineeship to describe very much the same concept (e.g. EC, 2013). A reasonable working description is that internships involve a limited period of work experience with an employer usually lasting between a few weeks to one year (in some rare cases even longer) but which is neither part of a regular employment relationship nor a formal apprenticeship. Three distinct types of internship are typically distinguished:

- a. Internships which are linked to a course of academic study;
- b. Work experience undertaken as part of an Active Labour Market Programme;
- c. Open market internships – that is, work experience in firms or organizations which do not fall under either of the previous criteria.

Obviously there may be some blurring of boundaries across these categories. For example, a young person may undertake an internship while they are studying even though it does not constitute a formal part of the degree curriculum or provide credits, it may however, be encouraged by academic advisors.

As we shall see in more detail below, research has very much focused on the first of these categories with some impact evaluations being undertaken also of internship programmes implemented as part of ALMPs. Very little evidence at all is available on the third category which is arguably the one most in need of attention and regulation. Lain et al. (2013) argue on largely theoretical grounds that ‘governed’ internships – that is, internships which come under categories a. or b. - are more likely to have beneficial outcomes than open market internships. As we shall see, the literature and analysis presented below largely supports this view.

The lack of a generally agreed upon definition of internship to some extent hampers our review of studies seeking to assess or evaluate their impact. In the next section, we offer a review a number of studies which are representative of work and findings in this area but which we do not by any means claim to be comprehensive.

3. What does the existing evidence tell us?

Whilst there is quite an extensive literature of sorts either eulogising or condemning internship programmes, there is relatively little solid evidence on the impact of internships on subsequent labour market experiences of young people. Moreover, whilst there are a number of studies analysing the effects of internships which are undertaken during and/or as part of academic study as well as those which are part of ALMPs to promote youth employment, there is very little evidence at all of the impact of so-called open market internships undertaken outside the aegis of either educational or governmental programmes. For fairly obvious reasons these types of programme are precisely those which arguably are most in need of attention and perhaps, regulation.²

A second issue is that, even amongst those studies which do examine the issue of the post-internship impact on labour market outcomes, very few studies indeed adopt an identification strategy which allows a plausible attribution of causality to the internship programme itself. There are some exceptions. In particular, internships undertaken as part of ALMP programmes are increasingly subject to causal impact evaluation.

In any event, a several studies are worth mentioning.³ Those explicitly considered here are summarised in table 1.

A number of papers have examined the impact of college based internships. For example, surveys of employers in the United Kingdom provide evidence in favour the notion that work experience during higher education is helpful for securing employment upon graduation (UKCES, 2015). Similar results are reported by Blasko et al. (2002), who looked at British tertiary graduates in the mid-1990s. They find that work experience during university, in particular study-related work experience, positively affects employment outcomes and entry salaries.

Häkkinen (2006) in Finland and Joensen (2009) in Denmark shows that students with work experience benefit from better subsequent employment prospects and higher wages, although the effect tends to disappear some years after graduation. Robert and Saar (2012) conduct a comparative research specifically devoted to analysing the effect of work experience on post-graduation occupational outcomes in six Central and Eastern European countries. Their analysis shows that study-related work experience reduces the duration of job search and improves employment prospects. At the same time, non-study-related work experience negatively affects these outcomes.

² For an excellent discussion of this issue, but also a more general review of issues regarding the regulation of internships: both in terms of current practice across a range of countries as well as its appropriateness, the reader is referred to Stewart et al. (2018).

³ It is worth mentioning that the number of such studies is rapidly increasing. Inter alia, quite a few Masters and (parts of) Ph.D. theses, particularly in the last 3 or 4 years, have started to look at the (causal) impact of internships on later labour market outcomes.

Table 1: Summary of findings on internships

Type of internship	Study	Area	Effects	Methodology
Educational internship	NACE, 2016. The Class of 2016 Student Survey Report: Results from the NACE's Annual Survey of College Students	USA	Paid internships have a positive employment outcomes in the United States, while unpaid ones have less positive outcomes	Qualitative analysis
	Fair Internship Initiative, 2018	World-wide, Int. Orgs.	Paid internships have positive employment outcomes in international organizations, while unpaid ones have less positive outcomes.	Descriptive statistics
	Crain, 2016	USA, Georgia University	Unpaid internships correlate negatively to salary, employment outcomes, job search duration and job satisfaction in the United States.	Quantitative analysis using regression models, some controls on type of major
	Carys, 2017	UK	Internships are critical to secure a graduate job in the UK.	A combination of qualitative and quantitative data, descriptive statistics of vacancies data and LFS
	UKCES, 2015	UK	Internships are critical to secure a graduate job in the UK.	Qualitative analysis
	Saniter and Siedler, 2014	Germany	Graduates with an internship experience are more likely to have better employment prospects and higher wages five years after graduation in Germany.	OLS and IV regression
	Nunley et al., 2017, 2016	US, Metropolitan Areas	Internships reduce underemployment and increase employment prospects in the United States.	Experimental data from a résumé audit
	Eurobarometer, 2013	Europe	Internships have mostly a positive impact in the European Union.	Qualitative analysis
	Passaretta and Triventi, 2015	Europe	Internships lead to increased employability prospects, higher wages and reduced skills mismatch in Spain and Italy. While internships have a less positive, if any, impact in Germany and Norway.	Multinomial logistic regression, OLS regression and probit models
	Le Saout and Coudin, 2015	France	A full-year internship mostly negatively affects students of engineering schools in France.	OLS and IV regression
Robert and Saar, 2012	Easte Europe	Study-related internships reduce job search duration and increase employability prospects in six Central and Eastern European countries. On the contrary, non-study related internship or mandatory work experience negatively affect job search duration and employability.	Regression analysis	

Type of internship		Study	Area	Effects	Methodology
		Klein et al., 2014	Germany	Study-related internships have a positive effect on labour market outcomes in Germany. On the other hand, non-study related internship or mandatory work experience have no effects or negative effects on labour market returns.	PSM
		Blasko et al., 2002	UK	Work experience during higher education, and in particular that related to study, has a positive effect on employment outcomes for graduates in the UK. Work experience unrelated to study appears to have a negative effect on employment outcomes three and a half years after graduation.	Descriptive statistics
		Haekkinen, 2006	Finland	Students with work experience benefit from higher wages and better employment opportunities in Finland, even though the effects seem to vanish some years after graduation.	Regression analysis
		Joensen, 2009	Denmark	Students with work experience benefit from higher wages and better employment opportunities in Denmark, even though the effects seem to vanish some years after graduation.	Regression analysis
		Gault et al. 2000	US, Northeastern University	Significant early career advantages for undergraduates with internship experience. Including increased monetary compensation, and greater overall job satisfaction	Descriptive statistics
Post-graduate internship	Open Market internship	Holford, 2017	UK	Unpaid internships have detrimental effects on employment prospects, career satisfaction and salaries in the UK.	Descriptive statistics
		Cerulli-Harms, 2017	Germany	Internships have detrimental effects on employment prospects, earnings and work satisfaction in Germany.	PSM
		Schmidlin and Witmer, 2007	Switzerland	Internships lead to less stable employment prospects in Switzerland.	Descriptive statistics
	ALMP internship	Kopečná, 2016	Czech Republic	Internships lead to an increase in incomes and 'economic status' of participants one and a half years after the programme completion.	PSM and difference-in-difference methods, but with limitations due to choice of unsuccessful applicants as control group
		INDECON (2016)	Ireland	Paid internships lasting 6-9 months lead to an increase in employment probabilities of around 12 percentage points both one and two years after programme completion	IPWRA & PSM
		Mckenzie et al., 2016	Yemen	Internships have a moderately positive post-programme impact on overall employment outcomes in Yemen.	RCT

Klein et al. (2014) examine the effect of early work experience upon labour market entry among German graduates, concluding that only study-related work experience positively affects labour market outcomes, while non-study-related or mandatory internships have either no or negative effects on job search duration, wages and occupational position. Their findings suggest that employers value voluntary internships more than mandatory ones, as more representative of non-cognitive traits such as perseverance and motivation. Nunley et al. (2016, 2017) provide evidence of a positive effect of internship experience during higher education on reducing underemployment after graduation and increasing employment prospects in the United States. Graduates who underwent internship saw the probability of being interviewed for a job for which they had applied increase by 14 percentage points, with larger returns for non-business majors and graduates with high academic ability.

The analysis of Saniter & Siedler (2014) stands out for the effort the authors put into identifying causal impacts. The authors examine the causal effects of student internships at German universities on labour market choices and wages later on in life. Using an instrumental variable (IV) approach to identify causality, they find that participation in a student internship programme increased individuals' wages by 6%, five years after graduation – that is, there is a clear and sustained increase in wages arising from participation in internships. They also find that this increase in wages is largely driven by an increased propensity to work full-time, but also by a lower likelihood of being unemployed during the five years following graduation. The positive returns to internship were particularly pronounced for individuals studying subjects with weak labour market orientation. The increased propensity of ex-interns to subsequently work full time is also found in Swiss research. Using a simple logit framework, Ruey et. al. (2016, tab. 37, p. 99) report that, participating on an internship is associated with an increase on the probability of an individual being employed full-time, but not on finding work per se.⁴

Gault et al. (2000) find that students undertaking internships while studying at Northeastern University (USA) took less time to find their first job, as well as obtaining increased job satisfaction and wages. In contrast, in their analysis of graduates from engineering schools in France, Le Saout and Coudin (2015) find that students undertaking an optional full year of internship obtained returns which were significantly lower than those accruing to the first year of post-graduate work experience; on the other hand, the internship experience reduces the job search duration when the graduates enter the labour market and it is appreciated by prospective employers as a signal of ability.

Passaretta and Triventi (2015) examined the relationship between work experience during higher education and post-graduation occupational returns in terms of employability, wages and skills mismatch in a cross-national perspective covering four European countries, Germany, Norway, Italy and Spain. In the Southern European countries, they found strong evidence that any kind of work experience during higher education increases future employment probabilities four to five years after graduation, while only long-term work experience has any (positive) effect on post-graduation wages and job-skill (mis-)matches. These occupational benefits of internship found in Spain and Italy are greater than in Germany and Norway, with only a slightly positive impact in terms of future employment chances in Germany and no impact on labour force participation in either Germany or Norway. Their analysis supports the notion that employers particularly value student internships in those countries where the education system produces graduates that lack practical skills, as is often the case in the Mediterranean countries.

⁴ The coefficient is positive in this case too, but not statistically significant. In any event, the framework adopted does not allow for endogeneity in the participation decision.

There have been a few studies of internship programmes undertaken as part of **ALMPs**. Kopečná (2016) finds that an internship programme in the Czech Republic implemented as part of that country's youth employment policy, and later integrated into its Youth Guarantee programme,⁵ lead to an increase in incomes and 'economic status'⁶ of participants one and a half years after programme completion. In this case the usage of unsuccessful applicants as the control group leads one to raise an eyebrow, despite the implementation of PSM and difference-in-difference methods to identify the effects. McKenzie et al. (2016) using a rather more convincing randomised control trial (RCT) design finds that an internship programme in Yemen – for tertiary or vocational graduates – had a moderately positive post-programme impact on an overall employment outcome index which was driven primarily by an increase in the weekly hours worked by participants. Similarly, albeit in a rather different context, INDECON (2016) uses Probability Weighted Regression Adjustment (IPWRA) and Propensity Score Matching (PSM) methods to evaluate the Irish Government's National internship programme for young jobseekers, JobBridge, initiated in 2011. The programme involved subsidized (and paid) work experience lasting between six and nine months and they find that participation on the scheme raised the probability of finding employment by around 12 percentage points both one and two years after completion, suggesting that the programme's impact was also lasting in the medium term.

The effects of **open market internships** have also been investigated by a few studies which focus on the generally detrimental effects of non-educational unpaid work experiences, particularly when compared with young people who enter directly into paid employment. Holford (2017) examined the factors determining access to and estimated returns from unpaid internships after graduation for a sample of graduates from universities in the United Kingdom between 2003 and 2009. He estimated that on average former interns face significant penalties in relation to permanency of employment, career satisfaction and salary, compared to those graduates who went straight into paid work or went into further study. Former interns gain only a small benefit in terms of career satisfaction compared with those who were out of the labour force six months after graduation. Moreover, echoing the idea hinted at above, the results suggest the existence of a segregated market in which unpaid graduate internships are divided into desirable positions, competitive to access and usually taken by graduates from socially privileged backgrounds or graduating from elite institutions, and less desirable positions, usually taken by graduates from disadvantaged backgrounds who need to gain experience or have no better option.

Another recent study by Cerulli-Harms (2017) examined the impact of post-graduate internships on early labour market performance. The results of her research suggest that internships have significant detrimental effects on the probability of finding employment one year after graduation, on post-internship earnings, and work satisfaction. However, the negative effects vanish within five years. Her findings suggest that internships are badly perceived by prospective employers due to asymmetric information and negative signalling. Employers assume that post-graduate interns were unable to find jobs after graduation, accepting an internship as a substitute for further job search. The author concludes by arguing that short term mandatory internships during higher education could be more beneficial than post-graduate internships.

Schmidlin and Witmer (2007) use descriptive statistics to find that the majority of graduates with post-graduate internship experience in Switzerland are in employment five years after graduation, but their situation is not as stable as those who went straight into permanent employment. Interestingly, they showed that a post-graduate internship is of more benefit to graduates who are looking for employment opportunities in the public sector rather

⁵ One Criterion for participation was that participants were registered students, so strictly speaking this programme was a combination of type a) and b) internships identified above.

⁶ Presumably probability of employment, although this is not explained.

than in the private sector. With regards to the latter, graduates from social and human sciences who had a post-graduate internship benefitted most.

The report by the European Commission (EC) on internships (termed traineeships by the EC) based on descriptive analysis of the Eurobarometer data which provides the source data for some of the econometric analysis reported below, finds that internship – in general - has been successful or is perceived to be successful in finding a regular job by the majority of trainees surveyed, especially internships involving work experience in large companies and which lasts for more than six months. There is significant cross-country variation, with trainees from Romania, Ireland, Belgium, Spain and Portugal benefitting more from the work experience in terms of labour market outcomes than those from Poland, Cyprus, Lithuania and Germany. Alternatively, in many cases, the work experience led to an extension of the traineeship offer (EC, 2013).

A number of studies – many of these based on purely descriptive statistics and/or subjective outcome information⁷ - suggest that there is a relationship between the payment of interns and their subsequent (post-internship) labour market outcomes. For example, the National Association of Colleges and Employers (NACE) Student Survey Report (2017) provides evidence based on descriptive statistics that paid internships lead to significantly better employment outcomes than unpaid internships; the latter being associated with less success in terms of job offers and salary after graduation. Of possible relevance to explaining positive link between payment of interns and post-internship outcomes, an earlier Intern Bridge report (Gardiner, 2011) shows⁸ that the relative likelihood of obtaining a paid internship increases with family income. This raises the possibility that a third factor – family connections and/or access to networks - may enhance one’s chance both of finding a paid internship and of subsequently finding (good quality) employment – even without there necessarily being a causal link between the two phenomena.

Crain (2016) looked at the association between participation on unpaid internships and job-search success among students from the University of Georgia, United States. On the one hand, he shows that unpaid internships are negatively correlated to salary, employment outcomes, job search duration and job satisfaction. On the other hand, unpaid internships are reported as positive experiences with regard to variables such as confirming career interests, setting career goals and networking. According to the latest report published by the Fair Internship Initiative (2018), undertaking a paid internship plays a positive role in future career outcomes in international organizations. On the contrary, despite the positive educational impact, unpaid internships are perceived as unfavourable in terms of their likely impact on participants’ future job prospects.

Whilst we have thus found a limited number of studies looking at internships, only a few – for instance, INDECON (2016), McKenzie et al. (2016) and Saniter & Siedler (2014) - include a serious attempt to identify the causal impact of the work experience on subsequent labour market outcomes. However, these analyses are of educational or ALMP-based internships rather than open market ones. Indeed, one purpose of this paper is to broaden our understanding of this area by explicitly looking at internships offered outside educational courses and/or ALMPs.

The findings reported here from the literature may consequently be summarised thus:

⁷ Such as that used below, including questions like, “was the internship useful for finding work?” And similar.

⁸ This is calculable directly from Gardiner (2011, tab. 1, p. 7). The report itself does not remark on this finding.

-
- a. Internship programmes are sometimes – more often than not – associated with an improvement in post-programme employment prospects as broadly understood;
 - b. Paid internship programmes are clearly associated with better post-programme outcomes than unpaid ones;
 - c. The identification of causal impacts, or more generally, causal mechanisms underlying these findings remains less clear since the evidence involving a convincing attribution of causality is rare.
 - d. Evidence on open market internships is almost entirely lacking; that which does exist suggest that open market internships do not compare very favourably with direct entry into paid employment.

The next section of this paper seeks to build the evidence base on all these points but in particular focusing on providing evidence on points b and d. with some subsequent analysis and discussion of points a and c.

4. Analysis of recent survey data

This section analyses data from two sample surveys of interns; a survey of young Europeans who have participated on at least one internship⁹ and an internet based survey of interns (primarily) in international organizations undertaken by the Fair Internship Initiative (FII).¹⁰ The main purpose of the analysis is to increase our understanding of which design features can help to improve interns' employability as well as understanding why paid internship programmes are associated with better post-programme outcomes.

As mentioned in section 3, paid internships are clearly associated with better post programme outcomes. This finding emerges again and again in the literature. However, as noted above, what this finding actually means in practical terms is less obvious. Does paying interns, in some sense, cause better outcomes? Convincing attribution of causation would add an efficiency argument to the equity one already propounded by many – including the aforementioned FII. Not only is paying interns fairer it also produces 'better' outcomes. Yet the literature as it stands is not clear on this key point.

Thus, the principal question underlying this analysis is, why are paid internships associated with better outcomes than unpaid ones? Some evidence is offered but rather than a definitive answer we suggest a number of lines of inquiry. The analysis also expands our knowledge in that it is, primarily, concerned with the impact of open market internships as opposed to those which are part of a young person's studies or youth employment policy. As noted above, this is where our knowledge is most lacking, and indeed, where, given the relative lack of regulation,¹¹ it is more likely that problems with exploitative and/or discriminatory internships are most likely to arise.

4.1 The Fair Internship Initiative survey

The first survey we examine here was implemented by the Fair Internship Initiative (FII) during 2016 via an online questionnaire. Current and former interns in international organizations were asked about their most recent internship experience (support from supervisors, tasks undertaken), their working conditions (wages, hours worked, insurance coverage), whether the internship caused financial distress and concludes with some socio-demographic questions including the highest degree achieved, age, gender, nationality as well as parental education.

One of the main aspects of this survey concerns whether interns are paid or not. According to the data, only around one third (33.7 per cent) of the surveyed interns were paid by the hiring institution although this proportion increases to 55.2 per cent when taking into account payments made by other financing institutions. One argument used by the FII in favour of the payment of internships concerns the (lack of) ability of less wealthy young people and/or young people from less wealthy countries to participate; certainly, the vast majority of the surveyed interns (80.1 per cent) were born in high income countries,

⁹ Or 'traineeship' as the EC has it. Details on the survey and its main results can be found in EC (2013).

¹⁰ For details of the initiative as well as more details and findings arising from the survey, see <https://fairinternshipinitiative.wordpress.com/>

¹¹ The extent to which internships are regulated by law actually varies greatly across countries. See, for example, O'Higgins (2017, chap. 6); however, broadly speaking internships – and, above-all, open market internships – are still much less regulated than other more formal forms of work based learning such as apprenticeships.

primarily Western Europe and North America (figure 1). Of course this provides albeit a rough indication of cross-country differences in ability to pay. Similarly, one can roughly proxy family income by parental education.¹²

Figure 1: Distribution of surveyed interns by country of birth

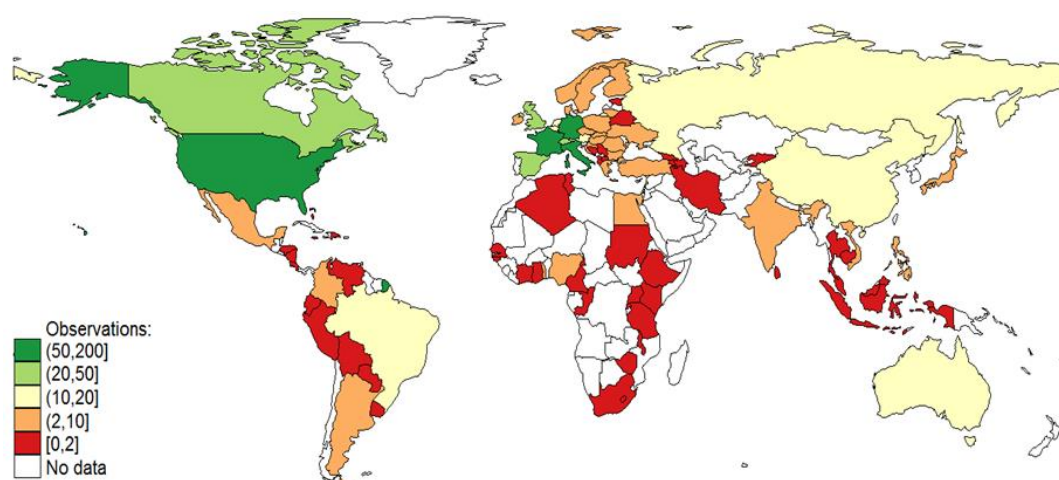


Table 2: Prevalence of paid and unpaid internships by country of birth and parents' education

	Between group prevalence		Within group prevalence	
	% Unpaid	% Paid	% Unpaid	% Paid
High income & High education	53.3	64.8	39.7	60.3
High income & Low education	17.9	18.5	43.8	56.3
Low/Middle income & High education	23.4	13.5	58.2	41.8
Low/Middle income & Low education	5.4	3.2	57.6	42.4

Source: 2016 Fair Internship Initiative Interns' Survey and authors' own calculations.

Notes: The columns named "Between group prevalence" show the socio-economic distribution of, respectively, paid and unpaid interns. The columns under "Within group prevalence" show the socio-economic group-specific prevalence of paid and unpaid interns. Simply stated, the first two columns report column percentages and the third and fourth are organized by row percentages.

An intern is considered to be paid if he/she receives income from either the hiring institution or any other institution funding his/her internship (including the possibility of having both sources). High income and low/middle income countries make reference to, respectively, a GNI per capita income of greater or less than \$12,056 in the country where the intern was born. High education refers to an educational attainment of the intern's parents of at least a bachelor's degree. Likewise, low education refers to parental attainment of secondary education or below.

Table 2 puts these two elements together, grouping interns' countries of birth into two categories, high income on the one hand, and low and middle income on the other as well as dividing interns according to parental education: specifically, low education (secondary or lower) and high education (tertiary). There are some significant differences between the distribution of paid and unpaid internships¹³ according to young people's background. In particular, coming from a high income country greatly increases the likelihood of obtaining a **paid** internship. As noted above, the percentage of respondents on funded internships (paid

¹² It is well known that educational attainment is positively related to wages; for example, Harmon et al. (2000). In addition, within the survey itself, parental educational attainment is has a negative and statistically significant correlation with the intern having a second job during the internship.

¹³ Or, strictly speaking, between funded internships and unfunded ones – see notes to table 2.

either by the host institution or by an alternative funding source) is 55.2 per cent. Clearly those from high income countries are disproportionately represented amongst them. One can observe from column 4 of table 2 that the prevalence of funded interns from high income countries – independent of parental education – is above 55.2 per cent; and, it is over 60 per cent for those with tertiary educated parents. On the other hand, interns from low and middle income countries, are, relatively speaking, much more likely to be in unpaid internships. Only 41.8 per cent of those from developing countries with more educated parents and 42.4 per cent of those with less educated parents manage to access funded internships. Clearly then, the issue is not so much – or not only - one of fairness in terms of young people from poorer countries and backgrounds being unable to access internships because they are unpaid. If this were the case then one would expect a higher prevalence of paid interns amongst young people from lower education backgrounds and lower income countries. To be sure, other factors are at play too, but it is plausible to argue that this pattern of prevalence is consistent with the idea that young people from higher income countries find it easier to access **paid** internships than the young from lower income backgrounds. One might add that this difference arises as a consequence of the existence of external sources of funding for interns rather than as a result of policies or practices of the hiring institutions themselves; indeed, the paid internship gap is reduced when exclusively taking into account payments by the hiring institution, suggesting that the difference in obtaining compensation between interns in high and low/middle income countries arises due to the (lack) of access to external funding institutions in the latter.

The FII survey does not include objective post-internship outcome measures per se,¹⁴ however, it does report the average number of hours worked per week during the internship period. Weekly hours worked in an internship - the variable of primary interest here - are important in that, along with fact of being paid, they have been found to be strongly positively associated with the employment impact of internships (Jackel, 2011, table 2.1, p. 45). Table 3 reports the results of a simple two equation model of weekly hours worked on the one hand and the (linear) probability of holding a second job while being an intern on the other. They may consequently be thought of as an interim proxy for the impact of internships. Results are reported for OLS (col. 1) as well as MLE estimation of a structural model (col.s 2 and 3). Several points are worthy of note.

First, the positive relationship between paid internships and a number of hours worked is similar to the one found by Jackel (2011).¹⁵ Second, as one might expect, hours worked are positively associated with measures of the seriousness of the internship in terms of providing significant work experience (in particular, in undertaking of real tasks – as opposed to making coffee and photocopying) and the attention to it paid by organizations (as measured by the support provided by the interns supervisor).

Perhaps of most interest, the fact of being paid is also highly statistically significant but this does not increase (significantly) with the amount paid (the interaction of wage and the dummy variable paid). Controlling for the endogeneity of holding a second job suggests that the effect of payment on hours cannot be accounted for simply by the easing of the monetary constraint for those who are in in a paid internship, but is more reasonably to be attributed – albeit not unequivocally - to the characteristics of the internship itself.

¹⁴ At our suggestion, questions on current status have been added in the FII's 2017 and 2018 surveys.

¹⁵ Even though Jackel did not test for the effect of the amount paid.

Table 3: Determinants of hours worked (and possession of a second job); FII survey

Variable	Regression coefficients		
	Linear regression	SEM Direct effect	SEM indirect effect
Reg. on Weekly hours worked			
Tasks (coffee/print job=0)			
Absorbing excess workload	6.49*** (1.819)	6.42*** (1.809)	
Day-to-day operations	5.76*** (1.808)	5.75*** (1.796)	
Tailored goals and tasks	5.28*** (1.825)	5.22*** (1.814)	
Support from supervisor	1.50** (0.761)	1.51** (0.759)	
Paid	1.59* (0.820)	1.60** (0.817)	0.09 (0.105)
Paid*wage	0.00007 (0.0004)	0.00010 (0.0004)	0.00003 (0.00003)
Education of intern (bachelor=0)			
Masters' degree	1.02 (0.697)	1.03 (0.694)	
PhD degree	2.14 (1.561)	1.71 (1.573)	
Second job	-0.66 (0.659)	-0.61 (0.656)	
Constant	30.77*** (1.841)	30.73*** (1.831)	
Reg. on Second job			
Paid	-0.16*** (0.043)	-0.15*** (0.044)	
Paid*wage	-0.00004* (0.00002)	-0.00004* (0.00002)	
Parents' education (<=high school=0)			
Bachelors' degree	-0.03 (0.044)	-0.03 (0.045)	0.02 (0.034)
Masters' degree	-0.11*** (0.043)	-0.12*** (0.043)	0.07 (0.083)
PhD degree	-0.15*** (0.050)	-0.16*** (0.051)	0.09 (0.107)
Constant	0.49*** (0.037)	0.49*** (0.037)	

4.2 The Eurobarometer Survey

Analysis of data from the Eurobarometer ‘traineeship’ survey,¹⁶ undertaken in 2013, allows us to take the analysis a little further. The survey randomly sampled 13,422 young people aged between 18 and 35 living in one of the EU28 countries.¹⁷ The survey asked all respondents for some basic information about their characteristics (e.g. age, gender, educational level) and current situation – including labour market status - as well as whether they had, in the past or currently, held at least one student job, apprenticeship and/or internship. For those who had not participated in at least one internship, the interview terminated there. The full interview was then carried out amongst the 5,484 young people who reported participating on at least one internship now or in the past. Those young people completing the full interview, giving answers to detailed questions asked on various aspects of their internship(s).

4.2.1 Short-run effects

The information thus collected on interns includes several post-internship outcomes related to the immediate impact of the internship; two subjective - whether the person learned useful things for his/her professional life and whether the internship helped the trainee to find a job - and two factual - whether the company offered to extend the person’s internship and whether he/she got a job offer in the same company on its completion.

Using this information, we estimate four simple dichotomous Probit models for former interns who are not currently studying¹⁸ (results reported in Table 4) on whether or not:¹⁹

- a. The respondent learned useful things during their internship (totally agree = 63 per cent);
- b. The internship was useful to later find a regular job (totally agree = 42 per cent);
- c. The company offered to extend the internship on its completion (yes = 23 per cent); and,
- d. The company offered the intern a job after completion of the internship (yes = 32 per cent).

The explanatory variables used include gender, the duration of the internship, the size of the company offering it; whether the intern had access to health insurance; whether the intern had a mentor within the company; whether the company offered a certificate on completion; whether the work and working conditions were similar to those of a regular

¹⁶ Recall that the EC uses the term ‘traineeship’ to refer to what is more commonly termed internship

¹⁷ The survey was also implemented in Croatia although strictly speaking at the time it was carried out, April-May 2013, Croatia had not yet formally joined the EU; this happened on July 1st, 2013.

¹⁸ We purposely drop interns who are currently studying on the basis that post-internship employment outcomes are not defined. For example, some of these might not be able to accept an offer since they have to return back to finish their studies. The number of former interns who had already finished their studies and were used in the analysis is thus 4,433.

¹⁹ It should be noted that outcomes a. learned useful things and b. useful to find a regular job are originally reported as a four point Likert scale, from totally disagree to totally agree. In both cases, totally agree (4) is taken as a yes while the other responses (1, 2 and 3) are taken as a no. For objective outcomes c. and d., the response was in the form of a dichotomous yes/no answer. In all cases, the (weighted) percentages of positive responses are reported in parentheses.

employee; and, crucially whether or the intern was paid during the traineeship and whether this pay was sufficient to live on.²⁰

Looking a column 1, one may observe that structured formal internships (which include the existence of a mentor, health insurance, a certificate at the end of the internship and similar working conditions to regular workers) are strongly associated to learning. The probability of learning useful things also increased with internship duration and company size. It was not associated at all, however, with whether or how much the intern was paid. There is weak evidence that the young women were more likely to learn useful things on internships than young men ($p < .10$).²¹

Turning to the (subjective) usefulness of the internship in subsequently finding work (col. 2) we find that a number of the results are similar to those of column 1. As before, the usefulness of the internship in finding a job is related to the structured nature of internships including insurance cover, mentorship and similar working conditions, although certification was not seen as important in this context. Also, as before, the helpfulness of the programme increases with the its duration – particularly for young women (see appendix table A1), and with firm size. Again, as in col. 1, being paid – whether inadequately or adequately - does not influence the perceived usefulness of the programme in getting a job.

On the other hand, in terms of more objective criteria – being offered an extension or a job afterwards,²² internship structure remains important, but company size becomes less so. However, the biggest difference between columns 3 and 4 on the objective outcomes and columns 1 and 2 on subjective ones, concerns the relevance of the payment of interns. Young interns who received payment during their work experience were more likely to be offered either an extension of the internship or a job offer from the firm (or both).²³ However, in neither case does the size of payment seem to matter much.²⁴ This echoes the findings outlined above arising from analysis of the FII survey.

It is also worth noting that the positive effects of programme structure and duration are consistent with the results reported on work based learning more generally in the companion paper prepared by Comyn and Brewer (2018) as well as in the analyses of chapters 4 and 6 of O’Higgins (2017). Both chapter 6 of the aforementioned book and the paper by Paul Comyn and Laura Brewer find that structured programmes which ‘look’ more like short-term structured apprenticeships are associated with better post-programme labour market outcomes than internships and traineeships which are not. Chapter 4 of O’Higgins (Op. Cit.) on the other hand examined factors influencing the effectiveness of wage subsidy programmes and found that inter alia programmes shorter than six months without a formal training element, were not found to be effective in the longer run.

²⁰ Note that, as with the analysis of the FII survey, the two variables representing payment of interns were used additively, so that the coefficients on ‘sufficiently paid internship’ estimate the additional effect of being sufficiently paid compared to being paid at all.

²¹ We also estimated the equations separately for young women and men which produced slightly different results. Almost invariably, coefficients had the same sign, but it was not unusual for some factors to be more important for women than men – and vice versa. See the appendix for the full estimation results.

²² Note that these are largely mutually exclusive – typically, either the intern was offered an extension or a regular job with the firm.

²³ For the most part these were mutually exclusive, 13 per cent of interns were offered both an extension and a job.

²⁴ That is to say, the estimated difference between the ‘effect’ of being paid and that of being paid enough to live on is positive but is not statistically significant.

Table 4: Probit models of four internship outcomes

Independent variable	Dependent variable			
	Helpful to learn professionally useful things	Helpful to find a job	Internship extension	Job offer
Certificate awarded	0.153** (0.0677)	0.099 (0.0673)	0.139* (0.0719)	-0.0495 (0.0700)
Insurance cover	0.150** (0.0715)	0.262*** (0.0725)	0.235*** (0.0821)	0.216*** (0.0736)
Mentor available	0.761*** (0.0694)	0.543*** (0.0712)	0.236*** (0.0781)	0.173** (0.0724)
Same working conditions	0.340*** (0.0663)	0.266*** (0.0648)	0.0026 (0.0704)	0.222*** (0.0669)
Paid internship	0.0678 (0.0845)	0.0540 (0.0823)	0.397*** (0.0870)	0.525*** (0.0822)
Sufficiently paid internship	0.0310 (0.0102)	0.206** (0.0958)	0.0826 (0.0973)	0.136 (0.0950)
Firm size (0-9 workers=0)				
10-49 workers	0.157* (0.0816)	0.103 (0.0823)	-0.129 (0.0896)	0.0190 (0.0854)
50-250 workers	0.168* (0.0981)	0.0417 (0.0964)	-0.0141 (0.101)	0.0610 (0.0979)
+250 workers	0.220** (0.0918)	0.256*** (0.0872)	-0.0077 (0.0907)	-0.0488 (0.0906)
Internship duration (0-3 months=0)				
3-6 months	0.145 (0.0898)	0.166* (0.0863)	0.0805 (0.0907)	0.266*** (0.0833)
+6 months	0.401*** (0.0917)	0.480*** (0.0888)	0.329*** (0.0913)	0.619*** (0.0913)
Female	0.116* (0.0659)	0.007	0.0154 (0.0692)	-0.151** (0.0648)
Constant	-1.077*** (0.135)	-1.314*** (0.0640)	-1.397*** (0.154)	-1.374*** (0.142)
Pseudo R ²	0.1057	0.0819	0.0502	0.0982
Observations	5,026	4,988	4,963	4,970

Source: Flash Eurobarometer Survey 378 “The experience of traineeships in the EU” and authors’ own calculations.

Note: Significance levels: *** at 99%, ** at 95%, * at 90%. Standard errors in parenthesis.

Taken together the results are consistent with paid internships being an indicator of a firm’s commitment to internship as part of its personnel policy. Structure and content – such as the presence of a mentor, working conditions, insurance cover and so - seem to be the determining factors in whether individuals perceive the programme as being useful in enhancing their chances of finding work after the programme, independently of whether an internship is paid or not. On the other hand, variables which might reasonably be interpreted as reflecting a firm’s commitment to the internship programme are the key factors in

determining whether specific companies keep their interns on (either by extending the internship or by offering them a regular job) once internship is complete. This is reflected in the importance of intern pay, but also in the importance of the formalisation of the programme through the provision of health cover and mentorship.

Also worth mentioning, as regards the chances of receiving a job offer with the internship firm, being female reduces the probability of receiving a job offer with the same firm on completion of the internship and this gender difference is statistically significant.²⁵ It might well be worthwhile to investigate further what is the cause of the lower likelihood young women have of receiving a job offer.

4.2.2 Medium-term impact

Information contained in the Eurobarometer survey also allows us to investigate the mid-term impact of internships. The survey not only provides information on the current labour market status but also on a limited set of characteristics of all respondents (potential experience and whether the person graduated from a university or not) irrespective of whether they participated on internships or not. This allows us to:

- a. examine the association between different internship characteristics and current labour market outcomes; and,
- b. compare the association between current labour market status and different forms of work-based learning and/or work experience undertaken by young people.

The survey was not undertaken with a fully-fledged impact evaluation in mind and does not contain enough information to allow us to plausibly identify causation between work experience undertaken by young people and their current labour market status, however, analysis of the relationship between these phenomena does provide some useful additional information on associations which we believe can further our understanding.

Table 5 looks at the relationship between current labour market status (broadly defined)²⁶ and internship characteristics limiting the sample to those who have participated on at least one internship. The first column of the table reports the results of estimating a simple probit model of being employed as opposed to being NEET using a similar set of explanatory variables as were employed above in table 4. We add to these some additional controls; potential experience (and experience squared)²⁷ and whether or not the individual has graduated from tertiary education. The results suggest that some of the positive effects of having participated on a good quality internship persist even in the medium-term, but not others. In particular, having a certified internship and having had a mentor during the internship remain statistically significant in determining current employment. Having participated in an internship in a large company (250+ employees) also appears to be very important for determining current status. On the other hand, having participated on a paid internship does not appear to have any perceptible direct impact on current employment.

²⁵ One might anticipate that the lower chances of being offered a job are also reflected in a smaller impact for young women which is also to be found in the medium term. See tables 5 and B1 below.

²⁶ It is defined as a binary indicator that takes the value 1 if the person is currently employed and 0 if he/she is neither in employment nor in education or training (NEET). Students are left out of the sample.

²⁷ Defined as years since leaving full time education.

Column 2 looks at the relation between current labour market status and the immediate indicators of post-internship outcomes; specifically, the usefulness of the internship either in the perceptions of participants or in terms of immediate outcomes (job or internship extension offers). The results provide partial validation for the use of these variables as indicators of positive outcomes. In particular, having a received a job offer and the perception that the internship was useful in helping individuals find a job appears to be validated in the medium term. On the other hand having ‘learnt useful things’ on the internship, or having an extension of the internship offered do not appear to have any bearing on current status. In the case of the latter this may be because the offer to extend an internship can be an ambivalent signal of the firm’s evaluation of the candidate. It may be the consequence of the firm positively evaluating the candidate, but it may also be a result of the candidate not being considered suitable for a regular job offer.

The final column puts these two groups of variables together to explain current status. Interestingly, certification and interning in a large company remain statistically significant even in the presence of the intermediate outcome indicators. Moreover, receiving a job offer and the perception that the internship was useful in finding a job both remain statistically significant and have almost identical coefficients to column 2, even with all the other internship characteristics included. A plausible interpretation of this is that having interned in a big company and/or having a certificate to show for one’s internship experience provide positive signals for firms in addition to any competencies gained during the internship which may be observable by the firm and which are captured by the ‘job offer’ and ‘useful to find a job’ variables.²⁸

Putting this another way, taken together the results of tables 4 and 5 suggest that being paid, and other characteristics indicative of structured internship programmes:

- a. directly enhance the immediate post-programme employment prospects of participants – as measured by the subjective indicator of whether participants thought the internship was helpful to find a job and the factual indicator of whether the intern received a job offer at the same firm upon completion of their internship;
- b. indirectly enhance medium-term employment prospects by raising the likelihood of gaining useful competencies and/or receiving a job offer from the firm offering the internship, which in turn increases the likelihood of being in employment in the medium-term; and,
- c. directly enhance the medium term job prospects in some cases – specifically where internships were certified and/or took place in large companies. This suggests that these characteristics of internships are acting as signals of quality to prospective employers.

²⁸ Note that very similar results emerge supporting this interpretation when we estimate a structural linear probability model which takes into account the endogeneity of the short-run outcome indicators. The results are reported in Appendix B (table B2).

Table 5: Probit estimates on the determinants of former interns being currently employed

Independent variable	Currently employed		
Helpful to find a job		0.296*** (0.0905)	0.296*** (0.0944)
Internship renewal offer		-1.07 (0.0942)	-1.06 (0.101)
Job offer		0.348*** (0.0917)	0.297*** (0.0971)
Helpful to learn useful things		-0.00816 (0.0858)	-0.0928 (0.0926)
Certificate awarded	0.179** (0.0824)		0.177** (0.0861)
Insurance cover	0.0517 (0.0915)		0.0101 (0.141)
Mentor available	0.190** (0.0890)		0.141 (0.0905)
Same working conditions	0.0959 (0.0838)		0.0649 (0.0891)
Paid internship	-0.0122 (0.105)		-0.0371 (0.107)
Sufficiently paid internship	0.179 (0.126)		0.135 (0.132)
Firm size (0-9 workers=0)			
10-49 workers	0.0866 (0.101)		0.0875 (0.105)
50-250 workers	0.194 (0.125)		0.197 (0.130)
+250 workers	0.356*** (0.118)		0.334*** (0.121)
Internship duration (0-3 months=0)			
3-6 months	-0.0555 (0.108)		-0.0555 (0.114)
+6 months	-0.0779 (0.109)		-0.141 (0.115)
Potential experience	0.110*** (0.0249)		0.113*** (0.0254)
Potential experience squared	-0.00536*** (0.00155)		-0.00570*** (0.00157)
At least 1 internship abroad	0.154 (0.148)		0.211 (0.158)
Female	-0.224*** (0.0858)		-0.222*** (0.0838)
Graduated from university	0.450*** (0.0858)		0.443*** (0.0838)

Independent variable	Currently employed		
Constant	0.239 (0.182)		0.230 (0.189)
Pseudo R ²	0.0980	0.0704	0.1157
Observations	4,053	4,261	3,931

Source: Flash Eurobarometer Survey 378 "The experience of traineeships in the EU" and authors' own calculations.

Notes: Significance level: *** at 99%, ** at 95%, * at 90%. Standard errors in parenthesis. Currently employed as opposed to being unemployed or economically inactive non-students. Former interns who are currently studying are not included in the estimations.

Table 6: Probit estimates on the determinants for being currently employed (interns and non-interns)

Independent variable	Currently employed		
	All	Men	Women
At least 1 student job	0.335*** (0.0660)	0.313*** (0.0981)	0.353*** (0.0897)
At least 1 apprentice	0.117** (0.0594)	0.0338 (0.0808)	0.190** (0.0875)
At least 1 internship	0.0920 (0.0580)	-0.0139 (0.0885)	0.182** (0.0778)
Potential experience	0.100*** (0.0146)	0.122*** (0.0216)	0.0784*** (0.0204)
Potential experience squared	-0.00425*** (0.000793)	-0.00444*** (0.00123)	-0.00388*** (0.00109)
Female	-0.419*** (0.0490)		
Graduated from university	0.577*** (0.0573)	0.630*** (0.0859)	0.521*** (0.0772)
Constant	0.489*** (0.122)	0.449** (0.175)	0.127 (0.165)
Pseudo R ²	0.1053	0.1159	0.0899
Observations	10,338	5,301	5,087

Source: Flash Eurobarometer Survey 378 "The experience of traineeships in the EU" and authors' own calculations.

Notes: Significance level: *** at 99%, ** at 95%, * at 90%. Standard errors in parenthesis. Currently employed as opposed to being unemployed or economically inactive non-students. The Probit models estimated for this table include both, former interns and young people who never did one.

Finally, table 6 reports the results of estimating a simple probit model of current status on the entire sample; interns and non-interns. This allows us an albeit cursory look at the relative importance of internship versus other forms of work experience as integration mechanisms. Here the explanatory variables are limited to those observable for the entire sample – potential experience (and experience squared), gender, whether graduated from university and three dummy variables recording participation in student work, apprenticeships and internships. One may observe that internships – on average – do not appear to have much effect on the medium term employment prospects of participants; the coefficient is positive but not statistically significant. On the other hand, the table does suggest that, on average, internship does have a statistically significant positive impact on the employment prospects of young women. However, one should also recall that these coefficients reflect association and do not necessarily tell us anything about which causal mechanisms underlie these ‘effects’. Nonetheless it is interesting that the coefficients on ‘apprenticeship’, and even more so, ‘student job’, are both positive and statistically significant. It would appear that, on average, participating on an internship does not compare well with either having had a student job, or an apprenticeship, at least as far as medium-term employment prospects are concerned.

5. Concluding remarks

Evidence of the impact of internships – and, in particular, open market internships – remains limited. Indeed, two motivations for this paper and its companions²⁹ are:

- to draw attention to the need for more investigation into the factors determining the effectiveness of internships as a labour market integration measure; and,
- to summarise the main findings of the albeit modest existing literature and, through new analysis, to deepen our understanding of some of the issues concerning what makes a good internship, in terms of its effectiveness as a mechanism for integrating young people into Decent Work.

By focusing on open market internships, the paper seeks to put the spotlight, and expand our knowledge, on this particular type of internship; this research has also initiated an exploration of some of the mechanisms which underlie the immediate and mid-run impact of internships on subsequent labour market experiences. The paper also examines in more detail one of the most consistent findings emerging from the literature: that internships which are paid are associated with better post-internship labour market outcomes than unpaid internships.

The key findings of the review and analysis are as follows:

- Internships, under certain conditions, can be associated with better post-internship labour market outcomes – they can contribute to the integration of young people into the labour market;
- Not all internships enhance young people’s subsequent employment prospects and, on average, the effect of internships on the medium-term integration of young people into work appears to be modest;
- In this regard, there is overwhelming evidence that paid internships are associated with better post-internship labour market outcomes in the short-run than unpaid ones;
- With regards to the specific features of internship programmes, the analysis presented here finds that more structured and formalised internships are also associated with better post-programme outcomes. These features include, in addition to the payment of a stipend, the presence of a mentor, access to health insurance, similar working conditions to regular employees and a sufficient internship duration to allow significant work related competencies to be acquired;
- Some features, like internship certification and undertaking an internship in a big firm, in addition to improving the short-term employability of an intern, also exert a positive influence on the medium-term employment

²⁹ Stewart et al. (2018) and Comyn and Brewer (2018).

prospects of participants. We would suggest that these factors are perceived by companies as positive signals of young peoples' competencies.

There remains much to understand. More investigation is needed; especially analyses which make a serious attempt to identify the causal effects of internships. Yet, the new results presented here are both intuitively plausible and consistent with findings in the internship related literature such as it is. They also, perhaps more importantly, find confirmation in findings from other more widely studied areas such as the literature on work-based learning (e.g. apprenticeship) and ALMPs (e.g. wage subsidies).

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Appendix A. Probit models of four post internships indicators, by gender

Table A.1: Probit models of four internship outcomes, men

Independent variable	Dependent variable			
	Helpful to learn professionally useful things	Helpful to find a job	Internship extension	Job offer
Certificate awarded	0.0807 (0.0988)	0.0141 (0.0980)	0.186* (0.100)	-0.127 (0.102)
Insurance cover	0.124 (0.0106)	0.316*** (0.108)	0.101 (0.124)	0.179 (0.110)
Mentor available	0.771*** (0.0956)	0.655*** (0.101)	0.211* (0.108)	0.105 (0.102)
Same working conditions	0.393*** (0.0938)	0.308*** (0.0943)	-0.114 (0.101)	0.321*** (0.0961)
Paid internship	0.214* (0.116)	0.0741 (0.117)	0.324*** (0.124)	0.565*** (0.119)
Sufficiently paid internship	-0.0217 (0.133)	0.272** (0.127)	0.0946 (0.132)	0.119 (0.130)
Firm size (0-9 workers=0)				
10-49 workers	0.0291 (0.120)	0.0664 (0.119)	-0.00915 (0.130)	0.00980 (0.121)
50-250 workers	0.116 (0.136)	0.196 (0.133)	0.203 (0.147)	0.300** (0.141)
+250 workers	0.132 (0.125)	0.0908 (0.126)	0.0989 (0.136)	0.0127 (0.128)
Internship duration (0-3 months=0)				
3-6 months	-0.0290 (0.127)	-0.0157 (0.126)	0.176 (0.134)	0.170 (0.120)
+6 months	0.303** (0.138)	0.352*** (0.133)	0.524*** (0.137)	0.552*** (0.139)
Constant	-1.015*** (0.184)	-1.286*** (0.191)	-1.317*** (0.217)	-1.238*** (0.194)
Pseudo R ²	0.1053	0.0865	0.0490	0.1078
Observations	2,373	2,352	2,352	2,352

Table A.2: Probit models of four internship outcomes, women

Independent variable	Dependent variable			
	Helpful to learn professionally useful things	Helpful to find a job	Internship extension	Job offer
Certificate awarded	0.220** (0.0954)	0.170* (0.0937)	0.0932 (0.101)	0.0314 (0.0979)
Insurance cover	0.193** (0.0980)	0.250*** (0.0965)	0.358*** (0.108)	0.263*** (0.0991)
Mentor available	0.787*** (0.0990)	0.492*** (0.0985)	0.281** (0.113)	0.268** (0.104)
Same working conditions	0.297*** (0.0933)	0.215** (0.0892)	0.112 (0.0960)	0.141 (0.0945)
Paid internship	-0.0891 (0.123)	0.0446 (0.119)	0.456*** (0.122)	0.515*** (0.116)
Sufficiently paid internship	0.0517 (0.156)	0.111 (0.144)	0.0778 (0.148)	0.145 (0.143)
Firm size (0-9 workers=0)				
10-49 workers	0.256** (0.111)	0.115 (0.112)	-0.225* (0.122)	0.0360 (0.121)
50-250 workers	0.209 (0.141)	-0.111 (0.137)	-0.236* (0.141)	-0.224* (0.134)
+250 workers	0.322** (0.135)	0.431*** (0.120)	-0.0632 (0.136)	-0.104 (0.127)
Internship duration (0-3 months=0)				
3-6 months	0.300** (0.129)	-0.307 (0.117)	-0.0328 (0.122)	0.349*** (0.117)
+6 months	0.492*** (0.123)	0.572*** (0.120)	0.147 (0.124)	0.675*** (0.122)
Constant	-1.053*** (0.189)	-1.407*** (0.185)	-1.493 (0.204)	-1.774*** (0.205)
Pseudo R ²	0.1197	0.0883	0.0617	0.0961
Observations	2,653	2,636	2,611	2,618

Appendix B. A structural linear probability model of the determinants of being currently employed

Table B.1: Linear probability model of the determinants for being currently employed (SEM)

Independent variable	SEM		
	Direct effects	Indirect effects	Total effects
<i>Dep. var. Employed</i>			
Helpful to find a job	0.074*** (0.024)		0.074*** (0.024)
Internship renewal offer	-0.021 (0.026)		-0.021 (0.026)
Job offer	0.065*** (0.023)		0.065*** (0.0234)
Helpful to learn useful things	-0.026 (0.025)		-0.026 (0.025)
Certificate awarded	0.046* (0.023)	0.0015 (0.0033)	0.048** (0.023)
Insurance cover	0.008 (0.026)	0.0108*** (0.0037)	0.019 (0.026)
Mentor available	0.042* (0.025)	0.0194*** (0.0053)	0.062** (0.025)
Same working conditions	0.014 (0.023)	0.0109*** (0.0037)	0.025 (0.023)
Paid internship	-0.0063 (0.029)	0.0101** (0.0048)	0.004 (0.030)
Sufficiently paid internship	0.031 (0.031)	0.0106** (0.0047)	0.042 (0.031)
Firm size (0-9 workers=0)			
10-49 workers	0.025 (0.030)	0.0029 (0.0035)	0.028 (0.030)
50-250 workers	0.054 (0.034)	0.0029 (0.0035)	0.056* (0.034)
+250 workers	0.084*** (0.031)	0.0018 (0.0042)	0.092*** (0.031)
Internship duration (0-3 months=0)			
3-6 months	-0.019 (0.029)	0.0085 (0.0042)	-0.011 (0.029)
+6 months	-0.035 (0.031)	0.0243 (0.0062)	-0.011 (0.031)
Potential experience	0.031*** (0.007)		0.031*** (0.007)
Potential experience squared	-0.0015*** (0.00044)		-0.0015*** (0.00044)
At least 1 internship abroad	0.046 (0.035)	-0.0002 (0.0049)	0.045 (0.035)
Female	-0.054** (0.022)	-0.0031 (0.0029)	-0.057*** (0.022)
Graduated from university	0.110*** (0.022)		0.110*** (0.022)
Constant			
Observations	3,931		

Source: Flash Eurobarometer Survey 378 “The experience of traineeships in the EU” and authors’ own calculations.

Note: Significance level: *** at 99%, ** at 95%, * at 90%. Standard errors in parenthesis. Currently employed as opposed to being unemployed or economically inactive non-students. The estimates included in this table are calculated with a structural equations model (SEM).

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